

Global product range

# PROGEF





# List of abbreviations

ANSI	American National Standard	Tg	Malleable Iron
ASTM	American Society for Testing and Materials	d	Pipe outside diameter
BS	British Standard	FM	Fusion Method
DIN	Deutsche Industrie-Normen	DN	Nominal bore
ISO	International Standardization Organisation	PN	Nominal pressure at 20°C, water
ABS	Acrylnitril Butadien Styrene	kg	Weight in kilograms
PVC-U	Polyvinyl Chloride	g	Weight in grams
PVC-C	Polyvinyl Chloride chlorinated	SP	Standard pack. The figure given indicates the quantity of fittings contained in a standard pack
PP	Polypropylene, heat stabilised	GP	Gross pack. The figure given indicates the quantity of fittings contained in a gross pack
PP-N	Polypropylene, Random copolymer unpigmented	G	Pipe thread, not pressure tight in the thread to ISO 228/1
PE	Polyethylene	NPT	Taper male thread pressure tight in the thread to ANSI B 1.20.1
PVDF	Polyvinylidene fluoride	R	Taper male thread, pressure tight in the thread to ISO 7/DIN 2999/1
EPDM	Ethylene Propylene Rubber	Rc	Taper female thread, pressure tight in the thread to ISO 7/1
FKM	Fluorine Rubber, e.g. Viton®	Rp	Parallel female thread, pressure tight in the thread to ISO 7/DIN 999/1
NBR	Nitrile Rubber	Tr	Trapezoid thread
IIR	Butyl Rubber	SC	Size of hexagon bolts
CSM	Chlore Sulphonyl Polythene, e.g. Hypalon®	s	A/F
CR	Chloroprene Rubber, e.g. Neoprene®	e	Wall thickness
PROGEF	Polypropylene from GF	AL	Number of bolt holes
PTFE	Polytetrafluorethylene, e.g. Teflon®	®	Registered trade-mark
UP-GF	Unsaturated polyester resin glassfibre reinforced		
St	Steel		
Ms	Brass		



# Building the lifelines of the world

GF Piping Systems is the global expert for the safe and reliable transportation of water, chemicals, and gas. The maintenance-free and long-lived piping systems made of plastics help implement vital applications of our customers faster, more cost-effectively and more sustainably. GF Piping Systems supports its customers throughout all phases of their projects from planning to commissioning.

### + Maintenance-free plastic

Piping systems made of plastics are maintenance-free, light and very durable. They help reduce repair and overall costs and are suitable for the transport of drinking water, abrasive and aggressive liquids, as well as gas.

### + Complete system solutions

With more than 60,000 products, GF Piping Systems can offer complete system solutions. In addition, custom-made special parts and special series are also possible. Customers benefit from perfectly matched solutions from a single source.

### + Local support

GF Piping Systems has its own sales companies in 34 countries, which means it is always by its customers' side. Our production sites in 23 locations in America, Europe, and Asia ensure sufficient availability and quick, reliable delivery.

### + Service in all project phases

GF Piping Systems supports its customers both in the initial switch from metal to plastic and in retrofits – across all project phases. They benefit from more than 60 years of experience in plastic systems and application knowledge from 100 countries.

### + Partner for digitization

With its advanced automation and digitization solutions, GF Piping Systems allows its customers to optimize their applications and to gain easier access their system data. Digital tools support you in every phase of the project.

### Facts and figures

- **Established:** 1802 (Georg Fischer AG) in Switzerland
- **Locations:** 34 countries with own sales offices
- **Turnover:** 1.821 billion Swiss francs (2018)
- **Employees:** 6852 (2018)



The GF Piping Systems plant in Schaffhausen, Switzerland.



# Value added services

## From planning support to implementation – our specialists are always close by

As a leading provider of piping systems in plastic and metal, we offer our customers not only reliable products, but also a large package of services. Our support ranges from a comprehensive technical manual or the extensive CAD library to an international team of experts, who work closely together with local sales companies. And when it comes to implementing a project, our customers additionally benefit from a wide range of training courses, either on site or in our modern training centres worldwide.

Generating a genuinely individual added value for our customers is our ultimate goal when implementing our tailor-made solutions. With our application knowledge and product expertise, we support our customers during the planning process, the sustainable realization of the projects and the provision of services. Our expertise in developing and producing piping systems, combined with our profound industry and market knowledge, based on longstanding experience, makes us a qualified and professional partner for our customers.

### 1 Chemical resistance

Our specialist teams have decades of experience in the area of chemical resistance. They can offer individual support and advice in selecting the right material for the corresponding system solution. On request, a team will examine and select the appropriate material for special applications.

### 2 CAD library

The extensive CAD library is the most frequently used planning tool at GF Piping Systems. The database comprises over 30 000 drawings and technical data regarding pipes, fittings, measurement and control technology as well as manual and actuated valves. The big advantage of the CAD library is that the data can be integrated directly in CAD models.

### 3 Technical support

Technical support and material selection are key factors for a successful installation. A team of specialists headquartered in Switzerland is available to support the GF Piping Systems sales companies around the world. For technical advice or for general information, our customers are supported individually by the specialist team in the corresponding sales company.

### 4 Online and mobile calculation tools

Our numerous, multilingual online calculation tools are very useful for configuring and calculating. By means of pressure/temperature diagrams, the pressure of liquid media recommended for pipes and fittings at various temperatures can be easily defined. FlowCalc App, the mobile application of GF Piping Systems, is an on-site planning tool for pipe diameter and flow velocity calculation to select the right dimension of piping systems when no expert is near by.

### 5 On-site training

Our experts are available to support our customers locally and conduct training in diverse fusion and jointing techniques on location. The duration and structure of the training depends on the project and the system being installed.

### 6 Customizing

The customizing teams at GF Piping Systems work closely together around the globe. The focus of these teams is to manufacture custom parts for special systems. In addition, a variety of special solutions can be produced in small series. Standardized processes warrant the highest level of quality for the individual solutions of our customers.



**7 Technical manual**

For our customers, we have documented the extensive know-how of GF Piping Systems in planning and installing plastic piping systems in our technical manual. This detailed documentation is available in both printed and digital version. The established reference book is helpful in planning large and small projects.

**8 Training courses**

GF Piping Systems offers a wide range of training courses that allow participants to gain confidence in working with our products and proven jointing technologies. The practical training is clearly defined, structured and adapted to the various levels of participants' experience.

The system

# PROGEF – more than a system

## The outstanding material for any challenge in industrial applications

We are dedicated to designing, manufacturing and marketing piping systems for the safe and secure treatment or conveyance of water, liquids, chemicals and gases. As a leading piping systems provider with global presence, we offer our customers not only reliable and innovative products of highest quality, but we supply also tailor-made solutions from one source. In close coordination with end-customers and based on their needs, GF Piping Systems introduced the PROGEF family, a specified polypropylene system based on certified raw material, serving a wide variety of industrial applications. Thanks to its beneficial mechanical properties, chemical resistance, outstanding weldability and especially its high resistance to thermal distortion, the PROGEF systems guarantee a maximum of safety, reliability and performance.



## + Individuality – from the planning stage to installation

PROGEF Welded Systems are ideally adapted to customer needs

Whether installed above or below ground, our system meets any demanding requirement, in every phase of the project, worldwide. Therefore, the variety of our product portfolio is as diverse as our customers and their individual challenges. Together with high level services such as technical support, low- or single-item customizing production and training courses, our specific system range generates exceptional added value for our customers.

With a comprehensive piping system solution, comprised of pipes, fittings, valves, related jointing as well as automation technologies in high quality thermoplastics, GF Piping Systems provides the right fit and quality for many industrial media conveyance systems and for many industrial applications.

### Customizing

The focus of our worldwide located customizing teams is manufacturing custom parts for special systems. Standardized processes guarantee the highest level of quality.

### Technical support

Technical support such as material selection is a key factor for a successful installation. A team of experts is available for individual support all around the world.



Pipes



Fittings



Manual valves



## PROGEF Standard – for a wide range of industrial applications

The highly resistant system offers numerous fields of application in industries. High stress fracture, pressure, abrasion, corrosion and temperature resistance are only some of the advantageous characteristic properties for the durable polypropylene system. Its fine, homogeneous material structure furthermore offers outstanding weldability and low heat distortion.



## PROGEF Plus – for defined water qualities and clean applications

Cleaned and packed in specified processes, the silicone-free or oil-free PROGEF Plus system has a high pureness factor. The system is widely used in demanding applications in microelectronics or coating and surface treatment, where features such as an outstanding surface finish and excellent leach-out characteristics offer additional benefit. The components are double-bagged to ensure cleanliness and prevent contamination before installation.



## PROGEF Natural – for laboratories and pharmaceutical applications

Wherever pure solutions are needed, especially for applications in chemical or life science industries, PROGEF Natural is predestined. Beneficial properties of the transparent, pigment-free polypropylene such as excellent clean, smooth surface, high chemical and temperature resistance, and additionally the bead and crevice free jointing technologies, ensure highest system quality.



### Technical documentation

Our extensive know-how of more than 50 years is fully documented in detail in our technical manuals, planning fundamentals and application guides.

### Chemical resistance

In the area of chemical resistance our specialist teams offer individual support and advice in selecting the right material for the corresponding requirements.

### Online and mobile calculation tools

Our numerous online and mobile calculation tools, available in many different languages, support our customers in configuring and commissioning automation products.

### CAD library

The extensive CAD library is the most frequently used planning tool. The freely available database comprises over 30 000 drawings as well as technical data for our customers. Many formats are available.

### Training courses and on-site training

Offering a wide range of training courses we provide participants an excellent opportunity to gain confidence in working with our products and proven jointing technologies.

### System lifetime warranty \*

Confirming confidence in the premium quality of our Polypropylene product and system range, we grant a limited system lifetime warranty.



Automation



Jointing technology



Customizing and training

\* Detailed information regarding the warranty can be found under: [www.gfps.com](http://www.gfps.com) - Planning fundamentals

## System range

# Everything from one source

With a constant focus on maximum reliability and safety the PROGEF systems assure a sustained high level of product quality and outstanding performance standards in all applications. The clearly defined development and manufacturing processes of our worldwide specified systems are carried out on the basis of all relevant standards and specifications and are regularly audited and evaluated to achieve continuous improvement. Certified processes as well as product approvals are part of the active and sustainable quality management system of GF Piping Systems and makes us a reliable partner. Therefore, with our PROGEF welded system range, our customers can be assured that their needs are covered and comply with necessary standards.

### PROGEF Standard & PROGEF Plus

Products	SDR	PN	d																														
			DN	16	20	25	32	40	50	63	75	90	110	125	140	160	180	200	225	250	280	315	355	400	450	450	500	500	560	630			
Pipes	7.4	16																															
	11	10																															
	17.6	6																															
Socket fusion fittings	11	10																															
Butt fusion fittings, Infrared (IR) compatible	11	10																															
	17.6	6																															
Ball valves	11	10																															
	17.6	6																															
Diaphragm valves	11	10																															
	17.6	6																															
Butterfly valves		10																															
	11/17.6	10																															
Check vales		6																															
	11	10																															
Pressure regulating valves	11	10																															
Ventilating and bleed valve		10																															
Automation			varies between products																														
Flanges PP-V / PP-steel																																	
Flange seals EPDM / FKM																																	
Pipe clips PP / PE																																	

■ PROGEF Standard    ■ PROGEF Plus

Welding machines	d	16	20	25	32	40	50	63	75	90	110	125	140	160	180	200	225	250	280	315	355	400	450	450	500	560	630						
Socket fusion machines																																	
Butt fusion machines																																	
Infrared (IR) fusion machines																																	

## System specification



\* Standards:



### PROGEF Standard & PROGEF Plus

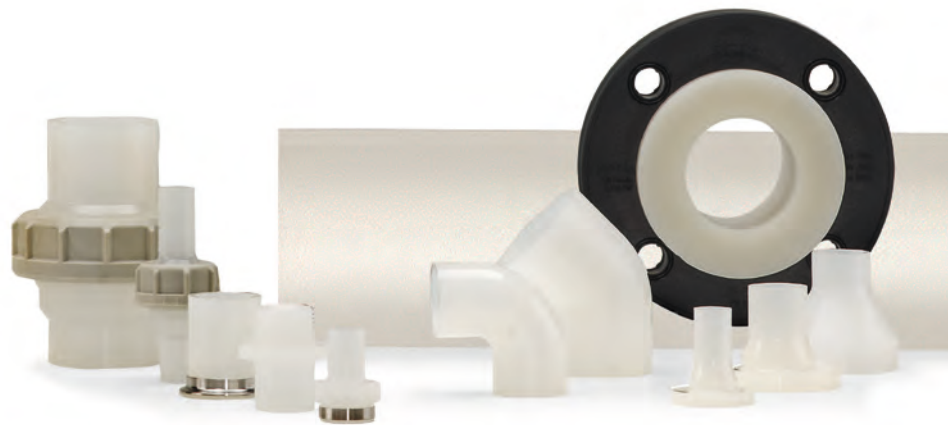
Systems	PROGEF Standard	PROGEF Plus
Material	- d16–d315 β PP-H 100 (β Polypropylene Homopolymer) - d355–d500 state-of-the-art PP	- d20–d315 β PP-H 100 (β Polypropylene Homopolymer)
Colour	RAL 7032	RAL 7032
Density	~ 0.90 g / cm <sup>3</sup> (ISO 1183 / ASTM D 792)	~0.90 g / cm <sup>3</sup> (ISO 1183/ASTM D 792)
Thermal expansion coefficient	0.16mm / mK (DIN 53752)	0.16mm / mK (DIN 53752)
Thermal conductivity	0.23W / mK (EN 12664)	0.23W / mK (EN 12664)
Surface resistivity	> 1016 Ω (IEC 60093)	> 1016 Ω (IEC 60093)
Dimensions	d16–d500 in accordance to EN ISO 15494	d20–d315 in accordance to EN ISO 15494
Surface condition	accordance to EN ISO 15494	- Inner surface Ra < 1.0 μm (39μin) for components d20–d110 - Inner surface Ra < 1.5 μm (59μin) for components d125–d315
Material- and product-approvals	FDA CFR 21 177.1520 USP 25 class VI (physiological non-toxic) DIBt (Z-40.23-4, Z-40.34-264, Z - 40.23-265) DNV (K-2630, K - 2636) Lloyd's Register (01/20030(E1)) UL94HB (horizontal burning)	FDA CFR 21 177.1520 USP 25 class VI (physiological non-toxic) UL94HB (horizontal burning)
Packaging	pipes, fittings and valves bulk bagged	pipes, fittings and valves, each component double bagged
Marking	- brand name - product description - article number - material - dimensions - standards and approvals	- brand name - product description - article number - material - dimensions - standards and approvals

\* Approvals / Acceptance:



\* The most significant standards and approvals are shown above. An overview of all approvals online: [www.gfps.com](http://www.gfps.com)

# System range & system specification



\* Standards:



## PROGEF Natural

Products	SDR PN		d									
	DN	15	20	25	32	40	50	63	75	90	110	
Pipes	11 10											
	17.6 6											
Butt fusion fittings, Infrared (IR) compatible	11 10											
	17.6 6											
Sanitary adapter	11 10											
Ball valves PP-H body/PP-R	11 10											
Ball valves PP-H Flange connections	10											
Diaphragm valves PP-R	11 10											
Diaphragm valves PP-H Flange connections	10											
Butterfly valves PP-H	10											
Cone check vales PP-H body/PP-R	11 10											
Cone check vales PP-H Flange connections	10											
Automation									upon request			
Flanges PP-V / PP-steel												
Flange seals EPDM / FKM												
Pipe clips PP / PE												

Welding machines	d	20	25	32	40	50	63	75	90	110
Butt fusion machines										
Infrared (IR) fusion machines										
BCF fusion machine										

<b>System</b>	<b>PROGEF Natural</b>
<b>Material</b>	d20-d110 PP-R (Polypropylene Random Copolymer)
<b>Colour</b>	pigment-free, transparent
<b>Density</b>	~ 0.90g / cm <sup>3</sup> (ISO 1183/ ASTM D 792)
<b>Thermal expansion coefficient</b>	0.16mm / mK (DIN 53752)
<b>Thermal conductivity</b>	0.23W / mK (EN 12664)
<b>Surface resistivity</b>	> 10 <sup>16</sup> Ω (IEC 60093)
<b>Dimensions</b>	d20-d110 according to EN ISO 15494
<b>Surface condition</b>	Inner surface: Ra < 1.0 μm (39μin)
<b>Material- and product approvals</b>	FDA CFR 21 177.1520 USP 25 class VI (physiological non-toxic) Food conformity (D)
<b>Packaging</b>	pipes, fittings and valves, each component single bagged
<b>Marking</b>	- brand name - product description - article number - material - dimensions - standards and approvals

\* Approvals / Acceptance:



\* Sanitary adaptor Standards:

ISO, DIN, ASME BPE, 3A, JIS

\* The most significant standards and approvals are shown.

An overview of all approvals online: [www.gfps.com](http://www.gfps.com)

## Joining methods

# Proven technologies for your installation

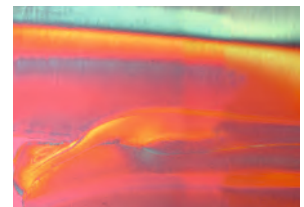
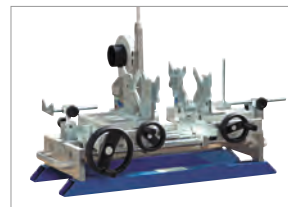
**A large diversity of innovative and intelligent welding solutions enriched with global training and service offerings**

As a pioneer in the field, GF Piping Systems has always been placing a high priority on developing innovative joining techniques to fulfill specific requirements and materials in use. Simplicity in application, chemical resistance, thermal stability and long-term weld strength are the key drivers in our joining technologies. With a global joining training program, international machine rental and a world-wide network of service centres, our customers benefit from expert know-how and practical experience.

### Welding technology

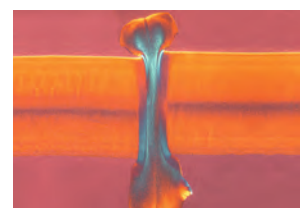
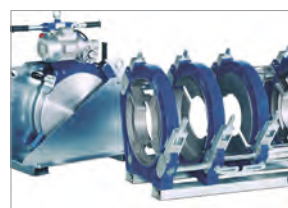
#### Socket fusion – the strong connection

The fast and reliable solution to produce heavy-duty connections, in the workshop or the field.



#### Butt fusion – the economical connection

Economical and flexible fusion especially for larger diameters. From manual machines to full CNC control with traceability.



#### IR- (Infrared) fusion – the fast, clean connection

Fast, repeatable and clean welds via non-contact heating. Full traceability of the welding process, with user guidance.



#### BCF-Plus fusion – the smooth connection

Bead and Crevice Free joining with the highest weld factor, lowest stress and completely smooth fusion zone without any intrusions.



For more information about training courses from GF Piping Systems please contact our local sales companies.

## Specifications

# Exceeding quality standards

Technical specifications with focus on pressure-/temperature attributes

### PROGEF Systems\*

#### Standard - Plus - Natural

PROGEF Systems out of polypropylene show excellent physical properties and mechanical characteristics, indicating its status as a highly versatile and universal solution. Having a high operational temperature range and ensuring outstanding chemical resistance, high abrasion resistance and high impact strength values, the material meets all requirements of demanding industrial conditions or environments.

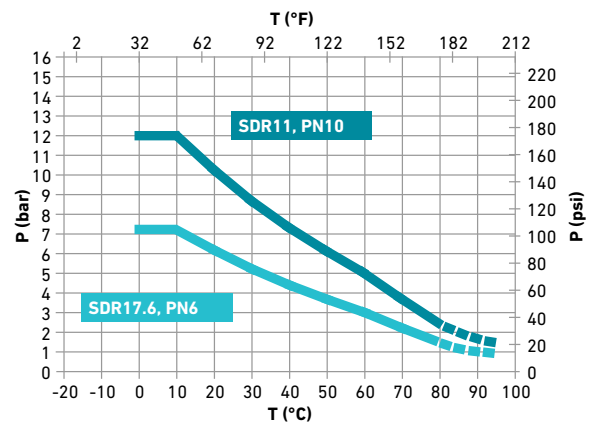
Furthermore, properties such as low weight, low density, minimum internal stresses and an excellent smooth internal surface with high finish quality, make PROGEF systems a high-grade piping material.

According to the 10°C line in the hydrostatic strength curve for PP, a permissible pressure of 12.0 bar / 7.4 bar in the temperature range of 0°C to 10°C for the SDR11 / PN10 and SDR17.6 / PN6 system can be applied.

**P** Permissible pressure in bar, psi  
**T** Temperature in °C (Celsius), °F (Fahrenheit)

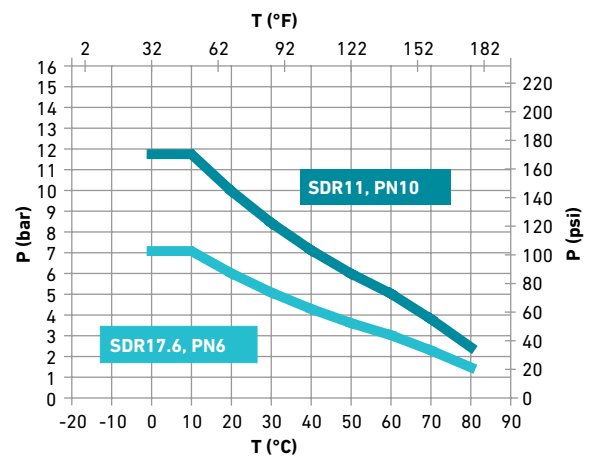
PROGEF Standard (PP) and PROGEF Plus (PP)

Pressure-Temperature Diagram



PROGEF Natural (PP-R)

Pressure-Temperature Diagram



The pressure-/temperature curve based on medium water, operating temperature of 20 °C, valid life time of 25 years and the design factor C = 2.

\* More information regarding technical specifications can be found online in our planning fundamentals: [www.gfps.com](http://www.gfps.com)

## Chemical resistance

# For your operational safety



Professional material technology

**Polypropylene (PP) - a high quality material with outstanding characteristics for a safe and efficient operation**

### Chemical resistance at 20 °C

(Applications can be very dependent on the concentration)

Media	Chemicals	Partially crystalline thermoplastics			Amorphous thermoplastics		Stainless Steel	
		PP	PE	PVDF	PVC-U	PVC-C	1.4401 316	1.4301 304
<b>Oxidizing Acids</b> (HNO <sub>3</sub> , H <sub>2</sub> CrO <sub>4</sub> , H <sub>2</sub> SO <sub>4</sub> , etc.)	HNO <sub>3</sub> ≤ 25 %	o	o	+	+	+	o	o
	25 % ≤ HNO <sub>3</sub> ≤ 65 %	-	o	+	o	+	o	o
	H <sub>2</sub> CrO <sub>4</sub> aqueous solution	o	o	+	o	o	o	o
	H <sub>2</sub> SO <sub>4</sub> ≤ 70 %	+	+	+	+	+	-	-
<b>Non Oxidizing Acids</b> (HCl, HF, etc.)	70 % ≤ H <sub>2</sub> SO <sub>4</sub> ≤ 96 %	-	-	+	+	+	-	-
	HCl ≤ 30 %	+	+	+	+	+	o	-
	HF ≤ 40 %	+	+	+	+	-	o	-
	40 % ≤ HF ≤ 75 %	+	+	+	-	-	-	-
<b>Organic</b> (formic acid, acetic acid, citric acid, etc.)	HCOOH ≤ 25 %	+	+	+	+	+	o	-
	25 % ≤ HCOOH ≤ tech. pure	+	+	+	+	-	o	-
	CH <sub>3</sub> COOH ≤ 50 %	+	+	+	+	+	o	-
	50 % ≤ CH <sub>3</sub> COOH ≤ tech. pure	+	+	+	o	-	o	-
<b>Bases</b>	C <sub>3</sub> H <sub>7</sub> OH (COOH) <sub>3</sub>	+	+	+	+	+	o	-
	Inorganic (NaOH, KOH, etc.)	+	+	-	+	o	+	+
<b>Salts</b>	Organic (amine, imidazole, etc.)	+	+	-	o	-	o	o
	NaCl, FeCl <sub>2</sub> , FeCl <sub>3</sub> , CaCl <sub>2</sub> , etc.	+	+	+	+	+	o	o
<b>Halogens</b>	Chlorine, bromine, iodine, (no fluorine)	-	-	o	o	o	o	-
<b>Fuels / Oils</b>	Aliphatic hydrocarbons	o	o	+	+	o	+	+
	Aromatic hydrocarbons	-	-	+	-	-	+	+
	Chlorinated hydrocarbons	-	-	o	-	-	o	o
<b>Solvents</b>	Ketones	+	+	o	-	-	+	+
	Alcohols	+	+	+	o	-	+	+
	Esters	o	o	o	-	-	+	+
	Aldehydes	+	+	-	-	-	+	+
	<b>Phenols</b>	Phenol, Cresol, etc.	+	+	+	-	-	+

+ resistant   o conditionally resistant, please consult us   - not resistant

Please note: The above list is only intended as a guideline and does not replace an indepth review of material suitability for the particular application. The information is based on our experience and is state of the art. These data are general indicators only. In practice, however, other factors such as concentration, pressure and jointing technology must also be taken into consideration. The technical data are not binding and are not expressly warranted characteristics of the goods.

Please contact us for help in selecting the right materials.

The smarter way of automation

# Automation made easy

**A unique system-based approach that bundles and integrates competencies, knowledge, best-in-class resources and technologies**

With an innovative product portfolio in the field of measurement, control and actuation devices, GF Piping Systems consistently follows its system approach. The complete solution combines measurement, control and actuation technology together with high quality piping systems and represents a unique form of product and competence bundling. The system-integrated devices that measure values such as temperature, pressure and flow delivering accuracy, productivity, reliability and safety to customers in a wide range of industries. Providing the entire range of automation technology from simple instrument panels to complex measurement installations, GF Piping Systems has not only the product resources and the technical expertise, but also the global service and support infrastructure needed to meet the high customer requirements.





## Applications

# As versatile as your applications

### Leading applications enabled by safe and reliable systems adapted to fit the needs of demanding industries

GF Piping Systems develops customized best-in-class solutions, aligned to the specific requirements of our customers in various sectors of industry, enabling profitable operation. Most notably our systems are ideally suited for the water treatment, pharmaceutical and chemical process industry, in fields of microelectronics and energy as well as in food & beverage production. With our system knowledge and product expertise, we support our customers during the planning process, the sustainable realization of the projects and provide valuable added services. Expertise in developing and producing piping systems, combined with profound industry and market knowledge, based on longstanding experience, makes GF Piping Systems a qualified and professional partner for our customers.

#### Applications of Highest Security in Chemical Industry

The usage of PROGEF Standard systems in chemical processes strengthens the industries approach of manufacturing and conveying chemical media in the safest and at the same time most economical way.



#### Clean Water Applications in Microelectronics

Wherever defined water qualities and controlled processes are required PROGEF Plus offers reliable and economical system solutions. With PROGEF Plus high purity water specifications and quality standards are dependably met.



#### Demanding Applications in Water Treatment

With PROGEF system, application processes in water treatment can be designed reliable and of highest efficiency. Thereby, challenges such as guaranteeing high water quality and assuring stringent regulations can be faced.



#### Highly Specialised Applications in Energy Production

For secure processing in water and chemical applications PROGEF Standard system combines high performance utilization with outstanding material properties. This leads to a beneficial gain in conditions of safety and health.







































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# PROGEF Standard metric



	Pipes	20
	Butt fusion fittings SDR 11	22
	Butt fusion fittings SDR 17.6	37
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Pressure regulating valves type 586

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Solenoid valves

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Cone check valves

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Wafer check valves

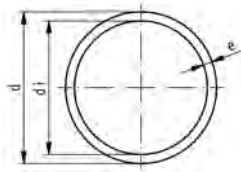
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Strainers

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# Pipes

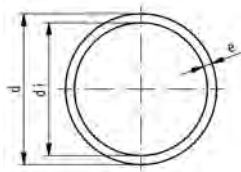


## PROGEF Standard pipe SDR7,4/PN16/S3,2

### Model:

- Material: PP-H - homopolymer
- Dimension: acc. to DIN 8077/78
- Colour: light grey RAL 7032
- Pipe length: 5000mm, with plain ends
- Attention: Pressure rates refer to operating temperatures at 20°C. Higher temperatures and aggressive flow media reduce pressure load (see above DIN and our technical documentation). Pressure load capacity has to be determined in consideration with safety demands of the respective applications and calculated in accordance.

d (mm)	Code	Weight (kg/m)	e (mm)
16	<b>167 481 027</b>	0.095	2.2
20	<b>167 481 028</b>	0.148	2.8
25	<b>167 481 029</b>	0.230	3.5



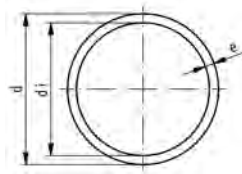
## PROGEF Standard pipe SDR11/PN10/S5

### Model:

- Material: PP-H - homopolymer
- Dimension: acc. to DIN 8077/78
- Colour: light grey RAL 7032
- Pipe length: 5000mm, with plain ends
- **Note 1:** acc. to EN 15494
- **Note 2:** DIBT Z-40.23-4 approval
- Attention: Pressure rates refer to operating temperatures at 20°C. Higher temperatures and aggressive flow media reduce pressure load (see above DIN and our technical documentation). Pressure load capacity has to be determined in consideration with safety demands of the respective applications and calculated in accordance.

Note	d (mm)	Code	Weight (kg/m)	di (mm)	closest inch (inch)	e (mm)
1, 2	16	<b>167 480 710</b>	0.080	12.4	¾	1.8
2	20	<b>167 480 711</b>	0.107	16.2	½	1.9
2	25	<b>167 480 712</b>	0.164	20.4	¾	2.3
2	32	<b>167 480 713</b>	0.261	26.2	1	2.9
2	40	<b>167 480 714</b>	0.412	32.6	1 ¼	3.7
2	50	<b>167 480 715</b>	0.638	40.8	1 ½	4.6
2	63	<b>167 480 716</b>	1.010	51.4	2	5.8
2	75	<b>167 480 717</b>	1.410	61.4	2 ½	6.8
2	90	<b>167 480 718</b>	2.030	73.6	3	8.2
2	110	<b>167 480 719</b>	3.010	90.0	4	10.0
2	125	<b>167 480 720</b>	3.910	102.2	4 ½	11.4
2	140	<b>167 480 721</b>	4.870	114.6	5	12.7
2	160	<b>167 480 722</b>	6.380	130.8	6	14.6
	180	<b>167 480 723</b>	8.070	147.2	7	16.4
	200	<b>167 480 724</b>	9.950	163.6	8	18.2
	225	<b>167 480 725</b>	12.600	184.0	9	20.5
	250	<b>167 480 726</b>	15.500	204.6	10	22.7
	280	<b>167 480 727</b>	19.400	229.2	11	25.4
	315	<b>167 480 728</b>	24.600	257.8	12	28.6
	355	<b>167 480 729</b>	31.200	290.6	14	32.2
	400	<b>167 480 730</b>	39.600	327.4	16	36.3





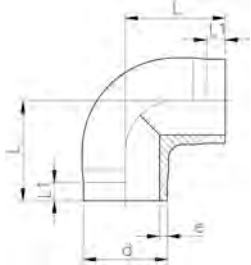
### PROGEF Standard pipe SDR17,6/PN6/S8,3

**Model:**

- Material: PP-H - homopolymer
- Dimension: acc. to DIN 8077/78
- Colour: light grey RAL 7032
- Pipe length: 5000mm, with plain ends
- **Note 1:** acc. to EN 15494
- **Note 2:** DIBT Z-40.23-4 approval
- Attention: Pressure rates refer to operating temperatures at 20°C. Higher temperatures and aggressive flow media reduce pressure load (see above DIN and our technical documentation). Pressure load capacity has to be determined in consideration with safety demands of the respective applications and calculated in accordance.

Note	d (mm)	Code	Weight (kg/m)	e (mm)
1, 2	25	<b>167 480 676</b>	0.132	1.8
2	32	<b>167 480 678</b>	0.172	1.8
2	40	<b>167 480 679</b>	0.273	2.3
2	50	<b>167 480 680</b>	0.422	2.9
2	63	<b>167 480 681</b>	0.659	3.6
2	75	<b>167 480 682</b>	0.935	4.3
2	90	<b>167 480 683</b>	1.330	5.1
2	110	<b>167 480 684</b>	1.990	6.3
2	125	<b>167 480 685</b>	2.550	7.1
2	140	<b>167 480 686</b>	3.200	8.0
2	160	<b>167 480 687</b>	4.170	9.1
	180	<b>167 480 688</b>	5.250	10.2
	200	<b>167 480 689</b>	6.500	11.4
	225	<b>167 480 690</b>	8.190	12.8
	250	<b>167 480 691</b>	10.100	14.2
	280	<b>167 480 692</b>	12.600	15.9
	315	<b>167 480 693</b>	16.000	17.9
	355	<b>167 480 694</b>	20.300	20.1
	400	<b>167 480 695</b>	25.700	22.7
	450	<b>167 480 696</b>	32.500	25.5
	500	<b>167 480 697</b>	40.200	28.4

# Butt fusion fittings SDR 11

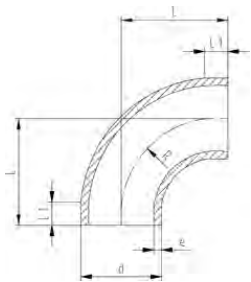


## PROGEF Standard elbow 90° S5/SDR11 (PN10)

### Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H

d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	e (mm)
20	IR	<b>727 108 506</b>	0.008	38	25	1.9
25	IR	<b>727 108 507</b>	0.012	42	26	2.3
32	IR	<b>727 108 508</b>	0.022	46	27	2.9
40	IR	<b>727 108 509</b>	0.045	51	22	3.7
50	IR	<b>727 108 510</b>	0.080	58	23	4.6
63	IR	<b>727 108 511</b>	0.138	66	21	5.8

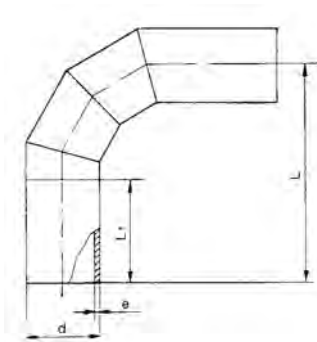


## PROGEF Standard bend 90° S5/SDR11 (PN10)

### Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible.
- \* Material:PP-R

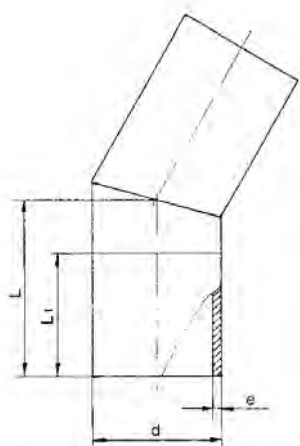
d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	R (mm)	e (mm)
20	IR	<b>727 018 606</b>	0.008	38	23	15.00	1.9
25	IR	<b>727 018 607</b>	0.013	42	23	19.00	2.3
32	IR	<b>727 018 608</b>	0.022	46	22	24.00	2.9
40	IR	<b>727 018 609</b>	0.040	51	21	30.00	3.7
50	IR	<b>727 018 610</b>	0.067	58	21	37.00	4.6
63	IR	<b>727 018 611</b>	0.117	66	21	45.00	5.8
75	IR	<b>727 018 622</b>	0.178	75	21	71.25	6.8
90	IR	<b>727 018 623</b>	0.308	90	22	85.50	8.2
110	IR	<b>727 018 624</b>	0.556	110	25	104.50	10.0
125	IR	<b>727 018 615</b>	0.818	125	28	116.00	11.4
140	IR	<b>727 018 616</b>	1.148	140	33	131.00	12.7
160	IR	<b>727 018 617</b>	1.699	160	33	151.00	14.6
180	IR	<b>727 018 618</b>	2.394	180	33	171.00	16.4
200	IR	<b>727 018 619</b>	3.264	200	33	190.00	18.2
225	IR	<b>727 018 620</b>	4.535	220	33	210.00	20.5
250		<b>727 018 521</b>	6.351	256	48	232.00	22.7
280		<b>727 018 522</b>	9.398	286	48	262.00	25.4
315		<b>727 018 523</b>	12.959	321	48	297.00	28.6
*	355	<b>727 018 524</b>	16.400	345	70	330.00	32.2
*	400	<b>727 018 525</b>	22.220	365	70	350.00	36.3
*	450	<b>727 018 526</b>	32.560	425	70	400.00	40.9
*	500	<b>727 018 527</b>	44.840	470	90	445.00	45.4



### Bend 90°, PP-H S5/SDR11

- big dimensions on request
- For butt- and electro fusion
- Reduction factor = 0,8

<b>d</b> (mm)	<b>Code</b>	<b>L</b> (mm)	<b>L1</b> (mm)	<b>e</b> (mm)
110	<b>700 649 384</b>	315	150	10.0
125	<b>700 649 385</b>	338	150	11.4
140	<b>700 649 386</b>	360	150	12.8
160	<b>700 649 387</b>	390	150	14.6
180	<b>700 649 388</b>	420	150	16.4
200	<b>700 649 389</b>	450	150	18.2
225	<b>700 649 390</b>	488	150	20.5
250	<b>700 649 391</b>	625	250	22.8
280	<b>700 649 392</b>	670	250	25.5
315	<b>700 649 393</b>	773	300	28.7
355	<b>700 649 394</b>	833	300	32.3
400	<b>700 649 395</b>	900	300	36.4



### Bend 30°, PP-H S5/SDR11

- For butt- and electro fusion
- Reduction factor = 0,8
- big dimensions on request

d (mm)	Code	SP	L (mm)	L1 (mm)	e (mm)
110	<b>700 649 469</b>	0	194	150	10.0
125	<b>700 649 470</b>	0	200	150	11.4
140	<b>700 649 471</b>	0	206	150	12.8
160	<b>700 649 472</b>	0	214	150	14.6
180	<b>700 649 473</b>	0	222	150	16.4
200	<b>700 649 474</b>	0	230	150	18.2
225	<b>700 649 475</b>	0	241	150	20.5
250	<b>700 649 476</b>	0	350	250	22.8
280	<b>700 649 477</b>	0	362	250	25.5
315	<b>700 649 478</b>	0	428	300	28.7
355	<b>700 649 479</b>	0	443	300	32.3
400	<b>700 649 480</b>	0	461	300	36.4
450			481	300	41.0
500			551	350	45.5
560			575	350	51.0
630			603	350	57.3



### PROGEF Standard elbow 45° S5/SDR11 (PN10)

#### Model:

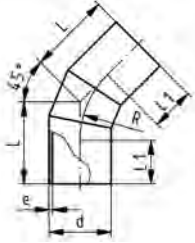
- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Long version for d250, d280 and d315

1) Material:PP-R



d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	e (mm)
20	IR	<b>727 158 506</b>	10	0.006	32	24.0	1.9
25	IR	<b>727 158 507</b>	10	0.010	34	25.0	2.3
32	IR	<b>727 158 508</b>	10	0.021	36	25.0	2.9
40	IR	<b>727 158 509</b>	10	0.033	39	25.0	3.7
50	IR	<b>727 158 510</b>	10	0.054	42	26.0	4.6
63	IR	<b>727 158 511</b>	10	0.097	47	29.0	5.8
75	IR	<b>727 158 512</b>	10	0.137	49	29.0	6.8
90	IR	<b>727 158 513</b>	6	0.222	57	34.0	8.2
110	IR	<b>727 158 514</b>	5	0.412	70	43.0	10.0
125	IR	<b>727 158 515</b>	4	0.570	79	48.0	11.4
140	IR	<b>727 158 516</b>	1	0.854	88	55.0	12.7
160	IR	<b>727 158 517</b>	2	1.256	100	60.0	14.6
200	IR	<b>727 158 519</b>	1	2.448	124	75.0	18.2
225	IR	<b>727 158 520</b>	1	3.495	140	85.0	20.5
1	250	<b>727 158 521</b>	1	7.890	225	133.0	22.7
1	280	<b>727 158 522</b>	1	10.170	235	143.0	25.4
1	315	<b>727 158 523</b>	1	11.690	255	154.0	28.6

## PROGEF Standard bend 45° S5/SDR11 (PN10)



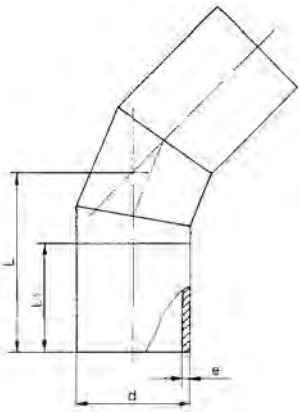
### Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- Production process: segment welded
- Segment-welded fittings have a pressure reduction factor of 0.8

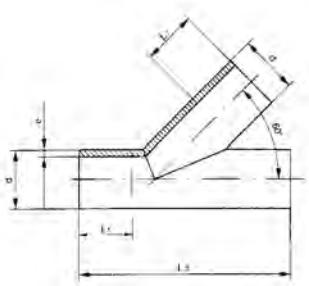
d (mm)	Code	Weight (kg)	L (mm)	L1 (mm)	R (mm)	e (mm)
355	<b>727 158 524</b>	32.300	520	300	532.5	32.2
400	<b>727 158 525</b>	43.200	548	300	600.0	36.3
450	<b>727 158 526</b>	57.700	580	300	675.0	40.9
500	<b>727 158 527</b>	87.200	665	350	750.0	45.4

## Bend 45°, PP-H S5/SDR11

- big dimensions on request
- For butt- and electro fusion
- Reduction factor = 0,8



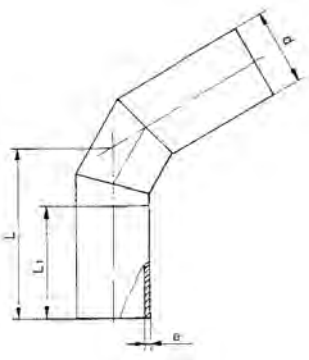
d (mm)	Code	L (mm)	L1 (mm)	e (mm)
110	<b>700 649 444</b>	218	150	10.0
125	<b>700 649 445</b>	228	150	11.4
140	<b>700 649 446</b>	237	150	12.8
160	<b>700 649 447</b>	249	150	14.6
180	<b>700 649 448</b>	262	150	16.4
200	<b>700 649 449</b>	274	150	18.2
225	<b>700 649 450</b>	290	150	20.5
250	<b>700 649 451</b>	412	250	22.8
280	<b>700 649 452</b>	424	250	25.5
315	<b>700 649 453</b>	498	300	28.7
355	<b>700 649 454</b>	520	300	32.3
400	<b>700 649 455</b>	548	300	36.4
450		580	300	41.0
500		665	350	45.5
560		698	350	51.0
630		741	350	57.3



### Branch 60°, PP-H S5/SDR11

- For butt- and electro fusion
- Reduction factor = 0,5

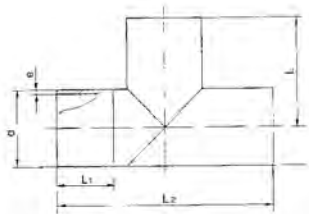
d (mm)	Code	SP	L1 (mm)	L2 (mm)	e (mm)
110	<b>700 649 660</b>	0	150	520	10.0
125	<b>700 649 661</b>	0	150	520	11.4
140	<b>700 649 662</b>	0	150	570	12.8
160	<b>700 649 663</b>	0	150	640	14.6
180	<b>700 649 664</b>	0	150	700	16.4
200	<b>700 649 665</b>	0	150	800	18.2
225	<b>700 649 666</b>	0	150	800	20.5
250	<b>700 649 667</b>	0	250	1000	22.8
280	<b>700 649 668</b>	0	250	1000	25.5
315	<b>700 649 669</b>	0	300	1300	28.7
355	<b>700 649 670</b>	0	300	1500	32.3
400	<b>700 649 671</b>	0	300	1500	36.4



### Bend 60°, PP-H S5/SDR11

- For butt- and electro fusion
- Reduction factor = 0,8
- big dimensions on request

d (mm)	Code	L (mm)	L1 (mm)	e (mm)
110	<b>700 649 420</b>	245	150	10.0
125	<b>700 649 421</b>	258	150	11.4
140	<b>700 649 422</b>	271	150	12.8
160	<b>700 649 423</b>	288	150	14.6
180	<b>700 649 424</b>	305	150	16.4
200	<b>700 649 425</b>	323	150	18.2
225	<b>700 649 426</b>	345	150	20.5
250	<b>700 649 427</b>	466	250	22.8
280	<b>700 649 428</b>	492	250	25.5
315	<b>700 649 429</b>	576	300	28.7
355	<b>700 649 430</b>	608	300	32.3
400	<b>700 649 431</b>	646	300	36.4
450		689	300	41.0
500		783	350	45.5
560		835	350	51.0
630		896	350	57.3



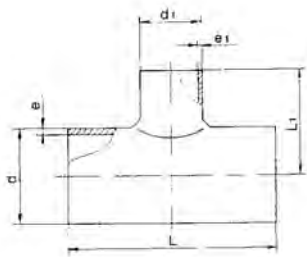
### Tees 90°, equal, PP-H S5/SDR11

- For butt- and electro fusion
- Reducing factor = 0,6
- big dimensions on request

d (mm)	Code	L (mm)	L1 (mm)	L2 (mm)	e (mm)
110		205	150	410	10.0
125		215	150	430	11.4
140		220	150	440	12.8
160		230	150	460	14.6
180		240	150	480	16.4
200		250	150	500	18.2
225	<b>700 649 481</b>	265	150	530	20.5
250	<b>700 649 482</b>	375	250	750	22.8

table continued on the next page

d (mm)	Code	L (mm)	L1 (mm)	L2 (mm)	e (mm)
280	<b>700 649 483</b>	390	250	780	25.5
315	<b>700 649 484</b>	460	300	920	28.7
355	<b>700 649 485</b>	480	300	960	32.3
400	<b>700 649 486</b>	500	300	1000	36.4
450		525	300	1050	41.0
500		600	350	1200	45.5
560		630	350	1260	51.0
630		665	350	1330	57.3



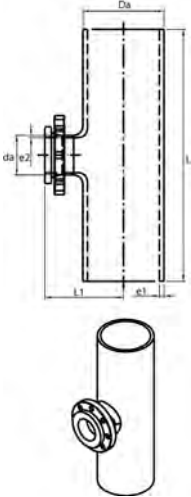
### Tee 90°, reduced, PP-H S5/SDR11

- For butt- and electro fusion
- Reducing factor = 0,6
- big dimensions on request

d (mm)	d1 (mm)	Code	SP	L (mm)	L1 (mm)	e (mm)	e1 (mm)
225	63	<b>700 649 493</b>	0	363	238	20.5	5.8
225	75	<b>700 649 494</b>	0	375	238	20.5	6.9
225	90	<b>700 649 495</b>	0	390	238	20.5	8.2
225	110	<b>700 649 496</b>	0	410	238	20.5	10.0
225	125	<b>700 649 497</b>	0	425	238	20.5	11.4
225	140	<b>700 649 498</b>	0	440	238	20.5	12.8
225	160	<b>700 649 499</b>	0	460	238	20.5	14.6
250	75	<b>700 649 500</b>	0	475	250	22.8	6.9
250	90	<b>700 649 501</b>	0	490	250	22.8	8.2
250	110	<b>700 649 502</b>	0	510	250	22.8	10.0
250	125	<b>700 649 503</b>	0	525	250	22.8	11.4
250	140	<b>700 649 504</b>	0	540	250	22.8	12.8
250	160	<b>700 649 505</b>	0	560	250	22.8	14.6
250	180	<b>700 649 506</b>	0	580	275	22.8	16.4
280	75	<b>700 649 507</b>	0	475	265	25.5	6.9
280	90	<b>700 649 508</b>	0	490	265	25.5	8.2
280	110	<b>700 649 509</b>	0	510	265	25.5	10.0
280	125	<b>700 649 510</b>	0	525	265	25.5	11.4
280	140	<b>700 649 511</b>	0	540	265	25.5	12.8
280	160	<b>700 649 512</b>	0	560	265	25.5	14.6
280	180	<b>700 649 513</b>	0	580	290	25.5	16.4
280	200	<b>700 649 514</b>	0	600	290	25.5	18.2
315	90	<b>700 649 515</b>	0	490	283	28.7	8.2
315	110	<b>700 649 516</b>	0	510	283	28.7	10.0
315	125	<b>700 649 517</b>	0	525	283	28.7	11.4
315	140	<b>700 649 518</b>	0	540	283	28.7	12.8
315	160	<b>700 649 519</b>	0	560	283	28.7	14.6
315	180	<b>700 649 520</b>	0	580	308	28.7	16.4
315	200	<b>700 649 521</b>	0	600	308	28.7	18.2
315	225	<b>700 649 523</b>	0	625	308	28.7	20.5
355	110	<b>700 649 524</b>	0	510	303	32.3	10.0
355	125	<b>700 649 525</b>	0	525	303	32.3	11.4
355	140	<b>700 649 526</b>	0	540	303	32.3	12.8
355	160	<b>700 649 527</b>	0	560	303	32.3	14.6
355	180	<b>700 649 528</b>	0	580	328	32.3	16.4
355	200	<b>700 649 529</b>	0	600	328	32.3	18.2
355	225	<b>700 649 530</b>	0	625	328	32.3	20.5
355	250	<b>700 649 531</b>	0	650	378	32.3	22.8
400	110	<b>700 649 532</b>	0	510	325	36.4	10.0
400	125	<b>700 649 533</b>	0	525	325	36.4	11.4
400	140	<b>700 649 534</b>	0	540	325	36.4	12.8
400	160	<b>700 649 535</b>	0	560	325	36.4	14.6
400	180	<b>700 649 536</b>	0	580	350	36.4	16.4

table continued on the next page

d	d1	Code	SP	L	L1	e	e1
(mm)	(mm)			(mm)	(mm)	(mm)	(mm)
400	200	<b>700 649 537</b>	0	600	350	36.4	18,2
400	225	<b>700 649 538</b>	0	625	350	36.4	20,5
400	250	<b>700 649 539</b>	0	650	400	36.4	22,8
400	280	<b>700 649 540</b>	0	680	400	36.4	25,5

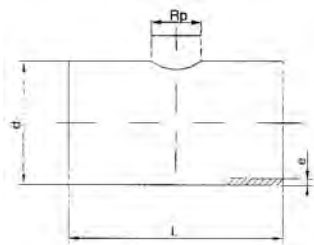


### Revision Tees 90°, PP-H SDR11

#### Model:

- Flued and butt fusion according to DVS2207
- Backing flanges to ISO 7005, EN 1092, DIN 2501, bolt circle PN10
- Reducing factor = 0,6
- big dimensions on request

d	d1	PN	Code	SP	L1	e2	L	e1
(mm)	(mm)	(bar)			(mm)	(mm)	(mm)	(mm)
110	110	10	<b>700 665 628</b>	0	236	10,0	500	10,0
125	125	10	<b>700 665 629</b>	0	248	11,4	500	11,4
140	140	10	<b>700 665 630</b>	0	265	12,7	500	12,7
160	110	10	<b>700 665 631</b>	0	278	10,0	500	14,6
180	110	10	<b>700 665 632</b>	0	350	10,0	500	16,4
200	140	10	<b>700 665 633</b>	0	350	12,7	500	18,2
225	140	10	<b>700 665 634</b>	0	400	12,7	560	20,5
250	160	10	<b>700 665 635</b>	0	450	14,6	750	22,7
280	225	10	<b>700 665 636</b>	0	350	20,5	750	25,4
315	225	10	<b>700 665 637</b>	0	400	20,5	850	28,6
355	225	10	<b>700 665 638</b>	0	450	20,5	950	32,2
400	225	10	<b>700 665 639</b>	0	450	20,5	1000	36,3

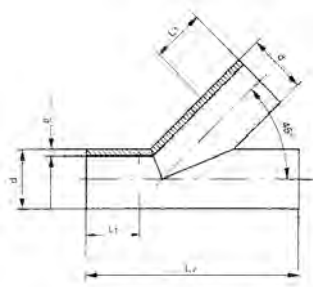


### Saddle-Tee, PP-H S5/SDR11 Outlet with female thread Rp, welded

- big dimensions on request
- For butt- and electro fusion
- Reduction factor = 0,8

d	Thread 1 Code	Thread 11/4 Code	Weight (kg)	L (mm)	e (mm)
110	<b>700 649 588</b>	<b>700 649 600</b>	14.000	260	10.0
125	<b>700 649 589</b>	<b>700 649 601</b>	14.700	260	11.4
140	<b>700 649 590</b>	<b>700 649 602</b>	1.370	260	12.8
160	<b>700 649 591</b>	<b>700 649 603</b>	16.207	260	14.6
180	<b>700 649 592</b>	<b>700 649 604</b>	17.017	360	16.4
200	<b>700 649 593</b>	<b>700 649 605</b>	17.868	360	18.2
225	<b>700 649 594</b>	<b>700 649 606</b>	18.761	360	20.5
280	<b>700 649 596</b>	<b>700 649 608</b>	20.684	360	25.5
315	<b>700 649 597</b>	<b>700 649 609</b>	21.719	360	28.7
355	<b>700 649 598</b>	<b>700 649 610</b>	22.805	460	32.3
400	<b>700 649 599</b>	<b>700 649 611</b>	23.945	460	36.4





### Branch 45°, PP-H S5/SDR11

- For butt- and electro fusion
- Reduction factor = 0,5

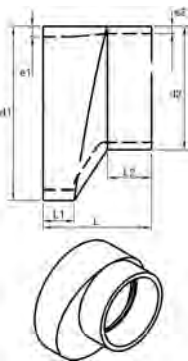
d (mm)	Code	SP	L1 (mm)	L2 (mm)	e (mm)
110	<b>700 649 636</b>	0	150	520	10.0
125	<b>700 649 637</b>	0	150	520	11.4
140	<b>700 649 638</b>	0	150	570	12.8
160	<b>700 649 639</b>	0	150	640	14.6
180	<b>700 649 640</b>	0	150	700	16.4
200	<b>700 649 641</b>	0	150	800	18.2
225	<b>700 649 642</b>	0	150	800	20.5
250	<b>700 649 643</b>	0	250	1000	22.8
280	<b>700 649 644</b>	0	250	1000	25.5
315	<b>700 649 645</b>	0	300	1300	28.7
355	<b>700 649 646</b>	0	300	1500	32.3
400	<b>700 649 647</b>	0	300	1500	36.4
450			300	1500	41.0



### Reducing Bushes excentric, PP-H SDR11

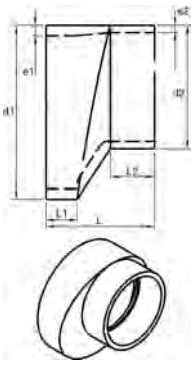
#### Model:

- Machined
- Conventional butt fusion according to DVS2207



d1 (mm)	d2 (mm)	PN (bar)	Code	L2 (mm)	L (mm)	e2 (mm)	L1 (mm)	e1 (mm)
63	50	10	<b>700 647 700</b>	35	120	4,6	35	5,8
75	50	10	<b>700 647 701</b>	35	120	4,6	40	6,8
75	63	10	<b>700 647 702</b>	35	120	5,8	40	6,8
90	63	10	<b>700 647 703</b>	50	140	5,8	50	8,2
90	75	10	<b>700 647 704</b>	50	140	6,8	50	8,2
110	75	10	<b>700 647 705</b>	50	140	6,8	50	10
110	90	10	<b>700 647 706</b>	50	140	8,2	50	10
125	90	10	<b>700 647 707</b>	50	140	5,1	50	11,4
125	110	10	<b>700 647 708</b>	50	140	10	50	11,4
140	90	10	<b>700 647 709</b>	50	140	8,2	50	12,7
140	110	10	<b>700 647 710</b>	50	140	10	50	12,7
160	90	10	<b>700 647 711</b>	54	140	8,2	50	14,6
160	110	10	<b>700 647 712</b>	45	120	10	40	14,6
160	125	10	<b>700 647 713</b>	44	110	11,4	40	14,6
160	140	10	<b>700 647 714</b>	33	90	12,7	40	14,6
180	125	10	<b>700 647 715</b>	52	130	11,4	40	16,4
180	140	10	<b>700 647 716</b>	41	110	12,7	40	16,4
180	160	10	<b>700 647 717</b>	33	90	16,4	40	16,4
200	140	10	<b>700 647 718</b>	50	140	12,7	40	18,2
200	160	10	<b>700 647 719</b>	41	120	14,6	40	18,2
200	180	10	<b>700 647 720</b>	43	100	16,4	40	18,2
225	160	10	<b>700 647 721</b>	57	140	14,6	40	20,5
225	180	10	<b>700 647 722</b>	48	120	16,4	40	20,5
225	200	10	<b>700 647 723</b>	40	100	18,2	40	20,5
250	180	10	<b>700 647 724</b>	54	150	16,4	40	22,7
250	200	10	<b>700 647 725</b>	55	130	18,2	40	22,7
250	225	10	<b>700 647 726</b>	40	110	20,5	40	22,7
280	200	10	<b>700 647 727</b>	58	160	18,2	40	25,4
280	225	10	<b>700 647 728</b>	52	130	20,5	40	25,4
280	250	10	<b>700 647 729</b>	47	110	22,7	40	25,4
315	225	10	<b>700 647 730</b>	62	160	20,5	40	28,6
315	250	10	<b>700 647 731</b>	57	140	22,7	40	28,6
315	280	10	<b>700 647 732</b>	54	120	25,4	40	28,6
355	250	10	<b>700 647 733</b>	74	180	22,7	40	32,2

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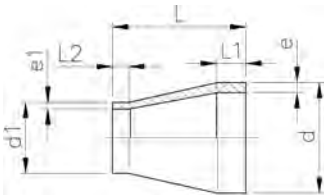
d1 (mm)	d2 (mm)	PN (bar)	Code	L2 (mm)	L (mm)	e2 (mm)	L1 (mm)	e1 (mm)
355	280	10	<b>700 647 734</b>	61	150	25,4	40	32,2
355	315	10	<b>700 647 735</b>	51	120	28,6	40	32,2
400	280	10	<b>700 647 736</b>	85	200	25,4	40	36,3
400	315	10	<b>700 647 737</b>	75	170	28,6	40	36,3
400	355	10	<b>700 647 738</b>	58	130	32,2	40	36,3
450	315	10	<b>700 647 739</b>	86	210	28,6	40	40,9
450	355	10	<b>700 647 740</b>	79	180	32,2	40	40,9
450	400	10	<b>700 647 741</b>	65	140	36,3	40	40,9
500	315	10	<b>700 647 742</b>	107	260	28,6	40	45,4
500	355	10	<b>700 647 743</b>	91	220	32,2	40	45,4
500	400	10	<b>700 647 744</b>	86	190	36,3	40	45,4
500	450	10	<b>700 647 745</b>	65	140	40,9	40	45,4
560	450	10	<b>700 647 746</b>	91	200	40,9	40	50,8
560	500	10	<b>700 647 747</b>	70	150	45,4	40	50,8
630	500	10	<b>700 647 748</b>	99	220	45,4	40	57,2
630	560	10	<b>700 647 749</b>	84	170	50,8	40	57,2



### PROGEF Standard reducer S5/SDR11 (PN10)

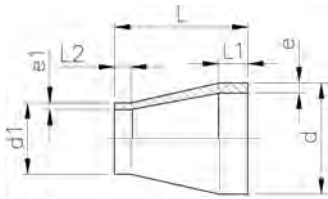
#### Model:

- Material: PP-H
  - Conventional butt-welding according to DVS 2207
  - IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Material:PP-R



d (mm)	d1 (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	e1 (mm)
25	20	IR	<b>727 908 537</b>	0.007	50	20	20	2.3	1.9
32	20	IR	<b>727 908 542</b>	0.010	50	20	20	2.9	1.9
32	25	IR	<b>727 908 541</b>	0.010	50	20	20	2.9	2.3
40	20	IR	<b>727 908 548</b>	0.016	58	20	23	3.7	1.9
40	25	IR	<b>727 908 547</b>	0.016	55	20	20	3.7	2.3
40	32	IR	<b>727 908 546</b>	0.018	55	20	20	3.7	2.9
50	25	IR	<b>727 908 554</b>	0.024	60	20	20	4.6	2.3
50	32	IR	<b>727 908 553</b>	0.027	60	20	20	4.6	2.9
50	40	IR	<b>727 908 552</b>	0.030	60	20	20	4.6	3.7
63	32	IR	<b>727 908 560</b>	0.043	65	20	20	5.8	2.9
63	40	IR	<b>727 908 559</b>	0.047	65	20	20	5.8	3.7
63	50	IR	<b>727 908 558</b>	0.051	65	20	20	5.8	4.6
75	40	IR	<b>727 908 566</b>	0.062	68	20	20	6.8	3.7
75	50	IR	<b>727 908 565</b>	0.071	65	20	20	6.8	4.6
75	63	IR	<b>727 908 564</b>	0.075	65	20	20	6.8	5.8
90	63	IR	<b>727 908 571</b>	0.115	75	22	19	8.2	5.8
90	75	IR	<b>727 908 570</b>	0.130	75	22	19	8.2	6.8
110	63	IR	<b>727 908 572</b>	0.201	90	28	28	10.6	6.2
110	75	IR	<b>727 908 577</b>	0.215	90	28	18	10.0	6.8
110	90	IR	<b>727 908 576</b>	0.225	90	28	30	10.0	8.2
125	110	IR	<b>727 908 580</b>	0.335	100	32	30	11.4	10.0
140	110	IR	<b>727 908 585</b>	0.423	110	33	29	12.7	10.0
140	125	IR	<b>727 908 584</b>	0.462	110	34	30	12.7	11.4
160	110	IR	<b>727 908 590</b>	0.586	120	39	27	14.6	10.0
160	140	IR	<b>727 908 588</b>	0.647	120	40	35	14.6	12.7
180	90	IR	<b>727 908 149</b>	0.800	145	50	40	16.4	8.8
180	110	IR	<b>727 908 150</b>	1.010	150	50	40	16.4	10.0
180	125	IR	<b>727 908 151</b>	0.985	145	52	40	16.4	11.4
180	140	IR	<b>727 908 152</b>	0.995	135	51	47	16.4	12.7
180	160	IR	<b>727 908 153</b>	1.020	135	55	52	16.4	14.6
200	160	IR	<b>727 908 592</b>	1.149	145	50	40	18.2	14.6
200	180	IR	<b>727 908 158</b>	1.300	145	50	45	18.2	16.4
225	110	IR	<b>727 908 595</b>	1.485	160	55	35	20.5	10.0
225	160	IR	<b>727 908 596</b>	1.590	160	55	40	20.5	14.6

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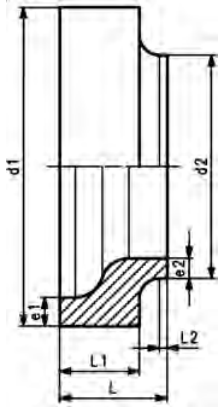
	<b>d</b> (mm)	<b>d1</b> (mm)	<b>FM</b>	<b>Code</b>	<b>Weight</b> (kg)	<b>L</b> (mm)	<b>L1</b> (mm)	<b>L2</b> (mm)	<b>e</b> (mm)	<b>e1</b> (mm)
	225	180	IR	<b>727 908 162</b>	1.770	163	60	58	20.5	16.4
	225	200	IR	<b>727 908 597</b>	1.723	160	55	50	20.5	18.2
	250	160		<b>727 908 165</b>	2.140	170	63	53	22.7	14.6
	250	225		<b>727 908 168</b>	2.750	180	65	65	22.7	20.5
	280	225		<b>727 908 172</b>	3.425	203	72	57	25.4	20.5
	280	250		<b>727 908 173</b>	1.980	206	75	60	25.4	22.7
	315	225		<b>727 908 176</b>	5.110	237	84	60	28.6	20.5
	315	250		<b>727 908 177</b>	5.105	231	86	63	28.6	22.7
	315	280		<b>727 908 178</b>	5.130	222	80	70	28.6	25.4
1	355	250		<b>727 908 963</b>	5.490	245	90	60	32.3	22.7
1	355	280		<b>727 908 962</b>	5.462	245	90	70	32.2	25.4
1	355	315		<b>727 908 961</b>	3.700	245	90	80	32.2	28.6
1	400	315		<b>727 908 966</b>	5.300	260	95	80	36.3	28.6
1	400	355		<b>727 908 965</b>	4.800	260	95	90	36.3	32.2
	450	280		<b>727 908 960</b>	9.000	230	60	70	40.9	25.4
	450	315		<b>727 908 948</b>	8.000	230	60	80	40.9	28.6
	450	355		<b>727 908 950</b>	7.400	230	60	90	40.9	32.2
	450	400		<b>727 908 951</b>	6.000	230	60	95	40.9	36.3
	500	315		<b>727 908 953</b>	12.000	230	60	80	45.4	28.6
	500	355		<b>727 908 954</b>	10.800	230	60	90	45.4	32.2
	500	400		<b>727 908 956</b>	10.000	230	60	95	45.4	36.3
	500	450		<b>727 908 964</b>	8.300	230	60	60	45.4	40.9



## PROGEF Standard flush style reducer SDR11 (PN10)

### Model:

- Material: PP-H
- Flush style design
- Conventional butt-welding according to DVS 2207
- Clamping on welding machine needs to be done always on the bigger diameter (d1)
- The butt fusion machine must be suitable to weld both dimensions (d1 and d2)



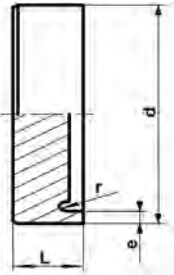
d1 (mm)	d2 (mm)	Code	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	e1 (mm)	e2 (mm)
355	225	<b>727 909 809</b>	4.983	130	95	10	32.2	20.5
355	250	<b>727 909 810</b>	3.574	115	80	10	32.2	22.7
355	280	<b>727 909 811</b>	3.856	115	80	10	32.2	25.4
355	315	<b>727 909 812</b>	3.952	115	80	15	32.2	28.6
400	225	<b>727 909 816</b>	7.587	145	110	10	36.3	20.5
400	250	<b>727 909 817</b>	6.955	140	105	10	36.3	22.7
400	280	<b>727 909 818</b>	6.363	135	100	10	36.3	25.4
400	315	<b>727 909 819</b>	6.149	135	100	10	36.3	28.6
400	355	<b>727 909 820</b>	5.811	135	100	13	36.3	32.2
450	225	<b>727 909 822</b>	11.398	165	125	10	40.9	20.5
450	250	<b>727 909 823</b>	10.561	160	120	10	40.9	22.7
450	280	<b>727 909 824</b>	9.149	150	110	15	40.9	25.4
450	315	<b>727 909 825</b>	8.660	150	110	15	40.9	28.6
450	355	<b>727 909 826</b>	8.246	150	110	15	40.9	32.2
450	400	<b>727 909 827</b>	7.973	150	110	15	40.9	36.3
500	225	<b>727 909 829</b>	15.293	180	130	10	45.4	20.5
500	250	<b>727 909 830</b>	15.037	180	130	10	45.4	22.7
500	280	<b>727 909 831</b>	13.995	175	125	10	45.4	25.4
500	315	<b>727 909 832</b>	10.404	165	115	10	45.4	28.6
500	355	<b>727 909 833</b>	10.785	165	115	10	45.4	32.2
500	400	<b>727 909 834</b>	11.863	165	115	10	45.4	36.3
500	450	<b>727 909 835</b>	12.042	165	115	25	45.4	40.9



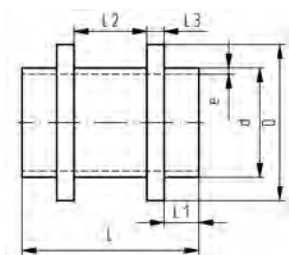
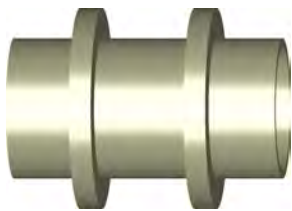
### PROGEF Standard end cap S5/SDR11 (PN10)

**Model:**

- Material: PP-H
- Machined
- Conventional butt-welding according to DVS 2207



d (mm)	Code	SP	Weight (kg)	L (mm)	e (mm)
250	<b>727 968 846</b>	1	1.900	60	22.7
280	<b>727 968 847</b>	1	2.600	65	25.4
315	<b>727 968 848</b>	1	3.600	70	28.6
355	<b>727 968 849</b>	1	5.100	80	32.2
400	<b>727 968 850</b>	1	7.200	85	36.3
450	<b>727 968 851</b>	1	10.200	95	40.9
500	<b>727 968 852</b>	1	14.000	105	74.5

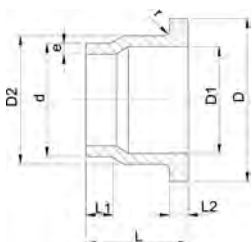


### PROGEF Standard fixpoint fitting S5/SDR11 (PN10)

#### Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Machined

d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	D (mm)	e (mm)
63	IR	727 665 520	16	0.175	122	30	42	10	90	5.8
75	IR	727 665 521	14	0.254	122	30	42	10	110	6.8
90	IR	727 665 522	12	0.342	122	30	42	10	125	8.2
110	IR	727 665 523	6	0.567	142	30	52	15	140	10.0
125	IR	727 665 524	5	0.777	152	35	52	15	160	11.4
140	IR	727 665 525	3	1.023	162	40	52	15	180	12.7
160	IR	727 665 526	4	1.292	162	40	52	15	200	14.6
180	IR	727 665 527	3	1.917	182	45	52	20	225	16.4
200	IR	727 665 528	2	2.365	182	45	52	20	250	18.2
225	IR	727 665 529	1	3.294	192	45	52	25	280	20.5
250		727 665 530	1	3.695	212	50	62	25	280	22.7
280		727 665 531	1	4.997	222	50	62	30	315	25.4
315		727 665 532	1	6.348	222	50	62	30	355	28.6
355		727 665 533	1	7.405	192	30	62	35	400	32.2
400		727 665 534	1	10.432	212	30	72	40	450	36.3
450		727 665 535	1	14.153	232	35	72	45	500	40.9
500		727 665 536	1	19.414	252	40	72	50	560	45.4



### PROGEF Standard outlet flange adaptor S5/SDR11 (PN10)

#### Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- To wafer check valves type 369

#### Attention:

- In conjunction with outlet flange adaptors, **flange rings for socket systems** must be used.

d (mm)	DN (mm)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	D (mm)	D1 (mm)	D2 (mm)	r (mm)	e (mm)
40	32	727 808 034	1	0.172	64	30	11	80	37	50	3	3.7
50	40	727 808 035	1	0.096	67	30	12	90	43	61	3	4.6
63	50	727 808 036	1	0.157	74	30	14	105	54	76	4	5.8
75	65	727 808 037	1	0.223	78	30	16	125	70	90	4	6.8
90	80	727 808 038	1	0.325	87	35	17	140	82	108	4	8.2
110	100	727 808 039	1	0.475	102	41	18	160	105	131	4	10.0
140	125	727 808 041	1	0.899	124	47	25	190	130	165	4	12.7
160	150	727 808 042	1	1.246	149	52	25	215	158	188	4	14.6
225	200	727 808 045	1	2.638	180	55	32	270	206	248	4	20.5
280	250	727 808 047	1	4.088	240	63	35	325	259	308	4	25.4
315	300	727 808 048	1	4.960	272	66	35	375	308	346	4	28.6

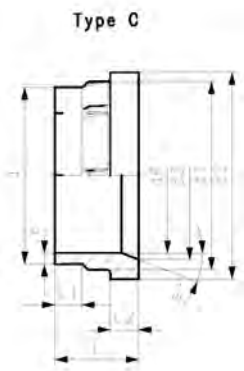
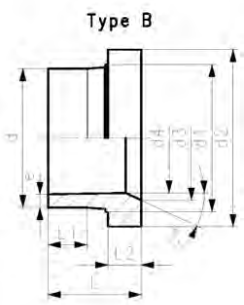
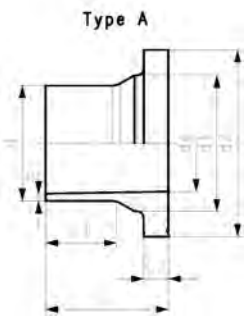


**PROGEF Standard flange adaptor S5/SDR11 (PN10)**  
**Combined jointing face: flat and serrated**

**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR compatible. Choose fusion parameters: PP-H
- Suitable for flange connections to metric (from d110 also to ANSI/ASME B16.5)
- Up to d315, suitable for butterfly valve type 567/578 and 038/039. Above use PROGEF Standard adaptor for butterfly valves SDR11 (d355-d500)
- Gasket: profile flange gasket EPDM No. 48 44 07, FKM No. 49 44 07
- \* Material: PP-R, not suitable for butterfly valves

d (mm)	DN (mm)	FM	Code	SP	Weight (kg)
20	15	IR	<b>727 798 706</b>	10	0.015
25	20	IR	<b>727 798 707</b>	10	0.029
32	25	IR	<b>727 798 708</b>	10	0.042
40	32	IR	<b>727 798 709</b>	10	0.061
50	40	IR	<b>727 798 710</b>	20	0.091
63	50	IR	<b>727 798 711</b>	10	0.144
75	65	IR	<b>727 798 712</b>	1	0.243
90	80	IR	<b>727 798 713</b>	12	0.324
110	100	IR	<b>727 798 714</b>	1	0.441
125	100	IR	<b>727 798 715</b>	8	0.520
140	125	IR	<b>727 798 716</b>	10	0.800
160	150	IR	<b>727 798 317</b>	4	0.927
180	150	IR	<b>727 798 318</b>	3	1.026
200	200	IR	<b>727 798 319</b>	2	1.652
225	200	IR	<b>727 798 320</b>	2	1.665
250	250		<b>727 798 321</b>	1	2.630
280	250		<b>727 798 322</b>	1	2.521
315	300		<b>727 798 323</b>	1	3.247
* 355	350		<b>727 798 324</b>	1	6.600
* 400	400		<b>727 798 325</b>	1	9.100
* 450	500		<b>727 798 326</b>	1	17.300
* 500	500		<b>727 798 327</b>	1	18.400



d (mm)	L (mm)	L1 (mm)	L2 (mm)	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	e (mm)	Type	a°
20	50	29	7	26	45		16	1.9	A	
25	52	27	9	32	58		20	2.3	A	
32	54	28	10	40	68		26	2.9	A	
40	56	25	11	49	78		32	3.7	A	
50	62	32	12	60	88		40	4.6	A	
63	68	38	14	75	102		51	5.8	A	
75	80	43	16	89	122	66	61	6.9	B	30
90	80	41	17	105	138	78	73	8.2	B	30
110	80	40	18	125	158	100	90	10.0	B	30
125	82	35	25	132	158	114	102	11.4	B	25
140	89	39	25	155	188	127	114	12.8	B	27
160	92	40	25	175	212	151	127	14.6	C	30
180	92	40	30	180	212	154	148	17.4	B	30
200	100	35	32	232	268	203	174	19.3	C	30
225	100	35	32	235	268	210	196	21.7	C	30
250	120	45	35	285	320	252	203	24.0	C	25
280	120	45	37	291	320	265	228	26.8	C	30
315	150	50	50	335	370	300	256	30.2	C	22
* 355	162	70	40	373	430	342	284	33.9	C	45
* 400	172	70	46	427	482	387	320	38.2	C	45
* 450	225	105	60	514	585	400	360	43.0	C	15
* 500	231	105	60	530	585	442	400	47.8	C	15

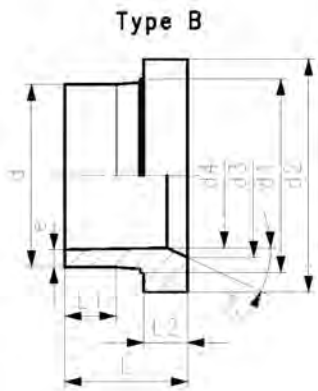


**PROGEF Standard Flange adaptor SDR11 (PN10) for butterfly valves**  
**Joining face flat**

**Model:**

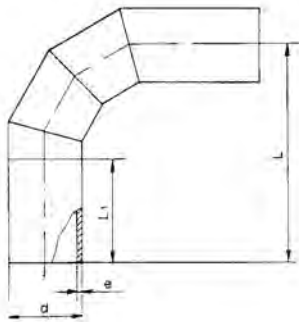
- Material: PP-R
- Conventional butt-welding according to DVS 2207
- Suitable for butterfly valve type 567/578 and 038/039

d	DN	Code	Weight	d1	d2	d3	d4	L	L1	L2	e	Type	a°
(mm)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
355	350	<b>727 798 924</b>	7.300	373	430	350	284	187	70	65	33.9	B	25
400	400	<b>727 798 925</b>	10.200	427	482	400	320	196	70	70	38.2	B	25
450	500	<b>727 798 926</b>	17.900	467	533	450	360	272	105	107	43.0	B	23
500	500	<b>727 798 927</b>	20.100	530	585	498	400	261	105	90	47.8	B	25





# Butt fusion fittings SDR 17.6



## Bend 90°, PP-H S8/SDR17.6

- For butt- and electro fusion
- Reduction factor = 0,8
- big dimensions on request

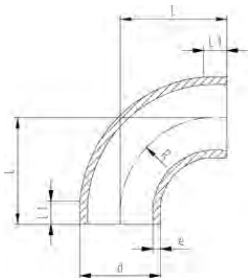
d (mm)	Code	L (mm)	L1 (mm)	e (mm)
110	700 649 396	315	150	6.3
125	700 649 397	338	150	7.1
140	700 649 398	360	150	8.0
160	700 649 399	390	150	9.1
180	700 649 400	420	150	10.2
200	700 649 401	450	150	11.4
225	700 649 402	488	150	12.8
250	700 649 403	625	250	14.2
280	700 649 404	670	250	15.9
315	700 649 405	773	300	17.9
355	700 649 406	833	300	20.1
400	700 649 407	900	300	22.7
450		975	300	25.5
500		1100	350	28.3
560		1190	350	31.7
630		1295	350	35.7



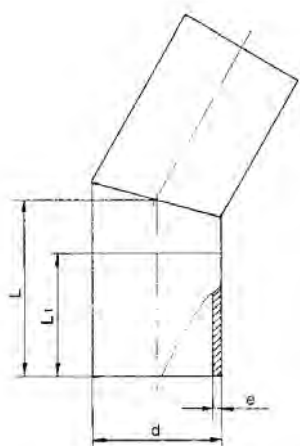
## PROGEF Standard bend 90° S8.3/SDR17.6 (PN6)

### Model:

- Material: PP-H
  - Conventional butt-welding according to DVS 2207
  - IR = Infrared-(IR Plus®) compatible.
- \* Material:PP-R



d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	R (mm)	e (mm)
50	IR	727 018 635	0.050	58	21	37.00	2.9
63	IR	727 018 636	0.081	66	21	45.00	3.6
75	IR	727 018 412	0.128	75	21	71.25	4.5
90	IR	727 018 413	0.222	90	22	85.50	5.4
110	IR	727 018 414	0.396	110	25	104.50	6.6
125	IR	727 018 415	0.556	125	28	116.00	7.1
140	IR	727 018 416	0.785	140	33	131.00	8.0
160	IR	727 018 417	1.156	160	33	151.00	9.1
180	IR	727 018 418	1.619	180	33	171.00	10.2
200	IR	727 018 419	2.208	200	33	190.00	11.4
225	IR	727 018 420	3.039	220	33	210.00	12.8
250		727 018 421	4.359	256	48	232.00	14.2
280		727 018 422	6.696	286	48	262.00	15.9
315		727 018 423	8.580	321	48	297.00	17.9
*		727 018 424	11.640	345	70	330.00	20.1
*		727 018 425	15.200	365	70	350.00	22.7
*		727 018 426	22.240	425	70	400.00	25.5
*		727 018 427	31.020	470	90	445.00	28.3



### Bend 30°, PP-H S8/SDR17.6

- For butt- and electro fusion
- Reduction factor = 0,8
- big dimensions on request

d (mm)	Code	SP	L (mm)	L1 (mm)	e (mm)
110	<b>700 649 457</b>	0	194	150	6.3
125	<b>700 649 458</b>	0	200	150	7.1
140	<b>700 649 459</b>	0	206	150	8.0
160	<b>700 649 460</b>	0	214	150	9.1
180	<b>700 649 461</b>	0	222	150	10.2
200	<b>700 649 462</b>	0	230	150	11.4
225	<b>700 649 463</b>	0	241	150	12.8
250	<b>700 649 464</b>	0	350	250	14.2
280	<b>700 649 465</b>	0	362	250	15.9
315	<b>700 649 466</b>	0	428	300	17.9
355	<b>700 649 467</b>	0	443	300	20.1
400	<b>700 649 468</b>	0	461	300	22.7
450			481	300	25.5
500			551	350	28.3
560			575	350	31.7
630			603	350	35.7

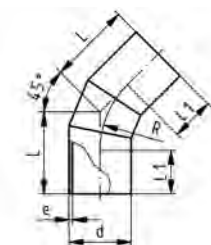


### PROGEF Standard bend 45° S8.3/SDR17.6 (PN6)

#### Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- Production process: segment welded
- Segment-welded fittings have a pressure reduction factor of 0.8

d (mm)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	R (mm)	e (mm)
355	<b>727 158 549</b>	0	21.000	520	300	533	20.1
400	<b>727 158 550</b>	0	28.100	548	300	600	22.7
450	<b>727 158 551</b>	0	37.400	580	300	675	25.5
500	<b>727 158 552</b>	0	52.600	665	350	750	28.4



### Bend 45°, PP-H S8/SDR17.6

- For butt- and electro fusion
- Reduction factor = 0,8
- big dimensions on request

d (mm)	Code	L (mm)	L1 (mm)	e (mm)
110	<b>700 649 432</b>	218	150	6.3
125	<b>700 649 433</b>	228	150	7.1
140	<b>700 649 434</b>	237	150	8.0
160	<b>700 649 435</b>	249	150	9.1
180	<b>700 649 436</b>	262	150	10.2
200	<b>700 649 437</b>	274	150	11.4
225	<b>700 649 438</b>	290	150	12.8
250	<b>700 649 439</b>	412	250	14.2
280	<b>700 649 440</b>	424	250	15.9

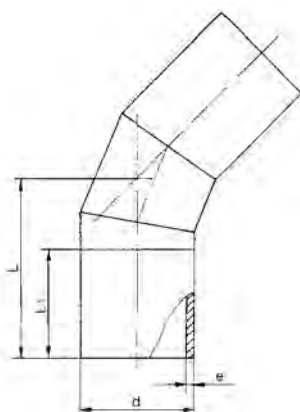


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d (mm)	Code	L (mm)	L1 (mm)	e (mm)
315	<b>700 649 441</b>	498	300	17.9
355	<b>700 649 442</b>	520	300	20.1
400	<b>700 649 443</b>	548	300	22.7
450		580	300	25.5
500		665	350	28.3
560		698	350	31.7
630		741	350	35.7

### PROGEF Standard elbow 45° S8.3/SDR17.6 (PN6)

#### Model:

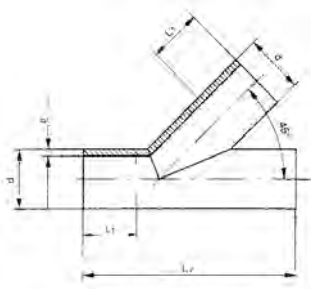
- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared fusion (IR-Plus / IR-A) compatible.

1) Material: PP-R

\*Machined from S5/SDR11



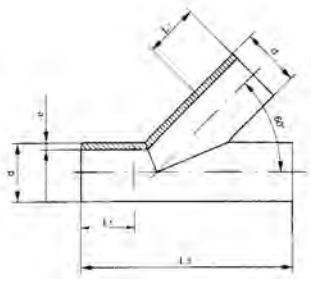
d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	e (mm)	
*	50	IR	<b>727 158 535</b>	10	0.042	42	26	2.9
*	63	IR	<b>727 158 536</b>	10	0.081	47	29	3.6
	75	IR	<b>727 158 412</b>	10	0.099	49	29	4.3
	90	IR	<b>727 158 413</b>	6	0.165	57	34	5.1
	110	IR	<b>727 158 414</b>	5	0.286	70	43	6.3
*	125	IR	<b>727 158 540</b>	5	0.570	79	48	7.1
*	140	IR	<b>727 158 541</b>	1	0.721	88	55	8.0
*	160	IR	<b>727 158 542</b>	1	1.107	100	60	9.1
*	200	IR	<b>727 158 544</b>	1	2.225	124	75	11.4
*	225	IR	<b>727 158 545</b>	1	3.194	140	85	12.8
1	250	--	<b>727 158 546</b>	1	4.970	225	133	14.2
1	280	--	<b>727 158 547</b>	1	7.130	235	143	15.9
1	315	--	<b>727 158 548</b>	1	9.600	255	154	17.9



### Branch 45°, PP-H S8/SDR17.6

- For butt- and electro fusion
- Reduction factor = 0,5

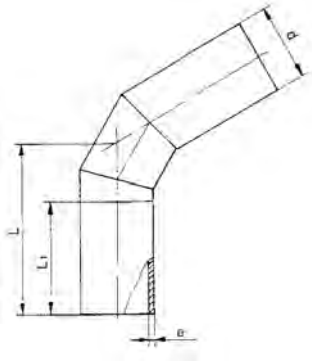
d (mm)	Code	SP	Weight (kg)	L1 (mm)	L2 (mm)	e (mm)
110	<b>700 649 648</b>	0	2.190	150	520	6.3
125	<b>700 649 649</b>	0	5.985	150	520	7.1
140	<b>700 649 650</b>	0	3.220	150	570	8.0
160	<b>700 649 651</b>	0	4.280	150	640	9.1
180	<b>700 649 652</b>	0	6.928	150	700	10.2
200	<b>700 649 653</b>	0	7.275	150	800	11.4
225	<b>700 649 654</b>	0	7.639	150	800	12.8
250	<b>700 649 655</b>	0	8.020	250	1000	14.2
280	<b>700 649 656</b>	0	8.421	250	1000	15.9
315	<b>700 649 657</b>	0	8.843	300	1300	17.9
355	<b>700 649 658</b>	0	9.285	300	1500	20.1
400	<b>700 649 659</b>	0	9.749	300	1500	22.7
450				300	1500	25.5



### Branch 60°, PP-H S8/SDR17.6

- For butt- and electro fusion
- Reduction factor = 0,5

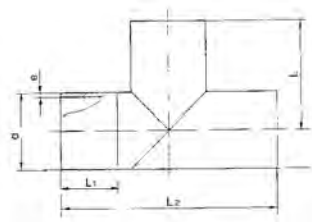
d (mm)	Code	SP	L1 (mm)	L2 (mm)	e (mm)
110	<b>700 649 672</b>	0	150	520	6.3
125	<b>700 649 673</b>	0	150	520	7.1
140	<b>700 649 674</b>	0	150	570	8.0
160	<b>700 649 675</b>	0	150	640	9.1
180	<b>700 649 676</b>	0	150	700	10.2
200	<b>700 649 677</b>	0	150	800	11.4
225	<b>700 649 678</b>	0	150	800	12.8
250	<b>700 649 679</b>	0	250	1000	14.2
280	<b>700 649 680</b>	0	250	1000	15.9
315	<b>700 649 681</b>	0	300	1300	17.9
355	<b>700 649 682</b>	0	300	1500	20.1
400	<b>700 649 683</b>	0	300	1500	22.7
450			300	1500	25.5



### Bend 60°, PP-H S8/SDR17.6

- For butt- and electro fusion
- Reduction factor = 0,8
- big dimensions on request

d (mm)	Code	L (mm)	L1 (mm)	e (mm)
110	<b>700 649 408</b>	245	150	6.3
125	<b>700 649 409</b>	258	150	7.1
140	<b>700 649 410</b>	271	150	8.0
160	<b>700 649 411</b>	288	150	9.1
180	<b>700 649 412</b>	305	150	10.2
200	<b>700 649 413</b>	323	150	11.4
225	<b>700 649 414</b>	345	150	12.8
250	<b>700 649 415</b>	466	250	14.2
280	<b>700 649 416</b>	492	250	15.9
315	<b>700 649 417</b>	576	300	17.9
355	<b>700 649 418</b>	608	300	20.1
400	<b>700 649 419</b>	646	300	22.7
450		689	300	25.5
500		783	350	28.3
560		835	350	31.7
630		896	350	35.7



### Tees 90°, equal, PP-H S8/SDR17.6

- For butt- and electro fusion
- Reducing factor = 0,6
- big dimensions on request

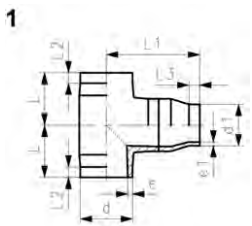
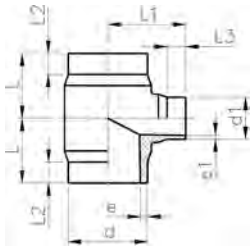
d (mm)	Code	L (mm)	L1 (mm)	L2 (mm)	e (mm)
110		205	150	410	6.3
125		215	150	430	7.1
140		220	150	440	8.0
160		230	150	460	9.1
180		240	150	480	10.2
200		250	150	500	11.4
225	<b>700 649 487</b>	265	150	530	12.8
250	<b>700 649 488</b>	375	250	750	14.2
280	<b>700 649 489</b>	390	250	780	15.9
315	<b>700 649 490</b>	460	300	920	17.9
355	<b>700 649 491</b>	480	300	960	20.1
400	<b>700 649 492</b>	500	300	1000	22.7
450		525	300	1050	25.5
500		600	350	1200	28.3
560		630	350	1260	31.7
630		665	350	1330	35.7



### PROGEF Standard tee 90° reduced S8.3/SDR17.6 (PN6)

**Model:**

- Material: PP-H
  - Conventional butt-welding according to DVS 2207
  - IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- <sup>1</sup>with IR welded reducer  
 \* Branch SDR11

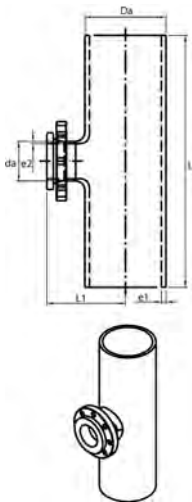


	d	d1	FM	Code	SP	Weight	L	L1	L2	L3	e	e1
	(mm)	(mm)				(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	63	32	IR	727 208 301	10	0.120	65	70	25	25	3.6	2,9
	63	50	IR	727 208 302	10	0.124	65	70	25	25	3.6	2,9
*	75	32	IR	727 208 303	5	0.178	70	75	25	25	4.3	2,9
	75	50	IR	727 208 304	5	0.182	70	75	25	25	4.3	2,9
	75	63	IR	727 208 305	5	0.190	70	75	25	25	4.3	3,6
	90	50	IR	727 208 307	5	0.305	80	85	25	25	5.1	2,9
	90	63	IR	727 208 308	5	0.315	80	85	25	25	5.1	3,6
	90	75	IR	727 208 309	5	0.320	80	85	25	25	5.1	4,3
*	110	32	IR	727 208 310	5	0.489	90	95	30	25	6.3	2,9
	110	50	IR	727 208 311	5	0.490	90	95	30	25	6.3	2,9
	110	63	IR	727 208 312	5	0.491	90	95	30	25	6.3	3,6
	110	75	IR	727 208 313	5	0.500	90	95	30	25	6.3	4,3
	110	90	IR	727 208 314	5	0.514	90	95	30	25	6.3	5,1
1	125	63	IR	727 208 015	1	1.300	125	212	50	20	7.1	3,6
1	125	90	IR	727 208 016	1	1.400	125	229	50	41	7.1	5,1
1	125	110	IR	727 208 017	1	1.400	125	218	50	42	7.1	6,3
1	140	75	IR	727 208 018	1	2.000	160	255	63	41	8.0	4,3
1	140	90	IR	727 208 019	1	2.100	160	251	63	42	8.0	5,1
1	140	110	IR	727 208 020	1	2.100	160	240	63	43	8.0	6,3
	160	63	IR	727 208 321	1	1.535	142	135	50	30	9.1	3,6
	160	75	IR	727 208 322	1	1.550	142	135	50	30	9.1	4,3
	160	90	IR	727 208 323	1	1.567	142	135	50	30	9.1	5,1
	160	110	IR	727 208 324	1	1.577	142	135	50	30	9.1	6,3
1	160	125	IR	727 208 025	1	2.800	163	275	60	32	9.1	7,1
1	200	160	IR	727 208 035	1	5.900	220	325	94	40	11.4	9,1
1	200	180	IR	727 208 036	1	6.000	220	325	94	54	11.4	10,2
	225	90	IR	727 208 338	1	3.350	155	165	40	30	12.8	5,1
	225	110	IR	727 208 339	1	3.330	155	165	40	30	12.8	6,3
	225	160	IR	727 208 341	1	3.427	155	165	40	30	12.8	9,1
1	250	160	IR	727 208 043	1	8.900	225	389	67	52	14.2	9,1

### Revision Tees 90°, PP-H SDR17.6

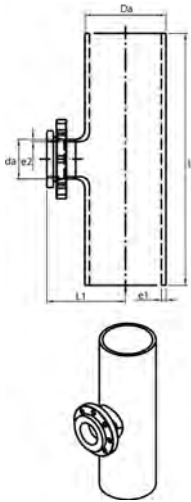
**Model:**

- Flued and butt fusion according to DVS2207
- Backing flanges to ISO 7005, EN 1092, DIN 2501, bolt circle PN10
- Reducing factor = 0,6
- big dimensions on request

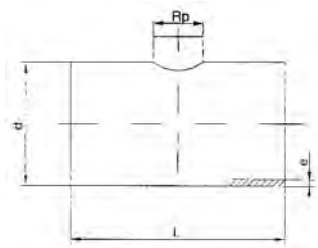


d	d1	PN	Code	SP	L	L1	e1	e2
(mm)	(mm)	(bar)			(mm)	(mm)	(mm)	(mm)
110	110	6	700 647 267	0	500	236	6,3	6,3
125	125	6	700 647 268	0	500	248	7,1	7,1
140	140	6	700 647 269	0	500	265	8,0	8,0
160	110	6	700 647 270	0	500	278	9,1	6,3
180	110	6	700 665 644	0	500	350	10,2	6,3
200	140	6	700 665 645	0	500	350	11,4	8,0
225	140	6	700 665 646	0	560	400	12,8	8,0
250	160	6	700 665 647	0	750	450	14,2	9,1
280	225	6	700 665 648	0	750	350	15,9	12,8
315	225	6	700 665 649	0	850	400	17,9	12,8
355	225	6	700 665 650	0	950	450	20,1	12,8

table continued on the next page



d	d1	PN	Code	SP	L	L1	e1	e2
(mm)	(mm)	(bar)			(mm)	(mm)	(mm)	(mm)
400	225	6	<b>700 665 651</b>	0	1000	450	22,7	12,8
450	315	6	<b>700 665 652</b>	0	1100	500	25,5	17,9
500	315	6	<b>700 665 653</b>	0	1200	500	28,4	17,9
560	315	6	<b>700 665 654</b>	0	1300	550	31,7	17,9
630	315	6	<b>700 665 655</b>	0	1450	550	35,7	17,9

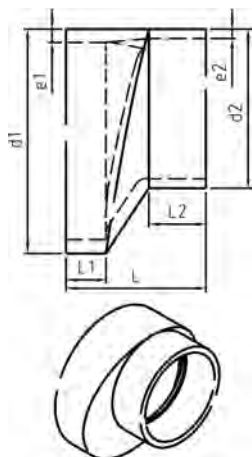


### Saddle-Tee, PP-H S8/SDR17.6 Outlet with female thread Rp, welded

- For butt- and electro fusion
- Reduction factor = 0,8
- big dimensions on request

d	Thread 1"	Thread 1 1/4"	Weight	L	e
(mm)	Code	Code	(kg)	(mm)	(mm)
110	<b>700 649 612</b>	<b>700 649 624</b>	14.000	260	6.3
125	<b>700 649 613</b>	<b>700 649 625</b>	14.700	260	7.1
140	<b>700 649 614</b>	<b>700 649 626</b>	15.435	260	8.0
160	<b>700 649 615</b>	<b>700 649 627</b>	16.207	260	9.1
180	<b>700 649 616</b>	<b>700 649 628</b>	17.017	360	10.2
200	<b>700 649 617</b>	<b>700 649 629</b>	17.868	360	11.4
225	<b>700 649 618</b>	<b>700 649 630</b>	0.500	360	12.8
250	<b>700 649 619</b>	<b>700 649 631</b>	19.699	360	14.2
280	<b>700 649 620</b>	<b>700 649 632</b>	20.684	360	15.9
315	<b>700 649 621</b>	<b>700 649 633</b>	21.719	360	17.9
355	<b>700 649 622</b>	<b>700 649 634</b>	22.805	460	20.1
400	<b>700 649 623</b>	<b>700 649 635</b>	23.945	460	22.7

## Reducing Bushes excentric, PP-H SDR17.6



### Model:

- Machined
- Conventional butt fusion according to DVS2207

d1 (mm)	d2 (mm)	PN (bar)	Code	SP	Weight (kg)	e1 (mm)	L1 (mm)	L (mm)	L2 (mm)	e2 (mm)
63	50	6	700 647 750	0	0.020	3,6	35	120	35	2,9
75	50	6	700 647 751	0	0.041	4,3	40	120	35	2,9
75	63	6	700 647 752	0	0.048	4,3	40	120	35	3,6
90	63	6	700 647 753	0	0.079	5,1	50	140	50	3,6
90	75	6	700 647 754	0	0.090	5,1	50	140	50	4,3
110	75	6	700 647 755	0	1.000	6,3	50	140	50	4,3
110	90	6	700 647 756	0	0.158	6,3	50	140	50	5,1
125	90	6	700 647 757	0	0.190	7,1	50	140	50	5,1
125	110	6	700 647 758	0	0.215	7,1	50	140	50	6,3
140	90	6	700 647 759	0	0.308	8,0	50	140	50	5,1
140	110	6	700 647 760	0	0.338	8,0	50	140	50	6,3
160	90	6	700 647 761	0	1.000	9,5	50	140	54	5,4
160	110	6	700 647 762	0	0.454	9,5	40	120	45	6,6
160	125	6	700 647 763	0	0.071	9,5	40	110	44	7,4
160	140	6	700 647 764	0	0.482	9,5	40	90	33	8,3
180	125	6	700 647 765	0	0.596	10,7	40	130	52	7,4
180	140	6	700 647 766	0	0.632	10,7	40	110	41	8,3
180	160	6	700 647 767	0	0.677	10,7	40	90	33	9,5
200	140	6	700 647 768	0	0.805	11,9	40	140	50	8,3
200	160	6	700 647 769	0	0.822	11,9	40	120	41	9,5
200	180	6	700 647 770	0	0.894	11,9	40	100	43	10,7
225	160	6	700 647 771	0	1.083	13,4	40	140	57	9,5
225	180	6	700 647 772	0	1.337	13,4	40	120	48	10,7
225	200	6	700 647 773	0	1.884	13,4	40	100	40	11,9
250	180	6	700 647 774	0	2.100	14,8	40	150	54	10,7
250	200	6	700 647 775	0	2.189	14,8	40	130	55	11,9
250	225	6	700 647 776	0	2.370	14,8	40	110	40	13,4
280	200	6	700 647 777	0	2.820	16,6	40	160	58	11,9
280	225	6	700 647 778	0	2.854	16,6	40	130	52	13,4
280	250	6	700 647 779	0	2.980	16,6	40	110	47	14,8
315	225	6	700 647 780	0	3.010	18,7	40	160	62	13,4
315	250	6	700 647 781	0	3.158	18,7	40	140	57	14,8
315	280	6	700 647 782	0	3.500	18,7	40	120	54	16,6
355	250	6	700 647 783	0	1.000	21,1	40	180	74	14,8
355	280	6	700 647 784	0	3.800	21,1	40	150	61	16,6
355	315	6	700 647 785	0	4.200	21,1	40	120	51	18,7
400	280	6	700 647 786	0	5.580	23,7	40	200	85	16,6
400	315	6	700 647 787	0	5.800	23,7	40	170	75	18,7
400	355	6	700 647 788	0	6.310	23,7	40	130	58	21,1
450	315	6	700 647 789	0	6.540	26,7	40	210	86	18,7
450	355	6	700 647 790	0	7.210	26,7	40	180	79	21,1
450	400	6	700 647 791	0	7.900	26,7	40	140	65	23,7
500	315	6	700 647 792	0	8.450	29,7	40	260	107	18,7
500	355	6	700 647 793	0	9.124	29,7	40	220	91	21,1
500	400	6	700 647 794	0	9.450	29,7	40	190	86	23,7
500	450	6	700 647 795	0	11.850	29,7	40	140	65	26,7
560	450	6	700 647 796	0	12.600	33,2	40	200	91	26,7
560	500	6	700 647 797	0	13.650	33,2	40	150	70	29,7
630	500	6	700 647 798	0	14.800	37,4	40	220	99	29,7
630	560	6	700 647 799	0	15.240	37,4	40	170	84	33,2



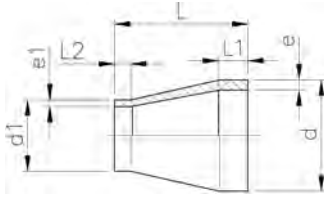


## PROGEF Standard reducer S8.3/SDR17.6

### Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H

<sup>1</sup> Material: PP-R



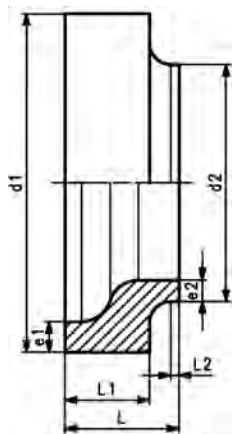
	d	d1	FM	Code	SP	Weight	L	L1	L2	e	e1
	(mm)	(mm)				(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
	50	40	IR	<b>727 908 949</b>	5	0.010	55	12	12	2.9	2,3
	63	40	IR	<b>727 908 901</b>	10	0.020	65	16	12	3.6	2,3
	63	50	IR	<b>727 908 900</b>	10	0.020	65	16	12	3.6	2,9
	75	40	IR	<b>727 908 904</b>	10	0.041	65	20	20	4.3	2,3
	75	50	IR	<b>727 908 465</b>	10	0.047	65	20	20	4.8	3,2
	75	63	IR	<b>727 908 464</b>	10	0.053	65	20	20	4.3	3,6
	90	63	IR	<b>727 908 471</b>	20	0.079	75	22	19	5.1	3,6
	90	75	IR	<b>727 908 470</b>	12	0.090	75	21	19	5.1	4,3
	110	63	IR	<b>727 908 472</b>	8	0.149	90	28	28	6.9	4,0
	110	75	IR	<b>727 908 477</b>	8	0.149	90	28	18	6.3	4,3
	110	90	IR	<b>727 908 476</b>	10	0.158	90	28	20	6.3	5,1
	125	110	IR	<b>727 908 912</b>	12	0.190	108	32	28	7.1	6,3
	140	110	IR	<b>727 908 917</b>	8	0.322	115	35	28	8.0	6,3
	140	125	IR	<b>727 908 916</b>	8	0.353	115	35	32	8.0	7,1
	160	110	IR	<b>727 908 922</b>	4	0.454	124	40	28	9.1	6,3
	160	140	IR	<b>727 908 920</b>	2	0.482	124	40	35	9.1	8,0
	180	90	IR	<b>727 908 928</b>	2	0.866	157	45	22	10.2	5,1
	180	110	IR	<b>727 908 927</b>	2	0.698	157	45	28	10.2	6,3
	180	125	IR	<b>727 908 926</b>	2	0.596	136	45	32	10.2	7,1
	180	140	IR	<b>727 908 925</b>	2	0.632	136	45	35	10.2	8,0
	180	160	IR	<b>727 908 924</b>	2	0.677	136	45	40	10.2	9,1
	200	160	IR	<b>727 908 930</b>	2	0.805	151	50	40	11.4	9,1
	200	180	IR	<b>727 908 929</b>	2	0.895	151	50	45	11.4	10,2
	225	110	IR	<b>727 908 936</b>	2	1.001	171	55	40	12.8	6,3
	225	160	IR	<b>727 908 934</b>	2	1.082	171	55	45	12.8	9,1
	225	180	IR	<b>727 908 933</b>	2	1.337	171	55	45	12.8	10,2
	225	200	IR	<b>727 908 932</b>	1	1.184	184	60	40	12.8	11,4
	250	160	--	<b>727 908 940</b>	1	2.062	194	60	40	14.2	9,1
	250	225	--	<b>727 908 937</b>	1	1.792	182	60	55	14.2	12,8
1	280	225	--	<b>727 908 942</b>	1	1.365	105	30	20	15.9	12,8
1	280	250	--	<b>727 908 941</b>	1	0.858	70	30	18	15.9	14,2
1	315	225	--	<b>727 908 947</b>	1	2.062	130	30	20	17.9	12,8
1	315	250	--	<b>727 908 946</b>	1	1.578	100	30	20	17.9	14,2
1	315	280	--	<b>727 908 945</b>	1	1.156	63	30	18	17.9	15,9
1	355	250	--	<b>727 908 959</b>	1	3.000	245	90	60	20.1	14,2
1	355	280	--	<b>727 908 958</b>	1	2.700	245	90	70	20.1	15,9
1	355	315	--	<b>727 908 957</b>	1	2.400	245	90	80	20.1	17,9
1	400	315	--	<b>727 908 972</b>	1	3.600	260	95	80	22.7	17,9
1	400	355	--	<b>727 908 971</b>	1	3.100	260	95	90	22.7	20,1
	450	280	--	<b>727 908 967</b>	0	6.000	230	60	70	25.5	15,9
	450	315	--	<b>727 908 984</b>	2	5.400	230	60	80	25.5	17,9
	450	355	--	<b>727 908 988</b>	0	5.000	230	60	90	25.5	20,1
	450	400	--	<b>727 908 989</b>	1	5.000	230	60	95	25.5	22,7
	500	315	--	<b>727 908 993</b>	0	8.100	230	60	80	28.4	17,9
	500	355	--	<b>727 908 994</b>	0	7.300	230	60	95	28.4	20,1
	500	400	--	<b>727 908 998</b>	1	6.700	230	60	95	28.4	22,7
	500	450	--	<b>727 908 999</b>	2	5.500	230	60	60	28.4	25,5



### PROGEF Standard flush style reducer SDR17.6 (PN6)

#### Model:

- Material: PP-H
- Flush style design
- Conventional butt-welding according to DVS 2207
- Clamping on welding machine needs to be done always on the bigger diameter (d1)
- The butt fusion machine must be suitable to weld both dimensions (d1 and d2)



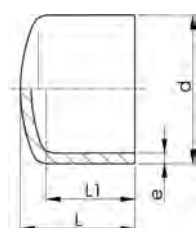
d1 (mm)	d2 (mm)	Code	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	e1 (mm)	e2 (mm)
355	225	727 909 859	3.736	120	85	10	21.1	13.4
355	250	727 909 860	3.160	115	80	10	20.1	14.2
355	280	727 909 861	2.946	115	80	10	20.1	15.9
355	315	727 909 862	2.587	115	80	15	20.1	17.9
400	225	727 909 866	6.000	135	100	10	23.7	13.4
400	250	727 909 867	5.732	135	100	10	23.7	14.8
400	280	727 909 868	5.388	135	100	10	23.7	16.6
400	315	727 909 869	4.880	135	100	10	22.7	17.9
400	355	727 909 870	4.395	135	100	13	22.7	20.1
450	225	727 909 872	8.881	150	110	10	26.7	13.4
450	250	727 909 873	8.577	150	110	10	26.7	14.8
450	280	727 909 874	7.684	150	100	15	25.5	15.9
450	315	727 909 875	7.005	150	100	15	25.5	17.9
450	355	727 909 876	6.405	150	100	15	25.5	20.1
450	400	727 909 877	5.942	150	100	15	25.5	22.7
500	225	727 909 879	11.545	165	115	10	29.7	13.4
500	250	727 909 880	11.273	165	115	10	29.7	14.8
500	280	727 909 881	10.916	165	115	10	29.7	16.6
500	315	727 909 882	10.003	165	115	10	28.4	17.9
500	355	727 909 883	9.672	165	115	10	28.4	20.1
500	400	727 909 884	8.231	165	115	10	28.4	22.7
500	450	727 909 885	7.599	165	115	25	28.4	25.5



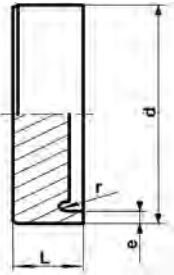
### PROGEF Standard end cap S8.3/SDR17.6 (PN6)

#### Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H



d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	e (mm)
50	IR	727 968 710	0.036	72	59	2.9
63	IR	727 968 711	0.061	83	66	3.6
75	IR	727 968 712	0.095	94	73	4.3
90	IR	727 968 713	0.160	110	83	5.1
110	IR	727 968 714	0.260	123	88	6.3
125	IR	727 968 715	0.360	127	92	7.1
140	IR	727 968 716	0.485	136	97	8.0
160	IR	727 968 717	0.735	161	109	9.1
180	IR	727 968 718	0.990	166	114	10.2
200	IR	727 968 719	1.310	179	117	11.4
225	IR	727 968 720	1.790	203	129	12.8

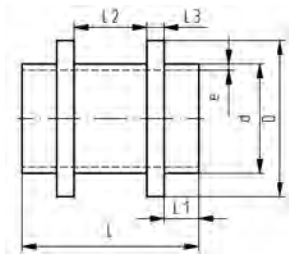
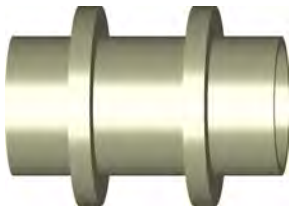


### PROGEF Standard end cap S8.3/SDR17.6 (PN6)

**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- Machined

d (mm)	Code	SP	Weight (kg)	L (mm)	e (mm)
250	<b>727 968 821</b>	1	1.600	55	14.2
280	<b>727 968 822</b>	1	2.100	60	15.9
315	<b>727 968 823</b>	1	3.000	65	17.9
355	<b>727 968 824</b>	1	4.200	70	20.1
400	<b>727 968 825</b>	1	6.000	75	22.7
450	<b>727 968 826</b>	1	8.600	85	25.5
500	<b>727 968 827</b>	1	11.600	90	28.3



### PROGEF Standard fixpoint fitting S8.3/SDR17.6 (PN6)

**Model:**

- Material: PP-H
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Conventional butt-welding according to DVS 2207
- Machined

d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	D (mm)	e (mm)
63	IR	<b>727 665 539</b>	16	0.138	122	30	42	10	90	3.8
75	IR	<b>727 665 540</b>	14	0.203	122	30	42	10	110	4.5
90	IR	<b>727 665 541</b>	12	0.267	122	30	42	10	125	5.4
110	IR	<b>727 665 542</b>	6	0.438	142	30	52	15	140	6.6
125	IR	<b>727 665 543</b>	5	0.592	152	35	52	15	160	7.4
140	IR	<b>727 665 544</b>	3	0.781	162	40	52	15	180	8.3
160	IR	<b>727 665 545</b>	4	0.971	162	40	52	15	200	9.5
180	IR	<b>727 665 546</b>	3	1.464	182	45	52	20	225	10.7
200	IR	<b>727 665 547</b>	2	1.808	182	45	52	20	250	11.9
225	IR	<b>727 665 548</b>	1	2.549	192	45	52	25	280	13.4
250		<b>727 665 549</b>	1	2.678	212	50	62	25	280	14.8
280		<b>727 665 550</b>	1	3.668	222	50	62	30	315	16.6
315		<b>727 665 551</b>	1	4.666	222	50	62	30	355	18.7
355		<b>727 665 552</b>	1	5.567	192	30	62	35	400	21.1
400		<b>727 665 553</b>	1	7.835	212	30	72	40	450	23.7
450		<b>727 665 554</b>	1	10.552	232	35	72	45	500	26.7
500		<b>727 665 555</b>	1	14.608	252	40	72	50	560	29.7



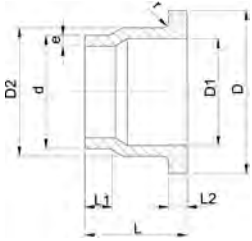
## PROGEF Standard outlet flange adaptor S8.3/SDR17.6 (PN6)

### Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- To wafer check valves type 369

### Attention:

- In conjunction with outlet flange adaptors, **flange rings for socket systems** must be used.



d (mm)	DN (mm)	Code	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	D (mm)	D1 (mm)	D2 (mm)	r (mm)	e (mm)
40	32	<b>727 808 009</b>	0.048	64	30	11	80	37	50	3	2.3
50	40	<b>727 808 010</b>	0.091	67	30	12	90	43	61	3	2.9
63	50	<b>727 808 011</b>	0.096	74	30	14	105	54	76	4	3.6
75	65	<b>727 808 012</b>	0.170	78	30	16	125	70	90	4	4.3
90	80	<b>727 808 013</b>	0.260	87	35	17	140	82	108	4	5.1
110	100	<b>727 808 014</b>	0.429	102	41	18	160	105	131	4	6.3
140	125	<b>727 808 016</b>	0.808	124	47	18	190	130	165	4	8.0
160	150	<b>727 808 017</b>	1.107	149	52	18	215	158	188	4	9.1
225	200	<b>727 808 020</b>	2.324	180	55	24	270	206	248	4	12.7
280	250	<b>727 808 022</b>	3.563	240	63	25	325	259	308	4	15.9
315	300	<b>727 808 023</b>	2.450	272	66	25	375	308	346	4	17.9

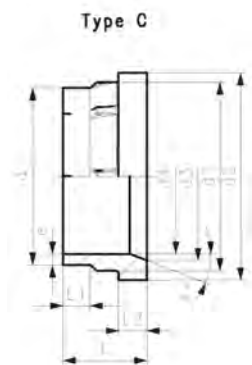
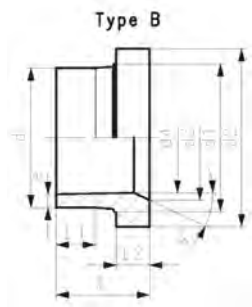
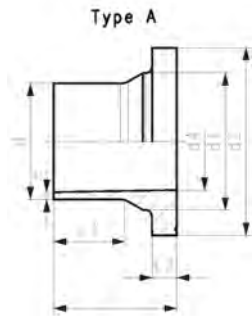
**PROGEF Standard flange adaptor S8.3/SDR17.6 (PN6)**  
**Combined jointing face: flat and serrated**

**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR compatible. Choose fusion parameters: PP-H
- Suitable for flange connections to metric (from d110 also to ANSI/ASME B16.5)
- Up to d400, suitable for butterfly valve type 567/578 and 038/039. Above use PROGEF Standard adaptor for butterfly valves SDR17.6 (d450-d500)
- Gasket: profile flange gasket EPDM No. 48 44 07, FKM No. 49 44 07

\* Material: PP-R

\*\*Material: PP-R, not suitable for butterfly valves



d (mm)	DN (mm)	FM	Code	Weight (kg)
50	40	IR	<b>727 798 210</b>	0.077
63	50	IR	<b>727 798 211</b>	0.116
75	65	IR	<b>727 798 787</b>	0.204
90	80	IR	<b>727 798 788</b>	0.273
110	100	IR	<b>727 798 789</b>	0.361
125	100	IR	<b>727 798 215</b>	0.386
140	125	IR	<b>727 798 216</b>	0.597
160	150	IR	<b>727 798 217</b>	0.669
180	150	IR	<b>727 798 218</b>	0.630
200	200	IR	<b>727 798 219</b>	1.268
225	200	IR	<b>727 798 220</b>	1.330
250	250		<b>727 798 221</b>	2.130
280	250		<b>727 798 222</b>	1.785
315	300		<b>727 798 223</b>	2.499
*	355	350	<b>727 798 224</b>	4.600
*	400	400	<b>727 798 225</b>	6.100
**	450	500	<b>727 798 226</b>	12.100
**	500	500	<b>727 798 227</b>	12.700

d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	Type	a°
60	88		44	62	32	12	3.0	A	
75	102		55	68	38	14	3.8	A	
89	122		63	80	43	16	4.5	A	
105	138		78	80	42	17	5.4	A	
125	158		94	80	42	18	6.6	A	
132	158	114	110	82	35	25	7.4	B	25.0
155	188	127	123	89	39	25	8.3	B	27.0
175	212	158	138	92	47	18	9.5	C	30.0
180	212		158	92	45	20	10.7	A	
232	268	203	174	100	42	24	11.9	C	30.0
235	268	210	196	100	42	24	13.4	C	30.0
285	320	252	221	120	45	25	14.8	C	25.0
291	320	265	247	120	45	35	16.6	C	30.0
335	370	300	278	150	50	50	18.7	C	21.0
*	373	430	346	310	155	70	21.1	C	21.0
*	427	482	395	350	162	70	23.7	C	21.0
**	514	585	400	400	211	105	26.7	C	4.0
**	530	585	442	442	217	105	29.7	C	1.5



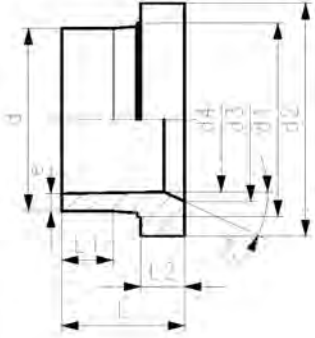
**PROGEF Standard Flange adaptor for butterfly valves SDR17.6 (PN6)**  
**Jointing face flat**

**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- Suitable for butterfly valve type 567/578 and 038/039

d	DN	Code	Weight	d1	d2	d3	d4	L	L1	L2	e	Type	a°
(mm)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
450	500	<b>727 798 951</b>	10.200	467	533	450	397	224	105	59	27.5	B	23
500	500	<b>727 798 952</b>	11.500	530	585	498	440	217	105	46	30.5	B	25

**Type B**



# Socket fusion fittings

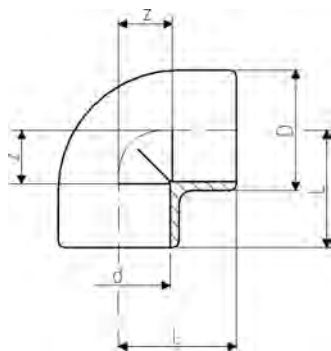
## Fittings



### PROGEF Standard elbow 90° (PN10)

**Model:**

- Material: PP-H
- \* use pipe SDR 7.4



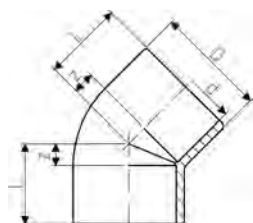
	d (mm)	Code	SP	Weight (kg)	L (mm)	D (mm)	z (mm)	closest inch (inch)
*	16	<b>727 100 105</b>	10	0.014	25	26	12	3/8
	20	<b>727 100 106</b>	10	0.020	28	31	14	1/2
	25	<b>727 100 107</b>	10	0.029	32	36	16	3/4
	32	<b>727 100 108</b>	10	0.044	38	44	20	1
	40	<b>727 100 109</b>	10	0.071	44	54	24	1 1/4
	50	<b>727 100 110</b>	10	0.121	51	66	28	1 1/2
	63	<b>727 100 111</b>	10	0.228	62	82	35	2
	75	<b>727 100 112</b>	5	0.301	76	93	45	2 1/2
	90	<b>727 100 113</b>	5	0.477	88	110	53	3
	110	<b>727 100 114</b>	4	0.869	106	134	65	4



### PROGEF Standard elbow 45° (PN10)

**Model:**

- Material: PP-H
- \* use pipe SDR 7.4



	d (mm)	Code	SP	Weight (kg)	L (mm)	D (mm)	z (mm)	closest inch (inch)
	16	<b>727 150 105</b>	10	0.009	20	23	7	3/8
	20	<b>727 150 106</b>	10	0.016	21	31	7	1/2
	25	<b>727 150 107</b>	10	0.024	24	36	8	3/4
	32	<b>727 150 108</b>	10	0.036	28	44	10	1
	40	<b>727 150 109</b>	5	0.059	33	53	13	1 1/4
	50	<b>727 150 110</b>	5	0.084	36	64	13	1 1/2
	63	<b>727 150 111</b>	10	0.183	43	82	16	2
	75	<b>727 150 112</b>	5	0.219	51	93	20	2 1/2
	90	<b>727 150 113</b>	5	0.336	58	114	23	3
	110	<b>727 150 114</b>	5	0.657	68	134	27	4



### PROGEF Standard tee 90° equal (PN10)

**Model:**

- Material: PP-H
- \* use pipe SDR 7.4

d (mm)	Code	Weight (kg)	L (mm)	D (mm)	z (mm)
16	727 200 105	0.020	25	26	12
20	727 200 106	0.027	28	31	14
25	727 200 107	0.039	32	36	16
32	727 200 108	0.057	38	44	20
40	727 200 109	0.095	44	54	24
50	727 200 110	0.161	51	66	28
63	727 200 111	0.286	62	82	35
75	727 200 112	0.390	76	93	45
90	727 200 113	0.727	88	114	53
110	727 200 114	1.062	106	134	65



### PROGEF Standard socket equal (PN10)

**Model:**

- Material: PP-H
- \* use pipe SDR 7.4

d (mm)	Code	SP	Weight (kg)	L (mm)	D (mm)	z (mm)
*16	727 910 105	10	0.010	33	26	7
20	727 910 106	10	0.013	35	31	7
25	727 910 107	10	0.019	39	36	7
32	727 910 108	10	0.026	43	44	7
40	727 910 109	10	0.041	48	54	8
50	727 910 110	10	0.072	54	66	8
63	727 910 111	5	0.118	62	82	8
75	727 910 112	10	0.147	70	93	8
90	727 910 113	10	0.238	81	112	11
110	727 910 114	5	0.425	96	134	14



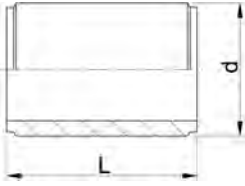
### PROGEF Standard stiffener

**Model:**

- Material: PP-H
- Used as support during d20 and d25 socket fusion jointing to prevent the pipe from collapsing during the heating and jointing process.

d (mm)	Code	Weight (kg/m)	L (mm)	d1 (mm)	d2 (mm)	e (mm)
20	727 900 006	0.001	10	14	18	1.9
25	727 900 007	0.004	11	18	23	2.3





### PROGEF Standard barrel nipple (PN10)

**Model:**

- Material: PP-H
- With fusion spigots on both sides
- For the shortest possible distance between fittings

\* In these two sizes, stiffeners Code No. 727 900 006 (20 x 1.9) and 727 900 007 (25 x 2.3), or pipe SDR 7.4 must be used with socket fusion joints.

	<b>d</b> (mm)	<b>Code</b>	<b>Weight</b> (kg)	<b>L</b> (mm)
	16	<b>727 910 905</b>	0.005	36
*	20	<b>727 910 906</b>	0.005	37
*	25	<b>727 910 907</b>	0.006	41
	32	<b>727 910 908</b>	0.010	45
	40	<b>727 910 909</b>	0.017	50
	50	<b>727 910 910</b>	0.029	55
	63	<b>727 910 911</b>	0.058	64
	75	<b>727 910 912</b>	0.095	76
	90	<b>727 910 913</b>	0.163	90
	110	<b>727 910 914</b>	0.305	108



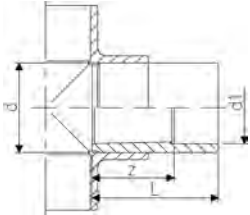
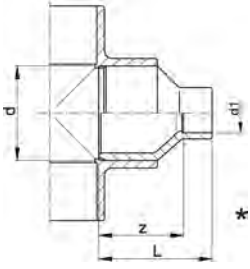
### PROGEF Standard reducer (PN10)

**Model:**

- Material: PP-H

**Note:**

\* Fusion spigot and socket



d (mm)	d1 (mm)	Code	SP	Weight (kg)	L (mm)	z (mm)
20	16	727 910 334	10	0.013	35	22
25	16	727 910 338	10	0.010	38	25
25	20	727 910 337	10	0.012	37	23
32	20	727 910 342	10	0.016	43	29
32	25	727 910 341	10	0.019	43	27
40	20	727 910 348	10	0.022	48	34
40	25	727 910 347	10	0.025	48	32
40	32	727 910 346	10	0.030	48	30
50	20	727 910 355	10	0.034	54	40
50	25	727 910 354	10	0.034	54	38
50	32	727 910 353	10	0.039	54	36
50	40	727 910 352	10	0.048	54	34
63	25	727 910 361	5	0.054	64	46
63	32	727 910 360	10	0.062	64	46
63	40	727 910 359	5	0.069	64	44
63	50	727 910 358	5	0.083	64	41
75	63	727 910 364	10	0.098	62	35
90	63	727 910 371	10	0.170	88	61
90	75	727 910 370	10	0.142	70	39
110	90	727 910 376	5	0.235	81	46

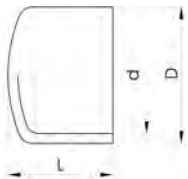


### PROGEF Standard end cap (PN10)

**Model:**

- Material: PP-H

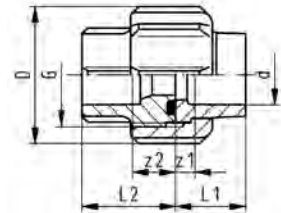
\* use pipe SDR 7.4



d (mm)	Code	SP	Weight (kg)	L (mm)	D (mm)
16	727 960 105	10	0.006	20	25
20	727 960 106	10	0.009	27	30
25	727 960 107	10	0.015	30	36
32	727 960 108	10	0.023	34	44
40	727 960 109	10	0.035	38	53
50	727 960 110	10	0.061	44	65
63	727 960 111	5	0.102	51	80
75	727 960 112	10	0.149	65	91
90	727 960 113	5	0.277	77	111
110	727 960 114	5	0.411	93	137

# Unions

## Unions for socket fusion

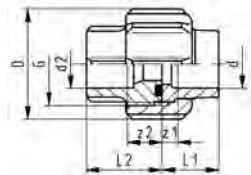


### PROGEF Standard union metric (PN10)

**Model:**

- Material: PP-H
- Fusion socket metric
- d75-110 with new thread geometry, now rated PN10 up to d110
- Jointing face: With O-ring groove
- **For the dimensions d75-110 please see instructions for the installation**

d (mm)	EPDM Code	FKM Code	SP	Weight (kg)	L1 (mm)	L2 (mm)	D (mm)	G (inch)	z	z1 (mm)	z2 (mm)
16	727 510 155	727 520 155	10	0.020	18	24	35	3/4	5	3	9
20	727 510 156	727 520 156	10	0.038	19	26	48	1	5	3	10
25	727 510 157	727 520 157	10	0.062	21	28	58	1 1/4	5	3	10
32	727 510 158	727 520 158	10	0.080	23	30	65	1 1/2	5	3	10
40	727 510 159	727 520 159	10	0.137	25	34	79	2	5	3	12
50	727 510 160	727 520 160	10	0.136	28	39	91	2 1/4	5	3	14
63	727 510 161	727 520 161	5	0.251	32	47	111	2 3/4	5	3	18
75	727 510 172	727 520 172	2	0.432	36	51	135	S107,5x3,6	5	3	18
90	727 510 173	727 520 173	2	0.625	42	55	158	S127,5x3,6	7	5	18
110	727 510 174	727 520 174	1	1.009	49	54	188	S152,5x3,6	7	5	10



### PROGEF Standard adapter union metric BS Inch (PN10)

**Model:**

- Material: PP-H
- Fusion socket metric
- Jointing face: With O-ring groove

d (mm)	d2 (inch)	Code	Weight (kg)	L1 (mm)	L2 (mm)	D (mm)	z1 (mm)	z2 (mm)	G (R/Rp BS draad) (inch)
20	3/4	727 513 006	0.041	19	26	48	5	12	1
25	3/4	727 513 007	0.061	21	28	58	5	12	1 1/4
32	1	727 513 008	0.079	23	30	65	5	12	1 1/2
40	1 1/4	727 513 009	0.108	25	34	79	5	14	2
50	1 1/2	727 513 010	0.133	28	39	91	5	16	2 1/4
63	2	727 513 011	0.252	32	47	111	5	20	2 3/4

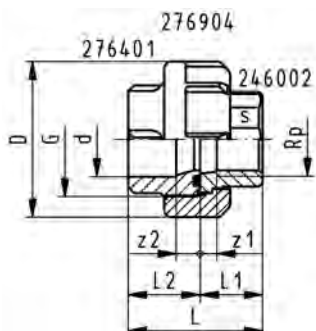
## Adaptor unions



### PROGEF Standard adaptor union PP-H/malleable iron galvanised Metric Rp (PN10)

#### Model:

- Union End: malleable iron with parallel female thread Rp
- Union bush: fusion socket PP-H metric
- Union Nut: PP-H
- Gasket: O-ring EPDM



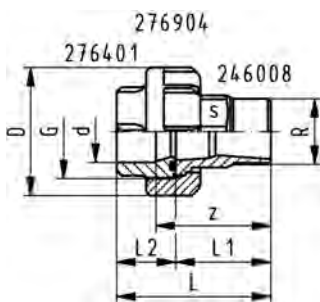
d (mm)	Rp (inch)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	D (mm)	G (inch)	s (mm)	z1 (mm)	z2 (mm)
20	½	727 530 306	1	0.073	48	22	26	43	1	25	9	10
25	¾	727 530 307	1	0.118	50	22	28	51	1 1/4	31	7	10
32	1	727 530 308	5	0.199	56	26	30	58	1 1/2	38	9	10
40	1 ¼	727 530 309	1	0.276	65	31	34	72	2	48	12	12
50	1 ½	727 530 310	1	0.317	72	33	39	83	2 1/4	54	14	14
63	2	727 530 311	1	0.579	82	35	47	100	2 3/4	67	11	18



### PROGEF Standard adaptor union PP-H/malleable iron galvanised Metric R (PN10)

#### Model:

- Gasket: O-ring EPDM
- Union End: Malleable iron with taper male thread R
- Union bush: fusion socket PP-H metric
- Union Nut: PP-H



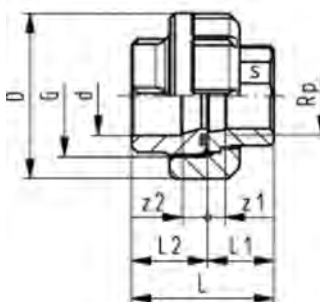
d (mm)	R (inch)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	D (mm)	G (inch)	s (mm)	z (mm)
20	½	727 530 806	1	0.112	66	40	26	43	1	25	50
25	¾	727 530 807	1	0.171	71	43	28	51	1 1/4	31	53
32	1	727 530 808	5	0.236	78	48	30	58	1 1/2	38	58
40	1 ¼	727 530 809	1	0.379	91	57	34	72	2	48	69
50	1 ½	727 530 810	1	0.512	98	59	39	83	2 1/4	54	73
63	2	727 530 811	1	0.763	109	62	47	100	2 3/4	67	80



### PROGEF Standard adaptor union PP-H/brass Metric Rp (PN10)

#### Model:

- Union Nut: PP-H
- Union bush: fusion socket PP-H metric
- Union End: Brass with parallel female thread Rp
- Gasket: O-ring EPDM



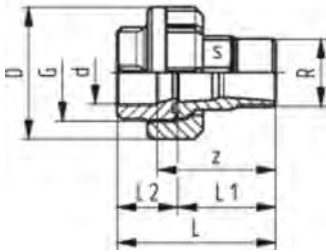
Rp (inch)	d (mm)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	D (mm)	s (mm)	G (inch)	z1 (mm)	z2 (mm)
½	20	727 550 506	10	0.091	48	22	26	48	25	1	7	10
¾	25	727 550 507	5	0.152	53	25	28	58	30	1 1/4	9	10
1	32	727 550 508	5	0.194	57	27	30	65	36	1 1/2	8	10
1 ¼	40	727 550 509	1	0.317	65	31	34	79	46	2	10	12
1 ½	50	727 550 510	2	0.436	74	35	39	91	55	2 1/4	13	14
2	63	727 550 511	5	0.774	87	40	47	105	65	2 3/4	14	18



### PROGEF Standard adaptor union PP-H/brass Metric R (PN10)

#### Model:

- Union End: Brass with taper male thread R
- Gasket: O-ring EPDM
- Union Nut: PP-H
- Union bush: fusion socket PP-H metric



d (mm)	R (inch)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	D (mm)	s (mm)	G (inch)	z (mm)
20	1/2	<b>727 550 906</b>	10	0.130	63	37	26	48	25	1	47
25	1/2	<b>727 550 957</b>	5	0.203	65	37	28	58	30	1 1/4	47
25	3/4	<b>727 550 907</b>	5	0.203	70	42	28	58	30	1 1/4	52
25	1	<b>727 550 967</b>	5	0.318	99	46	30	58	30	1 1/4	81
32	1/2	<b>727 550 958</b>	5	0.298	67	37	30	65	36	1 1/2	47
32	3/4	<b>727 550 968</b>	5	0.298	72	42	30	65	36	1 1/2	52
32	1	<b>727 550 908</b>	5	0.389	76	46	30	65	36	1 1/2	56
40	1 1/4	<b>727 550 909</b>	5	0.493	86	52	34	79	46	2	64
50	1 1/2	<b>727 550 910</b>	2	0.650	95	56	39	91	55	2 1/4	70
63	2	<b>727 550 911</b>	8	1.123	114	67	47	105	65	2 3/4	85

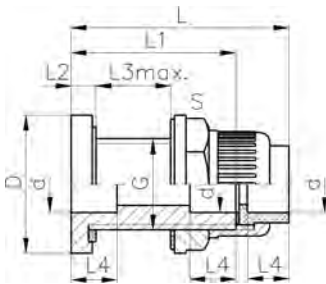
## Tank adaptors



### PROGEF Standard tank adaptor

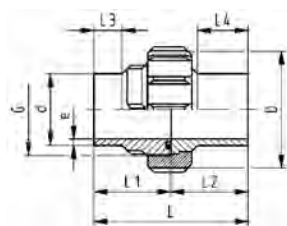
#### Model:

- End connection: union with fusion socket metric
- Gasket: flat gasket EPDM
- Material: PP-H



d (mm)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	L3 max (mm)	L4 (mm)	D (mm)	s (mm)	G (inch)	Diameter of bore in tank side (mm)
20	<b>167 050 226</b>	0	0.098	89	67	11	30	16	56	38	1	35
25	<b>167 050 227</b>	0	0.153	96	72	12	32	18	65	47	1 1/4	43
32	<b>167 050 228</b>	0	0.185	100	75	12	33	20	70	53	1 1/2	49
40	<b>167 050 229</b>	0	0.292	106	78	12	32	22	95	75	2	61
50	<b>167 050 230</b>	0	0.308	112	82	13	32	25	95	75	2 1/4	67
63	<b>167 050 231</b>	0	0.493	122	87	13	33	29	115	101	2 3/4	83

## Unions for butt fusion



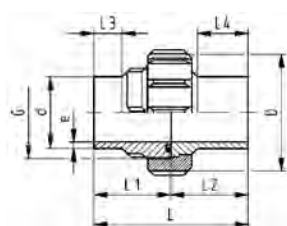
### PROGEF Standard union S5/SDR11 (PN10)

#### Model:

- Material: PP-H
- With butt fusion ends
- Conventional butt fusion and (IR Plus®) compatible
- Gasket: O-ring EPDM
- **For the dimensions d75-110 please see instructions for the installation**

d (mm)	FM	EPDM Code	SP	FKM Code	SP	Weight (kg)
20	IR	727 518 506	10	727 528 506	10	0.047
25	IR	727 518 507	10	727 528 507	10	0.072
32	IR	727 518 508	10	727 528 508	10	0.100
40	IR	727 518 509	5	727 528 509	5	0.145
50	IR	727 518 510	5	727 528 510	5	0.190
63	IR	727 518 511	1	727 528 511	10	0.332
75	IR	727 518 512	2	727 528 512	2	0.520
90	IR	727 518 513	2	727 528 513	2	0.539
110	IR	727 518 514	1	727 528 514	1	0.758

L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	D (mm)	G (inch)	e (mm)
107	54.0	53.0	13	26	48	1	1.9
113	57.0	56.0	12	26	58	1 1/4	2.3
119	60.0	59.0	14	26	65	1 1/2	2.9
126	63.0	63.0	16	26	79	2	3.7
131	65.5	65.5	19	26	91	2 1/4	4.6
137	69.0	68.0	20	26	111	2 3/4	5.8
131	66.0	65.5	22	24	135	S107,5x3,6	6.8
131	65.5	65.5	22	24	135	S107,5x3,6	8.2
131	65.5	65.5	22	25	158	S127,5x3,6	10.0



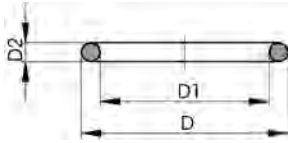
### PROGEF Standard union S8.3/SDR17.6 (PN6)

#### Model:

- Material: PP-H
- Jointing face: With O-ring groove
- **For the dimensions d75-110 please see instructions for the installation**
- With butt fusion ends
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Conventional butt-welding according to DVS 2207

d (mm)	FM	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
75	IR	727 518 412	2	0.479	727 528 412	2	0.476
90	IR	727 518 413	2	0.483	727 528 413	0	0.483
110	IR	727 518 414	12	0.663	727 528 414	0	0.664

d (mm)	L (mm)	L1 (mm)	L2 (mm)	D (mm)	G (inch)	e (mm)
75	132	66	66	135	S107,5x3,6	4.3
90	131	66	66	135	S107,5x3,6	5.1
110	131	66	66	158	S127,5x3,6	6.3



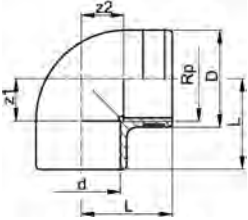
## O-Ring gasket EPDM/FKM

### Model:

- For ecoFIT, PROGEF Std/Plus, SYGEF Std unions and adapter unions for butt fusion
- Hardness approx. 65° Shore
- EPDM minimum temperature -40°C
- FKM minimum temperature -15°C

d (mm)	DN (mm)	EPDM Code	Weight (kg)	FKM Code	D (mm)	D1 (mm)	D2 (mm)
20	15	<b>748 410 006</b>	0.002	<b>749 410 006</b>	27.28	20.22	3.53
25	20	<b>748 410 007</b>	0.002	<b>749 410 007</b>	35.23	28.17	3.53
32	25	<b>748 410 008</b>	0.003	<b>749 410 008</b>	39.99	32.93	3.53
40	32	<b>748 410 009</b>	0.003	<b>749 410 009</b>	51.33	40.65	5.34
50	40	<b>748 410 010</b>	0.004	<b>749 410 010</b>	57.68	46.99	5.34
63	50	<b>748 410 011</b>	0.005	<b>749 410 011</b>	70.37	56.69	5.34
75	65	<b>748 410 013</b>	0.006	<b>749 410 013</b>	79.90	69.22	5.34
90	80	<b>748 410 014</b>	0.007	<b>749 410 014</b>	92.60	81.92	5.34
110	100	<b>748 410 015</b>	0.008	<b>749 410 015</b>	111.68	101.00	5.34

# Adaptor fittings for socket fusion

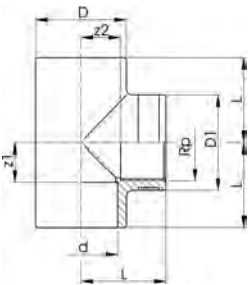


## PROGEF Standard elbow 90° metric Rp (PN10)

### Model:

- Material: PP-H
- With fusion socket metric and parallel female thread Rp, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d (mm)	Rp (inch)	Code	SP	GP	Weight (lb)	L (mm)	D (mm)	z1 (mm)	z2 (mm)
20	½	<b>727 100 206</b>	10	120	0.049	28	30	14	14
25	¾	<b>727 100 207</b>	10	80	0.077	32	35	16	16
32	1	<b>727 100 208</b>	10	50	0.126	38	44	20	20
40	1 ¼	<b>727 100 209</b>	10	60	0.192	44	54	24	24

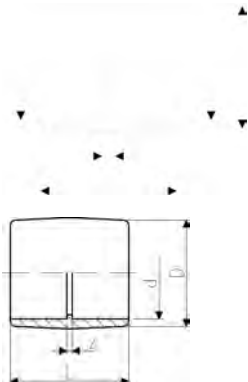


## PROGEF Standard tee 90° metric Rp (PN10)

### Model:

- Material: PP-H
- Line, with fusion socket metric
- Branch, with BSP parallel female thread Rp, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d (mm)	Rp (inch)	Code	SP	GP	Weight (kg)	L (mm)	D (mm)	D1 (mm)	z1 (mm)	z2 (mm)
20	½	<b>727 200 206</b>	10	90	0.030	28	31	30	14	14
25	¾	<b>727 200 207</b>	10	50	0.042	32	36	35	16	16
32	1	<b>727 200 208</b>	10	30	0.071	38	44	45	20	20
40	1 ¼	<b>727 200 209</b>	10	30	0.107	44	54	55	24	24



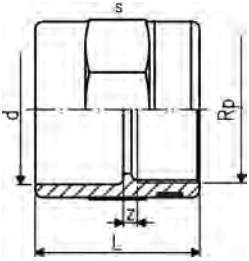
## PROGEF Standard adaptor socket (PN10) Metric Inch BS

### Model:

- Material: PP-H
- With fusion socket metric and BS Inch (ASTM)

d (mm)	d1 (inch)	Code	SP	Weight (kg)	L (mm)	d2 (mm)	z (mm)
20	½	<b>727 913 006</b>	0	0.014	35	31	7
25	¾	<b>727 913 007</b>	0	0.019	39	36	7
32	1	<b>727 913 008</b>	0	0.025	43	44	7
40	1 ¼	<b>727 913 009</b>	0	0.040	48	54	8
50	1 ½	<b>727 913 010</b>	0	0.074	54	66	8
63	2	<b>727 913 011</b>	0	0.130	62	82	8
90	3	<b>727 913 013</b>	0	0.234	81	112	10
110	4	<b>727 913 014</b>	0	0.389	96	134	12



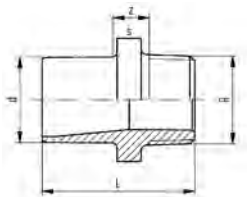


### PROGEF Standard adaptor socket metric Rp (PN10)

**Model:**

- Material: PP-H
- With fusion socket metric and parallel female thread Rp, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d (mm)	Rp (inch)	Code	SP	Weight (kg)	L (mm)	s (mm)	z (mm)
20	¾	<b>727 910 205</b>	10	0.017	35	32	7
20	½	<b>727 910 206</b>	10	0.018	40	32	7
25	¾	<b>727 910 207</b>	10	0.025	42	36	7
32	1	<b>727 910 208</b>	10	0.040	48	46	7
40	1 ¼	<b>727 910 209</b>	10	0.064	53	55	7
50	1 ½	<b>727 910 210</b>	10	0.089	54	65	9
63	2	<b>727 910 211</b>	5	0.144	62	80	9

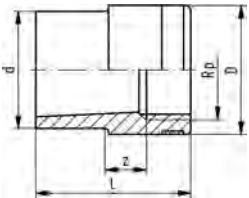


### PROGEF Standard adaptor nipple metric R (PN10)

**Model:**

- Material: PP-H
- With fusion spigot metric and R tapered male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d (mm)	R (inch)	Code	SP	Weight (kg)	L (mm)	s (mm)	z (mm)
16	¾	<b>727 910 505</b>	10	0.008	37	27	13
20	½	<b>727 910 506</b>	10	0.011	42	32	13
25	¾	<b>727 910 507</b>	10	0.015	46	36	13
32	1	<b>727 910 508</b>	10	0.027	52	46	12
40	1 ¼	<b>727 910 509</b>	10	0.040	56	55	14
50	1 ½	<b>727 910 510</b>	10	0.061	60	65	15
63	2	<b>727 910 511</b>	5	0.100	69	80	16

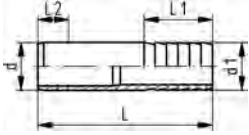


### PROGEF Standard reducing bush metric Rp (PN10)

**Model:**

- Material: PP-H
- With fusion spigot metric and BSP parallel female thread, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d (mm)	Rp (inch)	Code	SP	Weight (kg)	L (mm)	z (mm)
20	¾	<b>727 910 433</b>	10	0.011	36	7
20	¾	<b>727 910 434</b>	10	0.011	36	7
25	½	<b>727 910 437</b>	10	0.015	45	6
32	¾	<b>727 910 441</b>	10	0.022	47	8
40	1	<b>727 910 446</b>	10	0.039	53	9
50	1 ¼	<b>727 910 452</b>	10	0.061	55	10



## PROGEF Standard hose connector metric (PN10)

### Model:

- Material: PP-H
- With socket fusion spigot metric and parallel hose connection

d (mm)	d1 (mm)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)
20	20	<b>727 960 406</b>	10	0.008	78	27	14
25	25	<b>727 960 407</b>	10	0.014	91	36	16
32	32	<b>727 960 408</b>	10	0.025	100	36	18
40	40	<b>727 960 409</b>	10	0.038	104	42	20
50	50	<b>727 960 410</b>	10	0.061	90	48	23
63	60	<b>727 960 411</b>	5	0.084	100	50	27

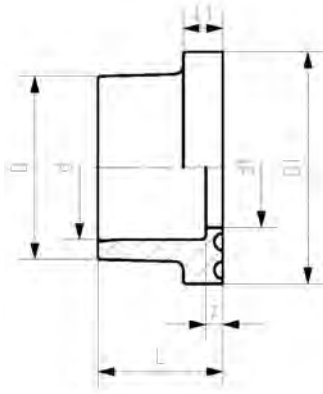
# Socket fusion flange adaptor



## PROGEF Standard flange adaptor (PN10) Jointing face flat/serrated

### Model:

- Material: PP-H
- Connection: according to EN ISO 15494-1
- Counterpart: flange adaptor flat/serrated or with O-ring groove
- Gasket: profile flange gasket EPDM No. 48 44 07, FKM No. 49 44 07
- Flanges: PP - steel, No. 27 70 02, PP-V, No. 27 70 04



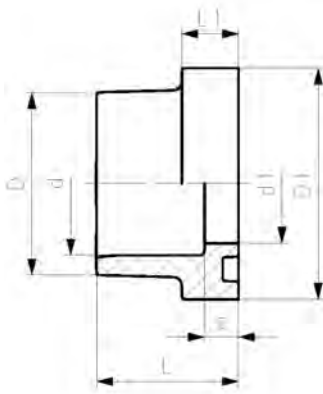
d (mm)	DN (mm)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	D (mm)	D1 (mm)	d1 (mm)	z (mm)
20	15	<b>727 790 206</b>	10	0.011	19	7	27	45	16	5
25	20	<b>727 790 207</b>	10	0.022	21	9	33	58	21	5
32	25	<b>727 790 208</b>	10	0.033	23	10	41	68	28	5
40	32	<b>727 790 209</b>	10	0.046	25	11	50	78	36	5
50	40	<b>727 790 210</b>	5	0.060	28	12	61	88	45	5
63	50	<b>727 790 211</b>	5	0.090	32	14	76	102	57	5
75	65	<b>727 790 212</b>	10	0.155	36	16	90	122	69	5
90	80	<b>727 790 213</b>	10	0.204	42	17	108	138	84	7
110	100	<b>727 790 214</b>	10	0.286	48	18	131	158	100	7



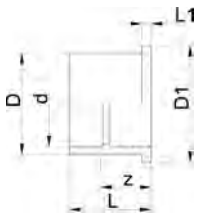
## PROGEF Standard flange adaptor (PN10) Jointing face with o-ring groove

### Model:

- Material: PP-H
- Counterpart: flange adaptor flat/serrated, No. 27 79 02
- Flanges: PP - steel, No. 27 70 02 (mm) or No. 27 70 12 (ANSI), PP-V, No. 27 70 04
- Gasket: O-ring EPDM No. 48 41 01, FKM No. 49 41 01



d (mm)	DN (mm)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	d1 (mm)	L (mm)	L1 (mm)	z (mm)
20	15	<b>727 810 106</b>	10	0.007	27	34	16	22	9	8
25	20	<b>727 810 107</b>	10	0.012	33	41	21	24	10	8
32	25	<b>727 810 108</b>	10	0.018	41	50	28	26	10	8
40	32	<b>727 810 109</b>	10	0.027	50	61	36	30	13	10
50	40	<b>727 810 110</b>	10	0.043	61	73	45	33	13	10
63	50	<b>727 810 111</b>	5	0.070	76	90	57	37	14	10
75	65	<b>727 810 112</b>	10	0.105	90	106	69	40	15	10
90	80	<b>727 810 113</b>	10	0.170	108	125	84	47	16	12
110	100	<b>727 810 114</b>	2	0.263	131	150	100	55	18	13



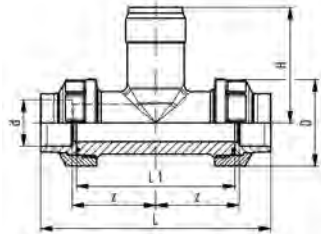
**PROGEF Standard outlet flange adaptor (PN6)**  
**Joining face flat**

**Model:**

- Material: PP-H
- With fusion socket metric
- Suitable for wafer check valves Type 369
- To be installed on the outlet side of the valve
- Use flanges PP-V 27 70 04

d	DN	Code	SP	Weight	L	L1	D	D1	z
(mm)	(mm)			(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
40	32	<b>727 800 009</b>	0	0.068	55	11	50	78	35
50	40	<b>727 800 010</b>	0	0.087	61	12	61	88	38
63	50	<b>727 800 011</b>	0	0.136	69	14	76	102	41
75	65	<b>727 800 012</b>	0	0.214	79	16	90	122	49
90	80	<b>727 800 013</b>	0	0.350	100	17	107	138	65
110	100	<b>727 800 014</b>	0	0.468	105	18	130	158	62

# Installation fittings



## PROGEF Standard installation fitting type 310 (PN10) for socket systems metric

### Model:

- Material: PP-H
- Threaded outlet 1 ¼" NPSM
- Union end with fusion socket PP-H

### Range of use:

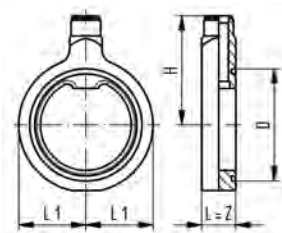
- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- Compatible Signet pH/ORP sensors: type 2724, 2725, 2726, 2734, 2736, 2735

### Attention:

- sensor length depends on installation fitting

d (mm)	DN (mm)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	727 310 006	1	0.136	727 310 036	1	0.136
25	20	727 310 007	1	0.190	727 310 037	1	0.190
32	25	727 310 008	1	0.250	727 310 038	1	0.250
40	32	727 310 009	1	0.356	727 310 039	1	0.356
50	40	727 310 010	1	0.510	727 310 040	1	0.510
63	50	727 310 011	1	0.800	727 310 041	1	0.645

L (mm)	L1 (mm)	D (mm)	H (mm)	z (mm)	Sensor Type
128	90	48	76	50	flow X0, pH XX
142	100	58	78	55	flow X0, pH XX
156	110	65	81	60	flow X0, pH XX
160	110	79	85	60	flow X0, pH XX
176	120	91	89	65	flow X0, pH XX
194	130	105	95	70	flow X0, pH XX



## PROGEF Standard installation fitting type 311 (PN10)

### Range of use:

- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512

### Attention:

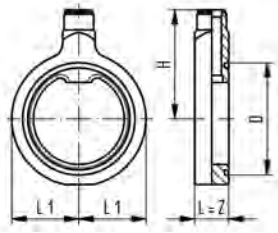
- sensor length depends on installation fitting

### Model:

- Material: PP-H
- Threaded outlet 1 ¼" NPSM
- Suitable for backing flanges metric and inch
- Suitable for SDR 11 - SDR 17.6
- Delivered with profile O-ring

d (inch)	d (mm)	DN (mm)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
2 ½	75	65	727 311 012	0	0.430	727 311 042	0	0.460
3	90	80	727 311 013	0	0.528	727 311 043	0	0.542
4	110	100	727 311 014	0	0.652	727 311 044	0	0.668
	125	100	727 311 015	0	0.565	727 311 045	0	0.595
5	140	125	727 311 016	0	0.816	727 311 046	1	0.842
6	160	150	727 311 017	1	0.983	727 311 047	0	0.984
	180	150	727 311 018	0	0.828	727 311 048	0	0.868
8	200	200	727 311 019	0	1.524	727 311 049	0	1.578
8	225	200	727 311 020	0	1.278	727 311 050	0	1.332
10	250	250	727 311 021	0	2.133	727 311 051	0	2.209
10	280	250	727 311 022	0	1.760	727 311 052	0	1.836
12	315	300	727 311 023	0	2.409	727 311 053	0	2.495

table continued on the next page



d (inch)	d (mm)	D (mm)	L (mm)	L1 (mm)	H (mm)	Sensor Type
2 1/2	75	88	48	61	133	flow X1
3	90	102	48	69	140	flow X1
4	110	132	48	79	149	flow X1
	125	132	48	79	144	flow X1
5	140	157	48	94	149	flow X1
6	160	182	48	106	156	flow X1
	180	182	48	106	163	flow X1
8	200	236	48	134	170	flow X1
8	225	236	48	134	178	flow X1
10	250	289	48	160	263	flow X2
10	280	289	48	160	273	flow X2
12	315	329	48	185	285	flow X2



### PROGEF Standard installation fitting type 312 metric

#### Model:

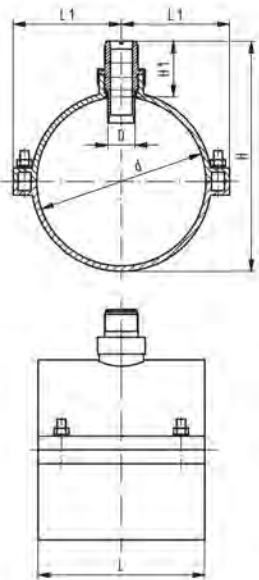
- Material: PP-H
- Threaded outlet 1 1/4" NPSM
- Top saddle with EPDM gasket
- Stainless steel bolts and nuts

#### Range of use:

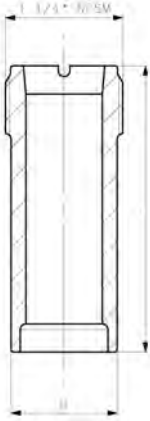
- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- suitable for all plastic pipes

#### Attention:

- sensor length depends on installation fitting
- working temperature max. +40°C (water)



d (mm)	PN (bar)	DN (mm)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	H (mm)	H1 (mm)	D (mm)	Sensor Type
75	8	65	<b>727 312 072</b>	1	0.488	78	62	172	88	34	flow X1
90	8	80	<b>727 312 073</b>	1	0.514	86	69	186	87	34	flow X1
110	8	100	<b>727 312 074</b>	1	0.602	98	79	206	86	34	flow X1
125	8	100	<b>727 312 075</b>	1	0.667	101	85	212	78	34	flow X1
140	6	125	<b>727 312 076</b>	1	0.949	114	104	227	75	34	flow X1
160	6	150	<b>727 312 077</b>	1	0.985	114	114	243	72	34	flow X1
180	6	150	<b>727 312 078</b>	1	2.118	168	134	348	144	34	flow X2
200	6	200	<b>727 312 079</b>	1	2.045	168	132	357	142	34	flow X2
225	5	200	<b>727 312 080</b>	1	2.211	174	146	375	136	34	flow X2
250	5	250	<b>727 312 081</b>	1	2.616	179	159	397	131	34	flow X2
280	5	250	<b>727 312 082</b>	1	3.583	179	167	426	127	34	flow X2
315	5	300	<b>727 312 083</b>	1	4.311	248	202	450	120	34	flow X2



### PROGEF Standard installation fitting type 314

**Model:**

- Material: PP-H
- Threaded outlet 1 ¼" NPSM
- For conventional hot gas back welding according to DVS 2207 part 3

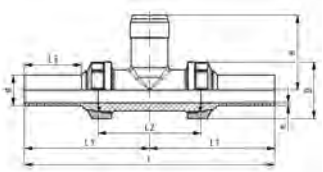
**Attention:**

- pH sensors can also be used for dimensions above d180/DN150 and below d75/DN65 with 727 314 000 The length might have to be adjusted (sensor has to touch the medium)
- only for pressureless or low pressure application
- pressure rate depends on quality of hot gas back welding
- please consult the instruction manual
- Installation by trained and certified welders only
- sensor length depends on installation fitting

**Range of use:**

- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- Compatible Signet pH/ORP sensors: type 2724, 2725, 2726, 2734, 2736, 2735

DN	PN*	d	Code	SP	Weight	L	D	Sensor Type
	(bar)	(mm)			(kg)	(mm)	(mm)	
65 - 150	-	75 - 180	<b>727 314 000</b>	1	0.050	68	38	flow X0, pH XX
200 - 350	-	200 - 355	<b>727 314 001</b>	1	0.057	102	38	flow X1
350 - 600	-	400 - 630	<b>727 314 002</b>	1	0.885	178	38	flow X2



### PROGEF Standard installation fitting type 318 (PN10) S5/SDR11 for butt fusion systems metric

**Model:**

- Material: PP-H
- Threaded outlet 1 ¼" NPSM
- Union end with butt fusion spigot PP-H

**Range of use:**

- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- Compatible Signet pH/ORP sensors: type 2724, 2725, 2726, 2734, 2736, 2735

**Attention:**

- sensor length depends on installation fitting

d	DN	FM	EPDM Code	SP	Weight	FKM Code	SP	Weight
(mm)	(mm)				(kg)			(kg)
20	15	IR	<b>727 318 006</b>	1	0.151	<b>727 318 036</b>	1	0.136
25	20	IR	<b>727 318 007</b>	1	0.190	<b>727 318 037</b>	1	0.208
32	25	IR	<b>727 318 008</b>	1	0.250	<b>727 318 038</b>	1	0.250
40	32	IR	<b>727 318 009</b>	1	0.356	<b>727 318 039</b>	1	0.358
50	40	IR	<b>727 318 010</b>	1	0.510	<b>727 318 040</b>	1	0.510
63	50	IR	<b>727 318 011</b>	1	0.800	<b>727 318 041</b>	1	0.800

d	L	L1	L2	L3	D	H	e	Sensor Type
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
20	224	112	90	52	48	76	2	flow X0, pH XX
25	242	121	100	53	58	78	2	flow X0, pH XX
32	256	128	110	55	65	81	3	flow X0, pH XX
40	272	136	110	60	79	85	4	flow X0, pH XX
50	294	147	120	66	91	89	5	flow X0, pH XX
63	316	158	130	70	105	95	6	flow X0, pH XX

# Flanges and gaskets

## Butt fusion flanges



### Backing flange PP-V metric For butt fusion systems metric

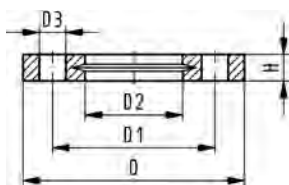
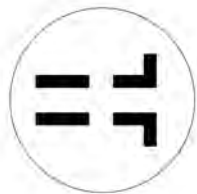
**Model:**

- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

<sup>1)</sup> Suitable for socket- and butt fusion systems

<sup>2)</sup> Combined version, metric-ANSI



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
1	20	15	16	<b>727 700 406</b>	0.093	95	65	28	14	16	4	M12
1	25	20	16	<b>727 700 407</b>	0.120	105	75	34	14	17	4	M12
1	32	25	16	<b>727 700 408</b>	0.151	115	85	42	14	18	4	M12
1	40	32	16	<b>727 700 409</b>	0.244	140	100	51	18	20	4	M16
1	50	40	16	<b>727 700 410</b>	0.297	150	110	62	18	22	4	M16
1	63	50	16	<b>727 700 411</b>	0.362	165	125	78	18	24	4	M16
1	75	65	16	<b>727 700 412</b>	0.487	185	145	92	18	26	4	M16
	90	80	16	<b>727 700 513</b>	0.544	200	160	108	18	27	8	M16
	110	100	16	<b>727 700 514</b>	0.643	220	180	128	18	28	8	M16
	125	100	16	<b>727 700 515</b>	0.635	220	180	135	18	28	8	M16
	140	125	16	<b>727 700 516</b>	0.842	250	210	158	18	30	8	M16
2	160	150	16	<b>727 700 517</b>	1.200	285	240	178	22	32	8	M20
	180	150	16	<b>727 700 518</b>	1.200	285	240	188	22	32	8	M20
2	200	200	16	<b>727 700 519</b>	1.400	340	295	235	22	34	8	M20
2	225	200	16	<b>727 700 520</b>	1.400	340	295	238	22	34	8	M20
	250	250	10	<b>727 700 521</b>	2.052	395	350	288	22	38	12	M20
	280	250	10	<b>727 700 522</b>	1.700	395	350	294	22	38	12	M20
	315	300	10	<b>727 700 523</b>	2.400	445	400	338	22	42	12	M20
	355	350	10	<b>727 700 524</b>	4.440	515	460	376	22	46	16	M20
	400	400	10	<b>727 700 525</b>	5.624	574	515	430	26	50	16	M24



### Backing flange PP-V Inch ANSI For butt fusion systems metric

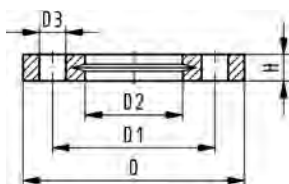
**Model:**

- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- Special flange adapter ANSI for d25 - d50 and d90 required

AL: number of holes

<sup>1)</sup> Suitable for socket- and butt fusion systems

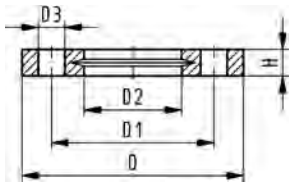
<sup>2)</sup> Combined version, metric-ANSI



	Size (inch)	d (mm)	DN (mm)	PN (bar)	Code	SP	Weight (kg)
1	½	20	15	16	<b>727 701 406</b>	56	0.091
1	¾	25	20	16	<b>727 701 407</b>	38	0.120
1	1	32	25	16	<b>727 701 408</b>	80	0.147
1	1 ¼	40	32	16	<b>727 701 409</b>	40	0.246
1	1 ½	50	40	16	<b>727 701 410</b>	30	0.299
1	2	63	50	16	<b>727 701 411</b>	25	0.361
1	2 ½	75	65	16	<b>727 701 412</b>	19	0.492
	3	90	80	16	<b>727 701 513</b>	14	0.607
	4	110	100	16	<b>727 701 514</b>	12	0.736
2	6	160	150	16	<b>727 700 517</b>	220	1.200

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Size (inch)	d (mm)	DN (mm)	PN (bar)	Code	SP	Weight (kg)
2	8	200	200	16	<b>727 700 519</b>	154 1.400
2	8	225	200	16	<b>727 700 520</b>	154 1.400
	10	250	250	10	<b>727 701 521</b>	108 2.241
	10	280	250	10	<b>727 701 522</b>	92 2.173
	12	315	300	10	<b>727 701 523</b>	56 3.627

Size (inch)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
1	½	95	60	28	16	4	M12
1	¾	105	70	34	16	4	M12
1	1	115	79	42	16	4	M12
1	1 ¼	140	89	51	16	4	M16
1	1 ½	150	98	62	16	4	M16
1	2	165	121	78	19	4	M16
1	2 ½	185	140	92	19	4	M16
	3	200	152	108	19	4	M16
	4	229	190	128	19	8	M16
2	6	285	240	178	22	8	M20
2	8	340	295	235	22	8	M20
2	8	340	295	238	22	8	M20
	10	406	362	288	26	12	M20
	10	406	362	294	26	12	M20
	12	483	432	338	26	12	M20



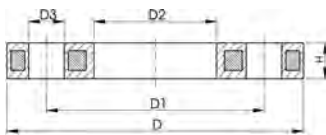
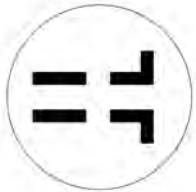
### Backing flange PP-Steel metric For butt fusion systems metric

#### Model:

- Material: PP (30% glass-fibre reinforced) with steel ring
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- Bolt circle PN 10

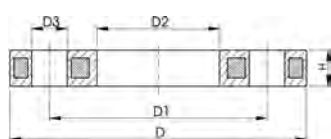
AL: number of holes

- 1) Suitable for socket -and butt fusion systems
- 2) Combined version, bolt circle metric - ANSI



d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC	
1	20	15	16	<b>727 700 206</b>	0.216	95	65	28	14	12	4	M12
1	25	20	16	<b>727 700 207</b>	0.279	105	75	34	14	12	4	M12
1	32	25	16	<b>727 700 208</b>	0.429	115	85	42	14	16	4	M12
1	40	32	16	<b>727 700 209</b>	0.621	140	100	51	18	16	4	M16
1	50	40	16	<b>727 700 210</b>	0.722	150	110	62	18	20	4	M16
1	63	50	16	<b>727 700 211</b>	0.900	165	125	78	18	20	4	M16
1	75	65	16	<b>727 700 212</b>	1.110	185	145	92	18	20	4	M16
	90	80	16	<b>727 700 313</b>	1.390	200	160	108	18	20	8	M16
	110	100	16	<b>727 700 314</b>	1.407	220	180	128	18	20	8	M16
	125	100	16	<b>727 700 315</b>	1.408	220	180	135	18	20	8	M16
	140	125	16	<b>727 700 716</b>	2.318	250	210	158	18	26	8	M16
2	160	150	16	<b>727 700 717</b>	3.491	285	241	178	22	26	8	M20
	180	150	16	<b>727 700 718</b>	3.108	285	241	188	22	26	8	M20
2	200	200	16	<b>727 700 719</b>	5.600	340	297	235	22	29	8	M20
2	225	200	16	<b>727 700 720</b>	5.533	340	297	238	22	29	8	M20
	250	250	16	<b>727 700 721</b>	6.632	395	350	288	22	32	12	M20
	280	250	16	<b>727 700 722</b>	6.573	395	350	294	22	32	12	M20
	315	300	16	<b>727 700 723</b>	7.903	445	400	338	22	36	12	M20
	355	350	16	<b>727 700 724</b>	14.587	515	460	376	23	42	16	M20
	400	400	16	<b>727 700 725</b>	20.034	574	515	430	26	42	16	M24

# Backing flanges PP-Steel



## Backing flange PP-Steel metric For socket systems metric and BS

### Model:

- Bolt circle PN 10
- PP-GF (30% glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

AL: number of holes

<sup>1)</sup> Suitable for socket -and butt fusion systems

<sup>2)</sup> Not for BS

<sup>3)</sup> Connecting dimension: ISO 2536. bolt circle acc. DN125. suitable for flange adaptor d125/ DN100

<sup>4)</sup> Connecting dimension: ISO 2536. bolt circle acc. DN225. suitable for flange adaptor d250/ DN250

<sup>5)</sup> Combined version, bolt circle metric - ANSI

	d	DN	PN	Code	Weight	D1	D3	D2	D	H	AL
	(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	
1	20	15	16	727 700 206	0.216	65	14	28	95	12	4
1	25	20	16	727 700 207	0.279	75	14	34	105	12	4
1	32	25	16	727 700 208	0.429	85	14	42	115	16	4
1	40	32	16	727 700 209	0.621	100	18	51	140	16	4
1	50	40	16	727 700 210	0.722	110	18	62	150	20	4
1	63	50	16	727 700 211	0.900	125	18	78	165	20	4
1	75	65	16	727 700 212	1.110	145	18	92	185	20	4
	90	80	16	727 700 213	1.369	160	18	110	200	20	8
2	110	100	16	727 700 214	1.522	180	18	133	220	20	8
	125	125	16	727 700 815	2.475	210	18	150	250	26	8
	140	125	16	727 700 816	2.033	210	18	167	250	26	8
2/5	160	150	16	727 700 817	3.167	241	22	190	285	26	8
5	200	200	16	727 700 819	6.143	297	22	226	340	29	8
5	225	200	16	727 700 820	4.448	297	22	250	340	29	8
	250	250	16	727 700 821	7.179	350	22	277	395	32	12
4	250	225	16	727 700 031	8.340	325	22	277	395	32	8
	280	250	16	727 700 822	5.547	350	22	310	395	32	12
	315	300	16	727 700 823	6.980	400	22	348	445	36	12
	355	350	16	727 700 824	12.465	460	23	388	515	42	16
	400	400	16	727 700 825	17.607	515	26	442	574	42	16

## Backing flange PP-Steel Inch/ANSI For butt fusion systems metric

### Model:

- Material: PP (30% glass-fibre reinforced) with steel ring
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- Bolt circle class 150
- Special flange adapter ANSI for d25 - d50 and d90 required

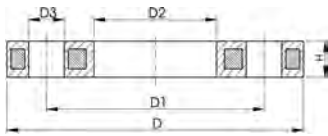
<sup>1)</sup> Suitable for socket -and butt fusion systems

<sup>2)</sup> Combined version, bolt circle metric - ANSI

AL: number of holes

	d	d	DN	PN	Code	Weight	D	D1	D2	D3	H	AL	SC
	(inch)	(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)		
1	½	20	15	16	727 701 206	0.213	95	60	28	16	12	4	M12
1	¾	25	20	16	727 701 207	0.260	105	70	34	16	12	4	M12
1	1	32	25	16	727 701 208	0.416	115	79	42	16	16	4	M12
1	1 ¼	40	32	16	727 701 209	0.730	140	89	51	16	16	4	M16
1	1 ½	50	40	16	727 701 210	0.809	150	98	62	16	18	4	M16
1	2	63	50	16	727 701 211	0.866	165	121	78	19	18	4	M16
1	2 ½	75	65	16	727 701 212	1.117	185	140	92	19	18	4	M16
	3	90	80	16	727 701 313	1.499	200	152	108	19	20	4	M16

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	d (inch)	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
	4	110	100	16	<b>727 701 314</b>	1.739	229	190	128	19	20	8	M16
2	6	160	150	16	<b>727 700 717</b>	3.491	285	241	178	22	26	8	M20
2	8	200	200	16	<b>727 700 719</b>	5.600	340	297	235	22	29	8	M20
2	8	225	200	16	<b>727 700 720</b>	5.533	340	297	238	22	29	8	M20
	10	250/280	250	10	<b>727 701 321</b>	6.000	406	362	293	25	30	12	M24
	12	315	300	10	<b>727 701 322</b>	11.800	483	432	338	25	34	12	M24
	14	355	350	10	<b>727 701 323</b>	17.900	540	476	376	29	42	12	M27
	16	400	400	10	<b>727 701 324</b>	24.500	597	539	429	29	44	16	M27
	20	450/500	500	10	<b>727 701 325</b>	33.600	712	635	540	32	53	20	M30



### Backing Flange PP-Steel Inch/ANSI For socket systems metric and BS

#### Model:

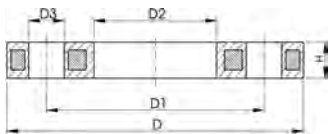
- Material: PP (30% glass-fibre reinforced) with steel ring
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- Special flange adapter ANSI for d25 - d50 and d90 required

<sup>1)</sup> Suitable for socket -and butt fusion systems

<sup>2)</sup> Not for BS

<sup>3)</sup> Combined version, bolt circle metric - ANSI

AL: number of holes



	d (inch)	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
1	½	20	15	16	<b>727 701 206</b>	0.213	95	60	28	16	12	4	M12
1	¾	25	20	16	<b>727 701 207</b>	0.260	105	70	34	16	12	4	M12
1	1	32	25	16	<b>727 701 208</b>	0.416	115	79	42	16	16	4	M12
1	1 ¼	40	32	16	<b>727 701 209</b>	0.730	140	89	51	16	16	4	M16
1	1 ½	50	40	16	<b>727 701 210</b>	0.809	150	98	62	16	18	4	M16
1	2	63	50	16	<b>727 701 211</b>	0.866	165	121	78	19	18	4	M16
1	2 ½	75	65	16	<b>727 701 212</b>	1.117	185	140	92	19	18	4	M16
	3	90	80	16	<b>727 701 213</b>	1.492	200	152	110	19	20	4	M16
2	4	110	100	16	<b>727 701 214</b>	1.695	229	190	133	19	20	8	M16
2/3	6	160	150	16	<b>727 700 817</b>	3.167	285	241	190	22	26	8	M20
3	8	200	200	16	<b>727 700 819</b>	6.143	340	297	226	22	29	8	M20
3	8	225	200	16	<b>727 700 820</b>	4.448	340	297	250	22	29	8	M20



**Profiled backing flange PP-Steel metric  
For butt fusion systems metric**

**Model:**

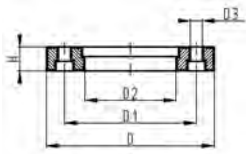
- PP with glass-fibre reinforcement and GGG 50 insert
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 10**

**Note:**

flat side = bolt side profiled side = flange adaptor side

AL: number of holes

\* Galvanized steel S235-JR, suitable for underground laying



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
*	450	450	10	<b>724 705 026</b>	38.000	615	565	470	26	36	20	M24
	450	500	10	<b>724 700 426</b>	25.600	685	620	517	26	56	20	M24
	500	500	10	<b>724 700 427</b>	21.061	685	620	533	26	56	20	M24
	560	600	10	<b>724 700 428</b>	35.000	796	725	618	30	68	20	M27
	630	600	10	<b>724 700 429</b>	28.500	800	725	645	30	68	20	M27
	710	700	6	<b>724 700 430</b>	25.500	912	840	740	30	49	24	M27
	800	800	6	<b>724 700 431</b>	39.300	1026	950	843	33	58	24	M30
	900	900	6	<b>724 700 432</b>	48.500	1129	1050	947	33	62	28	M30



**Profiled backing flange PP-Steel metric  
For butt fusion systems metric**

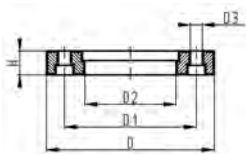
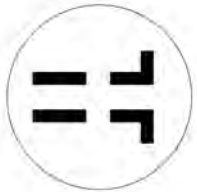
**Model:**

- PP with glass-fibre reinforcement and GGG 50 insert
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 16**

**Note:**

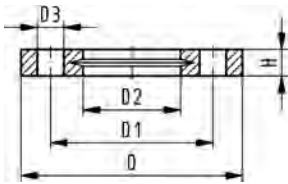
flat side = bolt side profiled side = flange adaptor side

AL: number of holes



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
	200	200	16	<b>724 700 319</b>	3.549	344	295	235	22	31	12	M20
	225	200	16	<b>724 700 320</b>	3.380	344	295	238	22	31	12	M20
	250	250	16	<b>724 700 321</b>	6.390	410	355	288	26	35	12	M24
	280	250	16	<b>724 700 322</b>	6.310	410	355	294	26	36	12	M24
	315	300	16	<b>724 700 323</b>	9.740	455	410	338	26	43	12	M24
	355	350	16	<b>724 700 324</b>	15.203	521	470	376	26	55	16	M24
	400	400	16	<b>724 700 325</b>	20.600	582	525	430	30	56	16	M27

# Socket fusion flanges



## Backing flange PP-V metric For socket systems metric and BS

### Model:

- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**
- Full-plastic flange PP-GF (30 % glass-fibre reinforced)

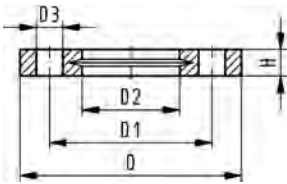
<sup>1)</sup> Suitable for socket- and butt fusion systems

<sup>2)</sup> Not for BS

<sup>3)</sup> Combined version, metric - ANSI

AL: number of holes

	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
1	20	15	16	<b>727 700 406</b>	0.093	95	65	28	14	16	4	M12
1	25	20	16	<b>727 700 407</b>	0.120	105	75	34	14	17	4	M12
1	32	25	16	<b>727 700 408</b>	0.151	115	85	42	14	18	4	M12
1	40	32	16	<b>727 700 409</b>	0.244	140	100	51	18	20	4	M16
1	50	40	16	<b>727 700 410</b>	0.297	150	110	62	18	22	4	M16
1	63	50	16	<b>727 700 411</b>	0.362	165	125	78	18	24	4	M16
1	75	65	16	<b>727 700 412</b>	0.487	185	145	92	18	26	4	M16
	90	80	16	<b>727 700 413</b>	0.550	200	160	110	18	27	8	M16
2	110	100	16	<b>727 700 414</b>	0.640	220	180	133	18	28	8	M16
	140	125	16	<b>727 700 416</b>	0.781	250	210	167	18	30	8	M16
2/3	160	150	16	<b>727 700 417</b>	1.050	285	240	190	22	32	8	M20
3	200	200	16	<b>727 700 419</b>	1.629	340	295	226	22	34	8	M20
3	225	200	16	<b>727 700 420</b>	1.400	340	295	250	22	34	8	M20
	250	250	10	<b>727 700 421</b>	2.229	395	350	277	22	38	12	M20
	280	250	10	<b>727 700 422</b>	1.651	395	350	310	22	38	12	M20
	315	300	10	<b>727 700 423</b>	2.461	445	400	348	22	42	12	M20
	355	350	10	<b>727 700 424</b>	3.000	515	460	388	22	46	16	M20
	400	400	10	<b>727 700 425</b>	5.135	574	515	442	26	50	16	M24



### Backing flange PP-V Inch ANSI For socket systems metric and BS

#### Model:

- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- Special flange adapter ANSI for d25 - d50 and d90 required

AL: number of holes

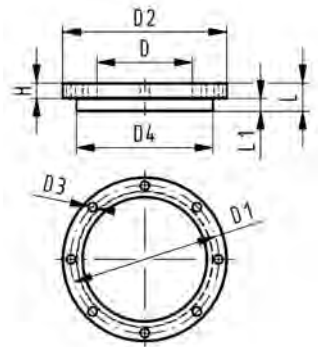
<sup>1)</sup> Suitable for socket- and butt fusion systems

<sup>2)</sup> Not for BS

<sup>3)</sup> Combined version, metric - ANSI

	Size (inch)	DN (mm)	d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
	1	½	15	20	16	<b>727 701 406</b>	0.091	95	60	28	16	4	M12
	1	¾	20	25	16	<b>727 701 407</b>	0.120	105	70	34	16	4	M12
	1	1	25	32	16	<b>727 701 408</b>	0.147	115	79	42	16	4	M12
	1	1 ¼	32	40	16	<b>727 701 409</b>	0.246	140	89	51	16	4	M16
	1	1 ½	40	50	16	<b>727 701 410</b>	0.299	150	98	62	16	4	M16
	1	2	50	63	16	<b>727 701 411</b>	0.361	165	121	78	19	4	M16
	1	2 ½	65	75	16	<b>727 701 412</b>	0.492	185	140	92	19	4	M16
		3	80	90	16	<b>727 701 413</b>	0.605	200	152	110	19	4	M16
	2	4	100	110	16	<b>727 701 414</b>	0.704	229	190	133	19	8	M16
	2/3	6	150	160	16	<b>727 700 417</b>	1.050	285	240	190	22	8	M20
	3	8	200	200	16	<b>727 700 419</b>	1.629	340	295	226	22	8	M20
	3	8	200	225	16	<b>727 700 420</b>	1.400	340	295	250	22	8	M20
		10	250	280	10	<b>727 701 422</b>	1.838	406	362	310	26	12	M20
		12	300	315	10	<b>727 701 423</b>	3.482	483	432	348	26	12	M20

## Blanking flanges



### Blanking flange set PP-H Combined jointing face flat and serrated metric

#### Model:

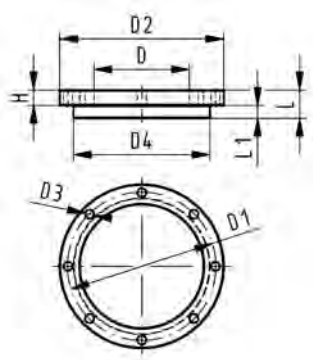
- d63 - d315: backing flange PP-V with end blank PP-H
- d355 - d630: backing flange PP/Steel with end blank PP-H
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

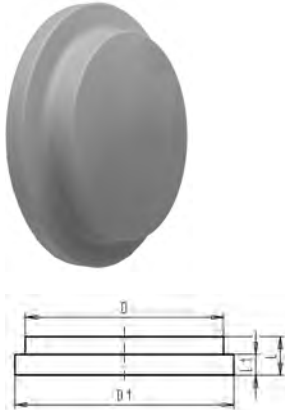
L: length of the End Blank

d (mm)	PN (bar)	DN (mm)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	L (mm)	L1 (mm)	H (mm)	AL
63	10	50	<b>727 700 611</b>	1	0.531	75	125	165	18	102	30	14	24	4
75	10	65	<b>727 700 612</b>	1	0.901	89	145	185	18	122	30	16	26	4
90	10	80	<b>727 700 613</b>	1	1.054	105	160	200	18	138	30	17	27	8
110	10	100	<b>727 700 614</b>	1	1.199	125	180	220	18	158	30	18	28	8
125	10	100	<b>727 700 615</b>	1	1.201	132	180	220	18	158	35	25	28	8
140	10	125	<b>727 700 616</b>	1	1.748	155	210	250	18	188	40	25	30	8
160	10	150	<b>727 700 617</b>	1	2.312	175	240	285	22	212	40	25	32	8
180	10	150	<b>727 700 618</b>	1	2.443	180	240	285	22	212	45	30	32	8
200	10	200	<b>727 700 619</b>	1	3.961	232	295	340	22	268	50	32	34	8
225	10	200	<b>727 700 620</b>	1	3.956	235	295	340	22	268	50	32	34	8
250	10	250	<b>727 700 621</b>	1	5.425	285	350	395	22	320	55	35	38	12
280	10	250	<b>727 700 622</b>	1	19.781	291	350	395	22	320	60	35	38	12
315	10	300	<b>727 700 623</b>	1	8.602	335	400	445	22	370	65	35	42	12
355	10	350	<b>727 700 624</b>	1	23.184	373	460	515	22	430	70	40	40	16
400	10	400	<b>727 700 625</b>	1	30.304	427	515	574	26	482	75	46	40	16

table continued on the next page



d (mm)	PN (bar)	DN (mm)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	L (mm)	L1 (mm)	H (mm)	AL (mm)
450	10	500	727 700 626	1	43.485	510	620	684	26	585	80	60	49	20
500	10	500	727 700 627	1	46.203	530	620	684	26	585	90	60	49	20
560	10	600	727 700 628	1	65.823	615	725	796	30	685	100	60	58	20
630	10	600	727 700 629	1	67.056	642	725	796	30	685	110	60	68	20



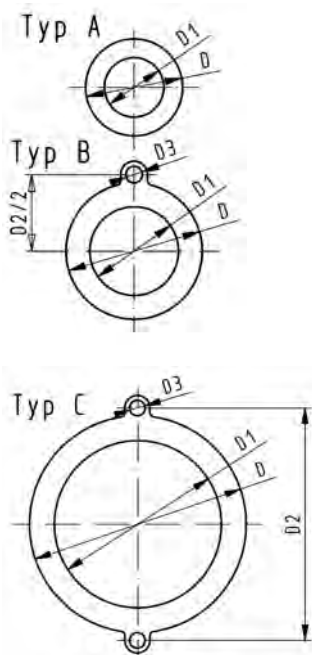
### End blank PP-H For butt fusion systems metric

#### Model:

- Suitable for metric backing flanges

d (mm)	PN (bar)	DN (mm)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)
63	16	50	727 960 811	1	0.167	75	102	30	14
75	16	65	727 960 812	1	0.254	89	122	30	16
90	16	80	727 960 813	1	0.336	105	138	30	17
110	16	100	727 960 814	1	0.470	125	158	30	18
125	16	100	727 960 815	1	0.458	132	158	35	25
140	16	125	727 960 816	1	0.683	155	188	40	25
160	10	150	727 960 817	1	0.912	175	212	40	25
180	10	150	727 960 818	1	1.316	180	212	45	30
200	10	200	727 960 819	1	2.337	232	268	50	32
225	10	200	727 960 820	1	1.958	235	268	50	32
250	10	250	727 960 821	1	3.025	285	320	55	35
280	10	250	727 960 822	1	3.981	291	320	60	35
315	10	300	727 960 823	1	5.028	335	370	65	35
355	10	350	727 960 824	1	7.374	373	430	70	40
400	10	400	727 960 825	1	10.504	427	482	75	46
450	10	500	727 960 826	1	18.720	510	585	80	60
500	10	500	727 960 827	1	21.903	530	585	90	60
560	10	600	727 960 828	1	30.123	615	685	100	60
630	10	600	727 960 829	1	34.556	642	685	110	60

# Gaskets

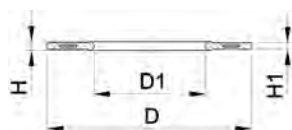


## Flat gasket EPDM

### Model:

- For all metric GF Flange Adaptors
  - Hardness approx. 65° Shore
  - Integrated fixation aids from d110
  - Centering on the inner diameter of the screw crown
- di FA are the suitable inner diameters of flanges adaptors

d (mm)	DN (mm)	PN (bar)	Type	EPDM Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	di FA (mm)
16	10	10	A	748 400 305	0.004	46	16			2	6 - 26
20	15	10	A	748 400 306	0.012	51	20			2	10 - 30
25	20	10	A	748 400 307	0.004	61	25			2	15 - 35
32	25	10	A	748 400 308	0.008	71	32			2	22 - 42
40	32	10	A	748 400 309	0.013	82	40			3	30 - 50
50	40	10	A	748 400 310	0.016	92	50			3	40 - 60
63	50	10	A	748 400 311	0.018	107	63			3	53 - 73
75	65	10	A	748 400 312	0.029	127	71			3	61 - 81
90	80	10	A	748 400 313	0.035	142	84			3	74 - 94
110	100	10	B	748 400 314	0.051	162	104	180	18	4	94 - 114
125	100	10	B	748 400 315	0.044	162	119	180	18	4	109 - 129
140	125	10	B	748 400 316	0.068	192	134	210	18	4	124 - 144
160 - 180	150	10	B	748 400 317	0.090	218	155	241	22	4	145 - 165
200	200	6	C	748 400 319	0.180	273	195	295	22	5	185 - 205
225	200	6	C	748 400 320	0.140	273	216	295	22	5	206 - 226
250	250	6	C	748 400 321	0.210	328	250	350	22	5	240 - 260
280	250	6	C	748 400 322	0.151	328	273	350	22	5	263 - 283
315	300	6	C	748 400 323	0.237	378	305	400	22	5	295 - 315



## Profile Flange Gasket, metric EPDM / FKM

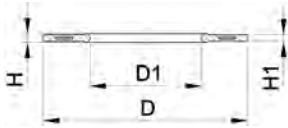
### Model:

- For all metric GF Flange Adaptors
  - Hardness: 70° Shore EPDM, 75° Shore FKM
  - EPDM: approved acc. to DVGW Water W 270, KTW recommendation
  - Centering on the inner diameter of the screw crown
  - material steel insert: carbon steel
  - Rubber-steel body combined with rubber profile cord ring
- di FA are the suitable inner diameters of flanges adaptors

d (mm)	PN (bar)	DN (mm)	EPDM Code	FKM Code	Weight (kg)	D (mm)	D1 (mm)	di FA (mm)	H (mm)	H1 (mm)
16	16	10	748 440 705	749 440 705	0.012	46	16	6 - 16	4	3
20	16	15	748 440 706	749 440 706	0.013	51	20	10 - 20	4	3
25	16	20	748 440 707	749 440 707	0.014	61	22	12 - 22	4	3
32	16	25	748 440 708	749 440 708	0.019	71	28	18 - 28	4	3
40	16	32	748 440 709	749 440 709	0.026	82	40	30 - 40	4	3
50	16	40	748 440 710	749 440 710	0.039	92	46	36 - 46	4	3
63	16	50	748 440 711	749 440 711	0.050	107	58	48 - 58	5	4
75	16	65	748 440 712	749 440 712	0.082	127	69	59 - 69	5	4
90	16	80	748 440 713	749 440 713	0.083	142	84	73 - 84	5	4
110	16	100	748 440 714	749 440 714	0.127	162	104	94 - 104	6	5
125	16	100	748 440 715	749 440 715	0.105	162	123	113 - 123	6	5
140	16	125	748 440 716	749 440 716	0.173	192	137	127 - 137	6	5
160 - 180	16	150	748 440 717	749 440 717	0.207	218	160	150 - 160	8	6
200	16	200	748 440 719	749 440 719	0.263	273	203	192 - 203	8	6
225	16	200	748 440 720	749 440 720	0.255	273	220	207 - 220	8	6
250	16	250	748 440 721	749 440 721	0.462	328	252	238 - 252	8	6

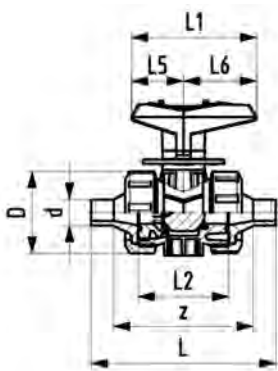
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d (mm)	PN (bar)	DN (mm)	EPDM Code	FKM Code	Weight (kg)	D (mm)	D1 (mm)	di FA (mm)	H (mm)	H1 (mm)
280	16	250	<b>748 440 722</b>	<b>749 440 722</b>	0.323	328	274	264 - 274	8	6
315	16	300	<b>748 440 723</b>	<b>749 440 723</b>	0.549	378	306	296 - 306	8	6
355	16	350	<b>748 440 724</b>	<b>749 440 724</b>	0.870	438	355	340 - 355	10	7
400	16	400	<b>748 440 725</b>	<b>749 440 725</b>	1.088	489	400	385 - 400	10	7
450	16	500	<b>748 440 726</b>	<b>749 440 726</b>	0.718	594	403	393 - 403	10	7
500	16	500	<b>748 440 727</b>	<b>749 440 727</b>	0.718	594	447	437 - 447	10	7
560	16	600	<b>748 440 728</b>	<b>749 440 728</b>	0.923	695	494	484 - 494	10	7
630	16	600	<b>748 440 729</b>	<b>749 440 729</b>	0.923	695	555	545 - 555	10	7

# Ball valves type 523



**PROGEF Standard**  
**Metering ball valve type 523**  
**With mounting inserts**  
**With socket fusion spigots metric**

**Model:**

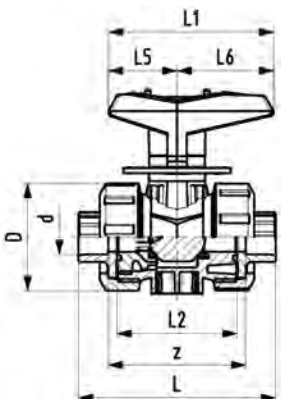
- Material: PP-H
- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Ball seals PTFE
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Z-length, end connectors and union nuts **not compatible** to Type 323

**Option:**

- Other materials on demand

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	11	167 523 441	1	0.130	167 523 451	1	0.130
20	15	10	20	167 523 442	1	0.130	167 523 452	1	0.130

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
16	50	68	27	12	110	77	56	25	32	45	6	3/8
20	50	68	27	12	120	77	56	25	32	45	6	1/2



**PROGEF Standard**  
**Metering ball valve type 523**  
**With mounting inserts**  
**With fusion sockets metric**

**Model:**

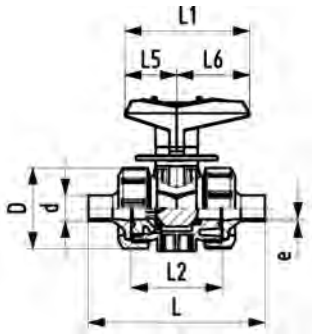
- Material: PP-H
- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Ball seals PTFE
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Z-length, end connectors and union nuts **not compatible** to Type 323

**Option:**

- Other materials on demand

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	11	167 523 401	1	0.130	167 523 411	1	0.130
20	15	10	20	167 523 402	1	0.130	167 523 412	1	0.130

d (mm)	D (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	z (mm)	closest inch (inch)
16	50	68	27	93	77	56	25	32	45	67	3/8
20	50	68	27	95	77	56	25	32	45	66	1/2



**PROGEF Standard**  
**Metering ball valve type 523**  
**With mounting inserts**  
**With butt fusion spigots IR-Plus SDR11 metric**

**Model:**

- Material: PP-H
- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Ball seals PTFE
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Z-length, end connectors and union nuts **not compatible** to Type 323

**Option:**

- Other materials on demand

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10	11	167 523 482	1 0.130	167 523 492	1 0.130

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	68	27	12	130	77	56	25	32	45	6	2	1/2

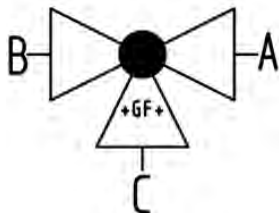
# Ball valves type 543



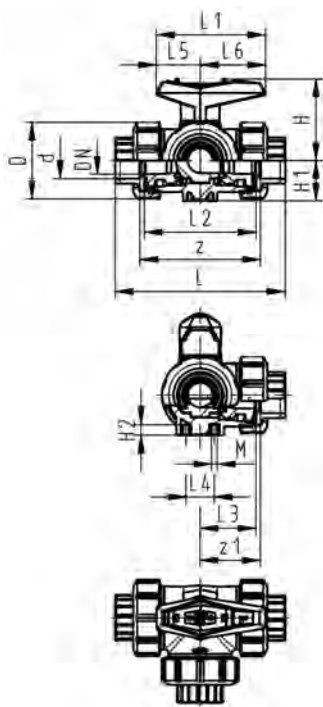
**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With fusion sockets metric**

**Model:**

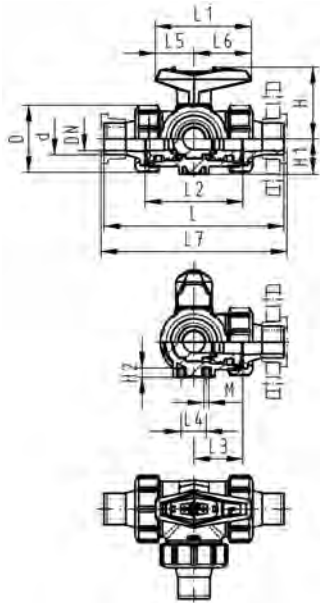
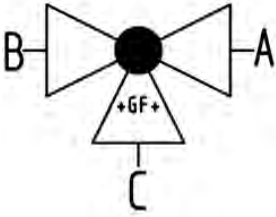
- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
16	10	10	50	<b>167 543 001</b>	0.161	<b>167 543 011</b>	0.161
20	15	10	75	<b>167 543 002</b>	0.165	<b>167 543 012</b>	0.165
25	20	10	150	<b>167 543 003</b>	0.237	<b>167 543 013</b>	0.237
32	25	10	280	<b>167 543 004</b>	0.374	<b>167 543 014</b>	0.361
40	32	10	480	<b>167 543 005</b>	0.616	<b>167 543 015</b>	0.616
50	40	10	620	<b>167 543 006</b>	0.950	<b>167 543 016</b>	0.912
63	50	10	1230	<b>167 543 007</b>	1.843	<b>167 543 017</b>	1.882



d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	3/8
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	1/2
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	3/4
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 1/4
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 1/2
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With socket fusion spigots metric**

**Model:**

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	50	<b>167 543 021</b>	1	0.165	<b>167 543 031</b>	1	0.165
20	15	10	75	<b>167 543 022</b>	1	0.171	<b>167 543 032</b>	1	0.171
25	20	10	150	<b>167 543 023</b>	1	0.247	<b>167 543 033</b>	1	0.247
32	25	10	280	<b>167 543 024</b>	1	0.377	<b>167 543 034</b>	1	0.377
40	32	10	480	<b>167 543 025</b>	1	0.629	<b>167 543 035</b>	1	0.629
50	40	10	620	<b>167 543 026</b>	1	0.953	<b>167 543 036</b>	1	0.953
63	50	10	1230	<b>167 543 027</b>	1	1.855	<b>167 543 037</b>	1	1.855

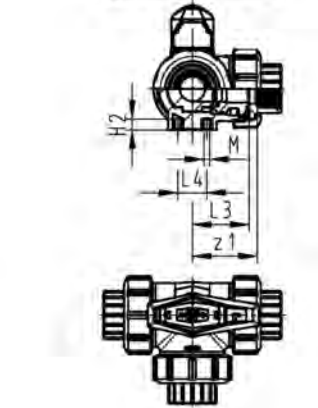
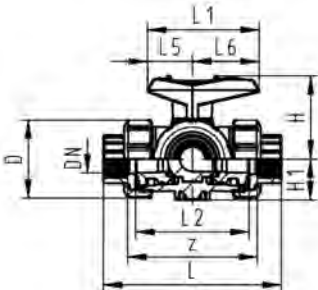
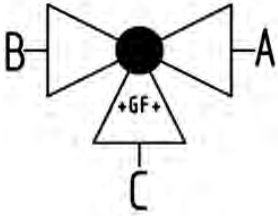
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	M	closest inch (inch)
16	50	57	28	8	126	77	72	36	25	32	45	133	6	3/8
20	50	57	28	8	136	77	72	36	25	32	45	144	6	1/2
25	58	67	32	8	159	97	85	43	25	39	58	170	6	3/4
32	68	73	36	8	178	97	98	49	25	39	58	191	6	1
40	84	90	45	9	204	128	118	59	45	54	74	223	8	1 1/4
50	97	97	51	9	237	128	135	68	45	54	74	256	8	1 1/2
63	124	116	65	9	296	152	176	88	45	66	87	319	8	2



**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With threaded sockets reinforced Rp**

**Model:**

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme



Rp (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
3/8	10	10	50	167 543 081	1	0.161	167 543 091	1	0.161
1/2	15	10	75	167 543 082	1	0.165	167 543 092	1	0.165
3/4	20	10	150	167 543 083	1	0.237	167 543 093	1	0.237
1	25	10	280	167 543 084	1	0.361	167 543 094	1	0.361
1 1/4	32	10	480	167 543 085	1	0.616	167 543 095	1	0.616
1 1/2	40	10	620	167 543 086	1	0.912	167 543 096	1	0.912
2	50	10	1230	167 543 087	1	1.773	167 543 097	1	1.773

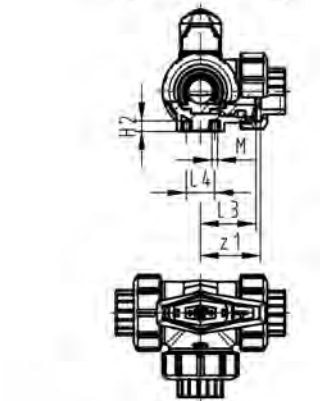
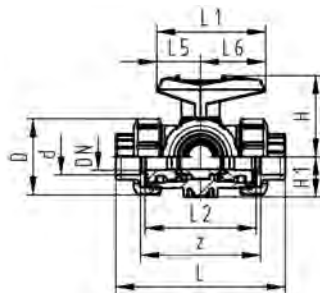
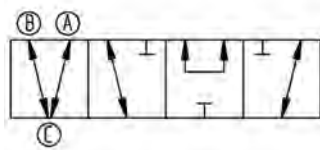
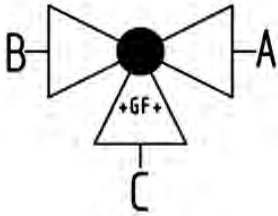
Rp (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	50	57	28	8	112	77	72	36	25	32	45	6	86	43
1/2	50	57	28	8	114	77	72	36	25	32	45	6	84	42
3/4	58	67	32	8	131	97	85	43	25	39	58	6	99	50
1	68	73	36	8	154	97	98	49	25	39	58	6	112	56
1 1/4	84	90	45	9	180	128	118	59	45	54	74	8	132	66
1 1/2	97	97	51	9	203	128	135	68	45	54	74	8	153	77
2	124	116	65	9	258	152	176	88	45	66	87	8	196	98



**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With fusion sockets metric**

**Model:**

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
16	10	10	140	<b>167 543 201</b>	0.160	<b>167 543 211</b>	0.160
20	15	10	200	<b>167 543 202</b>	0.164	<b>167 543 212</b>	0.164
25	20	10	470	<b>167 543 203</b>	0.236	<b>167 543 213</b>	0.236
32	25	10	793	<b>167 543 204</b>	0.372	<b>167 543 214</b>	0.357
40	32	10	1290	<b>167 543 205</b>	0.631	<b>167 543 215</b>	0.609
50	40	10	1910	<b>167 543 206</b>	0.936	<b>167 543 216</b>	0.898
63	50	10	3100	<b>167 543 207</b>	1.822	<b>167 543 217</b>	1.857

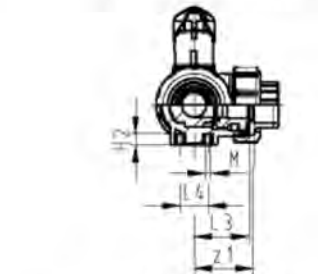
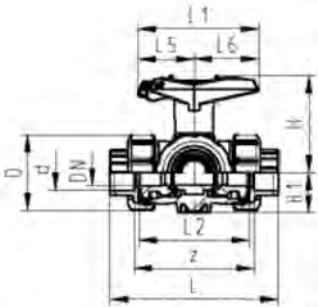
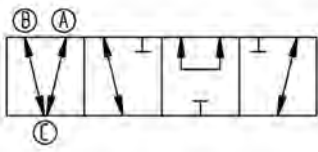
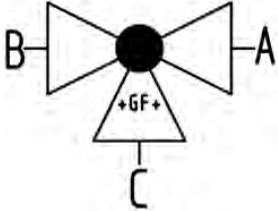
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 $\frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 $\frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With lockable handle**  
**With fusion sockets metric**

**Model:**

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-B-C opened, see flow scheme



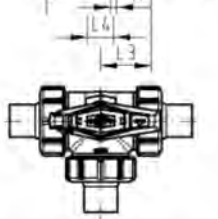
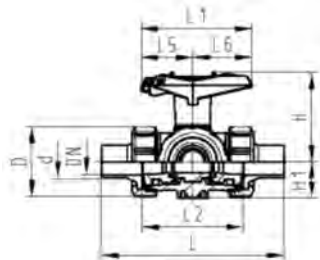
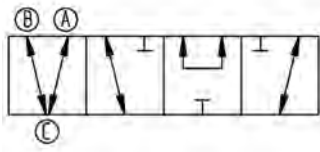
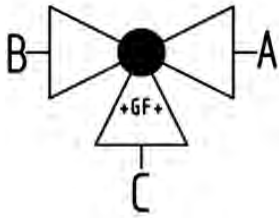
d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
16	10	10	140	167 543 581	1	0.169	167 543 591
20	15	10	200	167 543 582	1	0.173	167 543 592
25	20	10	470	167 543 583	1	0.247	167 543 593
32	25	10	793	167 543 584	1	0.368	167 543 594
40	32	10	1290	167 543 585	1	0.624	167 543 595
50	40	10	1910	167 543 586	1	0.968	167 543 596
63	50	10	3100	167 543 587	1	1.764	167 543 597

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	79	28	8	110	87	72	36	25	42	45	6	82	41	3/8
20	50	79	28	8	112	87	72	36	25	42	45	6	82	41	1/2
25	58	88	32	8	129	108	85	43	25	50	58	6	97	49	3/4
32	68	94	36	8	146	108	98	49	25	50	58	6	110	55	1
40	84	113	45	9	170	141	118	59	45	66	75	8	132	66	1 1/4
50	97	119	51	9	193	141	135	68	45	66	75	8	151	76	1 1/2
63	124	141	65	9	244	165	176	88	45	78	87	8	188	94	2





**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With lockable handle**  
**With butt fusion spigots IR-Plus**  
**SDR11 metric**



**Model:**

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-B-C opened, see flow scheme

d	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
			(L/min)						
20	15	10	200	167 543 622	1	0.179	167 543 632	1	0.179
25	20	10	470	167 543 623	1	0.257	167 543 633	1	0.257
32	25	10	793	167 543 624	1	0.389	167 543 634	1	0.384
40	32	10	1290	167 543 625	1	0.637	167 543 635	1	0.637
50	40	10	1910	167 543 626	1	0.954	167 543 636	1	0.954
63	50	10	3100	167 543 627	1	1.846	167 543 637	1	1.846

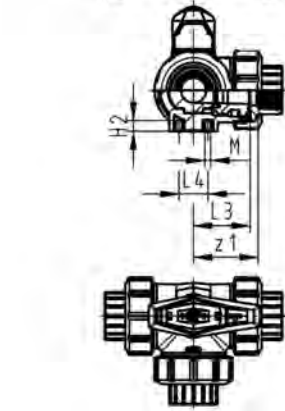
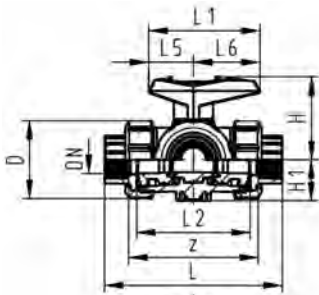
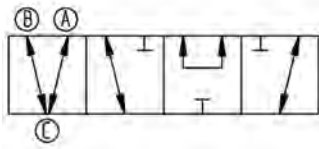
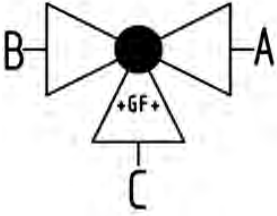
d	D	H	H1	H2	L	L1	L2	L3	L4	L5	L6	M	e	closest
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	inch
20	50	79	28	8	146	87	72	36	25	42	45	6	2	1/2
25	58	88	32	8	163	108	85	43	25	50	58	6	2	3/4
32	68	94	36	8	178	108	98	49	25	50	58	6	3	1
40	84	113	45	9	204	141	118	59	45	66	75	8	4	1 1/4
50	97	119	51	9	237	141	135	68	45	66	75	8	5	1 1/2
63	124	141	65	9	296	165	176	88	45	78	87	8	6	2



**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With threaded sockets reinforced Rp**

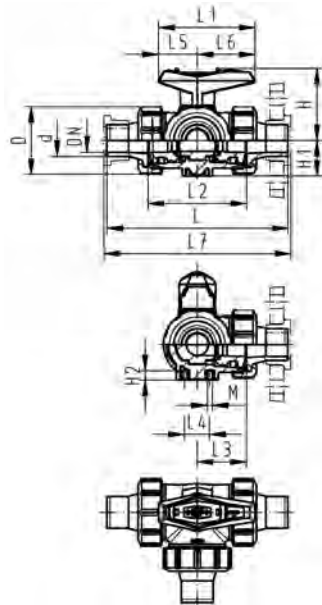
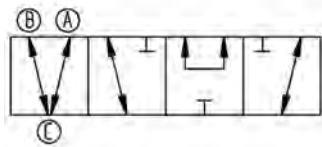
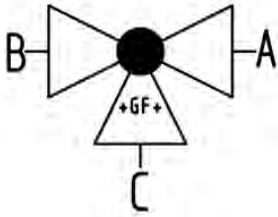
**Model:**

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme



Rp (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
3/8	10	10	140	167 543 281	1	0.160	167 543 291	1	0.160
1/2	15	10	200	167 543 282	1	0.164	167 543 292	1	0.164
3/4	20	10	470	167 543 283	1	0.236	167 543 293	1	0.236
1	25	10	793	167 543 284	1	0.357	167 543 294	1	0.357
1 1/4	32	10	1290	167 543 285	1	0.609	167 543 295	1	0.609
1 1/2	40	10	1910	167 543 286	1	0.898	167 543 296	1	0.898
2	50	10	3100	167 543 287	1	1.744	167 543 297	1	1.744

Rp (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	50	57	28	8	112	77	72	36	25	32	45	6	86	43
1/2	50	57	28	8	114	77	72	36	25	32	45	6	84	42
3/4	58	67	32	8	131	97	85	43	25	39	58	6	99	50
1	68	73	36	8	154	97	98	49	25	39	58	6	112	56
1 1/4	84	90	45	9	180	128	118	59	45	54	74	8	132	66
1 1/2	97	97	51	9	203	128	135	68	45	54	74	8	153	77
2	124	116	65	9	258	152	176	88	45	66	87	8	196	98



**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With socket fusion spigots metric**

**Model:**

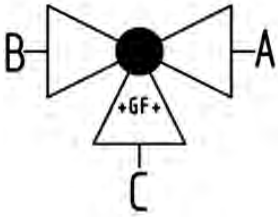
- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	140	167 543 221	1	0.164	167 543 231	1	0.164
20	15	10	200	167 543 222	1	0.170	167 543 232	1	0.170
25	20	10	470	167 543 223	1	0.245	167 543 233	1	0.245
32	25	10	793	167 543 224	1	0.372	167 543 234	1	0.372
40	32	10	1290	167 543 225	1	0.622	167 543 235	1	0.622
50	40	10	1910	167 543 226	1	0.939	167 543 236	1	0.939
63	50	10	3100	167 543 227	1	1.913	167 543 237	1	1.826

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	50	57	28	8	126	77	72	36	25	32	45	133	6	3/8
20	50	57	28	8	136	77	72	36	25	32	45	144	6	1/2
25	58	67	32	8	159	97	85	43	25	39	58	170	6	3/4
32	68	73	36	8	178	97	98	49	25	39	58	191	6	1
40	84	90	45	9	204	128	118	59	45	54	74	223	8	1 1/4
50	97	97	51	9	237	128	135	68	45	54	74	256	8	1 1/2
63	124	116	65	9	296	152	176	88	45	66	87	319	8	2

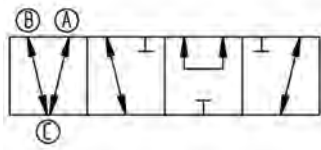


**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With butt fusion spigots IR-Plus**  
**SDR11 metric**

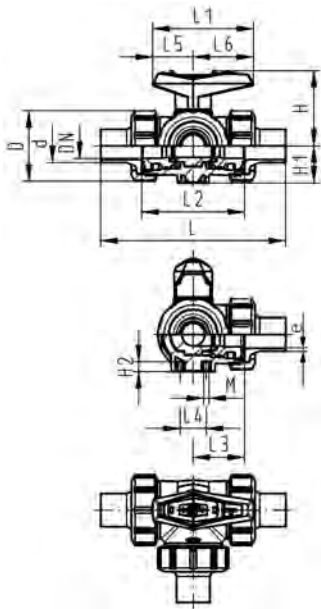


**Model:**

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme



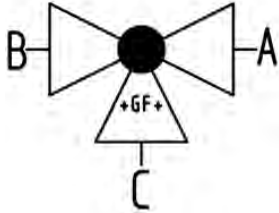
d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
20	15	10	200	<b>167 543 262</b>	0.173	<b>167 543 272</b>	0.170
25	20	10	470	<b>167 543 263</b>	0.245	<b>167 543 273</b>	0.245
32	25	10	793	<b>167 543 264</b>	0.372	<b>167 543 274</b>	0.372
40	32	10	1290	<b>167 543 265</b>	0.622	<b>167 543 275</b>	0.622
50	40	10	1910	<b>167 543 266</b>	0.939	<b>167 543 276</b>	0.939
63	50	10	3100	<b>167 543 267</b>	1.826	<b>167 543 277</b>	1.826



d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	146	77	72	36	25	32	45	6	1.9	½
25	58	67	32	8	163	97	85	43	25	39	58	6	2.3	¾
32	68	73	36	8	178	97	98	49	25	39	58	6	2.9	1
40	84	90	45	9	204	128	118	59	45	54	74	8	3.7	1 ¼
50	97	97	51	9	237	128	135	68	45	54	74	8	4.6	1 ½
63	124	116	65	9	296	152	176	88	45	66	87	8	5.8	2

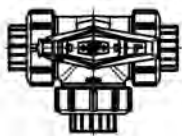
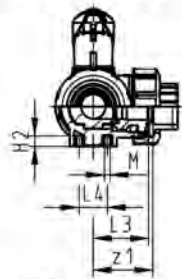
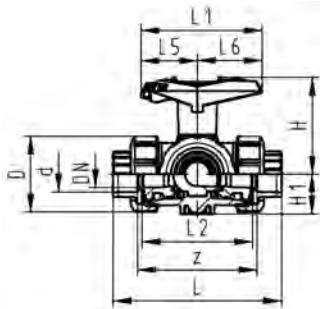
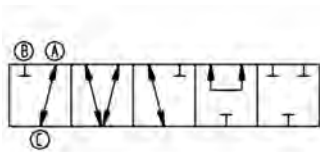


**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With lockable handle**  
**With fusion sockets metric**



**Model:**

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-C opened, see flow scheme

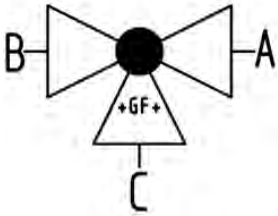


d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
16	10	10	50	<b>167 543 561</b>	1	0.170	<b>167 543 571</b>
20	15	10	75	<b>167 543 562</b>	1	0.174	<b>167 543 572</b>
25	20	10	150	<b>167 543 563</b>	1	0.248	<b>167 543 573</b>
32	25	10	280	<b>167 543 564</b>	1	0.372	<b>167 543 574</b>
40	32	10	480	<b>167 543 565</b>	1	0.631	<b>167 543 575</b>
50	40	10	620	<b>167 543 566</b>	1	0.927	<b>167 543 576</b>
63	50	10	1230	<b>167 543 567</b>	1	1.793	<b>167 543 577</b>

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	79	28	8	110	87	72	36	25	42	45	6	82	41	$\frac{3}{8}$
20	50	79	28	8	112	87	72	36	25	42	45	6	82	41	$\frac{1}{2}$
25	58	88	32	8	129	108	85	43	25	50	58	6	97	49	$\frac{3}{4}$
32	68	94	36	8	146	108	98	49	25	50	58	6	110	55	1
40	84	113	45	9	170	141	118	59	45	66	75	8	132	66	$1\frac{1}{4}$
50	97	119	51	9	193	141	135	68	45	66	75	8	151	76	$1\frac{1}{2}$
63	124	141	65	9	244	165	176	88	45	78	87	8	188	94	2

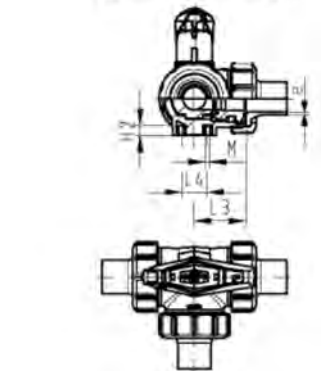
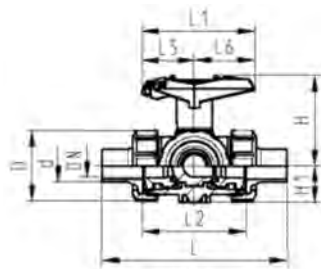


**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With lockable handle**  
**With butt fusion spigots IR-Plus**  
**SDR11 metric**



**Model:**

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-C opened, see flow scheme

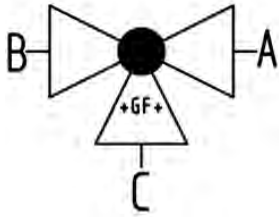


d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10	75	<b>167 543 602</b>	1	0.180	<b>167 543 612</b>
25	20	10	150	<b>167 543 603</b>	1	0.258	<b>167 543 613</b>
32	25	10	280	<b>167 543 604</b>	1	0.388	<b>167 543 614</b>
40	32	10	480	<b>167 543 605</b>	1	0.645	<b>167 543 615</b>
50	40	10	620	<b>167 543 606</b>	1	1.014	<b>167 543 616</b>
63	50	10	1230	<b>167 543 607</b>	1	1.876	<b>167 543 617</b>

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	79	28	8	146	87	72	36	25	42	45	6	2	1/2
25	58	88	32	8	163	108	85	43	25	50	58	6	2	3/4
32	68	94	36	8	178	108	98	49	25	50	58	6	3	1
40	84	113	45	9	204	141	118	59	45	66	75	8	4	1 1/4
50	97	119	51	9	237	141	135	68	45	66	75	8	5	1 1/2
63	124	141	65	9	296	165	176	88	45	78	87	8	6	2

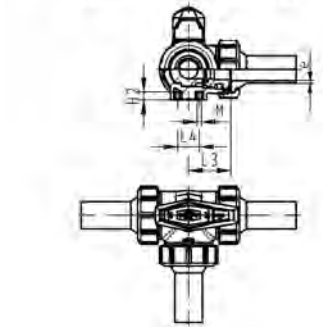
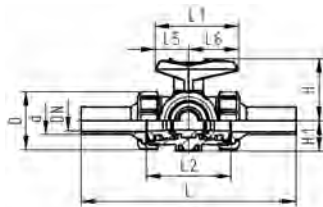
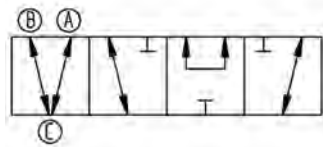


**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With butt fusion spigots long**  
**SDR11 metric**



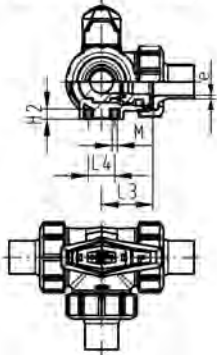
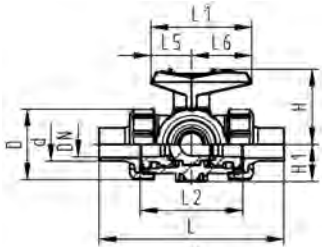
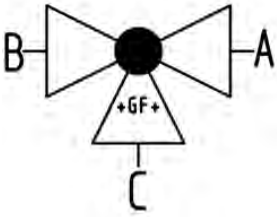
**Model:**

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10	200	<b>167 543 302</b>	1	0.160	<b>167 543 312</b>
25	20	10	470	<b>167 543 303</b>	1	0.164	<b>167 543 313</b>
32	25	10	793	<b>167 543 304</b>	1	0.236	<b>167 543 314</b>
40	32	10	1290	<b>167 543 305</b>	1	0.357	<b>167 543 315</b>
50	40	10	1910	<b>167 543 306</b>	1	0.609	<b>167 543 316</b>
63	50	10	3100	<b>167 543 307</b>	1	0.898	<b>167 543 317</b>

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	210	77	72	36	25	32	45	6	1.9	½
25	58	67	32	8	237	97	85	43	25	39	58	6	2.3	¾
32	68	73	36	8	250	97	98	49	25	39	58	6	2.9	1
40	84	90	45	9	282	128	118	59	45	54	74	8	3.7	1 ¼
50	97	97	51	9	317	128	135	68	45	54	74	8	4.6	1 ½
63	124	116	65	9	396	152	176	88	45	66	87	8	5.8	2



**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With butt fusion spigots IR-Plus**  
**SDR11 metric**

**Model:**

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

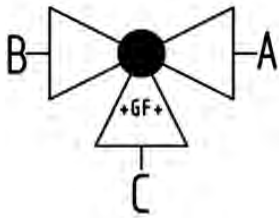
d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
20	15	10	75	<b>167 543 062</b>	0.171	<b>167 543 072</b>	0.171
25	20	10	150	<b>167 543 063</b>	0.247	<b>167 543 073</b>	0.247
32	25	10	280	<b>167 543 064</b>	0.377	<b>167 543 074</b>	0.377
40	32	10	480	<b>167 543 065</b>	0.629	<b>167 543 075</b>	0.629
50	40	10	620	<b>167 543 066</b>	0.989	<b>167 543 076</b>	0.953
63	50	10	1230	<b>167 543 067</b>	1.928	<b>167 543 077</b>	1.855

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	146	77	72	36	25	32	45	6	1.9	½
25	58	67	32	8	163	97	85	43	25	39	58	6	2.3	¾
32	68	73	36	8	178	97	98	49	25	39	58	6	2.9	1
40	84	90	45	9	204	128	118	59	45	54	74	8	3.7	1 ¼
50	97	97	51	9	237	128	135	68	45	54	74	8	4.6	1 ½
63	124	116	65	9	296	152	176	88	45	66	87	8	5.8	2



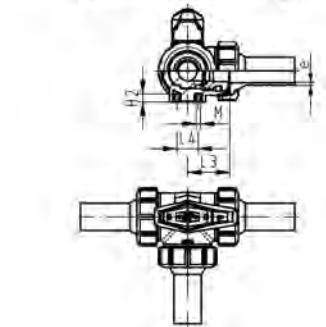
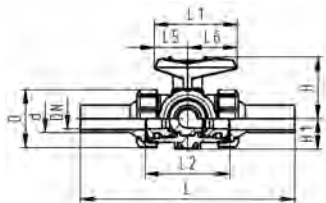


**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With butt fusion spigots long**  
**SDR11 metric**



**Model:**

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10	75	<b>167 543 102</b>	1 0.179	<b>167 543 112</b>	1 0.179
25	20	10	150	<b>167 543 103</b>	1 0.262	<b>167 543 113</b>	1 0.262
32	25	10	280	<b>167 543 104</b>	1 0.399	<b>167 543 114</b>	1 0.399
40	32	10	480	<b>167 543 105</b>	1 0.675	<b>167 543 115</b>	1 0.675
50	40	10	620	<b>167 543 106</b>	1 1.032	<b>167 543 116</b>	1 1.032
63	50	10	1230	<b>167 543 107</b>	1 2.221	<b>167 543 117</b>	1 2.221

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	210	77	72	36	25	32	45	6	1.9	½
25	58	67	32	8	237	97	85	43	25	39	58	6	2.3	¾
32	68	73	36	8	250	97	98	49	25	39	58	6	2.9	1
40	84	90	45	9	282	128	118	59	45	54	74	8	3.7	1 ¼
50	97	97	51	9	317	128	135	68	45	54	74	8	4.6	1 ½
63	124	116	65	9	396	152	176	88	45	66	87	8	5.8	2

# Ball valves type 546



DN10/15 - 50



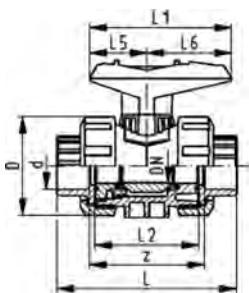
## PROGEF Standard Ball valve type 546 With mounting inserts With fusion sockets metric

### Model:

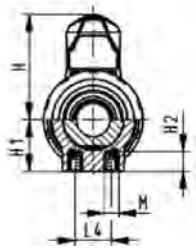
- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)

### Option:

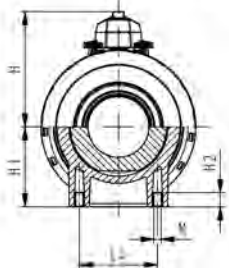
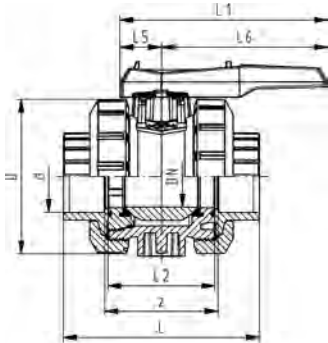
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
16	10	10	71	167 546 401	0.119	167 546 411	0.115
20	15	10	185	167 546 402	0.120	167 546 412	0.123
25	20	10	350	167 546 403	0.188	167 546 413	0.184
32	25	10	700	167 546 404	0.256	167 546 414	0.258
40	32	10	1000	167 546 405	0.444	167 546 415	0.451
50	40	10	1600	167 546 406	0.608	167 546 416	0.617
63	50	10	3100	167 546 407	1.108	167 546 417	1.130
75	65	10	5000	167 546 408	3.322	167 546 418	3.335
90	80	10	7000	167 546 409	4.701	167 546 419	5.500
110	100	10	11000	167 546 410	7.276	167 546 420	8.700



d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)	closest inch (inch)
16	50	57	27	12	93	77	56	25	32	45	M6	67	3/8
20	50	57	27	12	95	77	56	25	32	45	M6	66	1/2
25	58	67	30	12	109	97	65	25	39	58	M6	77	3/4
32	68	73	36	12	119	97	71	25	39	58	M6	83	1
40	84	90	44	15	135	128	85	45	54	74	M8	99	1 1/4
50	97	97	51	15	147	128	89	45	54	74	M8	105	1 1/2
63	124	116	64	15	168	152	101	45	66	87	M8	117	2
75	166	149	85	15	233	270	136	70	64	206	M8	167	2 1/2
90	200	161	105	15	254	270	141	70	64	206	M8	180	3
110	238	178	123	22	301	320	164	120	64	256	M12	215	4





DN10/15 - 50



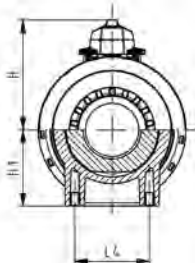
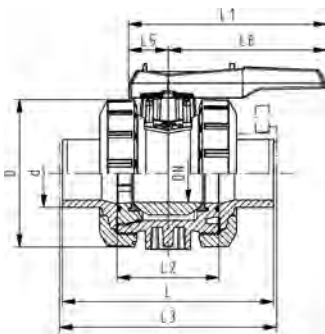
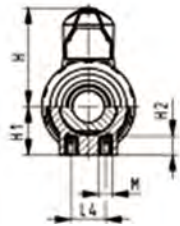
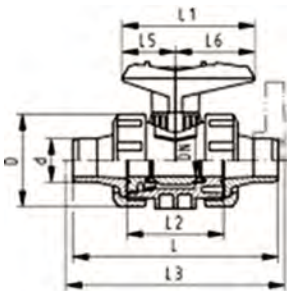
**PROGEF Standard**  
**Ball valve type 546**  
**With mounting inserts**  
**With socket fusion spigots metric**

**Model:**

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF

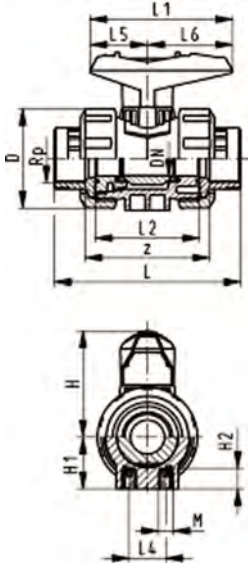


d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	71	167 546 041	1	0.120	167 546 051	1	0.120
20	15	10	185	167 546 042	1	0.120	167 546 052	1	0.120
25	20	10	350	167 546 043	1	0.180	167 546 053	1	0.180
32	25	10	700	167 546 044	1	0.266	167 546 054	1	0.266
40	32	10	1000	167 546 045	1	0.450	167 546 055	1	0.450
50	40	10	1600	167 546 046	1	0.635	167 546 056	1	0.640
63	50	10	3100	167 546 047	1	1.174	167 546 057	1	1.210
75	65	10	5000	167 546 048	1	3.800	167 546 058	1	3.800
90	80	10	7000	167 546 049	1	5.600	167 546 059	1	5.600
110	100	10	11000	167 546 050	1	8.800	167 546 060	1	8.800

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
16	50	57	27	12	110	77	56		25	32	45	M6	3/8
20	50	57	27	12	120	77	56	130	25	32	45	M6	1/2
25	58	67	30	12	139	97	65	150	25	39	58	M6	3/4
32	68	73	36	12	150	97	71	160	25	39	58	M6	1
40	84	90	44	15	170	128	85	180	45	54	74	M8	1 1/4
50	97	97	51	15	190	128	89	200	45	54	74	M8	1 1/2
63	124	116	64	15	220	152	101	230	45	66	87	M8	2
75	166	149	85	15	280	270	136	290	70	64	206	M8	2 1/2
90	200	161	105	15	296	270	141	310	70	64	206	M8	3
110	238	178	123	22	336	320	164	350	120	64	256	M12	4



DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 546**  
**With mounting inserts**  
**With threaded sockets reinforced Rp**

**Model:**

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

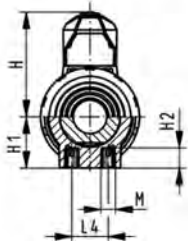
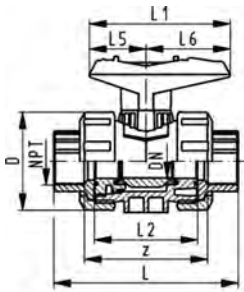
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF

Rp (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
3/8	10	10	71	<b>167 546 021</b>	1	0.120	<b>167 546 031</b>	1	0.120
1/2	15	10	185	<b>167 546 022</b>	1	0.130	<b>167 546 032</b>	1	0.120
3/4	20	10	350	<b>167 546 023</b>	1	0.180	<b>167 546 033</b>	1	0.180
1	25	10	700	<b>167 546 024</b>	1	0.282	<b>167 546 034</b>	1	0.270
1 1/4	32	10	1000	<b>167 546 025</b>	1	0.460	<b>167 546 035</b>	1	0.460
1 1/2	40	10	1600	<b>167 546 026</b>	1	0.635	<b>167 546 036</b>	1	0.635
2	50	10	3100	<b>167 546 027</b>	1	1.190	<b>167 546 037</b>	1	1.190

Rp (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)
3/8	50	57	27	12	96	77	56	25	32	45	M6	69
1/2	50	57	27	12	99	77	56	25	32	45	M6	67
3/4	58	67	30	12	111	97	65	25	39	58	M6	78
1	68	73	36	12	127	97	71	25	39	58	M6	85
1 1/4	84	90	44	15	146	128	85	45	54	74	M8	100
1 1/2	97	97	51	15	157	128	89	45	54	74	M8	106
2	124	116	64	15	183	152	101	45	66	87	M8	121



DN10/15 - 50



**PROGEF Standard  
Ball valve type 546  
With mounting inserts  
With threaded sockets reinforced NPT**

**Model:**

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

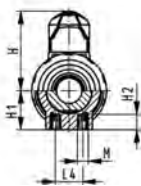
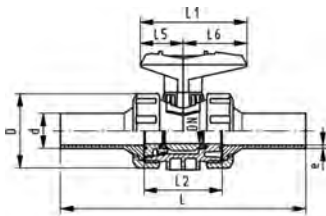
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF

NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
3/8	10	10	71	167 546 321	1	0.120	167 546 331	1	0.120
1/2	15	10	185	167 546 322	1	0.128	167 546 332	1	0.120
3/4	20	10	350	167 546 323	1	0.180	167 546 333	1	0.180
1	25	10	700	167 546 324	1	0.270	167 546 334	1	0.270
1 1/4	32	10	1000	167 546 325	1	0.460	167 546 335	1	0.460
1 1/2	40	10	1600	167 546 326	1	0.635	167 546 336	1	0.635
2	50	10	3100	167 546 327	1	1.204	167 546 337	1	1.190

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)
3/8	50	57	27	12	96	77	56	25	32	45	M6	71
1/2	50	57	27	12	99	77	56	25	32	45	M6	64
3/4	58	67	30	12	111	97	65	25	39	58	M6	76
1	68	73	36	12	127	97	71	25	39	58	M6	83
1 1/4	84	90	44	15	146	128	85	45	54	74	M8	100
1 1/2	97	97	51	15	157	128	89	45	54	74	M8	111
2	124	116	64	15	183	152	101	45	66	87	M8	134



DN10/15 - 50



**PROGEF Standard  
Ball valve type 546  
With mounting inserts  
With butt fusion spigots long SDR11 metric**

**Model:**

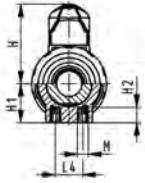
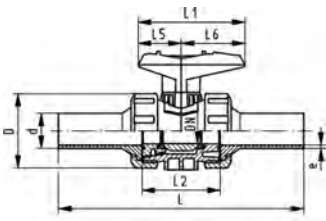
- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	10	185	167 546 262	1	0.130	167 546 272	1	0.130
25	20	10	350	167 546 263	1	0.195	167 546 273	1	0.195
32	25	10	700	167 546 264	1	0.280	167 546 274	1	0.280
40	32	10	1000	167 546 265	1	0.492	167 546 275	1	0.480
50	40	10	1600	167 546 266	1	0.691	167 546 276	1	0.700
63	50	10	3100	167 546 267	1	1.274	167 546 277	1	1.288

table continued on the next page



d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)	closest inch (inch)
20	50	57	27	12	193	77	56	25	32	45	M6	1.9	½
25	58	67	30	12	216	97	65	25	39	58	M6	2.3	¾
32	68	73	36	12	223	97	71	25	39	58	M6	2.9	1
40	84	90	44	15	249	128	85	45	54	74	M8	3.7	1 ¼
50	97	97	51	15	271	128	89	45	54	74	M8	4.6	1 ½
63	124	116	64	15	321	152	101	45	66	87	M8	5.8	2



DN10/15 - 50

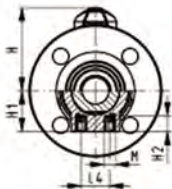
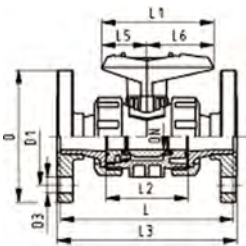
**PROGEF Standard  
Ball valve type 546  
With mounting inserts  
With fixed flanges serrated**

**Model:**

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	½	15	10	185	<b>167 546 182</b>	1	0.245	<b>167 546 192</b>
25	¾	20	10	350	<b>167 546 183</b>	1	0.345	<b>167 546 193</b>
32	1	25	10	700	<b>167 546 184</b>	1	0.492	<b>167 546 194</b>
40	1 ¼	32	10	1000	<b>167 546 185</b>	1	0.820	<b>167 546 195</b>
50	1 ½	40	10	1600	<b>167 546 186</b>	1	1.052	<b>167 546 196</b>
63	2	50	10	3100	<b>167 546 187</b>	1	1.751	<b>167 546 197</b>

d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M
20	95	65	14	57	27	12	120	77	56	130	25	32	45	M6
25	105	75	14	67	30	12	140	97	65	150	25	39	58	M6
32	115	85	14	73	36	12	150	97	71	160	25	39	58	M6
40	140	100	18	90	44	15	170	128	85	180	45	54	74	M8
50	150	110	18	97	51	15	190	128	89	200	45	54	74	M8
63	165	125	18	116	64	15	220	152	101	230	45	66	87	M8



DN10/15 - 50



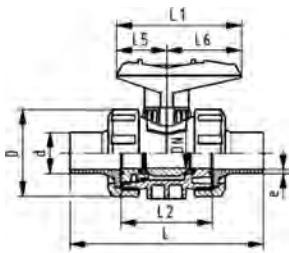
**PROGEF Standard**  
**Ball valve type 546**  
**With mounting inserts**  
**With butt fusion IR-Plus SDR11 metric**

**Model:**

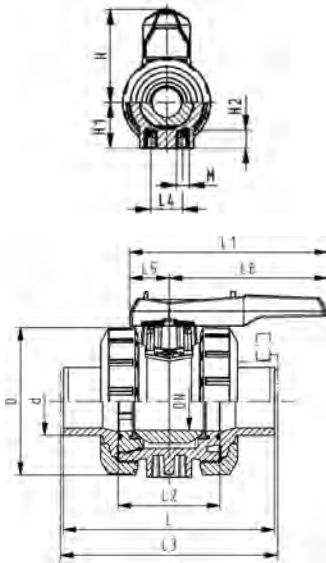
- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)

**Option:**

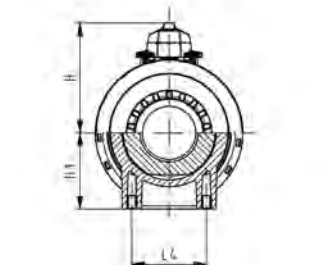
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	10	185	167 546 442	1	0.121	167 546 452	1	0.123
25	20	10	350	167 546 443	1	0.183	167 546 453	1	0.185
32	25	10	700	167 546 444	1	0.260	167 546 454	1	0.263
40	32	10	1000	167 546 445	1	0.454	167 546 455	1	0.456
50	40	10	1600	167 546 446	1	0.633	167 546 456	1	0.642
63	50	10	3100	167 546 447	1	1.151	167 546 457	1	1.180
75	65	10	5000	167 546 448	1	2.822	167 546 458	1	2.602
90	80	10	7000	167 546 449	1	4.717	167 546 459	1	5.500
110	100	10	11000	167 546 450	1	6.171	167 546 460	1	8.700

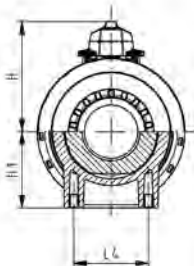
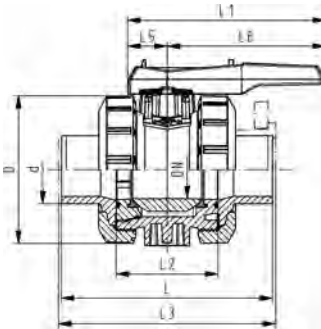
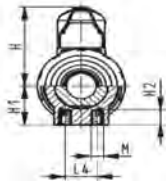
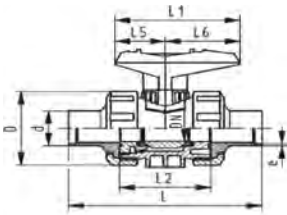


d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)	closest inch (inch)
20	50	57	27	12	130	77	56	25	32	45	M6	1.9	1/2
25	58	67	30	12	143	97	65	25	39	58	M6	2.3	3/4
32	68	73	36	12	150	97	71	25	39	58	M6	2.9	1
40	84	90	44	15	171	128	85	45	54	74	M8	3.7	1 1/4
50	97	97	51	15	191	128	89	45	54	74	M8	4.6	1 1/2
63	124	116	64	15	220	152	101	45	66	87	M8	5.8	2
75	166	149	85	15	266	270	136	70	64	206	M8	6.8	2 1/2
90	200	161	105	15	264	270	141	70	64	206	M8	8.2	3
110	238	178	123	22	301	320	164	120	64	256	M12	10.0	4





DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 546**  
**With mounting inserts**  
**With butt fusion spigots SDR17.6 metric**

**Model:**

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)

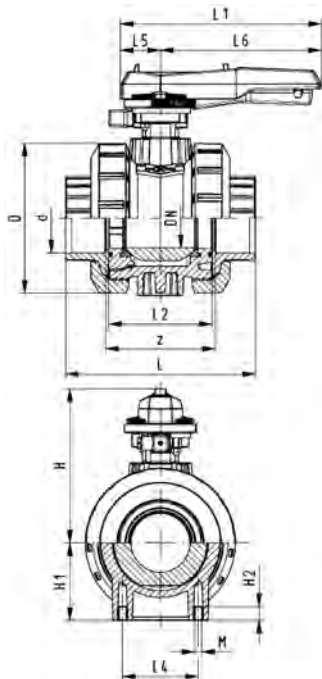
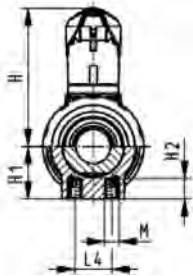
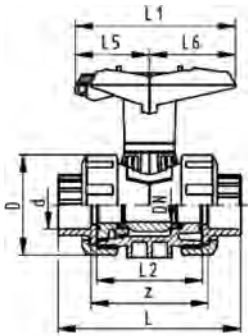
**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
50	40	6	1600	<b>167 546 066</b>	1	0.635	<b>167 546 076</b>	1	0.635
63	50	6	3100	<b>167 546 067</b>	1	1.159	<b>167 546 077</b>	1	1.200
75	65	6	5000	<b>167 546 068</b>	1	2.575	<b>167 546 078</b>	1	3.387
90	80	6	7000	<b>167 546 069</b>	1	4.731	<b>167 546 079</b>	1	5.500
110	100	6	11000	<b>167 546 070</b>	1	8.600	<b>167 546 080</b>	1	8.600

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)	closest inch (inch)
50	97	97	51	15	191	128	89	45	54	74	M8	2.9	1 ½
63	124	116	64	15	220	152	101	45	66	87	M8	3.6	2
75	166	149	85	15	266	270	136	70	64	206	M8	4.7	2 ½
90	200	161	105	15	264	270	141	70	64	206	M8	5.5	3
110	238	178	123	22	301	320	164	120	64	256	M12	6.8	4





**PROGEF Standard**  
**Ball valve type 546**  
**With lockable handle**  
**With mounting inserts**  
**With fusion sockets metric**

**Model:**

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)
- Lockable hand lever with ratchet settings

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
16	10	10	71	167 546 421	1	0.125	167 546 431
20	15	10	185	167 546 422	1	0.125	167 546 432
25	20	10	350	167 546 423	1	0.195	167 546 433
32	25	10	700	167 546 424	1	0.270	167 546 434
40	32	10	1000	167 546 425	1	0.465	167 546 435
50	40	10	1600	167 546 426	1	0.635	167 546 436
63	50	10	3100	167 546 427	1	1.175	167 546 437
75	65	10	5000	167 546 428	1	4.000	167 546 438
90	80	10	7000	167 546 429	1	5.900	167 546 439
110	100	10	11000	167 546 430	1	9.100	167 546 440

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)	closest inch (inch)
16	50	79	27	12	93	77	56	25	32	45	M6	67	3/8
20	50	79	27	12	95	77	56	25	32	45	M6	66	1/2
25	58	88	30	12	109	97	65	25	39	58	M6	77	3/4
32	68	94	36	12	119	97	71	25	39	58	M6	83	1
40	84	113	44	15	135	128	85	45	54	74	M8	99	1 1/4
50	97	119	51	15	147	128	89	45	54	74	M8	105	1 1/2
63	124	141	64	15	168	152	101	45	66	87	M8	117	2
75	166	224	85	15	233	270	136	70	64	206	M8	167	2 1/2
90	200	235	105	15	254	270	141	70	64	206	M8	180	3
110	238	245	123	22	301	320	164	120	64	256	M12	215	4



DN10/15 - 50



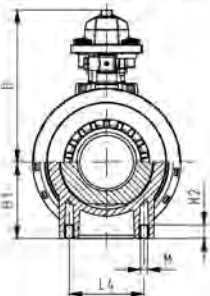
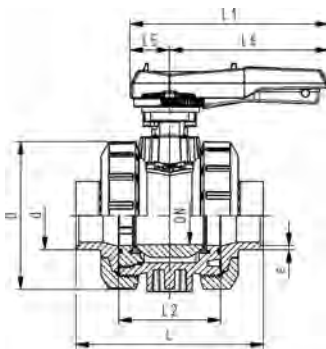
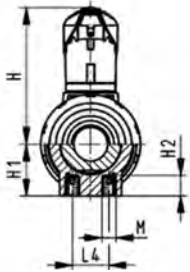
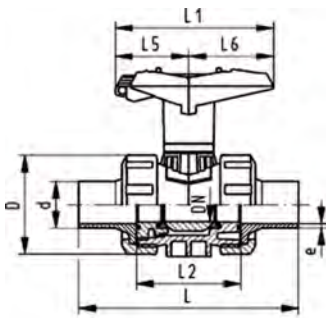
**PROGEF Standard**  
**Ball valve type 546**  
**With lockable handle**  
**With mounting inserts**  
**With butt fusion spigots IR-Plus SDR11 metric**

**Model:**

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)
- Lockable hand lever with ratchet settings

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	10	185	167 546 462	1	0.132	167 546 472	1	0.130
25	20	10	350	167 546 463	1	0.195	167 546 473	1	0.195
32	25	10	700	167 546 464	1	0.278	167 546 474	1	0.270
40	32	10	1000	167 546 465	1	0.465	167 546 475	1	0.465
50	40	10	1600	167 546 466	1	0.645	167 546 476	1	0.645
63	50	10	3100	167 546 467	1	1.197	167 546 477	1	1.213
75	65	10	5000	167 546 468	1	3.430	167 546 478	1	4.100
90	80	10	7000	167 546 469	1	5.848	167 546 479	1	5.900
110	100	10	11000	167 546 470	1	7.660	167 546 480	1	9.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)	closest inch (inch)
20	50	79	27	12	193	87	56	25	42	45	M6	1.9	½
25	58	88	30	12	216	108	65	25	50	58	M6	2.3	¾
32	68	94	36	12	223	108	71	25	50	58	M6	2.9	1
40	84	113	44	15	249	140	85	45	66	75	M8	3.7	1 ¼
50	97	119	51	15	271	140	89	45	66	75	M8	4.6	1 ½
63	124	141	64	15	321	165	101	45	78	87	M8	5.8	2
75	166	149	85	15	266	270	136	70	64	206	M8	6.8	2 ½
90	200	161	105	15	264	270	141	70	64	206	M8	8.2	3
110	238	178	123	22	301	320	164	120	64	256	M12	10.0	4



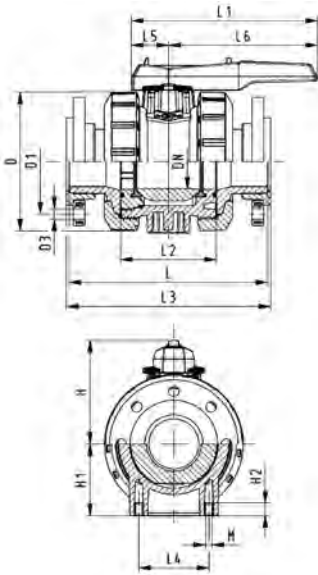
**PROGEF Standard**  
**Ball valve type 546**  
 With mounting inserts  
 With backing flanges PP-st metric

**Model:**

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 370
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- Hole circle PN10

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF



d	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
			(l/min)						
75	65	10	5000	<b>167 546 808</b>	1	6.352	<b>167 546 818</b>	1	5.417
90	80	10	7000	<b>167 546 809</b>	1	7.907	<b>167 546 819</b>	1	7.941
110	100	10	11000	<b>167 546 810</b>	1	10.896	<b>167 546 820</b>	1	9.928

d	D	D1	D3	H	H1	L	L1	L2	L3	L4	L5	L6	M	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(inch)
75	166	145	18	149	85	280	270	136	290	70	64	206	8	2 ½
90	200	160	18	161	105	296	270	141	310	70	64	206	8	3
110	238	180	18	178	123	336	320	164	350	120	64	256	12	4



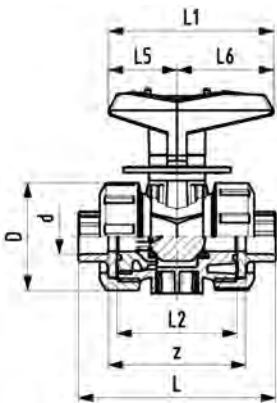
**PROGEF Standard**  
**Linear ball valve type 546**  
 With mounting inserts  
 With fusion sockets metric

**Model:**

- Material: PP-H
- Excellent control characteristics
- Designed for easy installation and removal
- Ball seals PTFE
- Angle of operation 90° with scale
- Integrated stainless steel mounting inserts

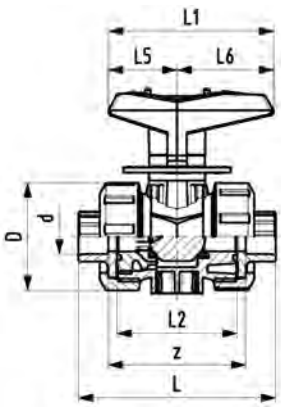
**Option:**

- Individual configuration of the valve (see diagram)
- Pneumatic or electric actuators from GF
- Other materials on demand



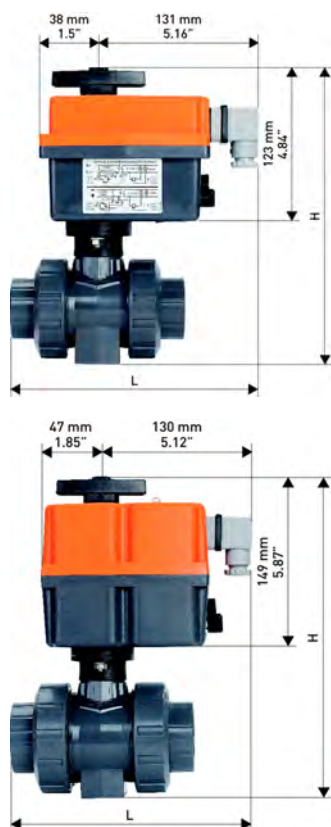
d	DN	PN	kv-value	EPDM	SP	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)
			(l/min)			
20	15	10	185	<b>800 052 622</b>	1	0.120
25	20	10	350	<b>800 052 623</b>	1	0.188
32	25	10	700	<b>800 052 624</b>	1	0.256
40	32	10	1000	<b>800 052 625</b>	1	0.444
50	40	10	1600	<b>800 052 626</b>	1	0.608
63	50	10	3100	<b>800 052 627</b>	1	1.108

table continued on the next page



<b>d</b> (mm)	<b>D</b> (mm)	<b>H</b> (mm)	<b>H1</b> (mm)	<b>L</b> (mm)	<b>L1</b> (mm)	<b>L2</b> (mm)	<b>L4</b> (mm)	<b>L5</b> (mm)	<b>L6</b> (mm)	<b>z</b> (mm)	<b>closest inch</b> (inch)
20	50	57	27	95	77	56	25	32	45	66	½
25	58	67	30	109	97	65	25	39	58	77	¾
32	68	73	36	119	97	71	25	39	58	83	1
40	84	90	44	135	128	85	45	54	74	99	1 ¼
50	97	97	51	147	128	89	45	54	74	105	1 ½
63	124	116	64	168	152	101	45	66	87	117	2

# Ball valves electric type 104



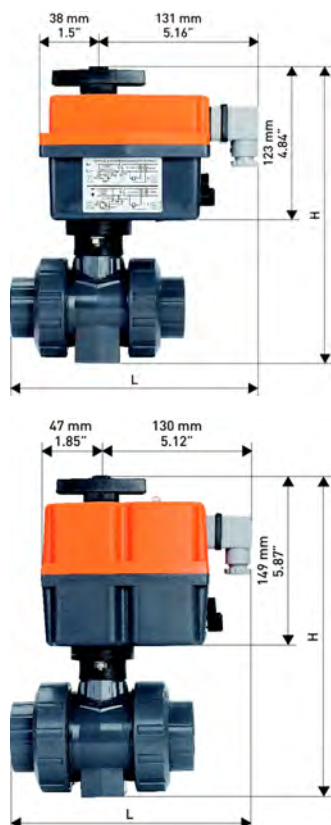
## PROGEF Standard Ball valve type 104 24V With fusion sockets metric

### Model:

- Material: PP-H
- Voltage according data sheet
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	Voltage	EPDM Code	SP	Weight (kg)	FKM Code
16	10	10	70	24V	<b>199 104 542</b>	1	0.965	<b>199 104 552</b>
20	15	10	185	24V	<b>199 104 543</b>	1	0.965	<b>199 104 553</b>
25	20	10	350	24V	<b>199 104 544</b>	1	1.010	<b>199 104 554</b>
32	25	10	700	24V	<b>199 104 545</b>	1	1.055	<b>199 104 555</b>
40	32	10	1000	24V	<b>199 104 546</b>	1	1.180	<b>199 104 556</b>
50	40	10	1600	24-240V	<b>199 104 547</b>	1	1.860	<b>199 104 557</b>
63	50	10	3100	24-240V	<b>199 104 548</b>	1	2.115	<b>199 104 558</b>

H (mm)	L (mm)	Type of actuator	B (mm)
194	178.5	10Nm	50
194	78.5	10Nm	50
207	185.5	10Nm	58
217	190.5	10Nm	68
236	198.5	10Nm	84
275	203.5	20Nm	97
307	214.0	20Nm	124



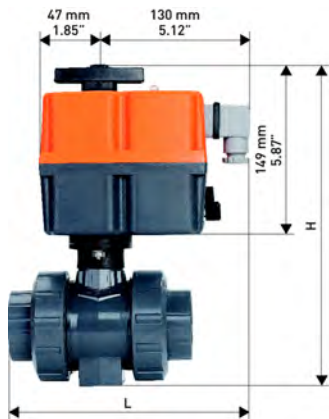
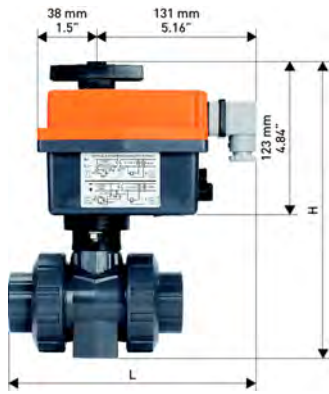
## PROGEF Standard Ball valve type 104 100-230V With butt fusion spigots IR-Plus SDR11 metric

### Model:

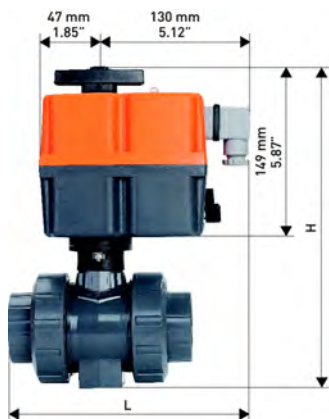
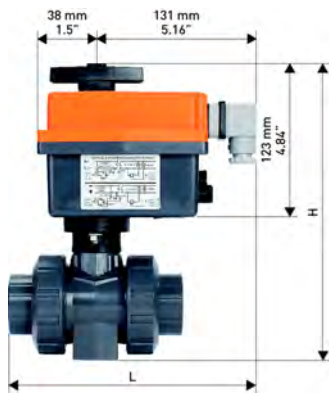
- Material: PP-H
- Voltage according data sheet
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	Voltage	EPDM Code	SP	Weight (kg)	FKM Code
20	15	10	185	100-230V	<b>199 104 563</b>	1	0.965	<b>199 104 573</b>
25	20	10	350	100-230V	<b>199 104 564</b>	1	1.010	<b>199 104 574</b>
32	25	10	700	100-230V	<b>199 104 565</b>	1	1.055	<b>199 104 575</b>
40	32	10	1000	100-230V	<b>199 104 566</b>	1	1.180	<b>199 104 576</b>
50	40	10	1600	24-240V	<b>199 104 587</b>	1	1.860	<b>199 104 597</b>
63	50	10	3100	24-240V	<b>199 104 588</b>	1	2.115	<b>199 104 598</b>

table continued on the next page



H (mm)	L (mm)	Type of actuator	B (mm)
194	196.0	10Nm	50
207	202.5	10Nm	58
217	206.0	10Nm	68
236	216.5	10Nm	84
275	225.5	20Nm	97
307	240.0	20Nm	124



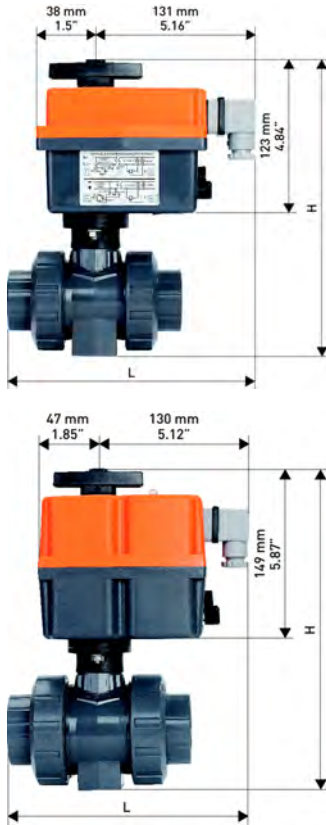
**PROGEF Standard**  
**Ball valve type 104 24V**  
**With butt fusion spigots IR-Plus SDR11 metric**

**Model:**

- Material: PP-H
- Voltage according data sheet
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	Voltage	EPDM Code	SP	Weight (kg)	FKM Code
20	15	10	185	24V	<b>199 104 583</b>	1	0.965	<b>199 104 593</b>
25	20	10	350	24V	<b>199 104 584</b>	1	1.010	<b>199 104 594</b>
32	25	10	700	24V	<b>199 104 585</b>	1	1.055	<b>199 104 595</b>
40	32	10	1000	24V	<b>199 104 586</b>	1	1.180	<b>199 104 596</b>
50	40	10	1600	24-240V	<b>199 104 587</b>	1	1.860	<b>199 104 597</b>
63	50	10	3100	24-240V	<b>199 104 588</b>	1	2.115	<b>199 104 598</b>

H (mm)	L (mm)	Type of actuator	B (mm)
194	196.0	10Nm	50
207	202.5	10Nm	58
217	206.0	10Nm	68
236	216.5	10Nm	84
275	225.5	20Nm	97
307	240.0	20Nm	124



**PROGEF Standard**  
**Ball valve type 104 100-230V**  
**With fusion sockets metric**

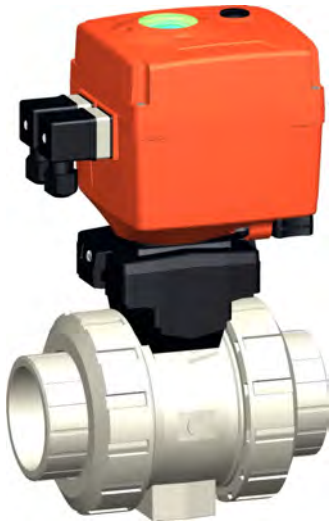
**Model:**

- Material: PP-H
- Voltage according data sheet
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	Voltage	EPDM Code	SP	Weight (kg)	FKM Code
16	10	10	70	100-230V	<b>199 104 502</b>	1	0.965	<b>199 104 512</b>
20	15	10	185	100-230V	<b>199 104 503</b>	1	0.965	<b>199 104 513</b>
25	20	10	350	100-230V	<b>199 104 504</b>	1	1.010	<b>199 104 514</b>
32	25	10	700	100-230V	<b>199 104 505</b>	1	1.055	<b>199 104 515</b>
40	32	10	1000	100-230V	<b>199 104 506</b>	1	1.180	<b>199 104 516</b>
50	40	10	1600	24-240V	<b>199 104 547</b>	1	1.860	<b>199 104 557</b>
63	50	10	3100	24-240V	<b>199 104 548</b>	1	2.115	<b>199 104 558</b>

H (mm)	L (mm)	Type of actuator	B (mm)
194	178.5	10Nm	50
194	178.5	10Nm	50
207	185.5	10Nm	58
217	190.5	10Nm	68
236	198.5	10Nm	84
275	203.5	20Nm	97
307	214.0	20Nm	124

# Ball valves electric type 127



**PROGEF Standard**  
**Ball valve type 127 100-230V**  
**With manual emergency override**  
**With fusion sockets metric**

**Model:**

- Built on with electric actuator EA15
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close)
- Integrated stainless steel mounting inserts

**Option:**

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
16	10	10	70	<b>199 127 502</b>	2.100	<b>199 127 512</b>	2.100
20	15	10	185	<b>199 127 503</b>	2.099	<b>199 127 513</b>	2.100
25	20	10	350	<b>199 127 504</b>	2.200	<b>199 127 514</b>	2.200
32	25	10	700	<b>199 127 505</b>	2.249	<b>199 127 515</b>	2.300
40	32	10	1000	<b>199 127 506</b>	2.433	<b>199 127 516</b>	2.600
50	40	10	1600	<b>199 127 507</b>	3.000	<b>199 127 517</b>	3.000
63	50	10	3100	<b>199 127 508</b>	3.800	<b>199 127 518</b>	3.800

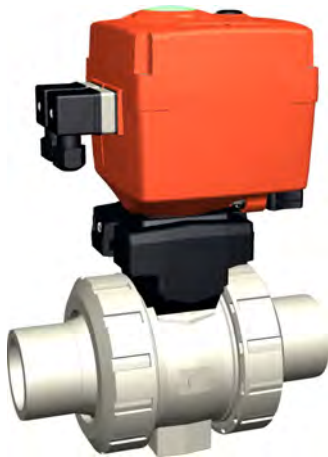
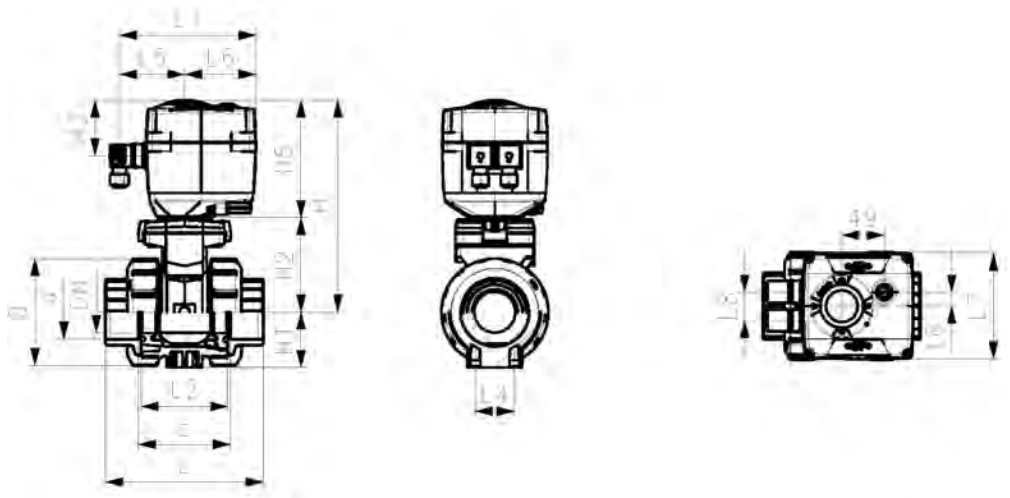
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	z (mm)
16	50	200	27	64	64	137	93	161	56	25	77	83	122	33	67
20	50	200	27	64	64	137	95	161	56	25	77	83	122	33	66
25	58	209	30	73	64	137	108	161	65	25	77	83	122	33	77
32	68	209	36	73	64	137	118	161	71	25	77	83	122	33	83
40	84	220	44	84	64	137	137	161	85	45	77	83	122	33	99
50	97	220	51	84	64	137	147	161	89	45	77	83	122	33	105
63	124	243	64	106	64	137	168	161	101	45	77	83	122	33	117

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4

table continued on the next page



d (mm)	closest inch (inch)
32	1
40	1 ¼
50	1 ½
63	2



**PROGEF Standard**  
**Ball valve type 127 100-230V**  
**With manual emergency override**  
**With socket fusion spigots metric**

**Model:**

- Built on with electric actuator EA15
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close)
- Integrated stainless steel mounting inserts

**Option:**

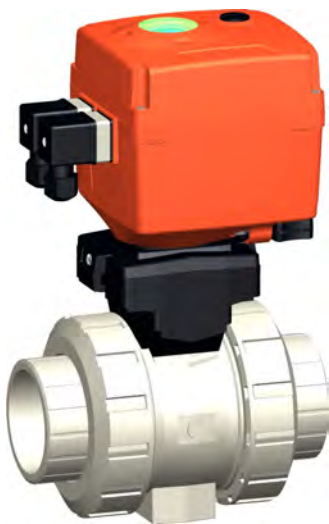
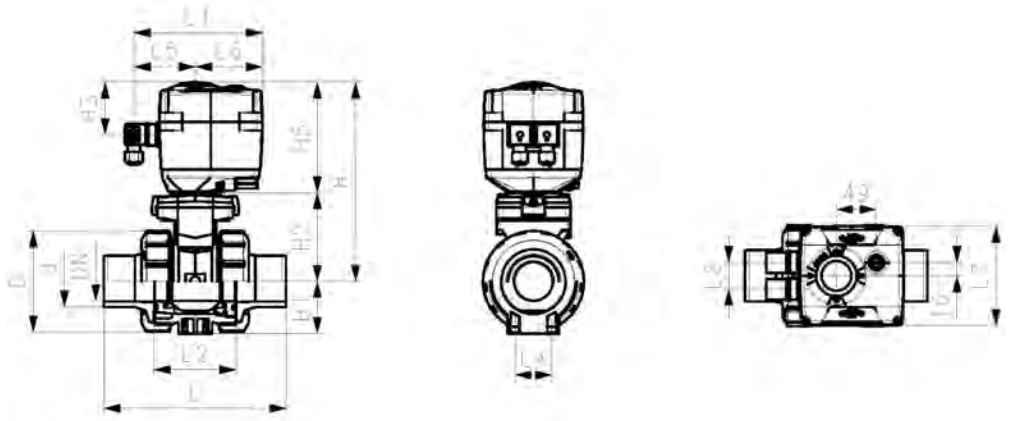
- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (L/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
16	10	10	70	199 127 522	2.100	199 127 532	2.100
20	15	10	185	199 127 523	2.101	199 127 533	2.100
25	20	10	350	199 127 524	2.200	199 127 534	2.200
32	25	10	700	199 127 525	2.255	199 127 535	2.300
40	32	10	1000	199 127 526	2.438	199 127 536	2.600
50	40	10	1600	199 127 527	2.621	199 127 537	2.629
63	50	10	3100	199 127 528	3.800	199 127 538	3.800

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)
16	50	200	27	64	64	137	110	161	56	130	25	77	83	122	33
20	50	200	27	64	64	137	120	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	139	161	65	150	25	77	83	122	33
32	68	209	36	73	64	137	150	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	170	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	190	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	220	161	101	230	45	77	83	122	33

table continued on the next page

d (mm)	closest inch (inch)
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2



**PROGEF Standard**  
**Ball valve type 127 24V**  
**With manual emergency override**  
**With fusion sockets metric**

**Model:**

- Built on with electric actuator EA15
- Voltage 24V AC/DC
- Factory set control range 90°<
- Heating element, position feedback (Open/Close)
- Integrated stainless steel mounting inserts

**Option:**

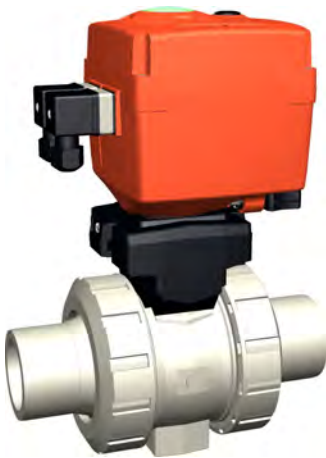
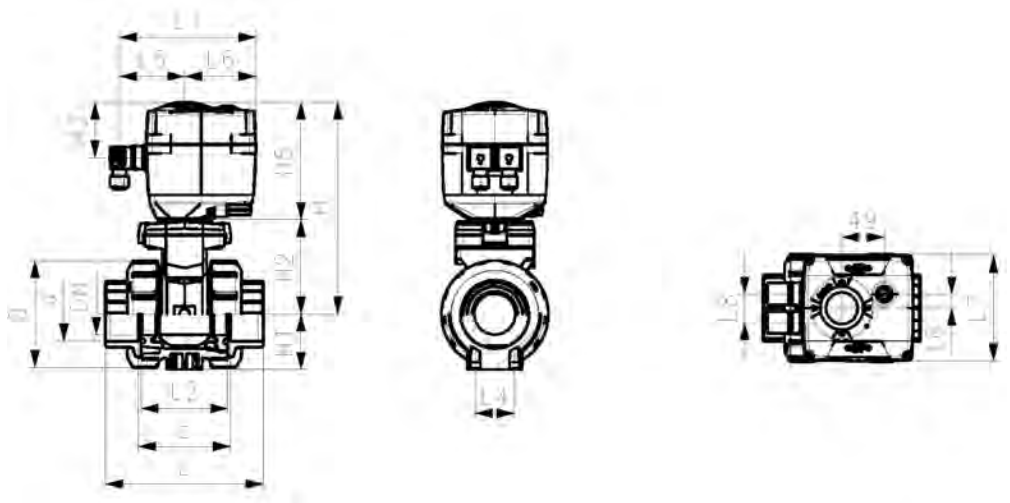
- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (L/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
16	10	10	70	199 127 542	2.100	199 127 552	2.100
20	15	10	185	199 127 543	2.100	199 127 553	2.100
25	20	10	350	199 127 544	2.167	199 127 554	2.200
32	25	10	700	199 127 545	2.300	199 127 555	2.241
40	32	10	1000	199 127 546	2.418	199 127 556	2.600
50	40	10	1600	199 127 547	3.000	199 127 557	3.000
63	50	10	3100	199 127 548	3.800	199 127 558	3.800

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	z (mm)
16	50	200	27	64	64	137	93	161	56	25	77	83	122	33	67
20	50	200	27	64	64	137	95	161	56	25	77	83	122	33	66
25	58	209	30	73	64	137	108	161	65	25	77	83	122	33	77
32	68	209	36	73	64	137	118	161	71	25	77	83	122	33	83
40	84	220	44	84	64	137	137	161	85	45	77	83	122	33	99
50	97	220	51	84	64	137	147	161	89	45	77	83	122	33	105
63	124	243	64	106	64	137	168	161	101	45	77	83	122	33	117

table continued on the next page

d (mm)	closest inch (inch)
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2



**PROGEF Standard**  
**Ball valve type 127 24V**  
**With manual emergency override**  
**With socket fusion spigots metric**

**Model:**

- Built on with electric actuator EA15
- Voltage 24V AC/DC
- Factory set control range 90°<
- Heating element, position feedback (Open/Close)
- Integrated stainless steel mounting inserts

**Option:**

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit

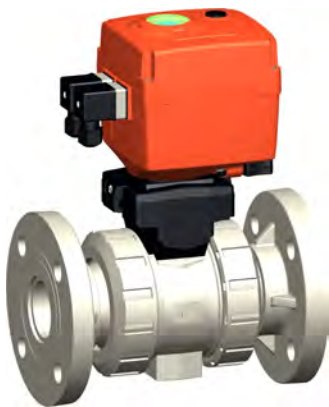
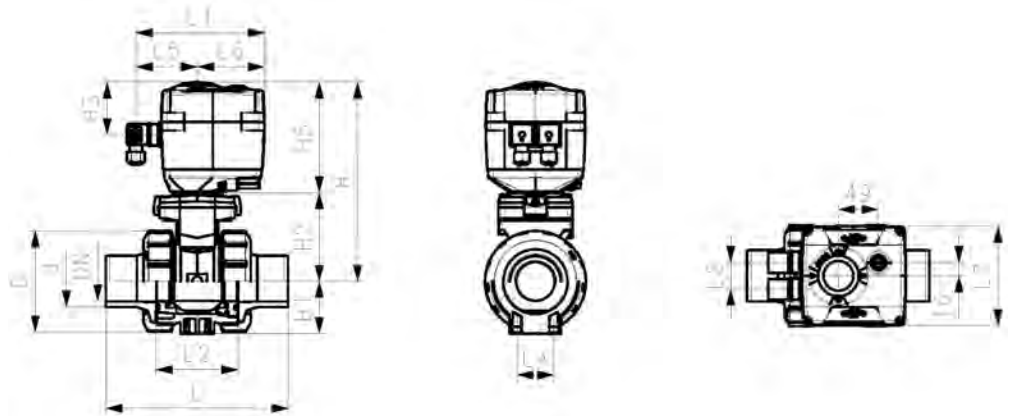
d	DN	PN	kv-value	EPDM	Weight	FKM	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)	Code	(kg)
			(l/min)				
16	10	10	70	199 127 562	2.100	199 127 572	2.100
20	15	10	185	199 127 563	2.100	199 127 573	2.096
25	20	10	350	199 127 564	2.200	199 127 574	2.200
32	25	10	700	199 127 565	2.245	199 127 575	2.300
40	32	10	1000	199 127 566	2.600	199 127 576	2.600
50	40	10	1600	199 127 567	3.000	199 127 577	3.000
63	50	10	3100	199 127 568	3.800	199 127 578	3.800

d	D	H	H1	H2	H3	H5	L	L1	L2	L3	L4	L5	L6	L7	L8
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
16	50	200	27	64	64	137	110	161	56	130	25	77	83	122	33
20	50	200	27	64	64	137	120	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	139	161	65	150	25	77	83	122	33

table continued on the next page

d	D	H	H1	H2	H3	H5	L	L1	L2	L3	L4	L5	L6	L7	L8
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	68	209	36	73	64	137	156	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	170	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	190	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	220	161	101	230	45	77	83	122	33

d	closest
(mm)	inch
	(inch)
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2



**PROGEF Standard**  
**Ball valve type 127 100-230V**  
**With manual emergency override**  
**With fixed flanges PP-H serrated metric**

**Model:**

- Built on with electric actuator EA15
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close)
- Integrated stainless steel mounting inserts

**Option:**

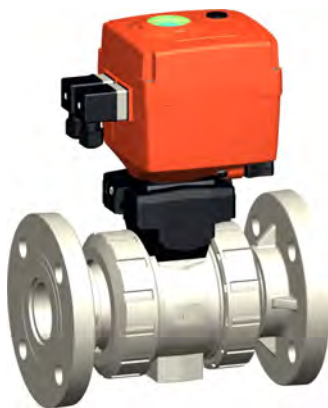
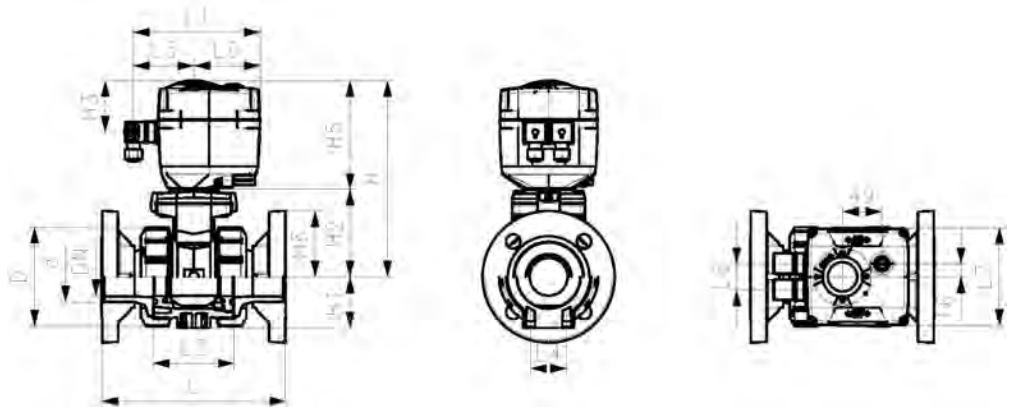
- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit

d	Size	DN	PN	kv-value	EPDM	Weight	FKM	Weight
(mm)	(inch)	(mm)	(bar)	(Δp=1 bar)	Code	(kg)	Code	(kg)
				(l/min)				
20	¾	15	10	185	199 127 583	2.300	199 127 593	2.300
25	¾	20	10	350	199 127 584	2.500	199 127 594	2.500
32	1	25	10	700	199 127 585	2.555	199 127 595	2.700
40	1 ¼	32	10	1000	199 127 586	3.200	199 127 596	3.200
50	1 ½	40	10	1600	199 127 587	3.700	199 127 597	3.700
63	2	50	10	3100	199 127 588	4.800	199 127 598	4.800

table continued on the next page

d	D	H	H1	H2	H3	H5	H6	L	L1	L2	L3	L4	L5	L6	L7
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	50	200	27	64	64	137	48	120	161	56	130	25	77	83	122
25	58	209	30	73	64	137	53	140	161	65	150	25	77	83	122
32	68	209	36	73	64	137	58	150	161	71	160	25	77	83	122
40	84	220	44	84	64	137	70	170	161	85	180	45	77	83	122
50	97	220	51	84	64	137	75	190	161	89	200	45	77	83	122
63	124	243	64	106	64	137	165	220	161	101	230	45	77	83	122

d	L8
(mm)	(mm)
20	33
25	33
32	33
40	33
50	33
63	33



**PROGEF Standard**  
**Ball valve type 127 24V**  
**With manual emergency override**  
**With fixed flanges PP-H serrated metric**

**Model:**

- Built on with electric actuator EA15
- Voltage 24V AC/DC
- Factory set control range 90°<
- Heating element, position feedback (Open/Close)
- Integrated stainless steel mounting inserts

**Option:**

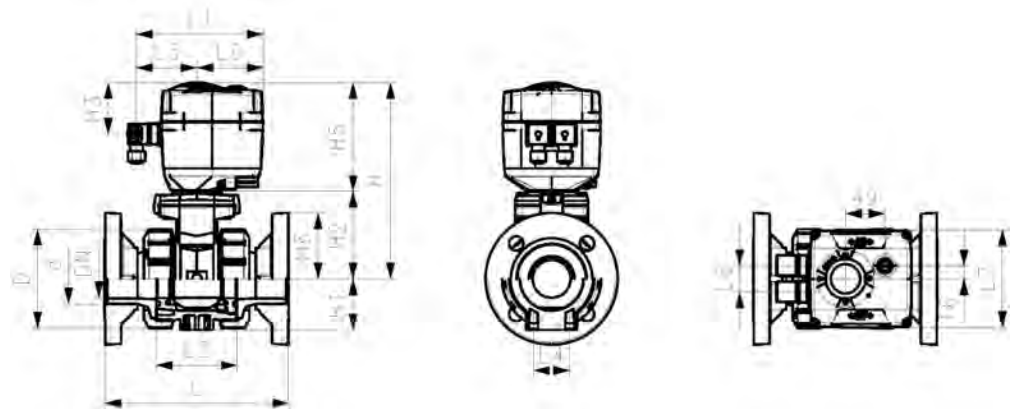
- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit

d	Size	DN	PN	kv-value	EPDM	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
				(l/min)		
20	½	15	10	185	<b>199 127 783</b>	2.300
25	¾	20	10	350	<b>199 127 784</b>	2.500
32	1	25	10	700	<b>199 127 785</b>	2.700
40	1 ¼	32	10	1000	<b>199 127 786</b>	2.496
50	1 ½	40	10	1600	<b>199 127 787</b>	3.700
63	2	50	10	3100	<b>199 127 788</b>	4.800

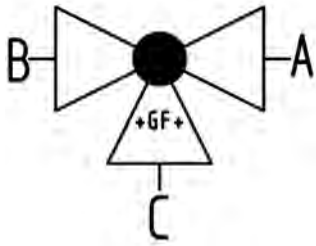
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<b>d</b>	<b>D</b>	<b>H</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H5</b>	<b>H6</b>	<b>L</b>	<b>L1</b>	<b>L2</b>	<b>L3</b>	<b>L4</b>	<b>L5</b>	<b>L6</b>	<b>L7</b>
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	50	200	27	64	64	137	48	120	161	56	130	25	77	83	122
25	58	209	30	73	64	137	53	140	161	65	150	25	77	83	122
32	68	209	36	73	64	137	58	150	161	71	160	25	77	83	122
40	84	220	44	84	64	137	70	170	161	85	180	45	77	83	122
50	97	220	51	84	64	137	75	190	161	89	200	45	77	83	122
63	124	243	64	106	64	137	165	220	161	101	230	45	77	83	122

<b>d</b>	<b>L8</b>
(mm)	(mm)
20	33
25	33
32	33
40	33
50	33
63	33



# Ball valves electric type 168



**PROGEF Standard**  
**3-Way ball valve type 168**  
**Horizontal/L-port 100-230V**  
**With manual emergency override**  
**With fusion sockets metric**

**Model:**

- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Heating element, position feedback (Open/Close/ Middle)
- Integrated stainless steel mounting inserts
- Material: PP-H

**Option:**

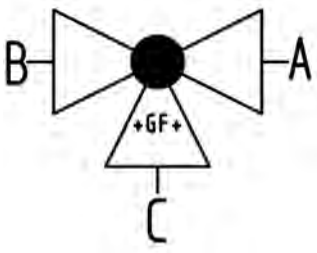
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EA	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
16	10	10	50	EA25	<b>199 168 022</b>	2.038	<b>199 168 032</b>	2.038
20	15	10	75	EA25	<b>199 168 023</b>	2.042	<b>199 168 033</b>	2.042
25	20	10	150	EA25	<b>199 168 024</b>	2.132	<b>199 168 034</b>	2.132
32	25	10	280	EA25	<b>199 168 025</b>	2.257	<b>199 168 035</b>	2.257
40	32	10	480	EA25	<b>199 168 026</b>	2.548	<b>199 168 036</b>	2.548
50	40	10	620	EA25	<b>199 168 027</b>	2.844	<b>199 168 037</b>	2.844
63	50	10	1230	EA25	<b>199 168 028</b>	4.205	<b>199 168 038</b>	3.751

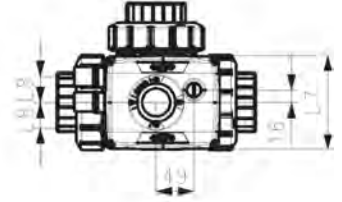
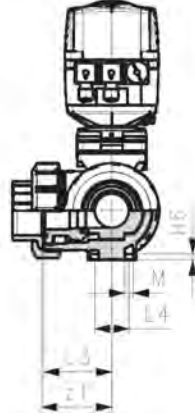
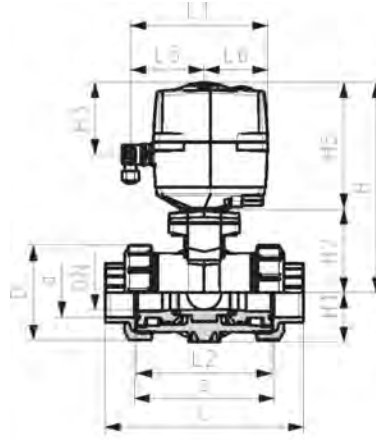
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d (mm)	L8 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	33	6	82	41	3/8
20	33	6	82	41	1/2
25	33	6	97	49	3/4

table continued on the next page



d (mm)	L8 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
32	33	6	110	55	1
40	33	8	132	66	1 ¼
50	33	8	151	76	1 ½
63	33	8	188	94	2





# Ball valves electric type 180



**PROGEF Standard**  
**Ball valve type 180 100-230V**  
**With manual emergency override**  
**With fusion sockets metric**

**Model:**

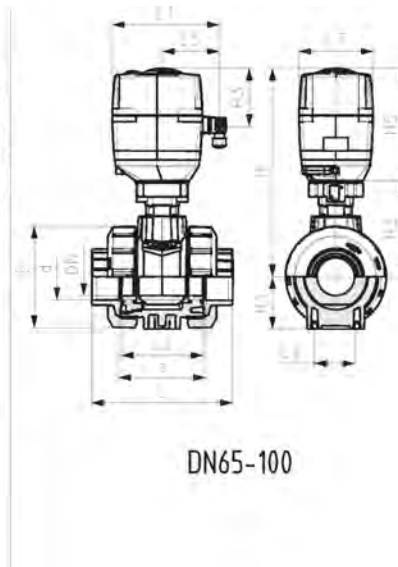
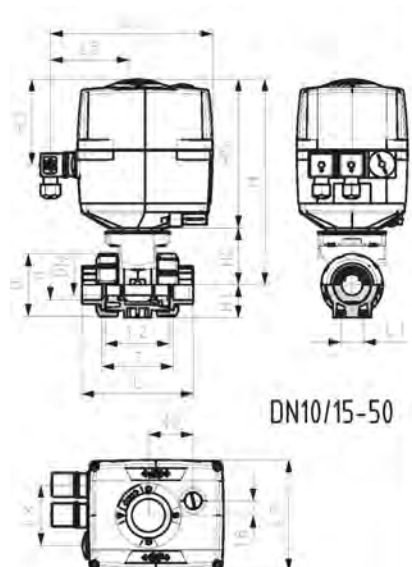
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Integrated stainless steel mounting inserts
- Material: PP-H

**Option:**

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EA	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
16	10	10	70	EA25	<b>199 180 002</b>	2.100	<b>199 180 012</b>	2.100
20	15	10	185	EA25	<b>199 180 003</b>	2.439	<b>199 180 013</b>	2.100
25	20	10	350	EA25	<b>199 180 004</b>	2.200	<b>199 180 014</b>	2.200
32	25	10	700	EA25	<b>199 180 005</b>	2.577	<b>199 180 015</b>	2.589
40	32	10	1000	EA25	<b>199 180 006</b>	2.763	<b>199 180 016</b>	2.600
50	40	10	1600	EA25	<b>199 180 007</b>	3.000	<b>199 180 017</b>	3.000
63	50	10	3100	EA25	<b>199 180 008</b>	3.800	<b>199 180 018</b>	3.482
75	65	10	5000	EA45	<b>199 180 009</b>	6.200	<b>199 180 019</b>	6.200
90	80	10	7000	EA120	<b>199 180 010</b>	8.000	<b>199 180 020</b>	8.000
110	100	10	11000	EA120	<b>199 180 011</b>	11.200	<b>199 180 021</b>	11.200

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L7 (mm)	z (mm)	closest inch (inch)
16	50	231	27	64	94	167	93	180	56	25	97	122	67	3/8
20	50	231	27	64	94	167	95	180	56	25	97	122	66	1/2
25	58	240	30	73	94	167	108	180	65	25	97	122	77	3/4
32	68	240	36	73	94	167	118	180	71	25	97	122	83	1
40	84	251	44	84	94	167	137	180	85	45	97	122	99	1 1/4
50	97	251	51	84	94	167	147	180	89	45	97	122	105	1 1/2
63	124	273	64	106	94	167	168	180	101	45	97	122	117	2
75	166	346	85	156	94	190	233	180	136	70	98	122	167	2 1/2
90	200	358	105	168	94	190	254	180	141	70	98	122	180	3
110	238	365	123	175	94	190	301	180	164	120	98	122	215	4





**PROGEF Standard**  
**Ball valve type 180 24V**  
 With manual emergency override  
 With fusion sockets metric

**Model:**

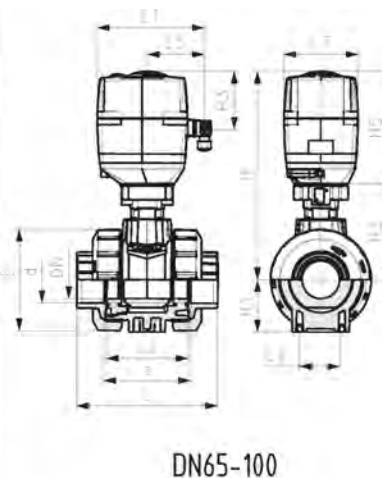
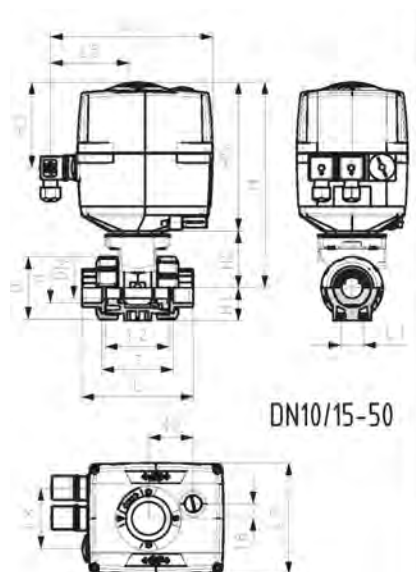
- Voltage 24V AC/DC
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Integrated stainless steel mounting inserts
- Material: PP-H

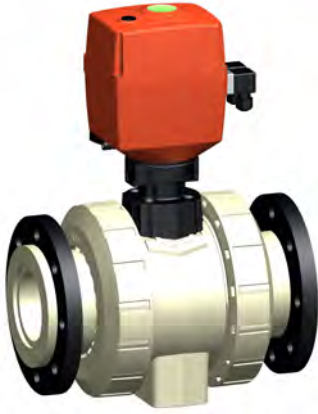
**Option:**

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EA	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
16	10	10	70	EA25	<b>199 180 042</b>	2.100	<b>199 180 052</b>	2.100
20	15	10	185	EA25	<b>199 180 043</b>	2.413	<b>199 180 053</b>	2.100
25	20	10	350	EA25	<b>199 180 044</b>	2.483	<b>199 180 054</b>	2.200
32	25	10	700	EA25	<b>199 180 045</b>	2.300	<b>199 180 055</b>	2.300
40	32	10	1000	EA25	<b>199 180 046</b>	2.746	<b>199 180 056</b>	2.600
50	40	10	1600	EA25	<b>199 180 047</b>	3.555	<b>199 180 057</b>	3.000
63	50	10	3100	EA25	<b>199 180 048</b>	3.447	<b>199 180 058</b>	3.460
75	65	10	5000	EA45	<b>199 180 049</b>	6.200	<b>199 180 059</b>	6.200
90	80	10	7000	EA120	<b>199 180 050</b>	8.000	<b>199 180 060</b>	8.000
110	100	10	11000	EA120	<b>199 180 051</b>	11.200	<b>199 180 061</b>	11.200

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L7 (mm)	z (mm)	closest inch (inch)
16	50	231	27	64	94	167	93	180	56	25	97	122	67	3/8
20	50	231	27	64	94	167	95	180	56	25	97	122	66	1/2
25	58	240	30	73	94	167	108	180	65	25	97	122	77	3/4
32	68	240	36	73	94	167	118	180	71	25	97	122	83	1
40	84	251	44	84	94	167	137	180	85	45	97	122	99	1 1/4
50	97	251	51	84	94	167	147	180	89	45	97	122	105	1 1/2
63	124	273	64	106	94	167	168	180	101	45	97	122	117	2
75	166	346	85	156	94	190	233	180	136	70	98	122	167	2 1/2
90	200	358	105	168	94	190	254	180	141	70	98	122	180	3
110	238	365	123	175	94	190	301	180	164	120	98	122	215	4





**PROGEF Standard**  
**Ball valve type 180 100-230V**  
**With manual emergency override**  
**With backing flanges PP-st metric**

**Model:**

- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Integrated stainless steel mounting inserts
- Material: PP-H
- Overall length EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

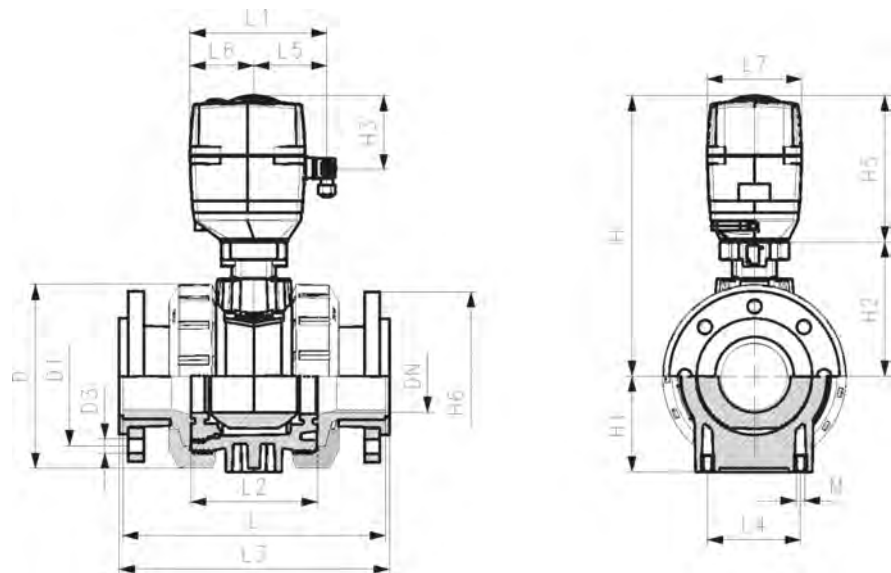
**Option:**

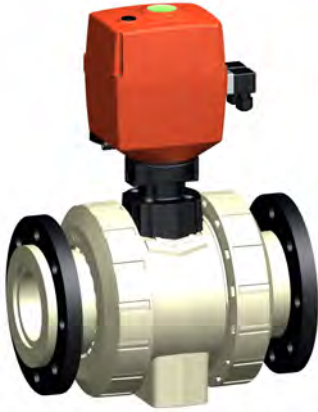
- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d	Size	DN	PN	kv-value	EA	EPDM	Weight	FKM	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)		Code	(kg)	Code	(kg)
				(L/min)					
75	2 ½	65	10	5000	EA45	<b>199 180 129</b>	10.500	<b>199 180 139</b>	10.500
90	3	80	10	7000	EA120	<b>199 180 130</b>	12.800	<b>199 180 140</b>	13.200
110	4	100	10	11000	EA120	<b>199 180 131</b>	18.400	<b>199 180 141</b>	18.400

d	D	H	H1	H2	H3	H5	H6	L	L1	L2	L3	L4	L5	L6	L7
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
75	166	346	85	156	94	190	93	280	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	296	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	336	180	164	350	120	98	83	122

d	L8
(mm)	(mm)
75	66
90	66
110	66





**PROGEF Standard**  
**Ball valve type 180 24V**  
**With manual emergency override**  
**With backing flanges PP-st metric**

**Model:**

- Voltage 24V AC/DC
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Integrated stainless steel mounting inserts
- Material: PP-H
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

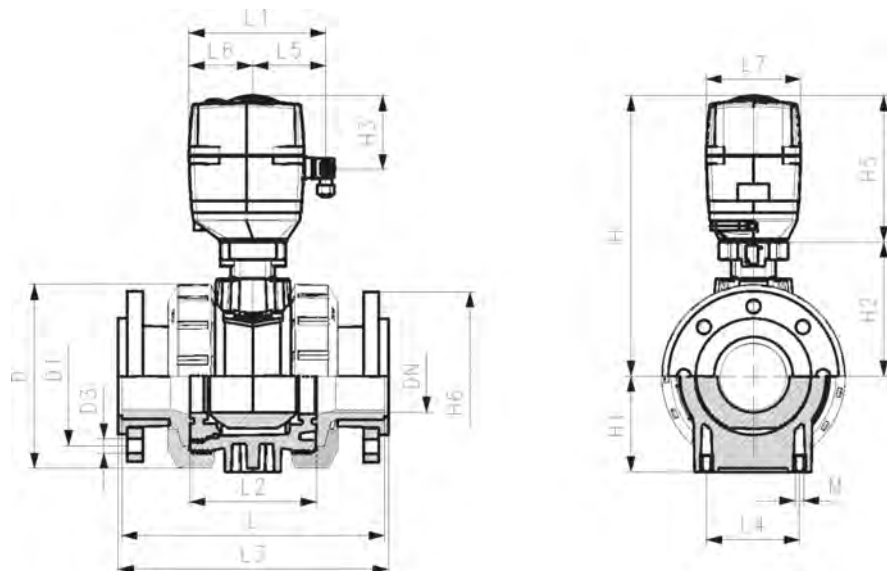
**Option:**

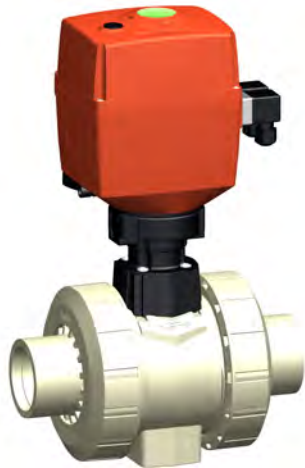
- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d	Size	DN	PN	kv-value	EA	EPDM	Weight	FKM	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)		Code	(kg)	Code	(kg)
75	2 ½	65	10	5000	EA45	<b>199 180 149</b>	10.500	<b>199 180 159</b>	10.500
90	3	80	10	7000	EA120	<b>199 180 150</b>	13.200	<b>199 180 160</b>	13.200
110	4	100	10	11000	EA120	<b>199 180 151</b>	18.400	<b>199 180 161</b>	18.400

d	D	H	H1	H2	H3	H5	H6	L	L1	L2	L3	L4	L5	L6	L7
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
75	166	346	85	156	94	190	93	280	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	296	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	336	180	164	350	120	98	83	122

d	L8
(mm)	(mm)
75	66
90	66
110	66





**PROGEF Standard**  
**Ball valve type 180 100-230V**  
**With manual emergency override**  
**With butt fusion spigots IR-Plus SDR11 metric**

**Model:**

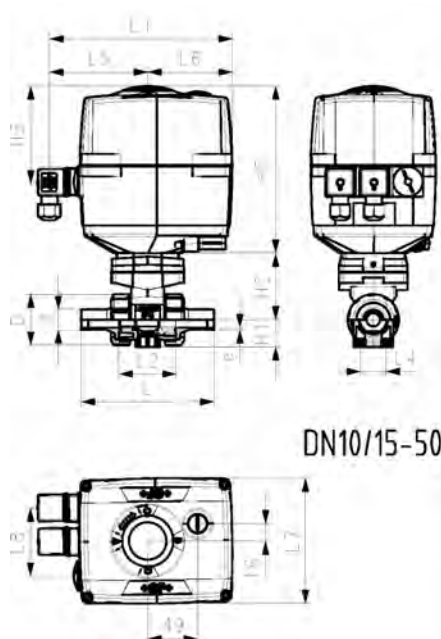
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Integrated stainless steel mounting inserts
- Material: PP-H

**Option:**

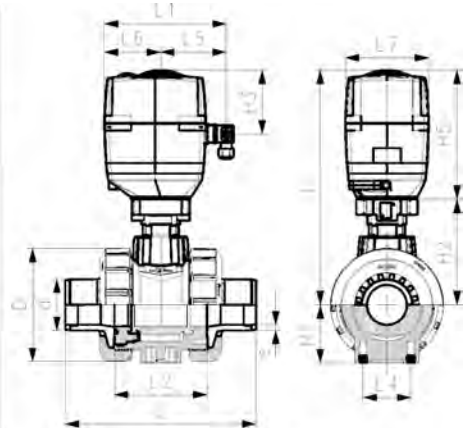
- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EA	EPDM Code	Weight (kg)
20	15	10	185	EA25	<b>199 180 323</b>	2.100
25	20	10	350	EA25	<b>199 180 324</b>	2.200
32	25	10	700	EA25	<b>199 180 325</b>	2.300
40	32	10	1000	EA25	<b>199 180 326</b>	2.600
50	40	10	1600	EA25	<b>199 180 327</b>	2.952
63	50	10	3100	EA25	<b>199 180 328</b>	3.800
75	65	10	5000	EA45	<b>199 180 329</b>	6.200
90	80	10	7000	EA120	<b>199 180 330</b>	8.000
110	100	10	11000	EA120	<b>199 180 331</b>	11.200

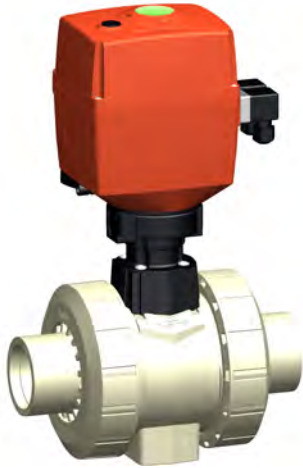
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L7 (mm)	e (mm)	closest inch (inch)
20	50	231	27	64	94	167	130	180	56	130	25	97	122	1.9	1/2
25	58	240	30	73	94	167	143	180	65	150	25	97	122	2.3	3/4
32	68	240	36	73	94	167	150	180	71	160	25	97	122	2.9	1
40	84	251	44	84	94	167	171	180	85	180	45	97	122	3.7	1 1/4
50	97	251	51	84	94	167	191	180	89	200	45	97	122	4.6	1 1/2
63	124	273	64	106	94	167	220	180	101	230	45	97	122	5.8	2
75	166	346	85	156	94	190	266	180	136	290	70	98	122	6.8	2 1/2
90	200	358	105	168	94	190	264	180	141	310	70	98	122	8.2	3
110	238	365	123	175	94	190	301	180	164	350	120	98	122	10.0	4



DN10/15-50



DN65-100



**PROGEF Standard**  
**Ball valve type 180 24V**  
**With manual emergency override**  
**With butt fusion spigots IR-Plus SDR11 metric**

**Model:**

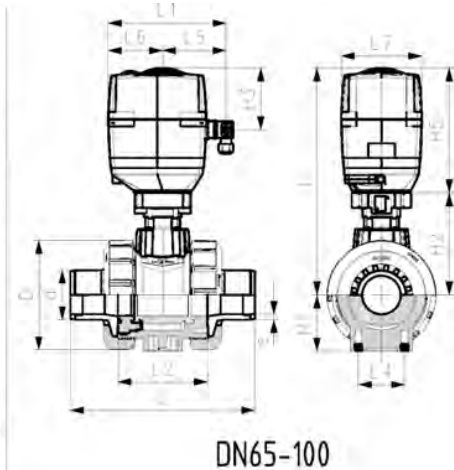
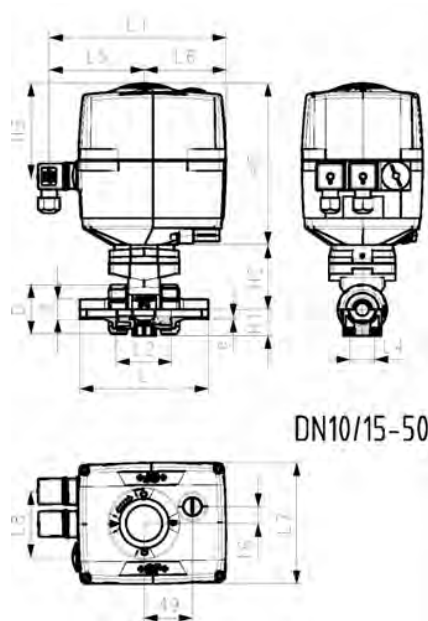
- Voltage 24V AC/DC
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Integrated stainless steel mounting inserts
- Material: PP-H

**Option:**

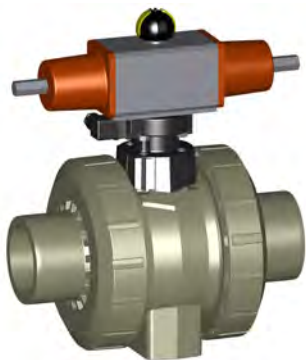
- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d	DN	PN	kv-value	EA	EPDM	FKM	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)		Code	Code	(kg)
			(l/min)				
20	15	10	185	EA25	199 180 363	199 180 373	2.100
25	20	10	350	EA25	199 180 364	199 180 374	2.200
32	25	10	700	EA25	199 180 365	199 180 375	2.300
40	32	10	1000	EA25	199 180 366	199 180 376	2.600
50	40	10	1600	EA25	199 180 367	199 180 377	3.000
63	50	10	3100	EA25	199 180 368	199 180 378	3.800
75	65	10	5000	EA45	199 180 369	199 180 379	6.200
90	80	10	7000	EA120	199 180 370	199 180 380	8.000
110	100	10	11000	EA120	199 180 371	199 180 381	11.200

d	D	H	H1	H2	H3	H5	L	L1	L2	L3	L4	L5	L7	e	closest
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	inch
															(inch)
20	50	231	27	64	94	167	130	180	56	130	25	97	122	1.9	½
25	58	240	30	73	94	167	143	180	65	150	25	97	122	2.3	¾
32	68	240	36	73	94	167	150	180	71	160	25	97	122	2.9	1
40	84	251	44	84	94	167	171	180	85	180	45	97	122	3.7	1 ¼
50	97	251	51	84	94	167	191	180	89	200	45	97	122	4.6	1 ½
63	124	273	64	106	94	167	220	180	101	230	45	97	122	5.8	2
75	166	346	85	156	94	190	266	180	136	290	70	98	122	6.8	2 ½
90	200	358	105	168	94	190	264	180	141	310	70	98	122	8.2	3
110	238	365	123	175	94	190	301	180	164	350	120	98	122	10.0	4



# Ball valves pneumatic type 231



**PROGEF Standard**  
**Ball valve type 231 FO (Fail safe to open)**  
**Without manual override**  
**With butt fusion spigots SDR17.6 metric**

**Model:**

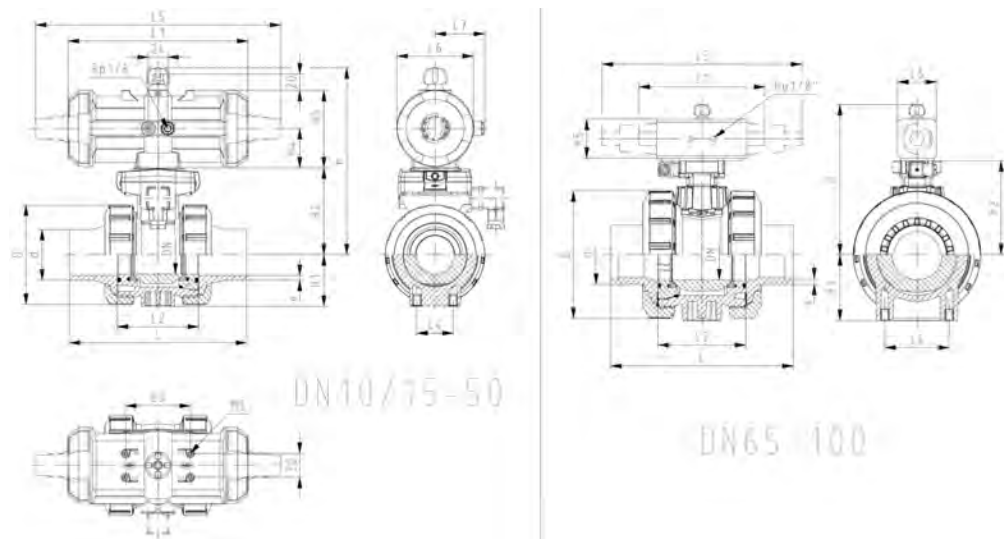
- Material: PP-H
- Control time 90° < 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
75	65	10	5000	199 231 959	6.600	199 231 969	6.600
90	80	10	7000	199 231 960	8.400	199 231 970	8.400
110	100	10	11000	199 231 961	12.600	199 231 971	12.600

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	L (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	e (mm)	closest inch (inch)
75	166	262	85	156	70	266	136	290	70	276	65	4.6	2 1/2
90	200	281	105	168	78	264	141	310	70	341	72	5.5	3
110	238	292	123	175	86	301	164	350	120	369	80	6.7	4





DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 231 FC (Fail safe to close)**  
**Without manual override**  
**With butt fusion spigots SDR17.6 metric**

**Model:**

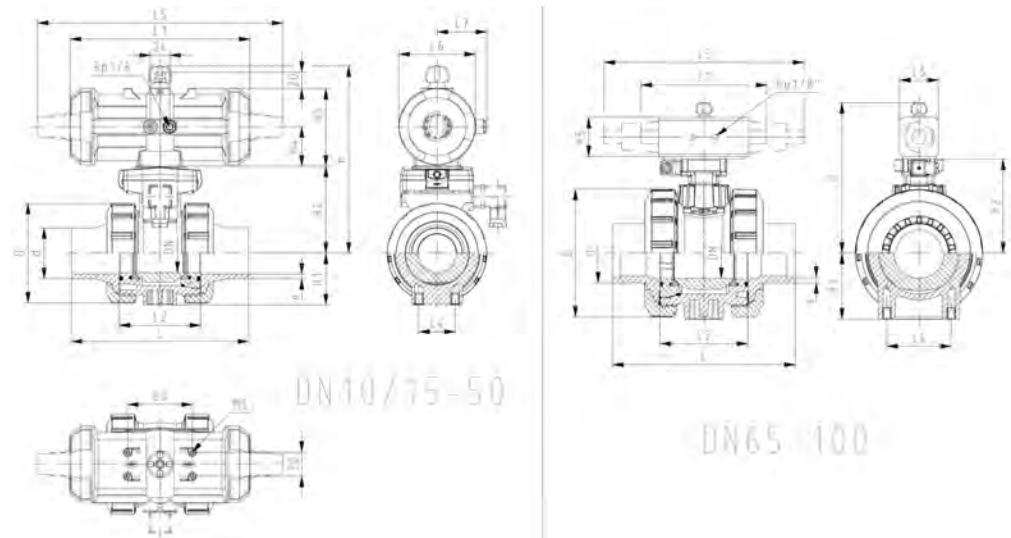
- Material: PP-H
- Control time  $90^\circ <$  1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
50	40	10	1600	199 231 937	6.600		
63	50	10	3100	199 231 938	6.600		
75	65	10	5000	199 231 939	6.600	199 231 949	6.600
90	80	10	7000	199 231 940	8.400	199 231 950	8.400
110	100	10	11000	199 231 941	12.600	199 231 951	12.600

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	L (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	e (mm)	closest inch (inch)
50	97	202	51	84	99	191	89	200	45	305	95	2.9	1 ½
63	142	225	64	106	99	220	101	230	45	305	95	3.6	2
75	166	262	85	156	70	266	136	290	70	276	65	4.6	2 ½
90	200	281	105	168	78	264	141	310	70	341	72	5.5	3
110	238	292	123	175	86	301	164	350	120	369	80	6.7	4







DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 DA (Double acting)**  
**With manual override**  
**With fixed flanges PP-H serrated metric**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

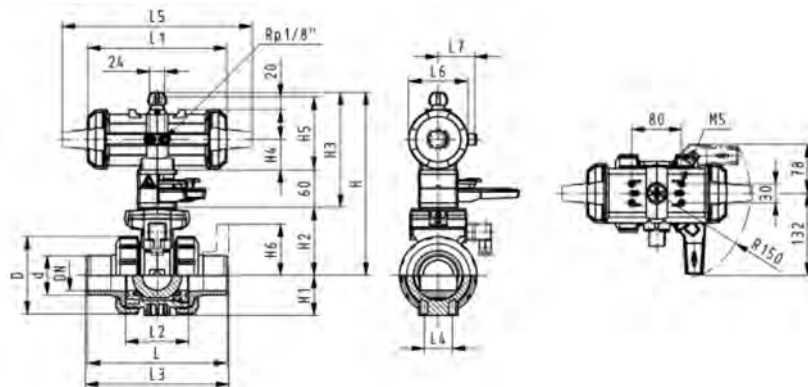
**Option:**

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(l/min)						
20	½	15	10	185	<b>199 231 283</b>	1	1.700	<b>199 231 293</b>	1	1.700
25	¾	20	10	350	<b>199 231 284</b>	1	1.900	<b>199 231 294</b>	1	1.900
32	1	25	10	700	<b>199 231 285</b>	1	2.100	<b>199 231 295</b>	1	2.100
40	1 ¼	32	10	1000	<b>199 231 286</b>	1	3.400	<b>199 231 296</b>	1	3.400
50	1 ½	40	10	1600	<b>199 231 287</b>	1	3.900	<b>199 231 297</b>	1	3.900
63	2	50	10	3100	<b>199 231 288</b>	1	4.900	<b>199 231 298</b>	1	4.900

d	D	H	H1	H2	H3	H4	H5	H6	L	L1	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	50	230	27	62	168	40	77	48	120	194	56	130	25	261	76
25	58	239	30	71	168	40	77	53	139	194	65	150	25	261	76
32	68	239	36	71	168	40	77	58	150	194	71	160	25	261	76
40	84	271	44	84	187	51	99	70	170	224	85	180	45	305	95
50	97	271	51	84	187	51	99	75	190	224	89	200	45	305	95
63	124	293	64	106	187	51	99	83	220	224	101	230	45	305	95

d	L7
(mm)	(mm)
20	48
25	48
32	48
40	59
50	59
63	59





DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 231 DA (Double acting)**  
**Without manual override**  
**With butt fusion spigots SDR17.6 metric**

**Model:**

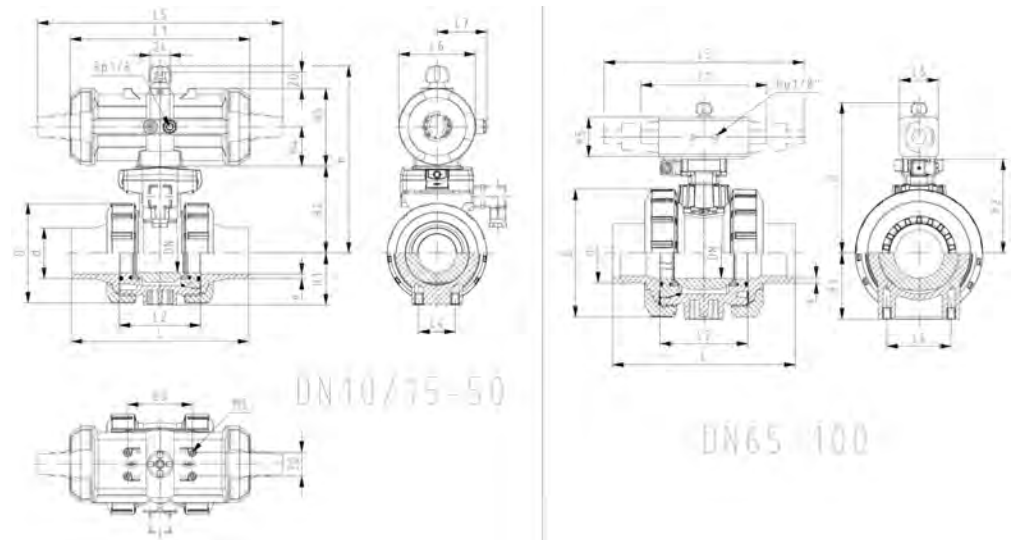
- Material: PP-H
- Control time 90°< 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
50	40	10	1600	199 231 977			
63	50	10	3100	199 231 978			
75	65	10	5000	199 231 979	5.500	199 231 989	5.500
90	80	10	7000	199 231 980	7.800	199 231 990	7.800
110	100	10	11000	199 231 981	10.900	199 231 991	10.900

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L6 (mm)	e (mm)	closest inch (inch)
50	97	202	51	84	99	191	224	89	200	45	95	2.9	1 ½
63	124	225	64	106	99	220	224	101	230	45	95	3.6	2
75	166	257	85	156	66	266	144	136	290	70	60	4.6	2 ½
90	200	274	105	168	70	264	152	141	310	70	65	5.5	3
110	238	273	123	175	78	301	169	164	350	120	72	6.7	4





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 FO (Fail safe to open)**  
**With manual override**  
**With butt fusion spigots IR-Plus SDR11 metric**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

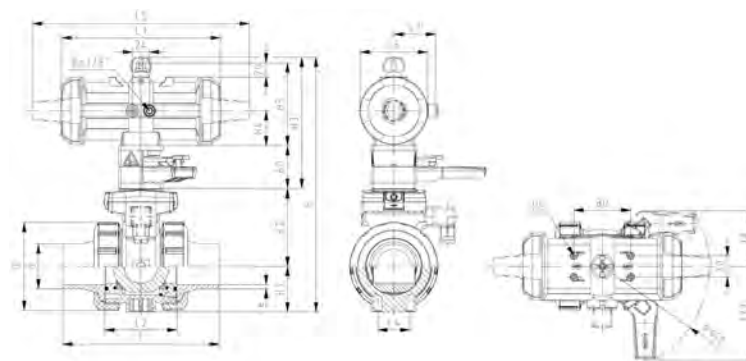
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	10	185	199 231 643	1	1.500	199 231 653	1	1.500
25	20	10	350	199 231 644	1	1.600	199 231 654	1	1.600
32	25	10	700	199 231 645	1	1.700	199 231 655	1	1.700
40	32	10	1000	199 231 646	1	2.800	199 231 656	1	2.800
50	40	10	1600	199 231 647	1	3.100	199 231 657	1	3.100
63	50	10	3100	199 231 648	1	4.000	199 231 658	1	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
20	50	159	27	62	168	40	77	130	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	143	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	171	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	191	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59

d (mm)	e (mm)	closest inch (inch)
20	2	1/2
25	2	3/4
32	3	1
40	4	1 1/4
50	5	1 1/2
63	6	2





DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 231 DA (Double acting)**  
**Without manual override**  
**With butt fusion spigots IR-Plus SDR11 metric**

**Model:**

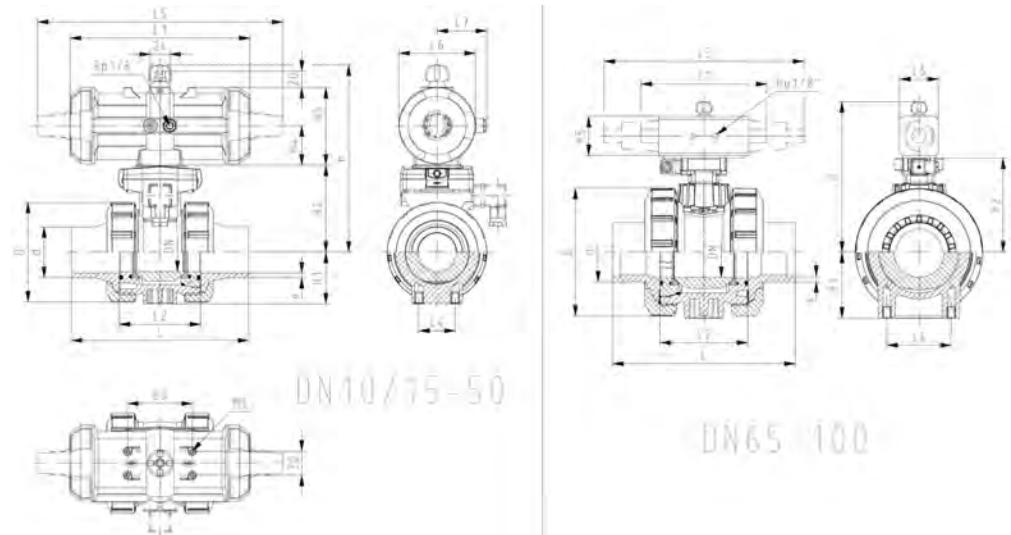
- Material: PP-H
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	10	185	199 231 873	1	1.200	199 231 883	1	1.200
25	20	10	350	199 231 874	1	1.300	199 231 884	1	1.300
32	25	10	700	199 231 875	1	1.400	199 231 885	1	1.400
40	32	10	1000	199 231 876	1	2.500	199 231 886	1	2.500
50	40	10	1600	199 231 877	1	2.800	199 231 887	1	2.800
63	50	10	3100	199 231 878	1	3.700	199 231 888	1	3.700
75	65	10	5000	199 231 879	1	5.500	199 231 889	1	5.500
90	80	10	7000	199 231 880	1	7.800	199 231 890	1	7.800
110	100	10	11000	199 231 881	1	10.900	199 231 891	1	10.900

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L6 (mm)	e (mm)	closest inch (inch)
20	50	159	27	62	77	130	194	56	130	25	76	1.9	½
25	58	168	30	71	77	143	194	65	150	25	76	2.3	¾
32	68	168	36	71	77	150	194	71	160	25	76	2.9	1
40	84	202	44	84	99	171	224	85	180	45	95	3.7	1 ¼
50	97	202	51	84	99	191	224	89	200	45	95	4.6	1 ½
63	124	225	64	106	99	220	224	101	230	45	95	5.8	2
75	166	257	85	156	66	266	144	136	290	70	60	6.8	2 ½
90	200	274	105	168	70	264	152	141	310	70	65	8.2	3
110	238	273	123	175	78	301	169	164	350	120	72	10.0	4





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 DA (Double acting)**  
**Without manual override**  
**With fixed flanges PP-H serrated metric**

**Model:**

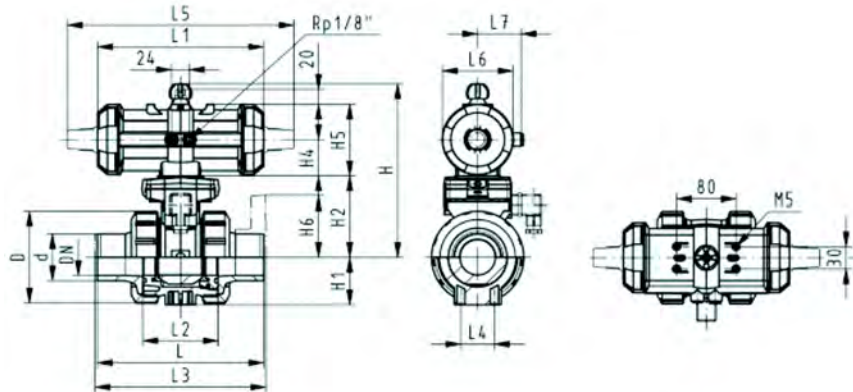
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

**Option:**

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(l/min)						
20	½	15	10	185	199 231 463	1	1.400	199 231 473	1	1.400
25	¾	20	10	350	199 231 464	1	1.600	199 231 474	1	1.600
32	1	25	10	700	199 231 465	1	1.800	199 231 475	1	1.160
40	1 ¼	32	10	1000	199 231 466	1	3.100	199 231 476	1	3.100
50	1 ½	40	10	1600	199 231 467	1	3.600	199 231 477	1	3.600
63	2	50	10	3100	199 231 468	1	4.700	199 231 478	1	2.869

d	D	H	H1	H2	H4	H5	H6	L	L1	L2	L3	L4	L5	L6	L7
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	50	159	27	62	40	77	48	120	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	140	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	150	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	170	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	190	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	220	224	101	230	45	305	95	59





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 FO (Fail safe to open)**  
**With manual override**  
**With fixed flanges PP-H serrated metric**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

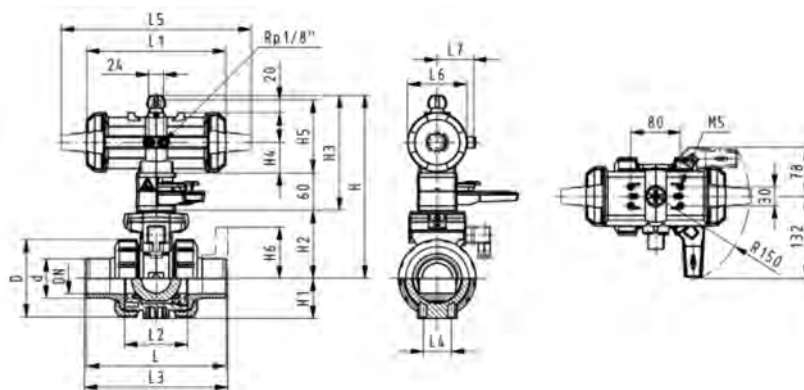
**Option:**

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
20	½	15	10	185	<b>199 231 263</b>	1	1.700	<b>199 231 273</b>	1	1.700
25	¾	20	10	350	<b>199 231 264</b>	1	1.900	<b>199 231 274</b>	1	1.900
32	1	25	10	700	<b>199 231 265</b>	1	2.100	<b>199 231 275</b>	1	2.100
40	1 ¼	32	10	1000	<b>199 231 266</b>	1	3.400	<b>199 231 276</b>	1	3.400
50	1 ½	40	10	1600	<b>199 231 267</b>	1	3.900	<b>199 231 277</b>	1	3.900
63	2	50	10	3100	<b>199 231 268</b>	1	4.900	<b>199 231 278</b>	1	4.900

d	D	H	H1	H2	H3	H4	H5	H6	L	L1	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	58	230	27	62	168	40	77	48	120	194	56	130	25	261	76
25	58	239	30	71	168	40	77	53	139	194	65	150	25	261	76
32	68	239	36	71	168	40	77	58	150	194	71	160	25	261	76
40	84	271	44	84	187	51	99	70	170	224	85	180	45	305	95
50	97	271	51	84	187	51	99	75	190	224	89	200	45	305	95
63	124	293	64	106	187	51	99	83	220	224	101	230	45	305	95

d	L7
(mm)	(mm)
20	48
25	48
32	48
40	59
50	59
63	59





**PROGEF Standard**  
**Ball valve type 231 DA (Double acting)**  
**Without manual override**  
**With backing flanges PP-st metric**

**Model:**

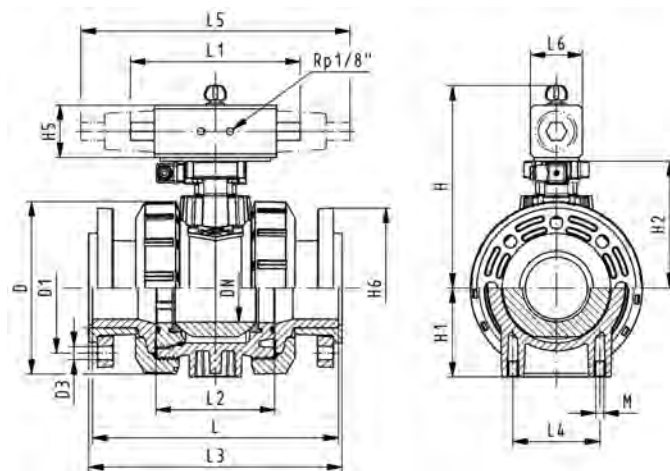
- Material: PP-H
- Control time  $90^\circ <$  1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

**Option:**

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(L/min)						
75	2 ½	65	10	5000	<b>199 231 369</b>	1	8.460	<b>199 231 379</b>	1	9.700
90	3	80	10	7000	<b>199 231 370</b>	1	13.000	<b>199 231 380</b>	1	13.000
110	4	100	10	11000	<b>199 231 371</b>	1	18.000	<b>199 231 381</b>	1	18.000

d	D	H	H1	H2	H5	H6	L	L1	L2	L3	L4	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
75	166	257	85	156	66	93	280	144	136	290	70	60
90	200	274	105	168	70	100	296	152	141	310	70	65
110	238	273	123	175	78	110	336	169	164	350	120	72





DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 231 DA (Double acting)**  
**Without manual override**  
**With socket fusion spigots metric**

**Model:**

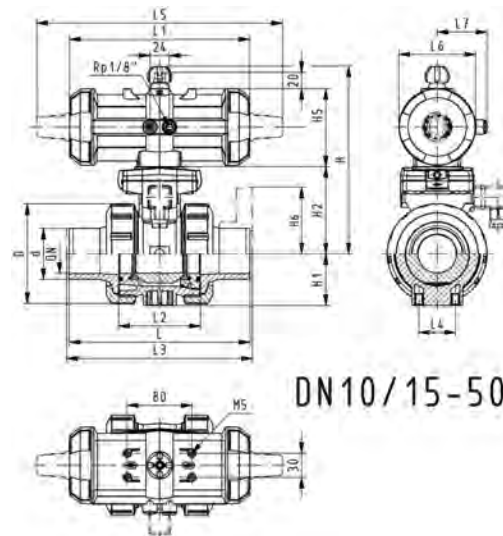
- Material: PP-H
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

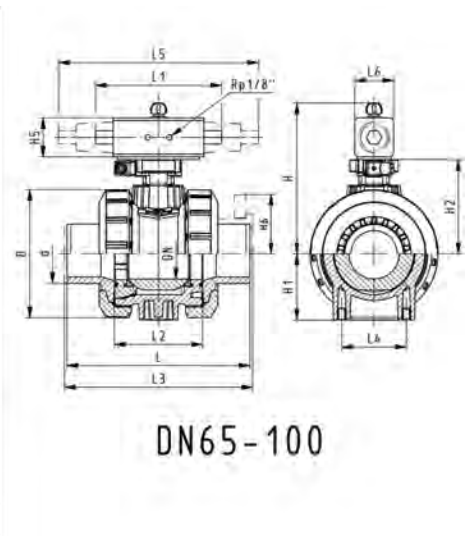
- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	70	199 231 222	1	1.200	199 231 232	1	1.200
20	15	10	185	199 231 223	1	1.200	199 231 233	1	1.200
25	20	10	350	199 231 224	1	1.300	199 231 234	1	1.300
32	25	10	700	199 231 225	1	1.400	199 231 235	1	0.929
40	32	10	1000	199 231 226	1	2.500	199 231 236	1	2.500
50	40	10	1600	199 231 227	1	2.800	199 231 237	1	2.800
63	50	10	3100	199 231 228	1	3.700	199 231 238	1	3.700
75	65	10	5000	199 231 229	1	5.500	199 231 239	1	5.500
90	80	10	7000	199 231 230	1	7.800	199 231 240	1	7.800
110	100	10	11000	199 231 231	1	10.900	199 231 241	1	10.900

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
16	50	159	27	62	77	110	194	56	130	25	261	76	48	3/8
20	50	159	27	62	77	120	194	56	130	25	261	76	48	1/2
25	58	168	30	71	77	139	194	65	150	25	261	76	48	3/4
32	68	168	36	71	77	150	194	71	160	25	261	76	48	1
40	84	202	44	84	99	170	224	85	180	45	305	95	59	1 1/4
50	97	202	51	84	99	190	224	89	200	45	305	95	59	1 1/2
63	124	225	64	106	99	220	224	101	230	45	305	95	59	2
75	166	257	85	156	66	280	144	136	290	70		60		2 1/2
90	200	274	105	168	70	296	152	141	310	70		65		3
110	238	273	123	175	78	336	169	164	350	120		72		4



DN10/15-50



DN65-100





DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 231 DA (Double acting)**  
**Without manual override**  
**With fusion sockets metric**

**Model:**

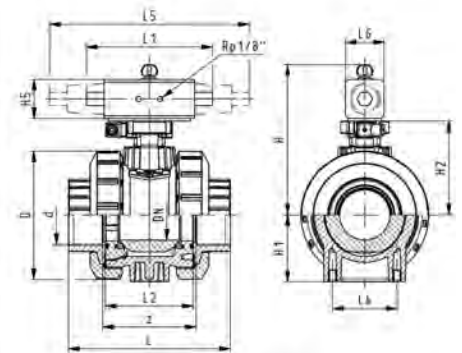
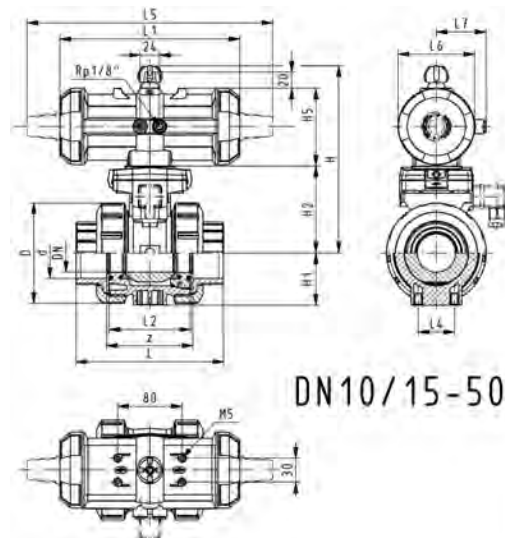
- Material: PP-H
- Control time  $90^\circ <$  1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	70	199 231 202	1	1.200	199 231 212	1	1.200
20	15	10	185	199 231 203	1	0.766	199 231 213	1	0.774
25	20	10	350	199 231 204	1	0.844	199 231 214	1	1.300
32	25	10	700	199 231 205	1	0.920	199 231 215	1	0.919
40	32	10	1000	199 231 206	1	2.500	199 231 216	1	2.500
50	40	10	1600	199 231 207	1	1.691	199 231 217	1	1.701
63	50	10	3100	199 231 208	1	3.700	199 231 218	1	3.700
75	65	10	5000	199 231 209	1	5.400	199 231 219	1	5.400
90	80	10	7000	199 231 210	1	7.700	199 231 220	1	7.700
110	100	10	11000	199 231 211	1	10.800	199 231 221	1	10.800

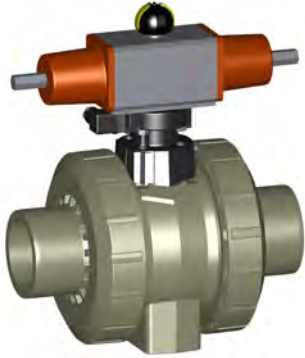
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)	closest inch (inch)
16	50	159	27	62	77	93	194	56	25	261	76	48	66	$\frac{3}{8}$
20	50	159	27	62	77	95	194	56	25	261	76	48	67	$\frac{1}{2}$
25	58	168	30	71	77	108	194	65	25	261	76	48	77	$\frac{3}{4}$
32	68	168	36	71	77	118	194	71	25	261	76	48	83	1
40	84	202	44	84	99	137	224	85	45	305	95	59	99	1 $\frac{1}{4}$
50	97	202	51	84	99	147	224	89	45	305	95	59	105	1 $\frac{1}{2}$
63	124	225	64	106	99	168	224	101	45	305	95	59	117	2
75	166	257	85	156	66	233	144	136	70		60		167	2 $\frac{1}{2}$
90	200	274	105	168	70	254	152	141	70		65		180	3
110	238	273	123	175	78	301	169	164	120		72		215	4



DN65-100



DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 231 FO (Fail safe to open)**  
**Without manual override**  
**With butt fusion spigots IR-Plus SDR11 metric**

**Model:**

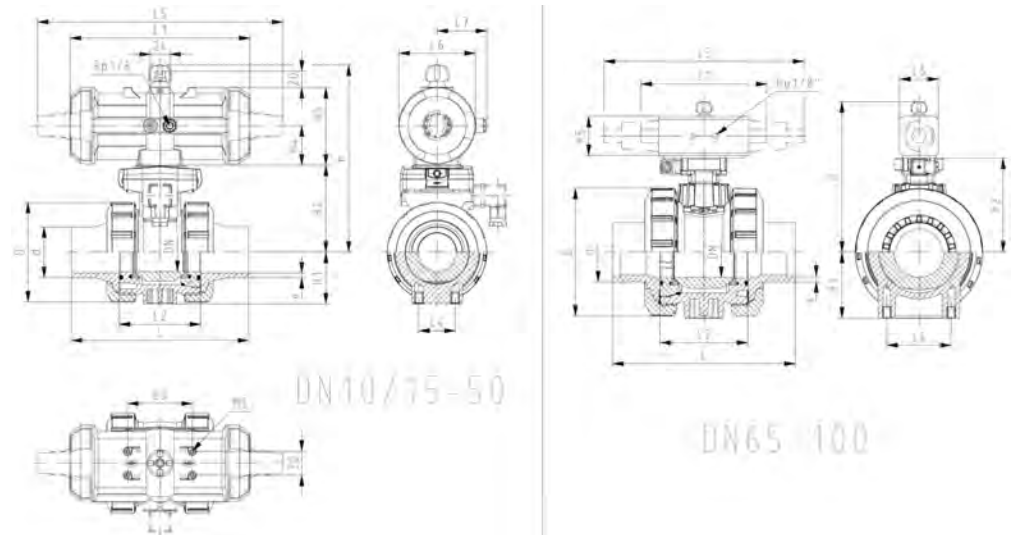
- Material: PP-H
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	10	185	199 231 853	1	1.200	199 231 863	1	1.200
25	20	10	350	199 231 854	1	1.300	199 231 864	1	1.300
32	25	10	700	199 231 855	1	1.400	199 231 865	1	1.400
40	32	10	1000	199 231 856	1	2.500	199 231 866	1	2.032
50	40	10	1600	199 231 857	1	2.800	199 231 867	1	2.800
63	50	10	3100	199 231 858	1	2.774	199 231 868	1	2.791
75	65	10	5000	199 231 859	1	6.600	199 231 869	1	6.600
90	80	10	7000	199 231 860	1	8.400	199 231 870	1	8.400
110	100	10	11000	199 231 861	1	12.600	199 231 871	1	12.600

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	e (mm)	closest inch (inch)
20	50	159	27	62	77	120	194	56	130	25	261	76	1.9	½
25	58	168	30	71	77	139	194	65	150	25	261	76	2.3	¾
32	68	168	36	71	77	150	194	71	160	25	261	76	2.9	1
40	84	202	44	84	99	170	224	85	180	45	305	95	3.7	1 ¼
50	97	202	51	84	99	190	224	89	200	45	305	95	4.6	1 ½
63	124	225	64	106	99	220	224	101	230	45	305	95	5.8	2
75	166	262	85	156	70	266	218	136	290	70	276	65	6.8	2 ½
90	200	281	105	168	78	264	259	141	310	70	341	72	8.2	3
110	238	292	123	175	86	301	287	164	350	120	369	80	10.0	4





**PROGEF Standard**  
**Ball valve type 231 FO (Fail safe to open)**  
**Without manual override**  
**With backing flanges PP-st metric**

**Model:**

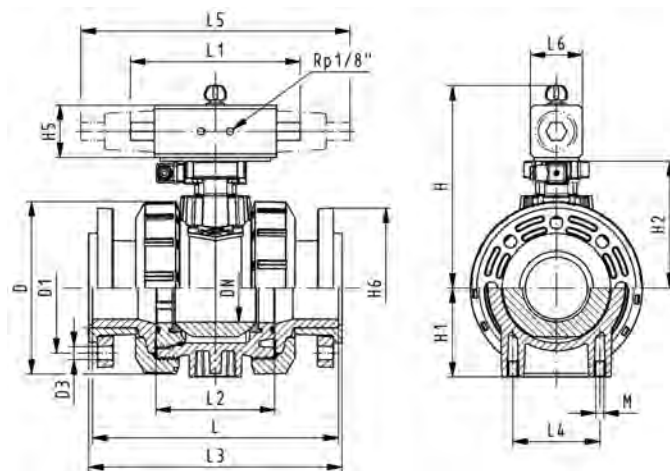
- Material: PP-H
- Control time  $90^\circ <$  1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

**Option:**

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(L/min)						
75	2 1/2	65	10	5000	199 231 349	1	10.900	199 231 359	1	10.900
90	3	80	10	7000	199 231 350	1	13.600	199 231 360	1	13.600
110	4	100	10	11000	199 231 351	1	19.800	199 231 361	1	19.800

d	D	H	H1	H2	H5	H6	L	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	110	336	164	350	120	369	80





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 DA (Double acting)**  
**With manual override**  
**With socket fusion spigots metric**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

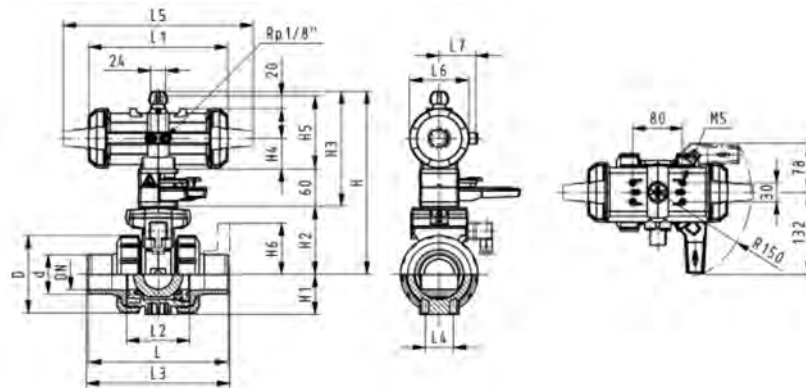
- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
16	10	10	70	199 231 102	1	1.500	199 231 112
20	15	10	185	199 231 103	1	1.500	199 231 113
25	20	10	350	199 231 104	1	1.600	199 231 114
32	25	10	700	199 231 105	1	1.700	199 231 115
40	32	10	1000	199 231 106	1	2.800	199 231 116
50	40	10	1600	199 231 107	1	3.100	199 231 117
63	50	10	3100	199 231 108	1	4.000	199 231 118

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
16	50	159	27	62	168	40	77	110	194	56		25	261	76	48
20	50	159	27	62	168	40	77	120	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	139	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	170	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	190	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59

**d closest  
(mm) inch**

16	3/4
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 231 FC (Fail safe to close)**  
**Without manual override**  
**With fusion sockets metric**

**Model:**

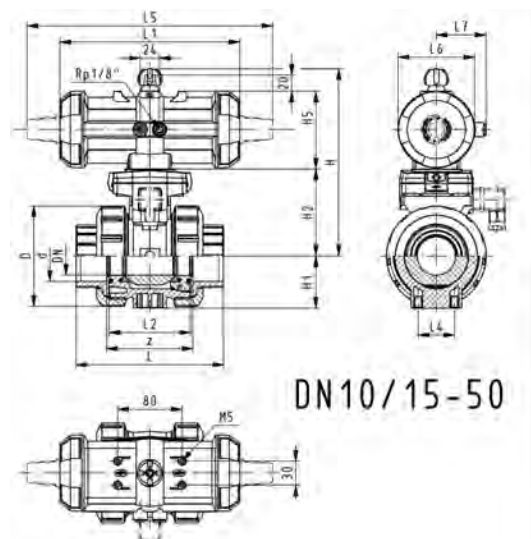
- Material: PP-H
- Control time  $90^\circ <$  1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

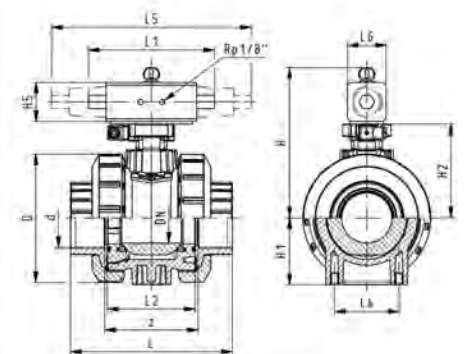
- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	70	199 231 122	1	1.200	199 231 132	1	1.200
20	15	10	185	199 231 123	1	1.002	199 231 133	1	0.996
25	20	10	350	199 231 124	1	1.072	199 231 134	1	1.300
32	25	10	700	199 231 125	1	1.149	199 231 135	1	1.129
40	32	10	1000	199 231 126	1	2.500	199 231 136	1	2.500
50	40	10	1600	199 231 127	1	2.185	199 231 137	1	2.800
63	50	10	3100	199 231 128	1	2.719	199 231 138	1	3.700
75	65	10	5000	199 231 129	1	6.600	199 231 139	1	5.142
90	80	10	7000	199 231 130	1	8.400	199 231 140	1	8.057
110	100	10	11000	199 231 131	1	12.600	199 231 141	1	12.600

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)	closest inch (inch)
16	50	159	27	62	77	93	194	56	25	261	76	48	67	$\frac{3}{8}$
20	50	159	27	62	77	95	194	56	25	261	76	48	66	$\frac{1}{2}$
25	58	168	30	71	77	108	194	65	25	261	76	48	77	$\frac{3}{4}$
32	68	168	36	71	77	118	194	71	25	261	76	48	83	1
40	84	202	44	84	99	137	224	85	45	305	95	59	99	1 $\frac{1}{4}$
50	97	202	51	84	99	147	224	89	45	305	95	59	105	1 $\frac{1}{2}$
63	124	225	64	106	99	168	224	101	45	305	95	59	117	2
75	166	262	85	156	70	233		136	70	276	65		167	2 $\frac{1}{2}$
90	200	281	105	168	78	254		141	70	341	72		180	3
110	238	292	123	175	86	301		164	120	369	80		215	4



DN10/15-50



DN65-100



DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 DA (Double acting)**  
**With manual override**  
**With butt fusion spigots IR-Plus SDR11 metric**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

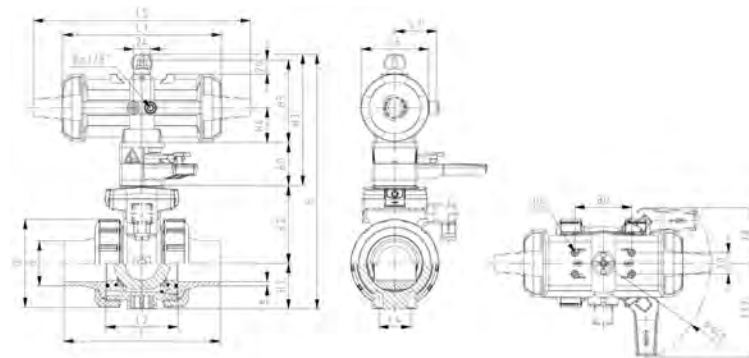
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10	185	199 231 663	1	1.500	199 231 673
25	20	10	350	199 231 664	1	1.600	199 231 674
32	25	10	700	199 231 665	1	1.700	199 231 675
40	32	10	1000	199 231 666	1	2.800	199 231 676
50	40	10	1600	199 231 667	1	3.100	199 231 677
63	50	10	3100	199 231 668	1	4.000	199 231 678

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
20	50	159	27	62	168	40	77	130	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	143	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	171	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	191	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59

d (mm)	e (mm)	closest inch (inch)
20	2	1/2
25	2	3/4
32	3	1
40	4	1 1/4
50	5	1 1/2
63	6	2





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 FO (Fail safe to open)**  
**Without manual override**  
**With fixed flanges PP-H serrated metric**

**Model:**

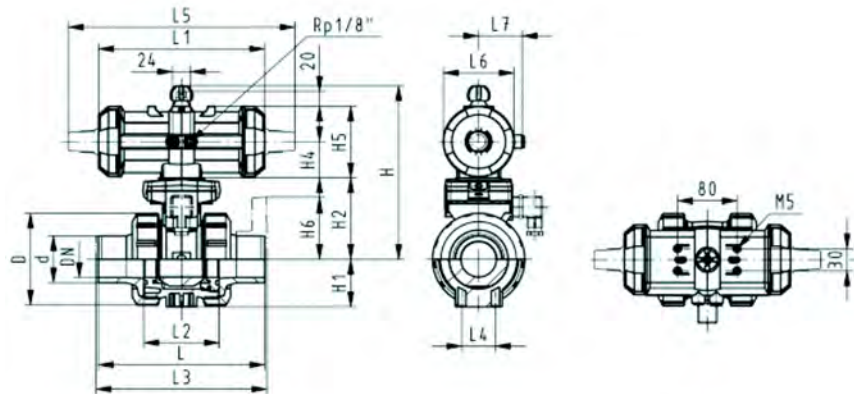
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

**Option:**

- Individual configuration of the valve (see diagram)

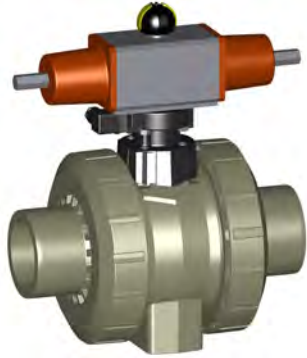
d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(l/min)						
20	½	15	10	185	199 231 443	1	1.400	199 231 453	1	1.400
25	¾	20	10	350	199 231 444	1	1.600	199 231 454	1	1.600
32	1	25	10	700	199 231 445	1	1.800	199 231 455	1	1.800
40	1 ¼	32	10	1000	199 231 446	1	3.100	199 231 456	1	3.100
50	1 ½	40	10	1600	199 231 447	1	3.600	199 231 457	1	3.600
63	2	50	10	3100	199 231 448	1	4.700	199 231 458	1	4.700

d	D	H	H1	H2	H4	H5	H6	L	L1	L2	L3	L4	L5	L6	L7
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	50	159	27	62	40	77	48	120	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	140	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	150	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	170	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	190	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	220	224	101	230	45	305	95	59





DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 231 FC (Fail safe to close)**  
**Without manual override**  
**With socket fusion spigots metric**

**Model:**

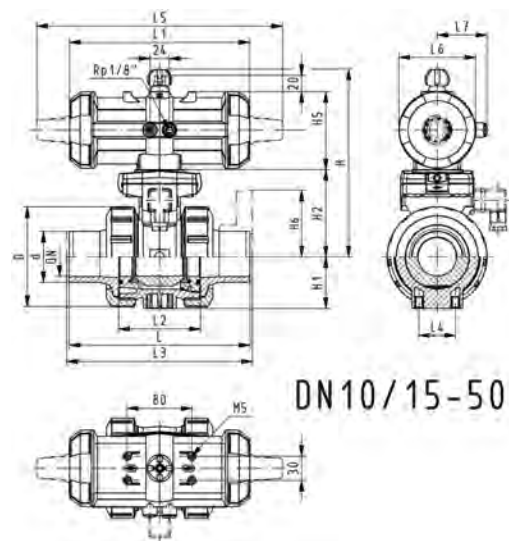
- Material: PP-H
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

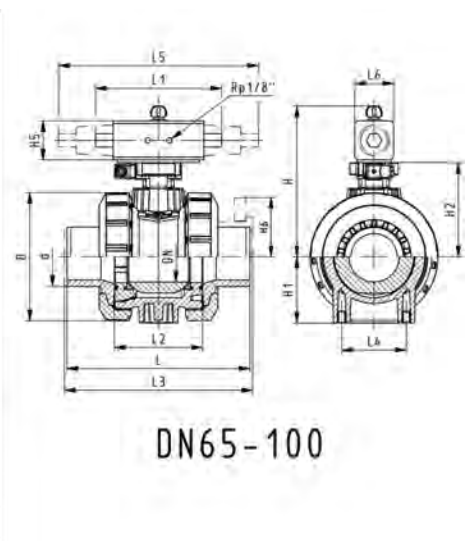
- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	70	199 231 142	1	1.200	199 231 152	1	1.200
20	15	10	185	199 231 143	1	1.001	199 231 153	1	1.004
25	20	10	350	199 231 144	1	1.300	199 231 154	1	1.300
32	25	10	700	199 231 145	1	1.156	199 231 155	1	1.400
40	32	10	1000	199 231 146	1	2.500	199 231 156	1	2.035
50	40	10	1600	199 231 147	1	2.800	199 231 157	1	2.228
63	50	10	3100	199 231 148	1	2.784	199 231 158	1	3.700
75	65	10	5000	199 231 149	1	6.600	199 231 159	1	6.600
90	80	10	7000	199 231 150	1	8.400	199 231 160	1	8.400
110	100	10	11000	199 231 151	1	12.600	199 231 161	1	12.600

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
16	50	159	27	62	77	110	194	56	130	25	261	76	48	3/8
20	50	159	27	62	77	120	194	56	130	25	261	76	48	1/2
25	58	168	30	71	77	139	194	65	150	25	261	76	48	3/4
32	68	168	36	71	77	150	194	71	160	25	261	76	48	1
40	84	202	44	84	99	170	224	85	180	45	305	95	59	1 1/4
50	97	202	51	84	99	190	224	89	200	45	305	95	59	1 1/2
63	124	225	64	106	99	220	224	101	230	45	305	95	59	2
75	166	262	85	156	70	280		136	290	70	276	65		2 1/2
90	200	281	105	168	78	296		141	310	70	341	72		3
110	238	292	123	175	86	336		164	350	120	369	80		4



DN10/15-50



DN65-100





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 FC (Fail safe to close)**  
**Without manual override**  
**With fixed flanges PP-H serrated metric**

**Model:**

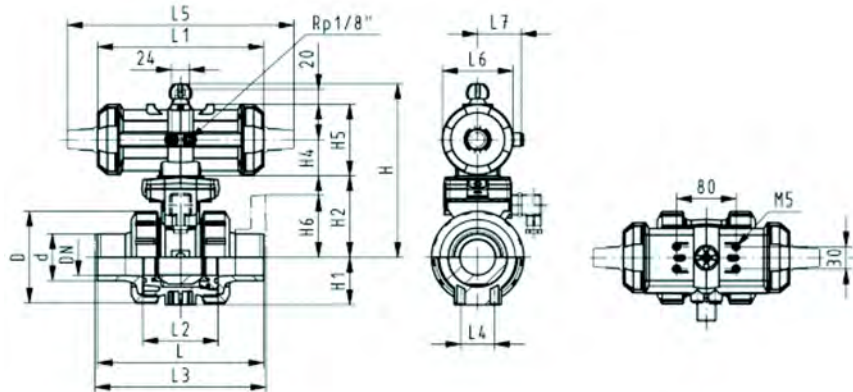
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

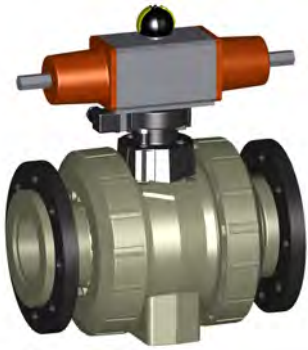
**Option:**

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(l/min)						
20	½	15	10	185	199 231 423	1	1.400	199 231 433	1	1.400
25	¾	20	10	350	199 231 424	1	1.600	199 231 434	1	1.600
32	1	25	10	700	199 231 425	1	1.800	199 231 435	1	1.377
40	1 ¼	32	10	1000	199 231 426	1	3.100	199 231 436	1	3.100
50	1 ½	40	10	1600	199 231 427	1	2.631	199 231 437	1	3.600
63	2	50	10	3100	199 231 428	1	3.348	199 231 438	1	4.700

d	D	H	H1	H2	H4	H5	H6	L	L1	L2	L3	L4	L5	L6	L7
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	50	159	27	62	40	77	48	120	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	140	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	150	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	170	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	190	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	220	224	101	230	45	305	95	59





**PROGEF Standard**  
**Ball valve type 231 FC (Fail safe to close)**  
**Without manual override**  
**With backing flanges PP-st metric**

**Model:**

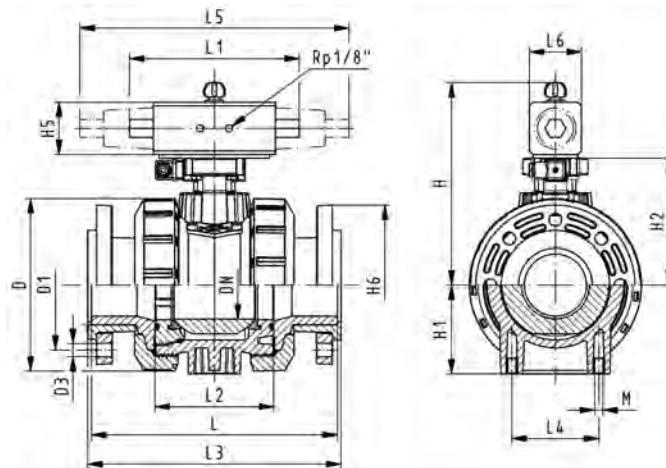
- Material: PP-H
- Control time  $90^\circ <$  1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

**Option:**

- Individual configuration of the valve (see diagram)

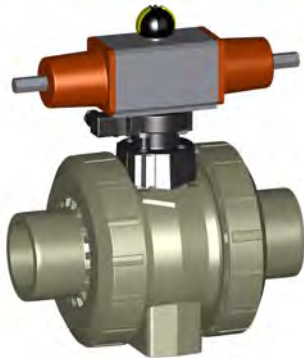
d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(L/min)						
75	2 1/2	65	10	5000	<b>199 231 329</b>	1	8.160	<b>199 231 339</b>	1	5.228
90	3	80	10	7000	<b>199 231 330</b>	1	13.600	<b>199 231 340</b>	1	13.600
110	4	100	10	11000	<b>199 231 331</b>	1	19.800	<b>199 231 341</b>	1	19.800

d	D	H	H1	H2	H5	H6	L	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	110	336	164	350	120	369	80





DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 231 FC (Fail safe to close)**  
**Without manual override**  
**With butt fusion spigots IR-Plus SDR11 metric**

**Model:**

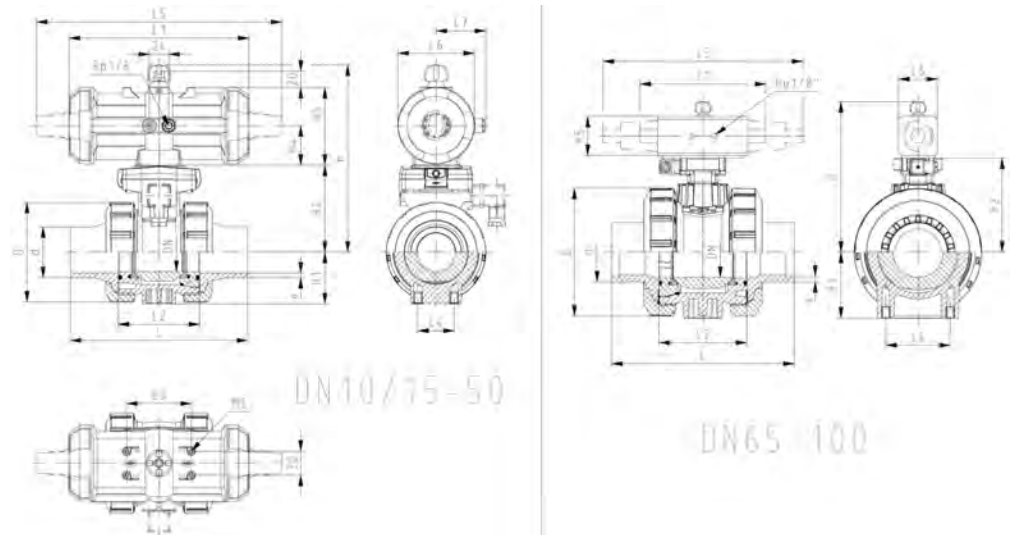
- Material: PP-H
- Control time 90° < 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
			(l/min)						
20	15	10	185	199 231 833	1	1.482	199 231 843	1	1.000
25	20	10	350	199 231 834	1	1.300	199 231 844	1	1.300
32	25	10	700	199 231 835	1	1.149	199 231 845	1	1.400
40	32	10	1000	199 231 836	1	2.001	199 231 846	1	2.500
50	40	10	1600	199 231 837	1	2.208	199 231 847	1	2.800
63	50	10	3100	199 231 838	1	2.778	199 231 848	1	2.789
75	65	10	5000	199 231 839	1	6.600	199 231 849	1	6.600
90	80	10	7000	199 231 840	1	8.400	199 231 850	1	8.400
110	100	10	11000	199 231 841	1	12.600	199 231 851	1	12.600

d	D	H	H1	H2	H5	L	L1	L2	L3	L4	L5	L6	e	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(inch)
20	50	159	27	62	77	130	194	56	130	25	261	76	1.9	1/2
25	58	168	30	71	77	143	194	65	150	25	261	76	2.3	3/4
32	68	168	36	71	77	150	194	71	160	25	261	76	2.9	1
40	84	202	44	84	99	171	224	85	180	45	305	95	3.7	1 1/4
50	97	202	51	84	99	191	224	89	200	45	305	95	4.6	1 1/2
63	142	225	64	106	99	220	224	101	230	45	305	95	5.8	2
75	166	262	85	156	70	266	270	136	290	70	276	65	6.8	2 1/2
90	200	281	105	168	78	264	270	141	310	70	341	72	8.2	3
110	238	292	123	175	86	301	320	164	350	120	369	80	10.0	4





DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 231 FO (Fail safe to open)**  
**Without manual override**  
**With fusion sockets metric**

**Model:**

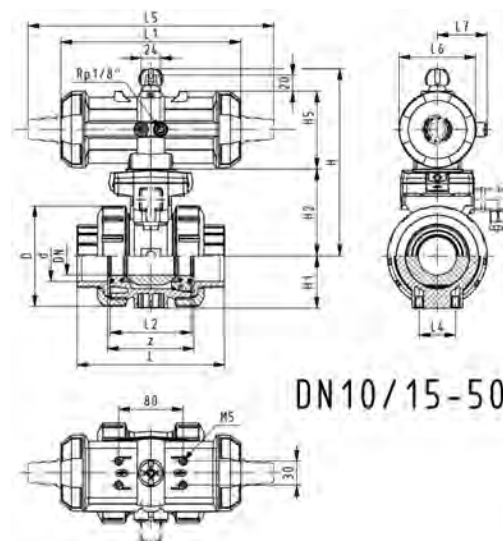
- Material: PP-H
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

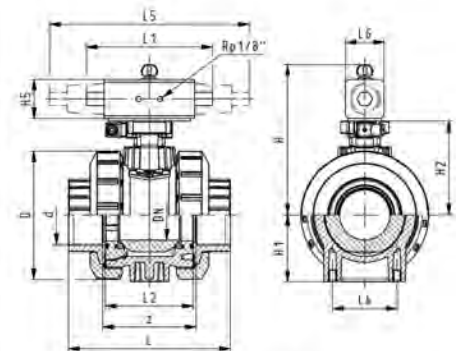
- Individual configuration of the valve (see diagram)

d	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
			(L/min)						
16	10	10	70	199 231 162	1	1.200	199 231 172	1	1.200
20	15	10	185	199 231 163	1	1.200	199 231 173	1	1.200
25	20	10	350	199 231 164	1	1.300	199 231 174	1	1.300
32	25	10	700	199 231 165	1	1.151	199 231 175	1	1.400
40	32	10	1000	199 231 166	1	2.500	199 231 176	1	2.500
50	40	10	1600	199 231 167	1	2.800	199 231 177	1	2.800
63	50	10	3100	199 231 168	1	3.700	199 231 178	1	3.700
75	65	10	5000	199 231 169	1	6.600	199 231 179	1	6.600
90	80	10	7000	199 231 170	1	8.400	199 231 180	1	8.400
110	100	10	11000	199 231 171	1	12.600	199 231 181	1	12.600

d	D	H	H1	H2	H5	L	L1	L2	L4	L5	L6	L7	z	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(inch)
16	50	159	27	62	77	93	194	56	25	261	76	48	66	3/8
20	50	159	27	62	77	95	194	56	25	261	76	48	67	1/2
25	58	168	30	71	77	108	194	65	25	261	76	48	77	3/4
32	68	168	36	71	77	118	194	71	25	261	76	48	83	1
40	84	202	44	84	99	137	224	85	45	305	95	59	99	1 1/4
50	97	202	51	84	99	147	224	89	45	305	95	59	105	1 1/2
63	124	225	64	106	99	168	224	101	45	305	95	59	117	2
75	166	262	85	156	70	233		136	70	276	65		167	2 1/2
90	200	281	105	168	78	254		141	70	341	72		180	3
110	238	292	123	175	86	301		164	120	369	80		215	4



DN10/15-50



DN65-100



DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 231 FO (Fail safe to open)**  
**Without manual override**  
**With socket fusion spigots metric**

**Model:**

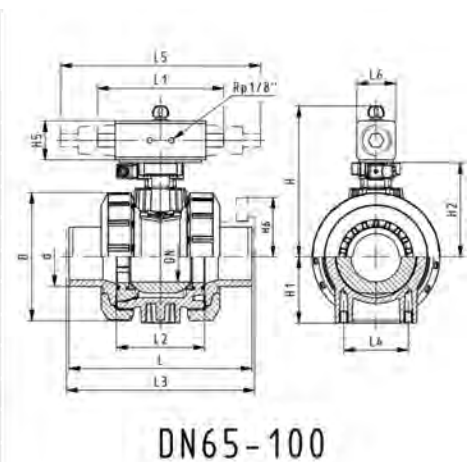
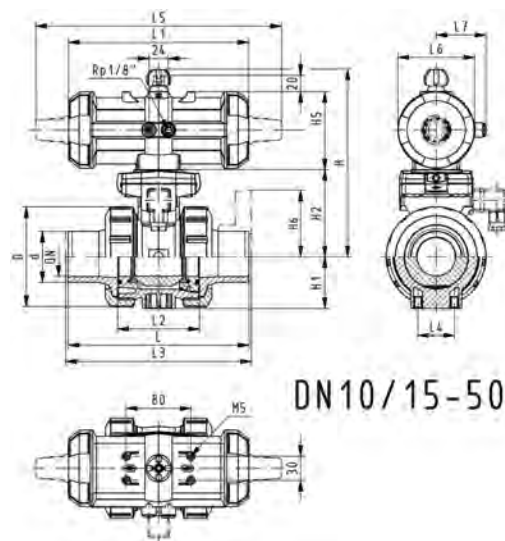
- Material: PP-H
- Control time  $90^\circ <$  1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	70	199 231 182	1	1.200	199 231 192	1	1.200
20	15	10	185	199 231 183	1	1.200	199 231 193	1	1.200
25	20	10	350	199 231 184	1	1.300	199 231 194	1	1.300
32	25	10	700	199 231 185	1	1.400	199 231 195	1	1.400
40	32	10	1000	199 231 186	1	2.032	199 231 196	1	2.500
50	40	10	1600	199 231 187	1	2.800	199 231 197	1	2.800
63	50	10	3100	199 231 188	1	2.791	199 231 198	1	3.700
75	65	10	5000	199 231 189	1	6.600	199 231 199	1	6.600
90	80	10	7000	199 231 190	1	8.400	199 231 200	1	8.400
110	100	10	11000	199 231 191	1	12.600	199 231 201	1	12.600

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
16	50	159	27	62	77	110	194	56	130	25	261	76	48	$\frac{3}{8}$
20	50	159	27	62	77	120	194	56	130	25	261	76	48	$\frac{1}{2}$
25	58	168	30	71	77	139	194	65	150	25	261	76	48	$\frac{3}{4}$
32	68	168	36	71	77	150	194	71	160	25	261	76	48	1
40	84	202	44	84	99	170	224	85	180	45	305	95	59	1 $\frac{1}{4}$
50	97	202	51	84	99	190	224	89	200	45	305	95	59	1 $\frac{1}{2}$
63	124	225	64	106	99	220	224	101	230	45	305	95	59	2
75	166	262	85	156	70	280		136	290	70	276	65		2 $\frac{1}{2}$
90	200	281	105	168	78	296		141	310	70	341	72		3
110	238	292	123	175	86	336		164	350	120	369	80		4





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 FC (Fail safe to close)**  
**With manual override**  
**With fusion sockets metric**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

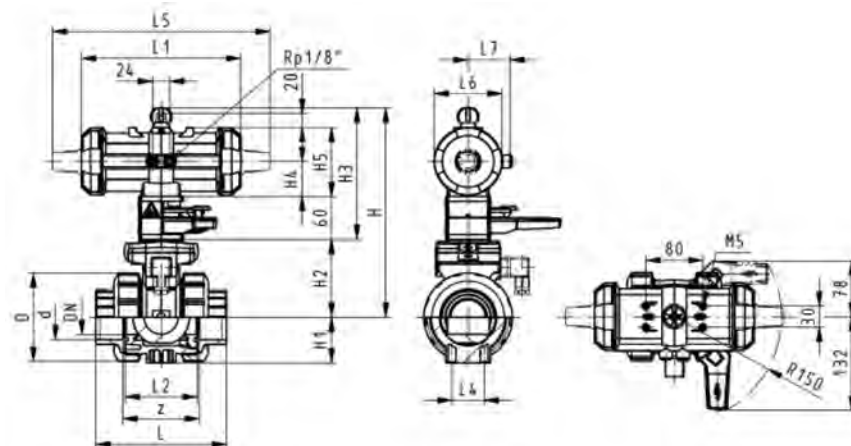
- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	70	199 231 002	1	1.500	199 231 012	1	1.500
20	15	10	185	199 231 003	1	1.500	199 231 013	1	1.500
25	20	10	350	199 231 004	1	1.307	199 231 014	1	1.600
32	25	10	700	199 231 005	1	1.700	199 231 015	1	1.700
40	32	10	1000	199 231 006	1	2.800	199 231 016	1	2.800
50	40	10	1600	199 231 007	1	2.440	199 231 017	1	3.100
63	50	10	3100	199 231 008	1	4.000	199 231 018	1	2.985

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	230	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	77	108	194	65	25	261	76	48	77
32	68	239	36	71	168	40	77	118	194	71	25	261	76	48	83
40	84	271	44	84	187	51	99	137	224	85	45	305	95	59	99
50	97	271	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	99	168	224	101	45	305	95	59	117

**d** closest  
(mm) inch  
(inch)

16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 FC (Fail safe to close)**  
**With manual override**  
**With butt fusion spigots IR-Plus SDR11 metric**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

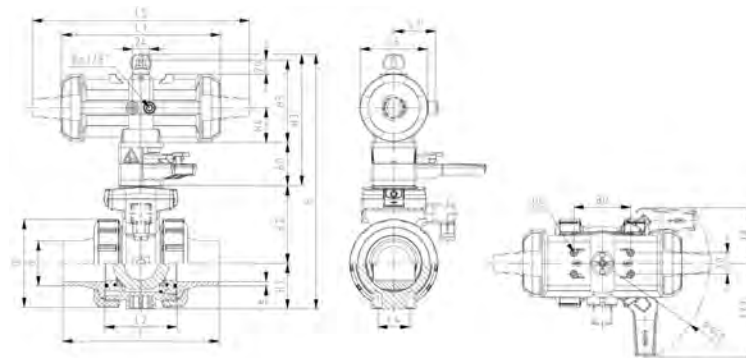
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	10	185	199 231 623	1	1.500	199 231 633	1	1.500
25	20	10	350	199 231 624	1	1.600	199 231 634	1	1.600
32	25	10	700	199 231 625	1	1.700	199 231 635	1	1.387
40	32	10	1000	199 231 626	1	2.800	199 231 636	1	2.800
50	40	10	1600	199 231 627	1	3.100	199 231 637	1	3.100
63	50	10	3100	199 231 628	1	4.000	199 231 638	1	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
20	50	159	27	62	168	40	77	130	194	56		25	261	76	48
25	50	159	27	62	168	40	77	143	194	56	130	25	261	76	48
32	58	168	30	71	168	40	77	150	194	65	150	25	261	76	48
40	68	168	36	71	168	40	77	171	194	71	160	25	261	76	48
50	84	202	44	84	187	51	99	191	224	85	180	45	305	95	59
63	97	202	51	84	187	51	99	220	224	89	200	45	305	95	59

d (mm)	e (mm)	closest inch (inch)
20	2	1/2
25	2	3/4
32	3	1
40	4	1 1/4
50	5	1 1/2
63	6	2





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 DA (Double acting)**  
**With manual override**  
**With fusion sockets metric**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

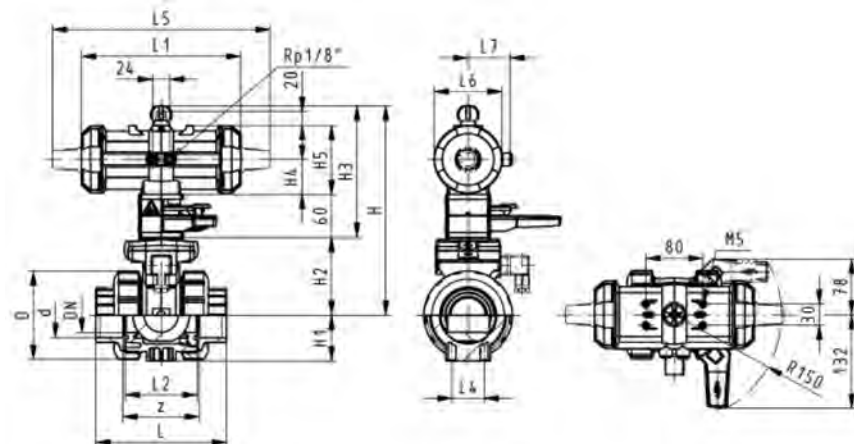
- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	70	199 231 082	1	1.500	199 231 092	1	1.500
20	15	10	185	199 231 083	1	1.500	199 231 093	1	1.500
25	20	10	350	199 231 084	1	1.600	199 231 094	1	1.600
32	25	10	700	199 231 085	1	1.152	199 231 095	1	1.700
40	32	10	1000	199 231 086	1	2.800	199 231 096	1	2.800
50	40	10	1600	199 231 087	1	3.100	199 231 097	1	3.100
63	50	10	3100	199 231 088	1	4.000	199 231 098	1	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	159	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	168	40	77	108	194	65	25	261	76	48	77
32	68	168	36	71	168	40	77	118	194	71	25	261	76	48	83
40	84	202	44	84	187	51	99	137	224	85	45	305	95	59	99
50	97	202	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	187	51	99	168	224	101	45	305	95	59	117

**d** closest  
 (mm) inch  
 (inch)

16	3/4
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2







DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 FO (Fail safe to open)**  
**With manual override**  
**With fusion sockets metric**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

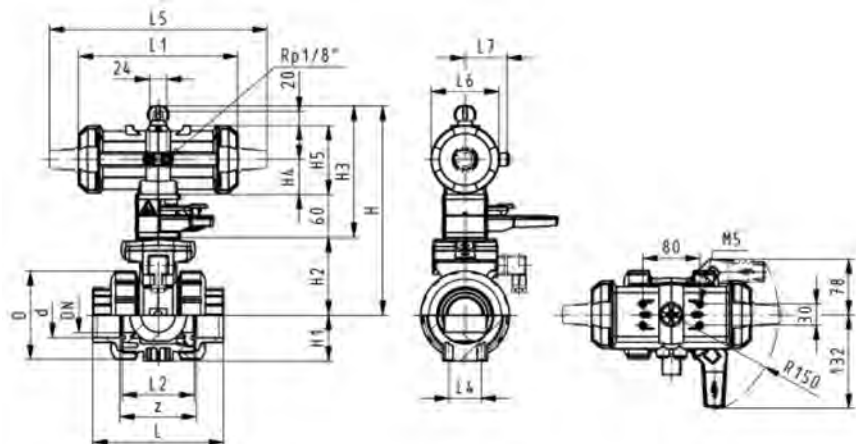
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	70	199 231 042	1	1.500	199 231 052	1	1.500
20	15	10	185	199 231 043	1	1.500	199 231 053	1	1.500
25	20	10	350	199 231 044	1	1.308	199 231 054	1	1.600
32	25	10	700	199 231 045	1	1.700	199 231 055	1	1.700
40	32	10	1000	199 231 046	1	2.800	199 231 056	1	2.800
50	40	10	1600	199 231 047	1	3.100	199 231 057	1	3.100
63	50	10	3100	199 231 048	1	4.000	199 231 058	1	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	230	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	77	108	194	65	25	261	76	48	77
32	68	239	36	71	168	40	77	118	194	71	25	261	76	48	83
40	84	271	44	84	187	51	99	137	224	85	45	305	95	59	99
50	97	271	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	99	168	224	101	45	305	95	59	117

d (mm)	closest inch (inch)
16	3/4
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 FO (Fail safe to open)**  
**With manual override**  
**With socket fusion spigots metric**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

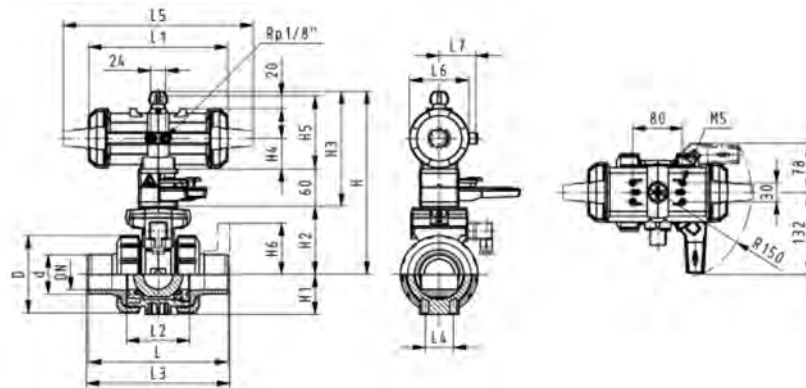
- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	70	199 231 062	1	1.500	199 231 072	1	1.500
20	15	10	185	199 231 063	1	1.500	199 231 073	1	1.500
25	20	10	350	199 231 064	1	1.600	199 231 074	1	1.600
32	25	10	700	199 231 065	1	1.700	199 231 075	1	1.700
40	32	10	1000	199 231 066	1	2.800	199 231 076	1	2.800
50	40	10	1600	199 231 067	1	3.100	199 231 077	1	3.100
63	50	10	3100	199 231 068	1	3.051	199 231 078	1	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
16	50	159	27	62	168	40	77	110	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	120	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	139	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	170	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	190	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59

**d** closest  
(mm) inch  
(inch)

16	3/4
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 FC (Fail safe to close)**  
**With manual override**  
**With socket fusion spigots metric**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

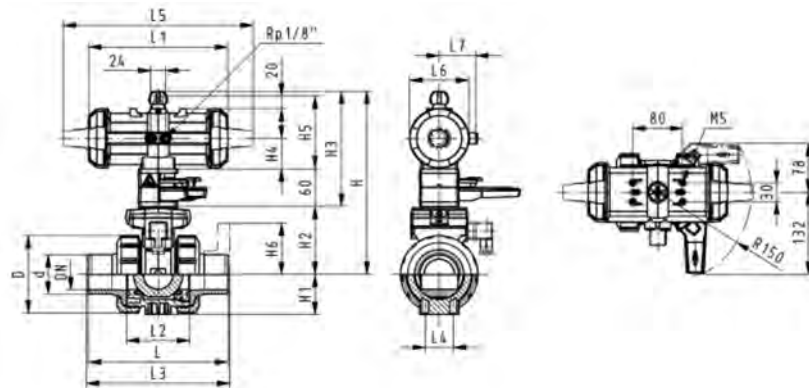
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	70	199 231 022	1	1.500	199 231 032	1	1.500
20	15	10	185	199 231 023	1	1.500	199 231 033	1	1.500
25	20	10	350	199 231 024	1	1.600	199 231 034	1	1.600
32	25	10	700	199 231 025	1	1.396	199 231 035	1	1.700
40	32	10	1000	199 231 026	1	2.278	199 231 036	1	2.800
50	40	10	1600	199 231 027	1	3.100	199 231 037	1	3.100
63	50	10	3100	199 231 028	1	3.034	199 231 038	1	3.051

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
16	50	159	27	62	168	40	77	110	194	56		25	261	76	48
20	50	159	27	62	168	40	77	120	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	139	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	170	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	190	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59

d (mm)	closest inch (inch)
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 FC (Fail safe to close)**  
**With manual override**  
**With fixed flanges PP-H serrated metric**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

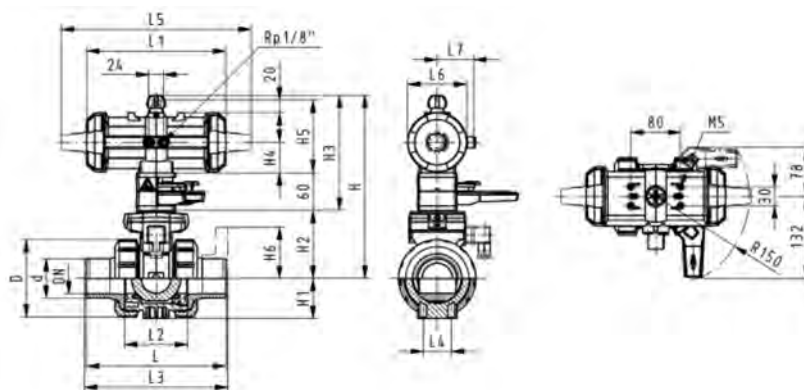
**Option:**

- Individual configuration of the valve (see diagram)

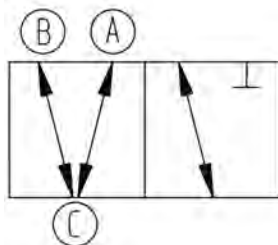
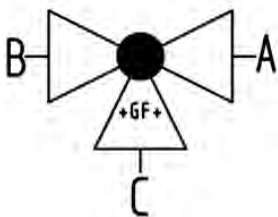
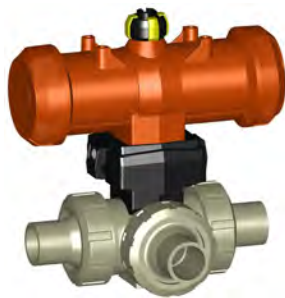
d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
20	½	15	10	185	199 231 243	1	1.700	199 231 253	1	1.700
25	¾	20	10	350	199 231 244	1	1.900	199 231 254	1	1.900
32	1	25	10	700	199 231 245	1	2.100	199 231 255	1	2.100
40	1 ¼	32	10	1000	199 231 246	1	3.400	199 231 256	1	3.400
50	1 ½	40	10	1600	199 231 247	1	2.885	199 231 257	1	3.900
63	2	50	10	3100	199 231 248	1	4.900	199 231 258	1	4.900

d	D	H	H1	H2	H3	H4	H5	H6	L	L1	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	50	230	27	62	168	40	77	48	120	194	56	130	25	261	76
25	58	239	30	71	168	40	77	53	139	194	65	150	25	261	76
32	68	239	36	71	168	40	77	58	150	194	71	160	25	261	76
40	84	271	44	84	187	51	99	70	170	224	85	180	45	305	95
50	97	271	51	84	187	51	99	75	190	224	89	200	45	305	95
63	124	293	64	106	187	51	99	83	220	224	101	230	45	305	95

d	L7
(mm)	(mm)
20	48
25	48
32	48
40	59
50	59
63	59



# Ball valves pneumatic type 286



**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/T-port DA (Double acting)**  
**Without manual override**  
**With butt fusion spigots**  
**IR-Plus SDR11 metric**

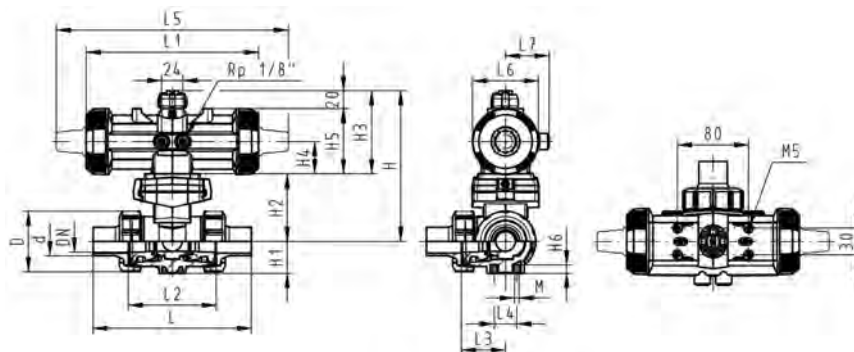
**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EPDM Code	FKM Code	SP	Weight (kg)
20	15	10	200	199 286 263	199 286 273	1	0.850
25	20	10	470	199 286 264	199 286 274	1	0.943
32	25	10	793	199 286 265	199 286 275	1	1.071
40	32	10	1290	199 286 266	199 286 276	1	1.800
50	40	10	1910	199 286 267	199 286 277	1	2.117
63	50	10	3100	199 286 268	199 286 278	1	3.049

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	e (mm)	closest inch (inch)
20	48	6	1.9	1/2
25	48	6	2.3	3/4
32	48	6	2.9	1
40	59	8	3.7	1 1/4
50	59	8	4.6	1 1/2
63	59	8	5.8	2

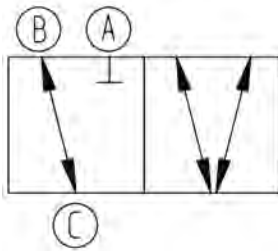
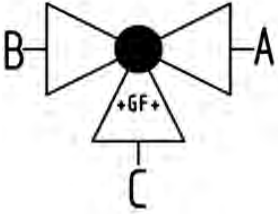




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/T-port**  
**Without manual override**  
**With socket fusion spigots metric**

**Model:**

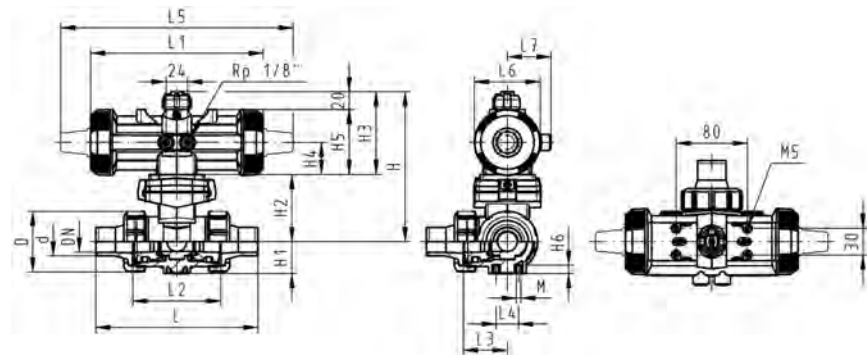
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

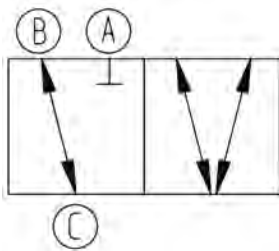
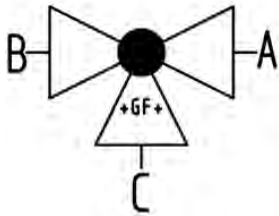
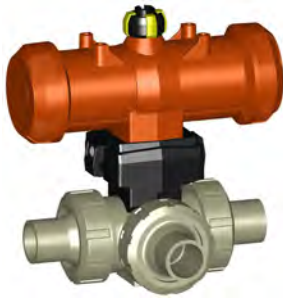


d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	140	199 286 042	1	1.035	199 286 052	1	1.035
20	15	10	200	199 286 043	1	1.041	199 286 053	1	1.041
25	20	10	470	199 286 044	1	1.134	199 286 054	1	1.134
32	25	10	793	199 286 045	1	1.261	199 286 055	1	1.261
40	32	10	1290	199 286 046	1	2.224	199 286 056	1	2.224
50	40	10	1910	199 286 047	1	2.541	199 286 057	1	2.541
63	50	10	3100	199 286 048	1	3.473	199 286 058	1	3.473

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2





**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/T-port**  
**Without manual override**  
**With butt fusion spigots**  
**IR-Plus SDR11 metric**

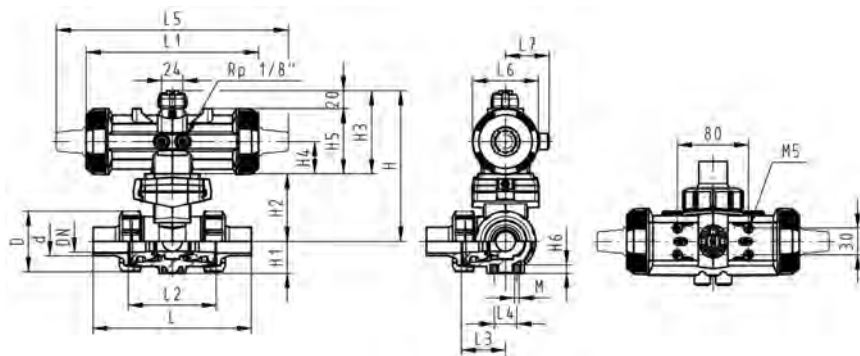
**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90° <math>\leq</math> 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10	200	<b>199 286 103</b>	1	1.041	<b>199 286 113</b>
25	20	10	470	<b>199 286 104</b>	1	1.134	<b>199 286 114</b>
32	25	10	793	<b>199 286 105</b>	1	1.261	<b>199 286 115</b>
40	32	10	1290	<b>199 286 106</b>	1	2.224	<b>199 286 116</b>
50	40	10	1910	<b>199 286 107</b>	1	2.541	<b>199 286 117</b>
63	50	10	3100	<b>199 286 108</b>	1	3.473	<b>199 286 118</b>

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M	closest inch (inch)
20	48	6	½
25	48	6	¾
32	48	6	1
40	59	8	1 ¼
50	59	8	1 ½
63	59	8	2

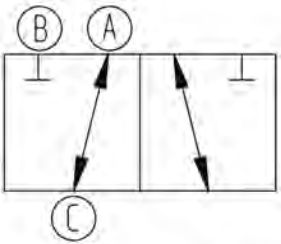
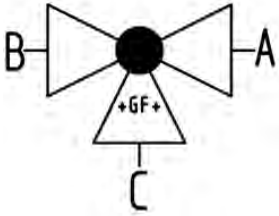




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/L-port DA (Double acting)**  
**Without manual override**  
**With threaded sockets reinforced Rp**

**Model:**

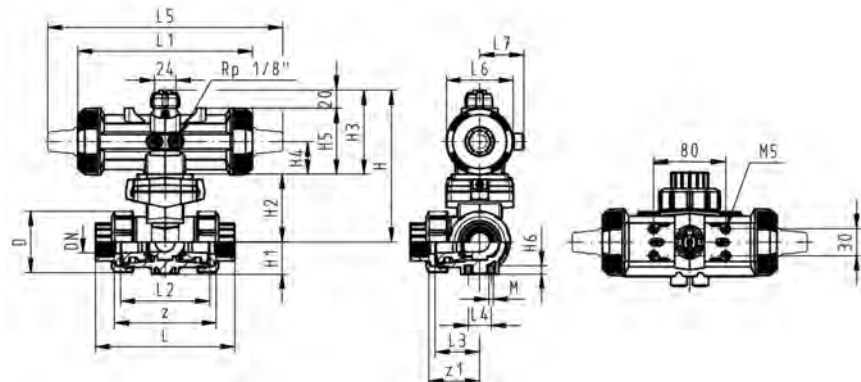
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



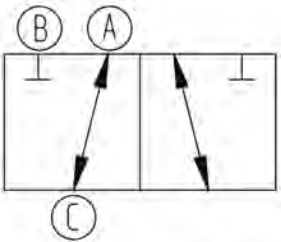
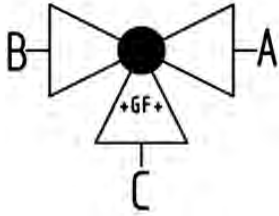
Rp (inch)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
3/8	10	10	50	<b>199 286 282</b>	1	0.841	<b>199 286 292</b>
1/2	15	10	75	<b>199 286 283</b>	1	0.845	<b>199 286 293</b>
3/4	20	10	150	<b>199 286 284</b>	1	0.935	<b>199 286 294</b>
1	25	10	280	<b>199 286 285</b>	1	1.074	<b>199 286 295</b>
1 1/4	32	10	480	<b>199 286 286</b>	1	1.793	<b>199 286 296</b>
1 1/2	40	10	620	<b>199 286 287</b>	1	2.089	<b>199 286 297</b>
2	50	10	1230	<b>199 286 288</b>	1	2.996	<b>199 286 298</b>

Rp (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

Rp (inch)	L7 (mm)	M	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	84	42
3/4	48	6	99	50
1	48	6	112	56
1 1/4	59	8	132	66
1 1/2	59	8	153	77
2	59	8	196	98







**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/L-port DA (Double acting)**  
**Without manual override**  
**With socket fusion spigots metric**

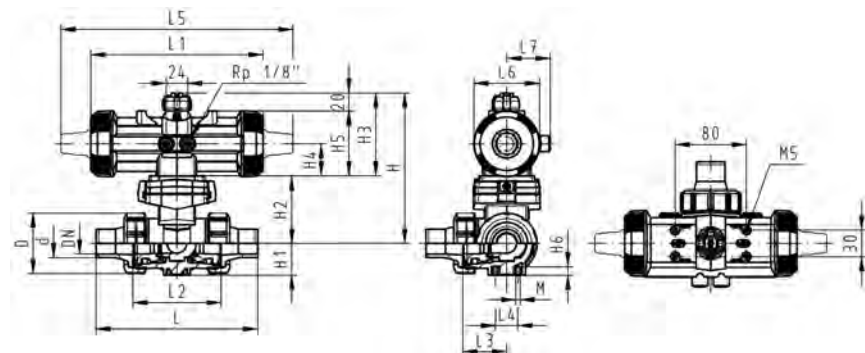
**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
16	10	10	50	<b>199 286 162</b>	1	0.845	<b>199 286 172</b>
20	15	10	75	<b>199 286 163</b>	1	0.851	<b>199 286 173</b>
25	20	10	150	<b>199 286 164</b>	1	0.945	<b>199 286 174</b>
32	25	10	280	<b>199 286 165</b>	1	1.075	<b>199 286 175</b>
40	32	10	480	<b>199 286 166</b>	1	1.807	<b>199 286 176</b>
50	40	10	620	<b>199 286 167</b>	1	2.130	<b>199 286 177</b>
63	50	10	1230	<b>199 286 168</b>	1	3.078	<b>199 286 178</b>

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2

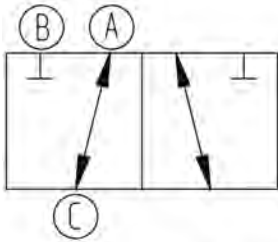
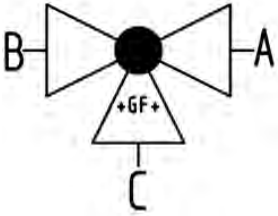




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/L-port DA (Double acting)**  
**Without manual override**  
**With butt fusion spigots**  
**IR-Plus SDR11 metric**

**Model:**

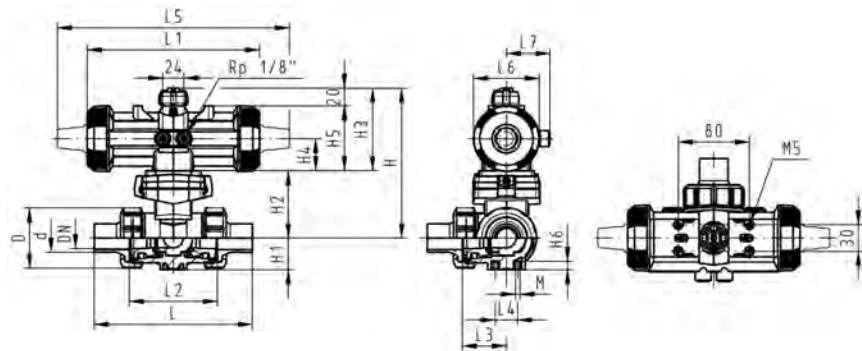
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	10	75	199 286 243	1	0.851	199 286 253	1	0.851
25	20	10	150	199 286 244	1	0.945	199 286 254	1	0.945
32	25	10	280	199 286 245	1	1.075	199 286 255	1	1.075
40	32	10	480	199 286 246	1	1.807	199 286 256	1	1.807
50	40	10	620	199 286 247	1	2.130	199 286 257	1	2.130
63	50	10	1230	199 286 248	1	3.078	199 286 258	1	3.082

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
20	48	6	½
25	48	6	¾
32	48	6	1
40	59	8	1 ¼
50	59	8	1 ½
63	59	8	2

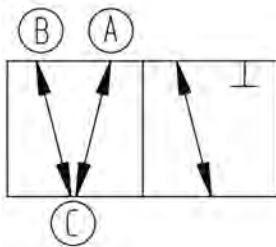
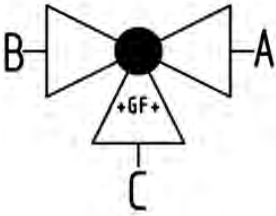




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/T-port DA (Double acting)**  
**Without manual override**  
**With socket fusion spigots metric**

**Model:**

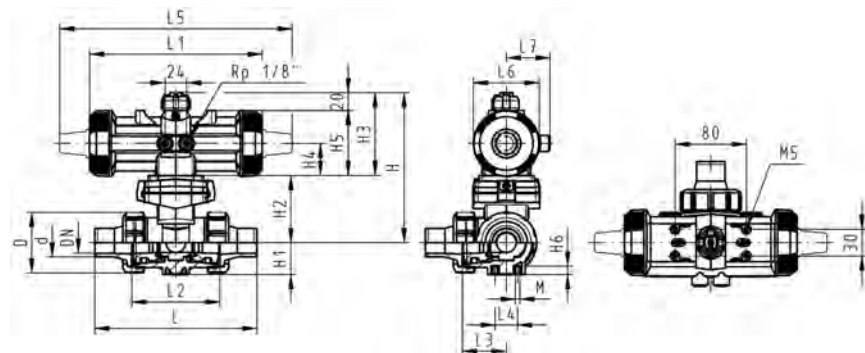
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	140	<b>199 286 202</b>	1	0.844	<b>199 286 212</b>	1	0.844
20	15	10	200	<b>199 286 203</b>	1	0.850	<b>199 286 213</b>	1	0.850
25	20	10	470	<b>199 286 204</b>	1	0.943	<b>199 286 214</b>	1	0.943
32	25	10	793	<b>199 286 205</b>	1	1.071	<b>199 286 215</b>	1	1.071
40	32	10	1290	<b>199 286 206</b>	1	1.800	<b>199 286 216</b>	1	1.800
50	40	10	1910	<b>199 286 207</b>	1	2.117	<b>199 286 217</b>	1	2.117
63	50	10	3100	<b>199 286 208</b>	1	3.049	<b>199 286 218</b>	1	3.049

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2

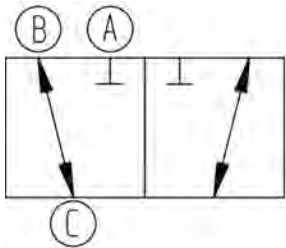
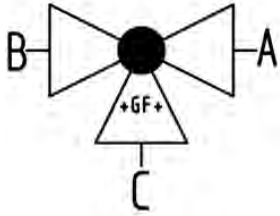




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/L-port**  
**Without manual override**  
**With socket fusion spigots metric**

**Model:**

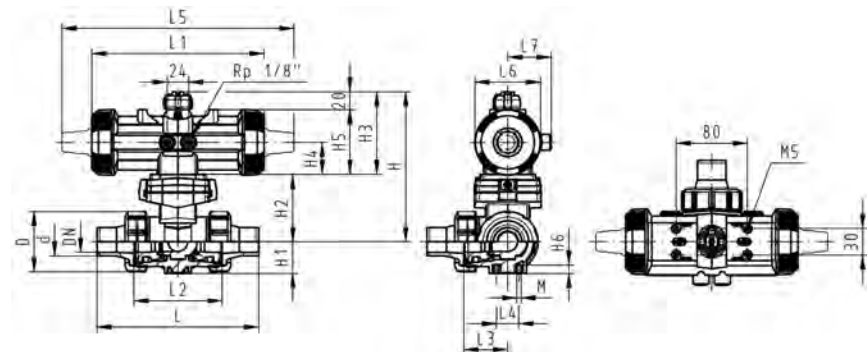
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	50	199 286 002	1	1.035	199 286 012	1	1.035
20	15	10	75	199 286 003	1	1.041	199 286 013	1	1.041
25	20	10	150	199 286 004	1	1.135	199 286 014	1	1.135
32	25	10	280	199 286 005	1	1.265	199 286 015	1	1.265
40	32	10	480	199 286 006	1	2.231	199 286 016	1	2.231
50	40	10	620	199 286 007	1	2.554	199 286 017	1	2.554
63	50	10	1230	199 286 008	1	3.502	199 286 018	1	3.502

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	48	6	$\frac{3}{8}$
20	48	6	$\frac{1}{2}$
25	48	6	$\frac{3}{4}$
32	48	6	1
40	59	8	1 $\frac{1}{4}$
50	59	8	1 $\frac{1}{2}$
63	59	8	2

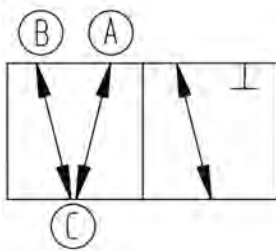
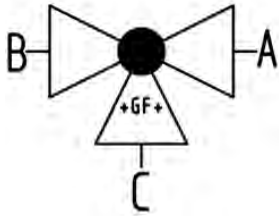




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/T-port DA (Double acting)**  
**Without manual override**  
**With threaded sockets reinforced Rp**

**Model:**

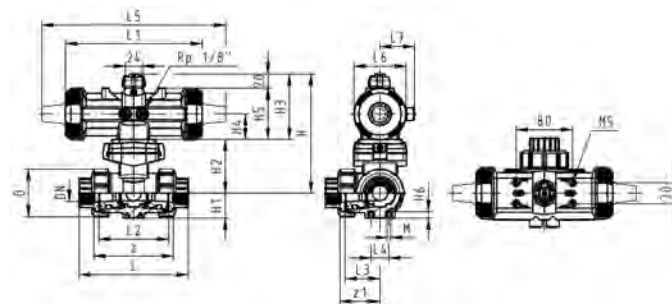
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



Rp (inch)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
3/8	10	10	140	<b>199 286 302</b>	1	0.840	<b>199 286 312</b>
1/2	15	10	200	<b>199 286 303</b>	1	0.844	<b>199 286 313</b>
3/4	20	10	470	<b>199 286 304</b>	1	0.934	<b>199 286 314</b>
1	25	10	793	<b>199 286 305</b>	1	1.055	<b>199 286 315</b>
1 1/4	32	10	1290	<b>199 286 306</b>	1	1.786	<b>199 286 316</b>
1 1/2	40	10	1910	<b>199 286 307</b>	1	2.075	<b>199 286 317</b>
2	50	10	3100	<b>199 286 308</b>	1	2.967	<b>199 286 318</b>

Rp (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

Rp (inch)	L7 (mm)	M	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	84	42
3/4	48	6	99	50
1	48	6	112	56
1 1/4	59	8	132	66
1 1/2	59	8	153	77
2	59	8	196	98

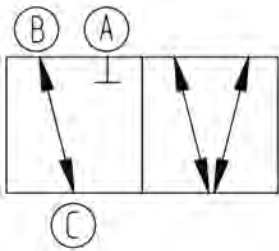
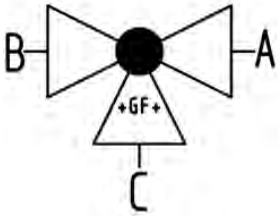




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/T-port**  
**Without manual override**  
**With fusion sockets metric**

**Model:**

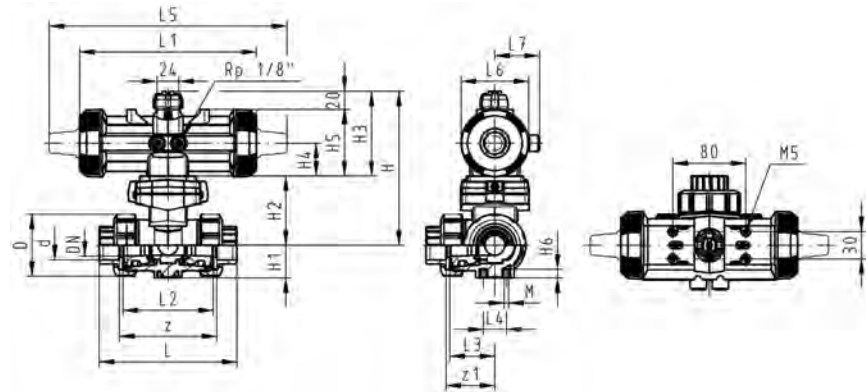
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	140	199 286 062	1	1.031	199 286 072	1	1.031
20	15	10	200	199 286 063	1	1.035	199 286 073	1	1.035
25	20	10	470	199 286 064	1	1.133	199 286 074	1	1.124
32	25	10	793	199 286 065	1	1.245	199 286 075	1	1.266
40	32	10	1290	199 286 066	1	2.210	199 286 076	1	2.210
50	40	10	1910	199 286 067	1	2.514	199 286 077	1	2.499
63	50	10	3100	199 286 068	1	3.391	199 286 078	1	3.391

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d (mm)	L7 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2

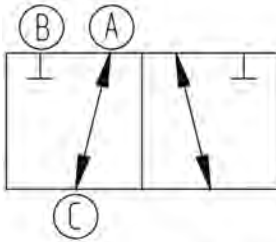
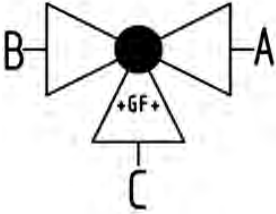




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/L-port DA (Double acting)**  
**Without manual override**  
**With fusion sockets metric**

**Model:**

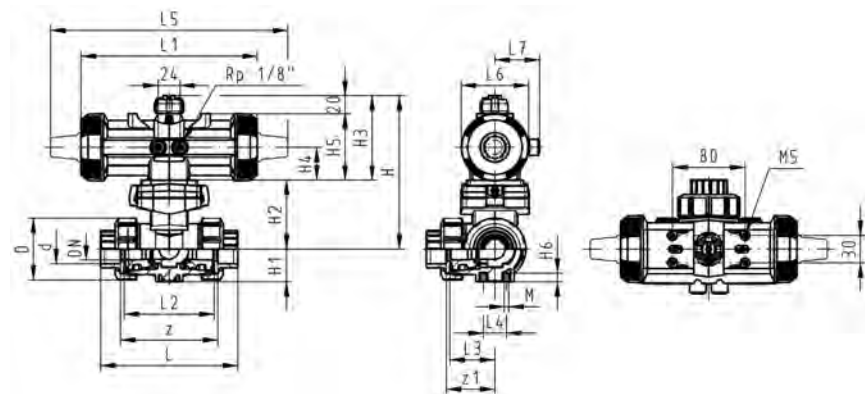
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
16	10	10	50	<b>199 286 182</b>	1	0.841	<b>199 286 192</b>
20	15	10	75	<b>199 286 183</b>	1	0.845	<b>199 286 193</b>
25	20	10	150	<b>199 286 184</b>	1	0.935	<b>199 286 194</b>
32	25	10	280	<b>199 286 185</b>	1	1.060	<b>199 286 195</b>
40	32	10	480	<b>199 286 186</b>	1	1.793	<b>199 286 196</b>
50	40	10	620	<b>199 286 187</b>	1	2.089	<b>199 286 197</b>
63	50	10	1230	<b>199 286 188</b>	1	2.996	<b>199 286 198</b>

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d (mm)	L7 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2

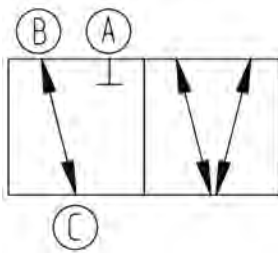
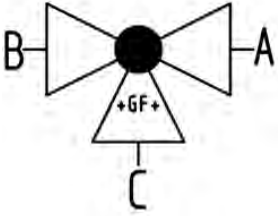




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/T-port**  
**Without manual override**  
**With threaded sockets reinforced Rp**

**Model:**

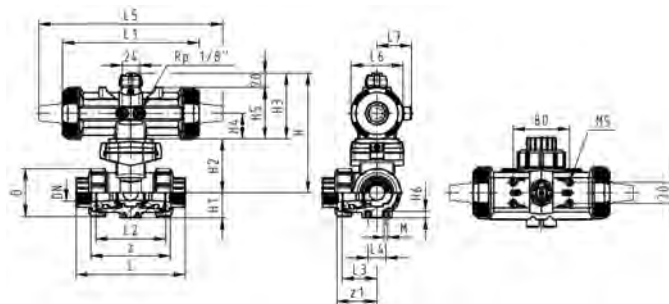
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



Rp (inch)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
3/8	10	10	140	<b>199 286 142</b>	1	1.031	<b>199 286 152</b>	1	1.031
1/2	15	10	200	<b>199 286 143</b>	1	1.035	<b>199 286 153</b>	1	1.035
3/4	20	10	470	<b>199 286 144</b>	1	1.124	<b>199 286 154</b>	1	1.124
1	25	10	793	<b>199 286 145</b>	1	1.245	<b>199 286 155</b>	1	1.245
1 1/4	32	10	1290	<b>199 286 146</b>	1	2.210	<b>199 286 156</b>	1	2.210
1 1/2	40	10	1910	<b>199 286 147</b>	1	2.499	<b>199 286 157</b>	1	2.499
2	50	10	3100	<b>199 286 148</b>	1	3.391	<b>199 286 158</b>	1	3.391

Rp (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

Rp (inch)	L7 (mm)	M	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	84	42
3/4	48	6	99	50
1	48	6	112	56
1 1/4	59	8	132	66
1 1/2	59	8	153	77
2	59	8	196	98



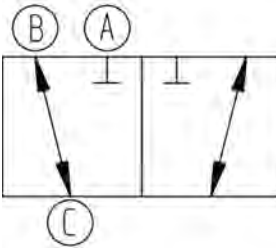
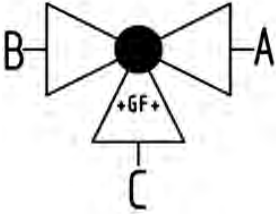




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/L-port**  
**Without manual override**  
**With fusion sockets metric**

**Model:**

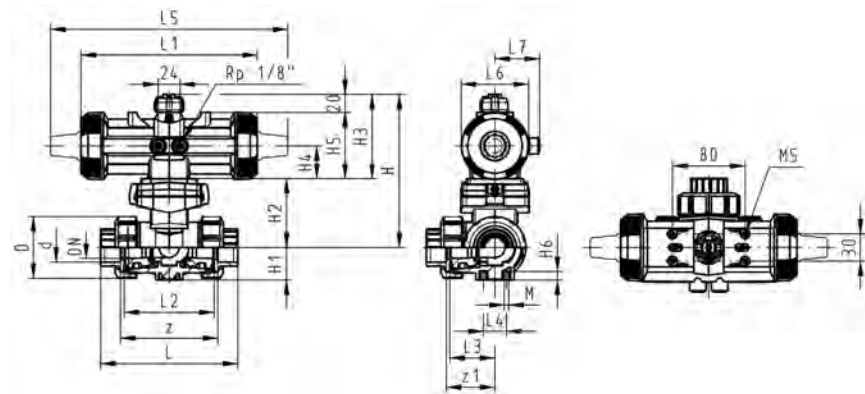
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	50	199 286 022	1	1.031	199 286 032	1	1.031
20	15	10	75	199 286 023	1	1.035	199 286 033	1	1.035
25	20	10	150	199 286 024	1	1.125	199 286 034	1	1.125
32	25	10	280	199 286 025	1	1.265	199 286 035	1	1.250
40	32	10	480	199 286 026	1	2.217	199 286 036	1	2.217
50	40	10	620	199 286 027	1	2.513	199 286 037	1	2.513
63	50	10	1230	199 286 028	1	3.420	199 286 038	1	3.500

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d (mm)	L7 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2

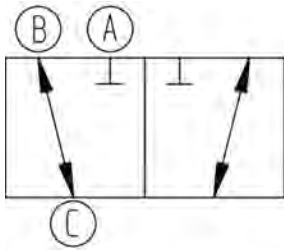
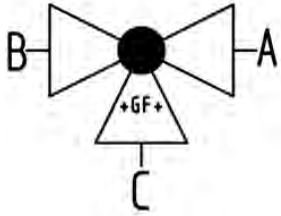




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/L-port**  
**Without manual override**  
**With threaded sockets reinforced Rp**

**Model:**

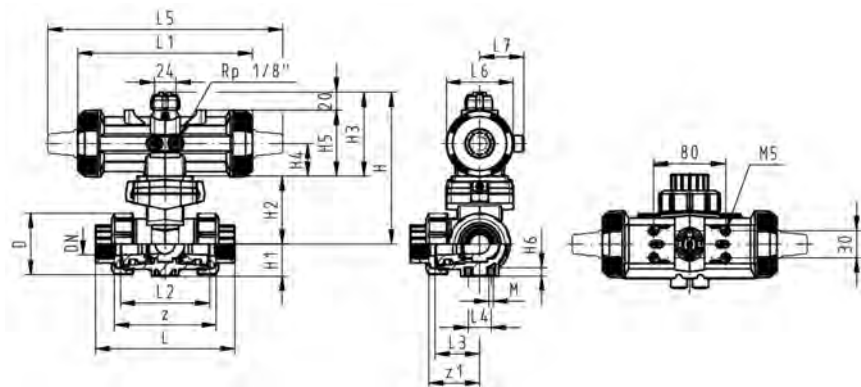
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



Rp (inch)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
3/8	10	10	50	<b>199 286 122</b>	1	1.031	<b>199 286 132</b>	1	1.031
1/2	15	10	75	<b>199 286 123</b>	1	1.035	<b>199 286 133</b>	1	1.035
3/4	20	10	150	<b>199 286 124</b>	1	1.125	<b>199 286 134</b>	1	1.125
1	25	10	280	<b>199 286 125</b>	1	1.250	<b>199 286 135</b>	1	1.250
1 1/4	32	10	480	<b>199 286 126</b>	1	2.217	<b>199 286 136</b>	1	2.217
1 1/2	40	10	620	<b>199 286 127</b>	1	2.513	<b>199 286 137</b>	1	2.513
2	50	10	1230	<b>199 286 128</b>	1	3.420	<b>199 286 138</b>	1	3.420

Rp (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

Rp (inch)	L7 (mm)	M	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	84	42
3/4	48	6	99	50
1	48	6	112	56
1 1/4	59	8	132	66
1 1/2	59	8	153	77
2	59	8	196	98

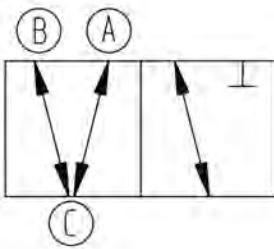
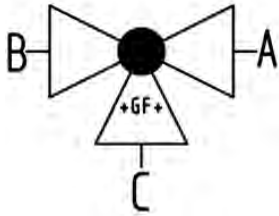




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/T-port DA (Double acting)**  
**Without manual override**  
**With fusion sockets metric**

**Model:**

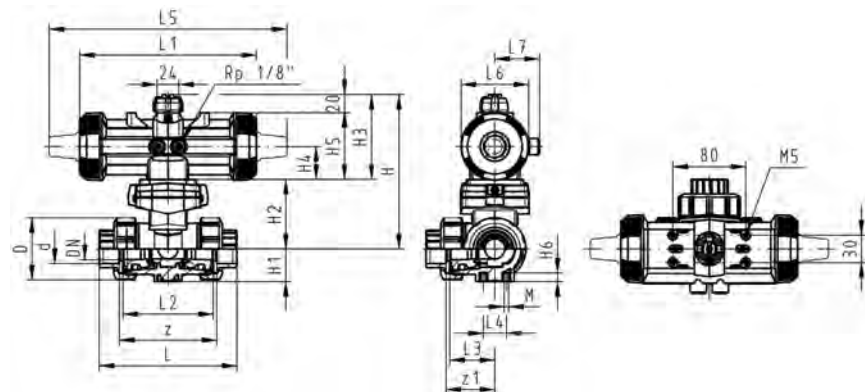
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	140	199 286 222	1	0.840	199 286 232	1	0.840
20	15	10	200	199 286 223	1	0.844	199 286 233	1	0.844
25	20	10	470	199 286 224	1	0.934	199 286 234	1	0.934
32	25	10	793	199 286 225	1	1.055	199 286 235	1	1.055
40	32	10	1290	199 286 226	1	1.786	199 286 236	1	1.786
50	40	10	1910	199 286 227	1	2.075	199 286 237	1	2.075
63	50	10	3100	199 286 228	1	2.967	199 286 238	1	2.967

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d (mm)	L7 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2

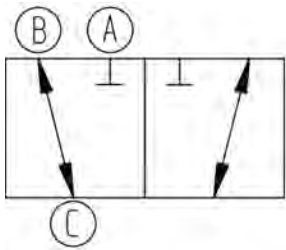
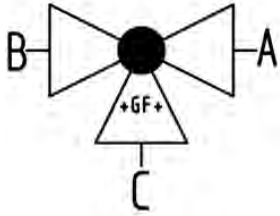




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/L-port**  
**Without manual override**  
**With butt fusion spigots**  
**IR-Plus SDR11 metric**

**Model:**

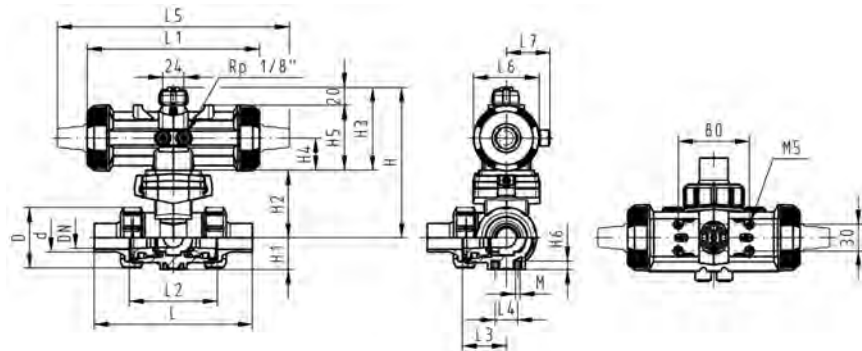
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10	75	199 286 083	1	1.050	199 286 093
25	20	10	150	199 286 084	1	1.135	199 286 094
32	25	10	280	199 286 085	1	1.265	199 286 095
40	32	10	480	199 286 086	1	2.222	199 286 096
50	40	10	620	199 286 087	1	2.562	199 286 097
63	50	10	1230	199 286 088	1	3.502	199 286 098

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	e (mm)	closest inch (inch)
20	48	6	1.9	1/2
25	48	6	2.3	3/4
32	48	6	2.9	1
40	59	8	3.7	1 1/4
50	59	8	4.6	1 1/2
63	59	8	5.8	2



# Butterfly valves type 563

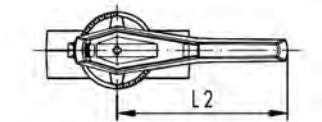
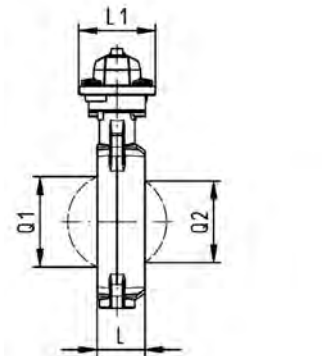
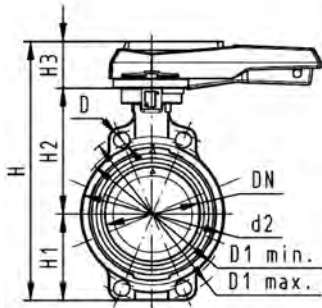


## PROGEF Standard Butterfly valve type 563 Hand lever with ratchet settings

### Model:

- Material: PP-H
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version

d	Size	DN	PN	kv-value	EPDM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)
				(l/min)			
63	2	50	10	1470	<b>167 563 002</b>	1	0.965
75	2 ½	65	10	2200	<b>167 563 003</b>	1	1.253
90	3	80	10	3000	<b>167 563 004</b>	1	1.184
110	4	100	10	6500	<b>167 563 005</b>	1	1.962
140	5	125	10	11500	<b>167 563 006</b>	1	2.382
160	6	150	10	16600	<b>167 563 007</b>	1	3.188
225	8	200	10	39600	<b>167 563 008</b>	1	5.523
280	10	250	8	55200	<b>167 563 009</b>	1	11.841
315	12	300	8	80000	<b>167 563 010</b>	1	14.816



d	d2	D	D1	D1	H	H1	H2	H3	L	L1	L2	Q1	Q2
(mm)	(mm)	(mm)	min.	max.	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
				(mm)									
63	104	19	120	125	264	77	134	54	45	106	205	40	
75	115	19	140	145	277	83	140	54	46	106	205	54	35
90	131	19	150	160	289	89	146	54	49	106	205	67	50
110	161	19	175	191	325	104	167	55	56	106	255	88	74
140	187	23	210	216	352	117	181	55	64	106	255	113	97
160	215	24	241	241	373	130	189	55	72	106	255	139	123
225	267	23	290	295	435	158	210	67	73	140	408	178	169
280	329	25	353	362	554	205	264	85	113	149	408	210	207
315	379	25	400	432	598	228	285	85	113	149	408	256	253

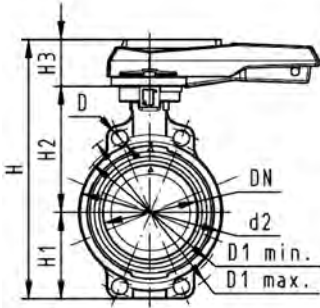
# Butterfly valves type 567



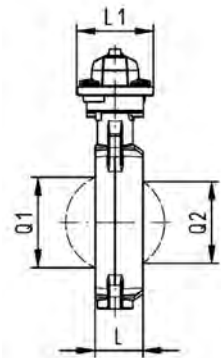
## PROGEF Standard Butterfly valve type 567 Hand lever with ratchet settings

### Model:

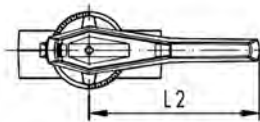
- Material: PP-H, DN350-DN600 material PP-R
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
63	2	50	10	1470	<b>167 567 002</b>	1.170	<b>167 567 022</b>	1.627
75	2 ½	65	10	2200	<b>167 567 003</b>	1.254	<b>167 567 023</b>	1.061
90	3	80	10	3000	<b>167 567 004</b>	1.384	<b>167 567 024</b>	1.404
110	4	100	10	6500	<b>167 567 005</b>	1.961	<b>167 567 025</b>	1.998
140	5	125	10	11500	<b>167 567 006</b>	2.367	<b>167 567 026</b>	2.429
160	6	150	10	16600	<b>167 567 007</b>	3.741	<b>167 567 027</b>	3.246
225	8	200	10	39600	<b>167 567 008</b>	5.545	<b>167 567 028</b>	5.609
280	10	250	8	55200	<b>167 567 009</b>	11.061	<b>167 567 029</b>	11.841
315	12	300	8	80000	<b>167 567 010</b>	16.548	<b>167 567 030</b>	13.245



d (mm)	PTFE Code	Weight (kg)
63	<b>167 567 202</b>	1.170
75	<b>167 567 203</b>	1.254
90	<b>167 567 204</b>	1.384
110	<b>167 567 205</b>	1.961
140	<b>167 567 206</b>	2.367
160	<b>167 567 207</b>	3.741
225	<b>167 567 208</b>	5.545
280	<b>167 567 209</b>	11.061
315	<b>167 567 210</b>	16.548



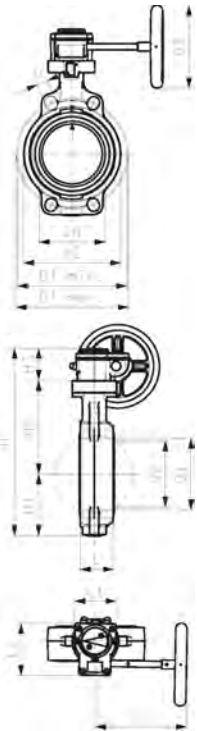
d (mm)	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	104	19	120	125	264	77	134	54	45	106	205	40	
75	115	19	140	145	277	83	140	54	46	106	205	54	35
90	131	19	150	160	289	89	146	54	49	106	205	67	50
110	161	19	175	191	325	104	167	55	56	106	255	88	74
140	187	23	210	216	352	117	181	55	64	106	255	113	97
160	215	24	241	241	373	130	189	55	72	106	255	139	123
225	267	23	290	295	435	158	210	67	73	140	408	178	169
280	329	25	353	362	554	205	264	85	113	149	408	210	207
315	379	25	400	432	598	228	285	85	113	149	408	256	253

**PROGEF Standard**  
**Butterfly valve type 567**  
**Reduction gear with handwheel**



**Model:**

- Material: PP-H, DN350-DN600 material PP-R
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

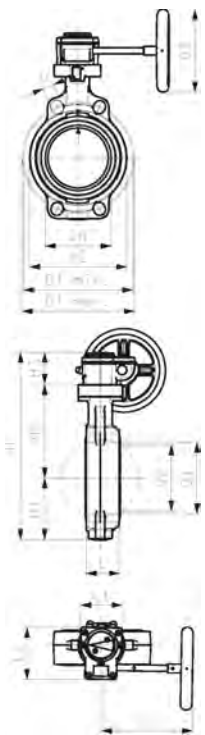


d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(l/min)						
63	2	50	10	1470	<b>167 567 042</b>	1	3.003	<b>167 567 062</b>	1	3.007
75	2 ½	65	10	2200	<b>167 567 043</b>	1	2.781	<b>167 567 063</b>	1	3.099
90	3	80	10	3000	<b>167 567 044</b>	1	3.301	<b>167 567 064</b>	1	3.229
110	4	100	10	6500	<b>167 567 045</b>	1	3.736	<b>167 567 065</b>	1	3.741
140	5	125	10	11500	<b>167 567 046</b>	1	2.770	<b>167 567 066</b>	1	4.243
160	6	150	10	16600	<b>167 567 047</b>	1	4.969	<b>167 567 067</b>	1	5.038
225	8	200	10	39600	<b>167 567 048</b>	1	8.538	<b>167 567 068</b>	1	6.539
280	10	250	8	51000	<b>167 567 049</b>	1	12.884	<b>167 567 069</b>	1	13.074
315	12	300	8	73000	<b>167 567 050</b>	1	16.442	<b>167 567 070</b>	1	16.066
355	14	350	6	90000	<b>167 567 051</b>	1	40.000	<b>167 567 071</b>	1	40.000
400	16	400	6	115000	<b>167 567 052</b>	1	50.000	<b>167 567 072</b>	1	50.000
450	18	450	5	155000	<b>167 567 053</b>	1	70.000	<b>167 567 073</b>	1	70.000
500	20	500	4	204000	<b>167 567 054</b>	1	90.000	<b>167 567 074</b>	1	90.000
630	24	600	4	265000	<b>167 567 055</b>	1	125.000	<b>167 567 075</b>	1	125.000

d	PTFE	Weight
(mm)	Code	(kg)
63	<b>167 567 242</b>	3.003
75	<b>167 567 243</b>	2.781
90	<b>167 567 244</b>	3.301
110	<b>167 567 245</b>	3.736
140	<b>167 567 246</b>	2.770
160	<b>167 567 247</b>	4.969
225	<b>167 567 248</b>	8.538
280	<b>167 567 249</b>	12.884
315	<b>167 567 250</b>	16.442
355	<b>167 567 251</b>	40.000
400	<b>167 567 252</b>	50.000
450	<b>167 567 253</b>	70.000
500	<b>167 567 254</b>	90.000
630	<b>167 567 255</b>	125.000

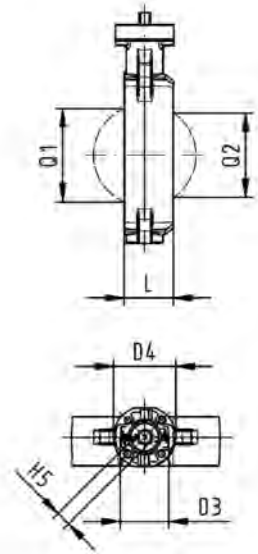
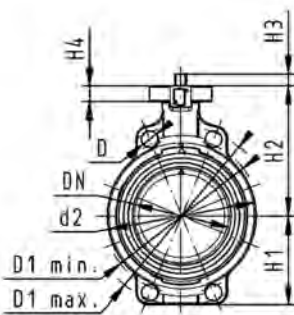
d	d2	D	D1	D1	D3	H	H1	H2	H3	L	L1	L2	L3	Q1
(mm)	(mm)	(mm)	min.	max.	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
			(mm)	(mm)										
63	104	19	120	125	160	273	77	134	62	45	78	112	179	40
75	115	19	140	145	160	285	83	140	62	46	78	112	179	54
90	131	19	150	160	160	297	89	146	62	49	78	112	179	67
110	160	19	175	191	160	333	104	167	62	56	78	112	179	88
140	187	23	210	216	160	360	117	181	62	64	78	112	179	113
160	215	24	241	241	160	381	130	189	62	72	78	112	179	139
225	267	23	290	295	160	430	158	210	62	73	78	112	179	178
280	329	25	353	362	200	555	205	264	69	113	97	130	198	210
315	379	25	400	432	200	599	228	285	69	113	97	130	198	256
355	535	29	445	477	200		268	410	69	129	180	168	218	325
400	595	29	510	540	200		300	435	69	169	180	195	218	353
450	635	32	565	578	250		320	520	81	179	220	195	240	393
500	700	32	620	635	350		350	550	94	190	220	226	260	444
630	813	35	725	750	350		420	610	94	209	220	260	260	530

table continued on the next page



<b>d</b> (mm)	<b>Q2</b> (mm)
63	
75	35
90	50
110	74
140	97
160	123
225	169
280	207
315	253
355	305
400	350
450	390
500	440
630	527





**PROGEF Standard  
Butterfly valve type 567  
Bare shaft**

**Model:**

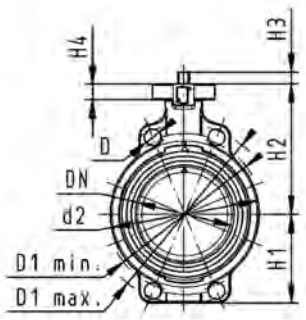
- Material: PP-H, DN350-DN600 material PP-R
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Interface F07 for the dimensions DN50-200 according to DIN/ISO 5211
- Interface F10 for the dimensions DN250-300 according to DIN/ISO 5211
- Interface F12 for the dimensions DN350-400 according to DIN/ISO 5211
- Interface F14 for the dimensions DN450-600 according to DIN/ISO 5211

d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
63	2	50	10	1470	<b>167 567 802</b>	1	0.699	<b>167 567 822</b>	1	0.721
75	2 ½	65	10	2200	<b>167 567 803</b>	1	0.793	<b>167 567 823</b>	1	0.804
90	3	80	10	3000	<b>167 567 804</b>	1	0.913	<b>167 567 824</b>	1	0.939
110	4	100	10	6500	<b>167 567 805</b>	1	1.409	<b>167 567 825</b>	1	1.450
140	5	125	10	11500	<b>167 567 806</b>	1	1.831	<b>167 567 826</b>	1	1.929
160	6	150	10	16600	<b>167 567 807</b>	1	2.641	<b>167 567 827</b>	1	2.713
225	8	200	10	39600	<b>167 567 808</b>	1	4.110	<b>167 567 828</b>	1	4.186
280	10	250	8	51000	<b>167 567 809</b>	1	9.412	<b>167 567 829</b>	1	10.251
315	12	300	8	73000	<b>167 567 810</b>	1	13.054	<b>167 567 830</b>	1	13.251
355	14	350	6	90000	<b>167 567 811</b>	1	35.000	<b>167 567 831</b>	1	35.000
400	16	400	6	115000	<b>167 567 812</b>	1	45.000	<b>167 567 832</b>	1	45.000
450	18	450	5	155000	<b>167 567 813</b>	1	60.000	<b>167 567 833</b>	1	60.000
500	20	500	4	204000	<b>167 567 814</b>	1	75.000	<b>167 567 834</b>	1	75.000
630	24	600	4	265000	<b>167 567 815</b>	1	110.000	<b>167 567 835</b>	1	110.000

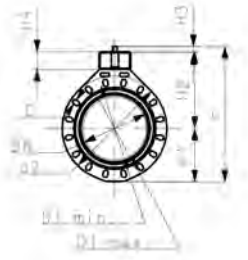
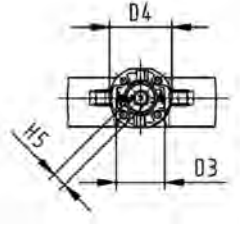
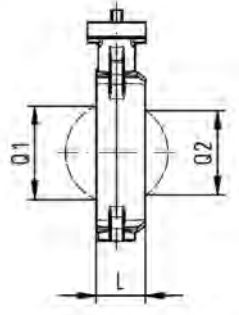
d (mm)	PTFE Code	Weight (kg)
63	<b>167 567 840</b>	0.699
75	<b>167 567 841</b>	0.793
90	<b>167 567 842</b>	0.913
110	<b>167 567 843</b>	1.409
140	<b>167 567 844</b>	1.831
160	<b>167 567 845</b>	2.641
225	<b>167 567 846</b>	4.110
280	<b>167 567 847</b>	9.412
315	<b>167 567 848</b>	13.054
355	<b>167 567 849</b>	35.000
400	<b>167 567 850</b>	45.000
450	<b>167 567 851</b>	60.000
500	<b>167 567 852</b>	75.000
630	<b>167 567 853</b>	110.000

d (mm)	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	D3 (mm)	D4 (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	Q1 (mm)	Q2 (mm)
63	104	19	120	125	70	90	77	134	27	23	11	45	40	
75	115	19	140	145	70	90	83	140	27	23	11	46	54	35
90	131	19	150	160	70	90	89	146	27	23	11	49	67	50
110	161	19	175	191	70	90	104	167	16	23	14	56	88	74
140	187	23	210	216	70	90	117	181	16	23	14	64	113	97
160	215	24	241	241	70	90	130	189	19	23	17	72	139	123
225	267	23	290	295	70	90	158	210	19	23	17	73	178	169
280	329	25	353	362	102	125	205	264	40	23	22	113	210	207
315	379	25	400	432	102	125	228	285	40	23	22	113	256	253
355	535	29	445	477	125	180	268	410	31	100	22	129	325	305

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<b>d</b> (mm)	<b>d2</b> (mm)	<b>D</b> (mm)	<b>D1</b> <b>min.</b> (mm)	<b>D1</b> <b>max.</b> (mm)	<b>D3</b> (mm)	<b>D4</b> (mm)	<b>H1</b> (mm)	<b>H2</b> (mm)	<b>H3</b> (mm)	<b>H4</b> (mm)	<b>H5</b> (mm)	<b>L</b> (mm)	<b>Q1</b> (mm)	<b>Q2</b> (mm)
400	595	29	510	540	125	180	300	435	31	100	27	169	353	350
450	635	32	565	578	140	220	320	520	35	120	27	179	393	390
500	700	32	620	635	140	220	350	550	35	120	36	190	444	440
630	813	35	725	750	140	220	420	610	35	120	36	209	530	527



# Butterfly valves type 578



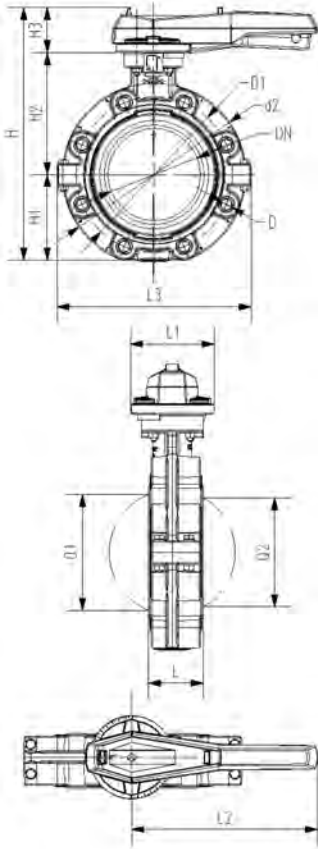
## PROGEF Standard Lugstyle butterfly valve type 578 Hand lever with ratchet settings

### Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version

### Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
63	2	50	10	1470	<b>167 578 002</b>	1.800	<b>167 578 022</b>	1.800
75	2 ½	65	10	2200	<b>167 578 003</b>	1.895	<b>167 578 023</b>	1.895
90	3	80	10	3000	<b>167 578 004</b>	2.251	<b>167 578 024</b>	2.251
110	4	100	10	6500	<b>167 578 005</b>	3.146	<b>167 578 025</b>	3.146
140	5	125	10	11500	<b>167 578 006</b>	4.660	<b>167 578 026</b>	4.660
160	6	150	10	16600	<b>167 578 007</b>	6.430	<b>167 578 027</b>	6.430
225	8	200	10	39600	<b>167 578 008</b>	8.625	<b>167 578 028</b>	8.625
280	10	250	8	55200	<b>167 578 009</b>	19.528	<b>167 578 029</b>	19.528
315	12	300	8	80000	<b>167 578 010</b>	26.106	<b>167 578 030</b>	26.106

d (mm)	d2 (mm)	D	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	160	M16	125	265	77	134	54	45	106	205	150	40	
75	180	M16	145	277	83	140	54	46	106	205	182	54	35
90	195	M16	160	289	89	146	54	49	106	205	210	67	50
110	226	M16	180	328	106	167	55	56	106	255	240	88	74
140	258	M16	210	357	121	181	55	64	106	255	272	113	97
160	284	M20	240	377	133	189	55	72	106	255	297	139	123
225	341	M20	295	436	159	210	67	73	140	408	360	178	169
280	412	M20	350	536	205	264	67	113	140	408	440	210	207
315	482	M20	400	586	234	285	67	113	140	408	510	256	253



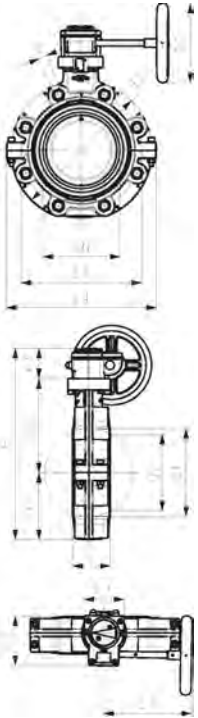
**PROGEF Standard**  
**Lugstyle butterfly valve type 578**  
**Reduction gear with handwheel**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
63	2	50	10	1470	<b>167 578 042</b>	1	3.447	<b>167 578 062</b>	1	3.447
75	2 ½	65	10	2200	<b>167 578 043</b>	1	3.585	<b>167 578 063</b>	1	3.585
90	3	80	10	3000	<b>167 578 044</b>	1	3.929	<b>167 578 064</b>	1	3.929
110	4	100	10	6500	<b>167 578 045</b>	1	4.834	<b>167 578 065</b>	1	4.834
140	5	125	10	11500	<b>167 578 046</b>	1	6.348	<b>167 578 066</b>	1	6.348
160	6	150	10	16600	<b>167 578 047</b>	1	8.109	<b>167 578 067</b>	1	8.109
225	8	200	10	39600	<b>167 578 048</b>	1	9.353	<b>167 578 068</b>	1	9.353
280	10	250	8	55200	<b>167 578 049</b>	1	21.210	<b>167 578 069</b>	1	21.210
315	12	300	8	80000	<b>167 578 050</b>	1	27.746	<b>167 578 070</b>	1	27.746

d (mm)	d2 (mm)	D	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	Q1 (mm)	Q2 (mm)
63	160	M16	125	160	273	77	134	62	45	78	112	179	165	40	
75	180	M16	145	160	285	83	140	62	46	78	112	179	182	54	35
90	195	M16	160	160	297	89	146	62	49	78	112	179	210	67	50
110	226	M16	180	160	335	106	167	62	56	78	112	179	240	88	74
140	258	M16	210	160	364	121	181	62	64	78	112	179	272	113	97
160	284	M20	240	160	384	133	189	62	72	78	112	179	300	139	123
225	341	M20	295	160	431	159	210	62	73	78	112	179	360	178	169
280	412	M20	350	200	555	205	264	69	113	97	130	198	440	210	207
315	482	M20	400	200	605	234	285	69	113	97	130	198	510	256	253



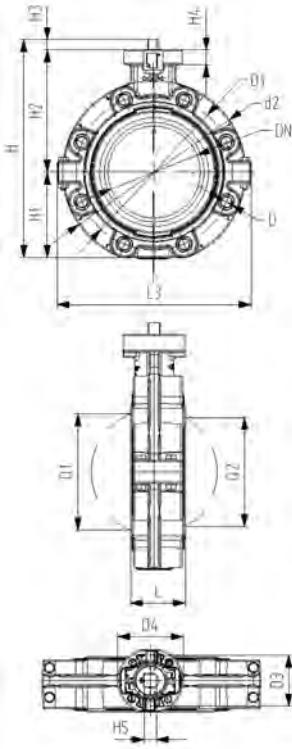
**PROGEF Standard**  
**Lugstyle butterfly valve type 578**  
**Bare shaft**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Interface F07 according to DIN/ISO 5211
- Interface F10 for the dimensions DN250-300 according to DIN/ISO 5211

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(l/min)						
63	2	50	10	1470	<b>167 578 802</b>	1	1.299	<b>167 578 822</b>	1	1.299
75	2 ½	65	10	2200	<b>167 578 803</b>	1	1.456	<b>167 578 823</b>	1	1.456
90	3	80	10	3000	<b>167 578 804</b>	1	1.701	<b>167 578 824</b>	1	1.701
110	4	100	10	6500	<b>167 578 805</b>	1	2.606	<b>167 578 825</b>	1	2.606
140	5	125	10	11500	<b>167 578 806</b>	1	4.120	<b>167 578 826</b>	1	4.120
160	6	150	10	16600	<b>167 578 807</b>	1	5.881	<b>167 578 827</b>	1	5.881
225	8	200	10	39600	<b>167 578 808</b>	1	7.125	<b>167 578 828</b>	1	7.125
280	10	250	8	55200	<b>167 578 809</b>	1	17.880	<b>167 578 829</b>	1	17.880
315	12	300	8	80000	<b>167 578 810</b>	1	24.416	<b>167 578 830</b>	1	24.416

d	d2	D	D1	D3	D4	H	H1	H2	H3	H4	H5	L	Q1	Q2
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	160	M16	125	70	90	238	77	134	27	23	11	45	40	
75	180	M16	145	70	90	250	83	140	27	23	11	46	54	35
90	195	M16	160	70	90	262	89	146	27	23	11	49	67	50
110	226	M16	180	70	90	289	106	167	16	23	14	56	88	74
140	258	M16	210	70	90	318	121	181	16	23	14	64	113	97
160	284	M20	240	70	90	341	133	189	19	23	17	72	139	123
225	341	M20	295	70	90	388	159	210	19	23	17	73	178	169
280	412	M20	350	102	125	509	205	264	40	23	22	113	210	207
315	482	M20	400	102	125	559	234	285	40	23	22	113	256	253

# Butterfly valves electric type 145



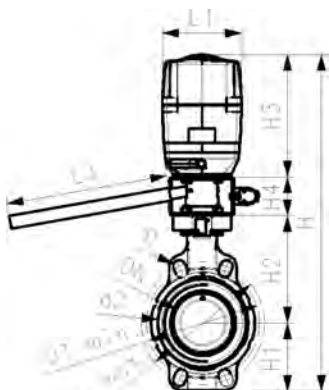
## PROGEF Standard Butterfly valve type 145 100-230V With manual override

### Model:

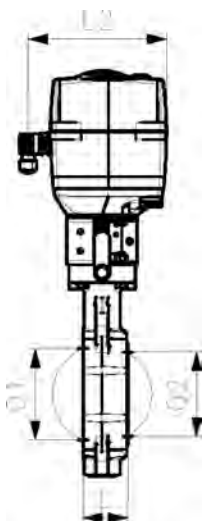
- Material: PP-H
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

### Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	PTFE Code
63	2	50	10	1470	199 145 322	6.002	199 145 842
75	2 1/2	65	10	2200	199 145 323	5.694	199 145 843
90	3	80	10	3000	199 145 324	5.822	199 145 844
110	4	100	10	6500	199 145 325	6.327	199 145 845
140	5	125	10	11500	199 145 326	7.174	199 145 846
160	6	150	10	16600	199 145 327	9.604	199 145 847
225	8	200	10	39600	199 145 328	13.271	199 145 848



d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
63	EA-120	104	19	120	125	475	77	134	188	75	45	122	180	250
75	EA-120	115	19	140	145	488	83	140	188	75	46	122	180	250
90	EA-120	131	19	150	160	488	89	146	188	60	49	122	180	250
110	EA-120	161	19	175	191	520	104	167	188	60	56	122	180	250
140	EA-120	187	23	210	216	547	117	181	188	60	64	122	180	250
160	EA-120	215	24	241	241	568	130	189	188	60	72	122	180	250
225	EA-250	267	23	290	295	635	158	210	208	60	73	122	180	250

d (mm)	Q1 (mm)	Q2 (mm)
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169



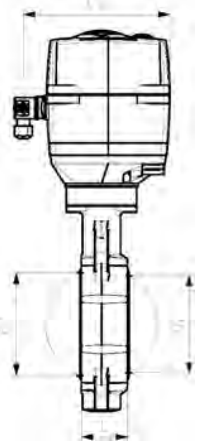
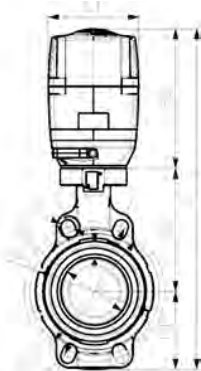
**PROGEF Standard**  
**Butterfly valve type 145 100-230V**  
**Without manual override**

**Model:**

- Material: PP-H
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

**Option:**

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

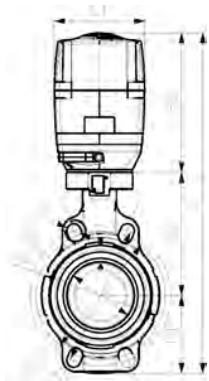


d	Size	DN	PN	kv-value	EPDM	Weight	PTFE
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)	Code
				(l/min)			
63	2	50	10	1470	<b>199 145 362</b>	5.264	<b>199 145 802</b>
75	2 ½	65	10	2200	<b>199 145 363</b>	4.423	<b>199 145 803</b>
90	3	80	10	3000	<b>199 145 364</b>	4.548	<b>199 145 804</b>
110	4	100	10	6500	<b>199 145 365</b>	5.034	<b>199 145 805</b>
140	5	125	10	11500	<b>199 145 366</b>	5.271	<b>199 145 806</b>
160	6	150	10	16600	<b>199 145 367</b>	6.256	<b>199 145 807</b>
225	8	200	10	39600	<b>199 145 368</b>	9.656	<b>199 145 808</b>
280	10	250	6	55200	<b>199 145 369</b>	13.747	<b>199 145 809</b>
315	12	300	4	80000	<b>199 145 370</b>	16.722	<b>199 145 810</b>
*	355	14	350	6	90000		<b>199 145 811</b>
*	400	16	400	6	115000		<b>199 145 812</b>
*	450	18	450	5	155000		<b>199 145 813</b>
*	500	20	500	4	204000		<b>199 145 814</b>
*	630	24	600	4	265000		<b>199 145 815</b>

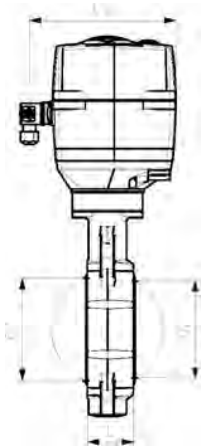
d	Actuator	d2	D	D1	D1	H	H1	H2	H3	L	L1	L2
(mm)	unit type	(mm)	(mm)	min.	max.	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
				(mm)	(mm)							
63	EA-45	104	19	120	125	415	77	134	188	45	122	180
75	EA-45	115	19	140	145	428	83	140	188	46	122	180
90	EA-120	131	19	150	160	428	89	146	188	49	122	180
110	EA-120	161	19	175	191	460	104	167	188	56	122	180
140	EA-120	187	23	210	216	487	117	181	188	64	122	180
160	EA-120	215	24	241	241	508	130	189	188	72	122	180
225	EA-250	267	23	290	295	575	158	210	208	73	122	180
280	EA-250	329	25	353	362	677	205	264	208	113	122	180
315	EA-250	379	25	400	432	721	228	285	208	113	122	180
*	355	535	29	445	477	863	268	410	185	129	360	
*	400	595	29	510	540	941	300	435	206	169	380	
*	450	635	32	565	578	1046	320	520	206	179	380	
*	500	700	32	620	635	1130	350	550	230	190	462	
*	630	813	35	725	750	1330	420	610	300	209	530	

d	Q1	Q2	
(mm)	(mm)	(mm)	
63	40		
75	54	35	
90	67	50	
110	88	74	
140	113	97	
160	139	123	
225	178	169	
280	210	207	
315	256	253	
*	355	325	305

table continued on the next page



	<b>d</b>	<b>Q1</b>	<b>Q2</b>
	(mm)	(mm)	(mm)
*	400	353	350
*	450	393	390
*	500	444	440
*	630	530	527







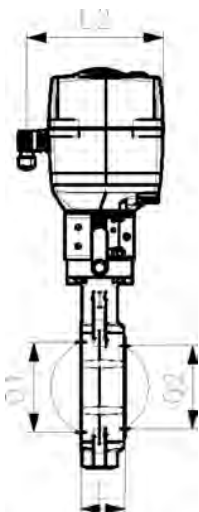
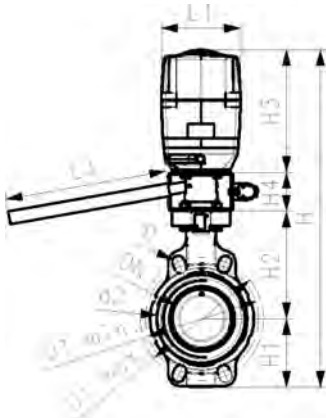
**PROGEF Standard**  
**Butterfly valve type 145 24V**  
**With manual override**

**Model:**

- Material: PP-H
- Voltage 24V AC/DC
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

**Option:**

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	PTFE Code
63	2	50	10	1470	<b>199 145 402</b>	5.603	<b>199 145 862</b>
75	2 ½	65	10	2200	<b>199 145 403</b>	5.694	<b>199 145 863</b>
90	3	80	10	3000	<b>199 145 404</b>	5.822	<b>199 145 864</b>
110	4	100	10	6500	<b>199 145 405</b>	6.327	<b>199 145 865</b>
140	5	125	10	11500	<b>199 145 406</b>	6.771	<b>199 145 866</b>
160	6	150	10	16600	<b>199 145 407</b>	7.556	<b>199 145 867</b>
225	8	200	10	39600	<b>199 145 408</b>	13.271	<b>199 145 868</b>

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
63	EA-120	104	19	120	125	475	77	134	188	75	45	122	180	250
75	EA-120	115	19	140	145	488	83	140	188	75	46	122	180	250
90	EA-120	131	19	150	160	488	89	146	188	60	49	122	180	250
110	EA-120	161	19	175	191	520	104	167	188	60	56	122	180	250
140	EA-120	187	23	210	216	547	117	181	188	60	64	122	180	250
160	EA-120	215	24	241	241	568	130	189	188	60	72	122	180	250
225	EA-250	267	23	290	295	635	158	210	208	60	73	122	180	250

d (mm)	Q1 (mm)	Q2 (mm)
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169



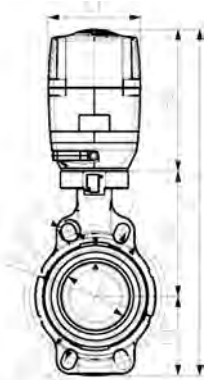
**PROGEF Standard**  
**Butterfly valve type 145 24V**  
**Without manual override**

**Model:**

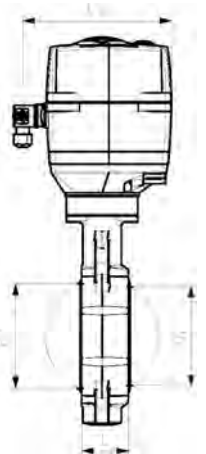
- Material: PP-H
- Voltage 24V AC/DC
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

**Option:**

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d	Size	DN	PN	kv-value	EPDM	Weight	PTFE
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)	Code
				(l/min)			
63	2	50	10	1470	<b>199 145 442</b>	4.314	<b>199 145 822</b>
75	2 ½	65	10	2200	<b>199 145 443</b>	4.194	<b>199 145 823</b>
90	3	80	10	3000	<b>199 145 444</b>	4.529	<b>199 145 824</b>
110	4	100	10	6500	<b>199 145 445</b>	5.017	<b>199 145 825</b>
140	5	125	10	11500	<b>199 145 446</b>	5.271	<b>199 145 826</b>
160	6	150	10	16600	<b>199 145 447</b>	6.056	<b>199 145 827</b>
225	8	200	10	39600	<b>199 145 448</b>	11.771	<b>199 145 828</b>
280	10	250	6	55200	<b>199 145 449</b>	13.747	<b>199 145 809</b>
315	12	300	4	80000	<b>199 145 450</b>	16.722	<b>199 145 810</b>



d	Actuator	d2	D	D1	D1	H	H1	H2	H3	L	L1	L2	Q1	Q2
(mm)	unit type	(mm)	(mm)	min.	max.	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
				(mm)	(mm)									
63	EA-45	104	19	120	125	415	77	134	188	45	122	180	40	
75	EA-45	115	19	140	145	428	83	140	188	46	122	180	54	35
90	EA-120	131	19	150	160	428	89	146	188	49	122	180	67	50
110	EA-120	161	19	175	191	460	104	167	188	56	122	180	88	74
140	EA-120	187	23	210	216	487	117	181	188	64	122	180	113	97
160	EA-150	215	24	241	241	508	130	189	188	72	122	180	139	123
225	EA-250	267	23	290	295	575	158	210	208	73	122	180	178	169
280	EA-250	329	25	353	362	677	205	264	208	113	122	180	210	207
315	EA-250	379	25	400	432	721	228	285	208	113	122	180	256	253

# Butterfly valves electric type 146



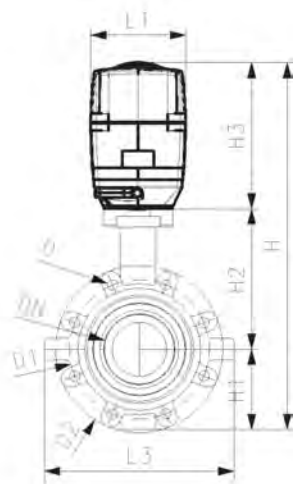
**PROGEF Standard**  
**Lugstyle butterfly valve type 146 100-230V**  
**Without manual override**

**Model:**

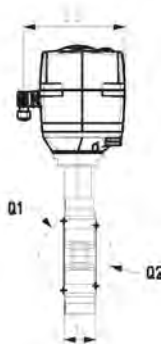
- Material: PP-H
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

**Option:**

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EPDM Code	Weight (kg)	PTFE Code
63	2	50	10	1470	<b>199 146 362</b>	4.299	<b>199 146 802</b>
75	2 ½	65	10	2200	<b>199 146 363</b>	4.456	<b>199 146 803</b>
90	3	80	10	3000	<b>199 146 364</b>	4.701	<b>199 146 804</b>
110	4	100	10	6500	<b>199 146 365</b>	5.606	<b>199 146 805</b>
140	5	125	10	11500	<b>199 146 366</b>	7.120	<b>199 146 806</b>
160	6	150	10	16600	<b>199 146 367</b>	8.881	<b>199 146 807</b>
225	8	200	10	39600	<b>199 146 368</b>	13.625	<b>199 146 808</b>
280	10	250	6	55200	<b>199 146 369</b>	24.385	
315	12	300	4	80000	<b>199 146 370</b>	30.916	



d (mm)	Actuator unit type	d2 (mm)	D	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	EA-45	160	M16	125	414	77	134	188	45	122	180	165	40	
75	EA-45	180	M16	145	426	83	140	188	46	122	180	182	54	35
90	EA-120	195	M16	160	423	89	146	188	49	122	180	210	67	50
110	EA-120	226	M16	180	461	106	167	188	56	122	180	240	88	74
140	EA-120	258	M16	210	490	121	181	188	64	122	180	272	113	97
160	EA-120	284	M20	240	510	133	189	188	72	122	180	300	139	123
225	EA-250	341	M20	295	577	159	210	208	73	122	180	360	178	169
280	EA-250	412	M20	350	677	205	264	208	113	122	180	440	210	207
315	EA-250	482	M20	400	727	234	285	208	113	122	180	510	256	253

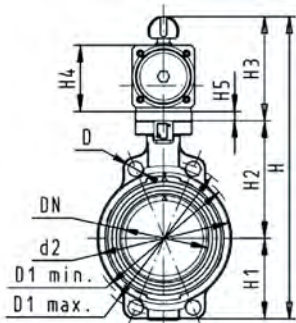
# Butterfly valves pneumatic type 240



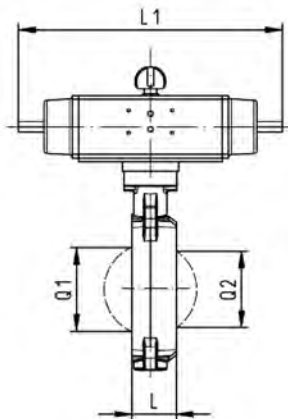
**PROGEF Standard**  
**Butterfly valve type 240**  
**FC (Fail safe to close)**  
**Without manual override**

**Model:**

- Material: PP-H, DN350-DN600 material PP-R
- Control range 90°<
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- For DN350-DN600 pneumatic actuator supplied by airpower „twintorque®“



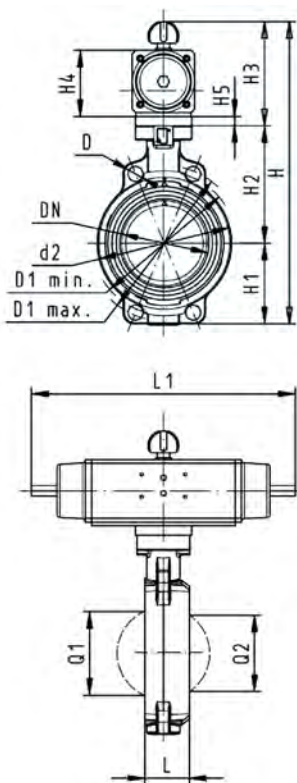
d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	
63	2	50	10	1470	<b>199 240 282</b>	1	2.909	
75	2 ½	65	10	2200	<b>199 240 283</b>	1	2.999	
90	3	80	10	3000	<b>199 240 284</b>	1	3.787	
110	4	100	10	6500	<b>199 240 285</b>	1	4.996	
140	5	125	10	11500	<b>199 240 286</b>	1	6.790	
160	6	150	10	16600	<b>199 240 287</b>	1	9.533	
225	8	200	10	39600	<b>199 240 288</b>	1	13.430	
280	10	250	8	55200	<b>199 240 289</b>	1	26.888	
315	12	300	8	80000	<b>199 240 290</b>	1	33.459	
*	355	14	350	6	90000	<b>199 240 291</b>	1	40.600
*	400	16	400	6	115000	<b>199 240 292</b>	1	62.100
*	450	18	450	5	155000	<b>199 240 293</b>	1	77.100
*	500	20	500	4	204000	<b>199 240 294</b>	1	92.100
*	630	24	600	4	265000	<b>199 240 295</b>	1	127.100



d (mm)	FKM Code	SP	Weight (kg)	PTFE Code	Weight (kg)
63	<b>199 240 302</b>	1	3.147	<b>199 240 702</b>	2.909
75	<b>199 240 303</b>	1	3.007	<b>199 240 703</b>	2.999
90	<b>199 240 304</b>	1	3.369	<b>199 240 704</b>	3.787
110	<b>199 240 305</b>	1	5.079	<b>199 240 705</b>	4.996
140	<b>199 240 306</b>	1	6.529	<b>199 240 706</b>	6.790
160	<b>199 240 307</b>	1	9.640	<b>199 240 707</b>	9.533
225	<b>199 240 308</b>	1	9.951	<b>199 240 708</b>	13.430
280	<b>199 240 309</b>	1	26.888	<b>199 240 709</b>	26.888
315	<b>199 240 310</b>	1	33.459	<b>199 240 710</b>	33.459
*	<b>199 240 311</b>	1	40.600	<b>199 240 711</b>	40.600
*	<b>199 240 312</b>	1	62.100	<b>199 240 712</b>	62.100
*	<b>199 240 313</b>	1	77.100	<b>199 240 713</b>	77.100
*	<b>199 240 314</b>	1	92.100	<b>199 240 714</b>	92.100
*	<b>199 240 315</b>	1	127.100	<b>199 240 715</b>	127.100

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	
63	PA-30 FC	104	19	120	125	327	77	134	117	70	15	45	
75	PA-30 FC	115	19	140	145	340	83	140	117	70	15	46	
90	PA-35 FC	131	19	150	160	361	89	146	126	78	15	49	
110	PA-40 FC	161	19	175	191	400	104	167	129	86		56	
140	PA-45 FC	187	23	210	216	436	117	181	139	96		64	
160	PA-50 FC	215	24	241	241	468	130	189	149	106		72	
225	PA-55 FC	267	23	290	295	529	158	210	161	118		73	
280	PA-65 FC	329	25	353	362	808	205	264	191	148		113	
315	PA-70 FC	379	25	400	432	866	228	285	196	157		113	
*	355		535	29	445	477	863	268	410	185	155	27	129

table continued on the next page



	<b>d</b> (mm)	<b>Actuator unit type</b>	<b>d2</b> (mm)	<b>D</b> (mm)	<b>D1 min.</b> (mm)	<b>D1 max.</b> (mm)	<b>H</b> (mm)	<b>H1</b> (mm)	<b>H2</b> (mm)	<b>H3</b> (mm)	<b>H4</b> (mm)	<b>H5</b> (mm)	<b>L</b> (mm)
*	400		595	29	510	540	941	300	435	206	176	27	169
*	450		635	32	565	578	1046	320	520	206	176	36	179
*	500		700	32	620	635	1130	350	550	230	200	36	190
*	630		813	35	725	750	1330	420	610	300	250	36	209

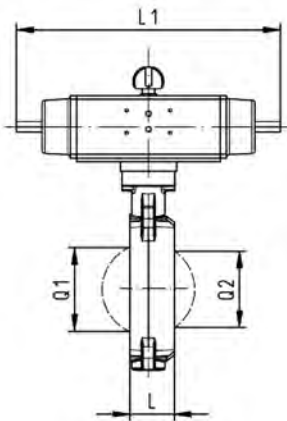
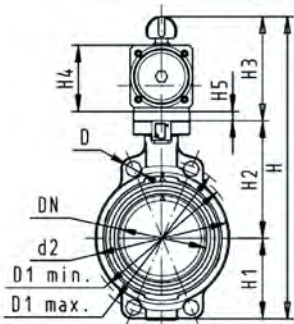
	<b>d</b> (mm)	<b>L1</b> (mm)	<b>Q1</b> (mm)	<b>Q2</b> (mm)
	63	276	40	
	75	276	54	35
	90	326	67	50
	110	370	88	74
	140	411	113	97
	160	423	139	123
	225	452	178	169
	280	648	210	207
	315	663	256	253
*	355	360	325	305
*	400	380	353	350
*	450	380	393	390
*	500	462	444	440
*	630	530	530	527



**PROGEF Standard**  
**Butterfly valve type 240**  
**FO (Fail safe to open)**  
**Without manual override**

**Model:**

- Material: PP-H
- Control range 90°<
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- For DN350-DN600 pneumatic actuator supplied by airpower „twintorque®“

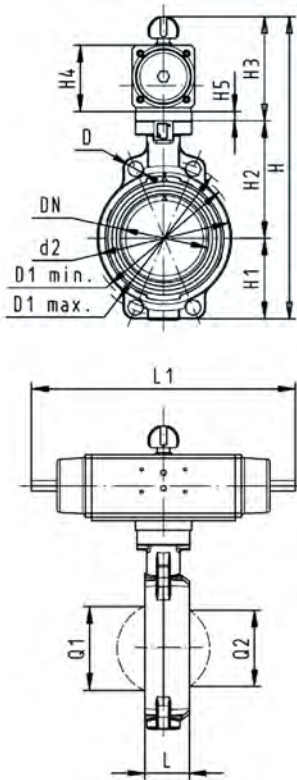


d	Size	DN	PN	kv-value	EPDM	SP	Weight	
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	
				(l/min)				
63	2	50	10	1470	199 240 322	1	3.143	
75	2 ½	65	10	2200	199 240 323	1	3.234	
90	3	80	10	3000	199 240 324	1	3.362	
110	4	100	10	6500	199 240 325	1	4.988	
140	5	125	10	11500	199 240 326	1	6.511	
160	6	150	10	16600	199 240 327	1	9.617	
225	8	200	10	39600	199 240 328	1	13.271	
280	10	250	8	55200	199 240 329	1	30.484	
315	12	300	8	80000	199 240 330	1	33.459	
*	355	14	350	6	90000	199 240 331	1	40.600
*	400	16	400	6	115000	199 240 332	1	62.100
*	450	18	450	5	204000	199 240 333	1	77.100
*	500	20	500	4	204000	199 240 334	1	92.100
*	630	24	600	4	265000	199 240 335	1	127.100

d	FKM	SP	Weight	PTFE	Weight	
(mm)	Code		(kg)	Code	(kg)	
63	199 240 342	1	3.147	199 240 722	3.143	
75	199 240 343	1	3.239	199 240 723	3.234	
90	199 240 344	1	3.369	199 240 724	3.362	
110	199 240 345	1	5.079	199 240 725	4.988	
140	199 240 346	1	6.529	199 240 726	6.511	
160	199 240 347	1	9.640	199 240 727	9.617	
225	199 240 348	1	13.299	199 240 728	13.271	
280	199 240 349	1	30.484	199 240 729	30.484	
315	199 240 350	1	33.459	199 240 730	33.459	
*	355	199 240 351	1	40.600	199 240 731	40.600
*	400	199 240 352	1	62.100	199 240 732	62.100
*	450	199 240 353	1	77.100	199 240 733	77.100
*	500	199 240 354	1	92.100	199 240 734	92.100
*	630	199 240 355	1	127.100	199 240 735	127.100

d	Actuator unit type	d2	D	D1 min.	D1 max.	H	H1	H2	H3	H4	H5	L	
(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
63	PA-30 FO	104	19	120	125	327	77	134	117	70	15	45	
75	PA-30 FO	115	19	140	145	340	83	140	117	70	15	46	
90	PA-35 FO	131	19	150	160	361	89	146	126	78	15	49	
110	PA-40 FO	161	19	175	191	400	104	167	129	86		56	
140	PA-45 FO	187	23	210	216	436	117	181	139	96		64	
160	PA-50 FO	215	24	241	241	468	130	189	149	106		72	
225	PA-55 FO	267	23	290	295	529	158	210	161	118		73	
280	PA-70 FO	329	25	353	362	808	205	264	191	148		113	
315	PA-70 FO	379	25	400	432	866	228	285	196	157		113	
*	355		535	29	445	477	863	268	410	185	155	27	129

table continued on the next page



	<b>d</b> (mm)	<b>Actuator unit type</b>	<b>d2</b> (mm)	<b>D</b> (mm)	<b>D1 min.</b> (mm)	<b>D1 max.</b> (mm)	<b>H</b> (mm)	<b>H1</b> (mm)	<b>H2</b> (mm)	<b>H3</b> (mm)	<b>H4</b> (mm)	<b>H5</b> (mm)	<b>L</b> (mm)
*	400		595	29	510	540	941	300	135	206	176	27	169
*	450		635	32	565	578	1046	320	520	206	200	36	179
*	500		700	32	620	635	1130	350	550	230	200	36	190
*	630		813	35	725	750	1330	420	610	300	250	36	209

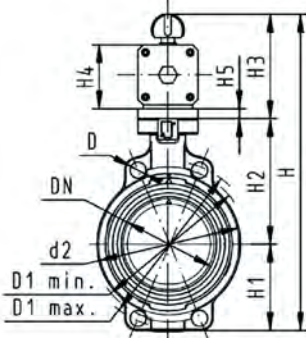
	<b>d</b> (mm)	<b>L1</b> (mm)	<b>L2</b> (mm)	<b>Q1</b> (mm)	<b>Q2</b> (mm)
	63	276	65	40	
	75	276	65	54	35
	90	326	72	67	50
	110	370	80	88	74
	140	411	90	113	97
	160	423	100	139	123
	225	452	112	178	169
	280	648	137	210	207
	315	663	145	256	253
*	355	360		325	305
*	400	380		353	350
*	450	380		393	390
*	500	462		444	440
*	630	530		530	527



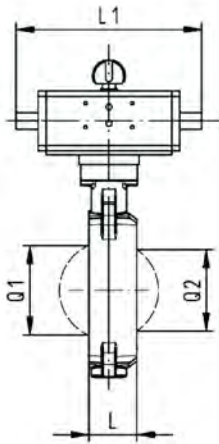
**PROGEF Standard**  
**Butterfly valve type 240**  
**DA (Double acting)**  
**Without manual override**

**Model:**

- Material: PP-H, DN350-DN600 material PP-R
- Control range 90°<
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- For DN350-DN600 pneumatic actuator supplied by airpower „twintorque®“



d	Size	DN	PN	kv-value	EPDM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)
				(L/min)			
63	2	50	10	1470	199 240 362	1	2.227
75	2 ½	65	10	2200	199 240 363	1	2.084
90	3	80	10	3000	199 240 364	1	2.728
110	4	100	10	6500	199 240 365	1	3.542
140	5	125	10	11500	199 240 366	1	3.967
160	6	150	10	16600	199 240 367	1	6.096
225	8	200	10	39600	199 240 368	1	7.271
280	10	250	8	55200	199 240 369	1	18.188
315	12	300	8	80000	199 240 370	1	24.263
*	355	14	350	90000	199 240 371	1	40.600
*	400	16	400	115000	199 240 372	1	62.100
*	450	18	450	155000	199 240 373	1	77.100
*	500	20	500	204000	199 240 374	1	92.100
*	630	24	600	265000	199 240 375	1	127.100

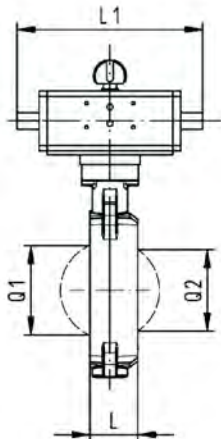
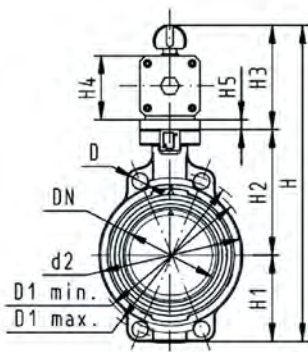


d	FKM	SP	Weight	PTFE	Weight	
(mm)	Code		(kg)	Code	(kg)	
63	199 240 382	1	2.243	199 240 742	2.227	
75	199 240 383	1	2.089	199 240 743	2.084	
90	199 240 384	1	2.748	199 240 744	2.728	
110	199 240 385	1	3.331	199 240 745	3.542	
140	199 240 386	1	3.779	199 240 746	3.967	
160	199 240 387	1	6.575	199 240 747	6.096	
225	199 240 388	1	7.299	199 240 748	7.271	
280	199 240 389	1	18.188	199 240 749	18.188	
315	199 240 390	1	24.263	199 240 750	24.263	
*	355	199 240 391	1	40.600	199 240 751	40.600
*	400	199 240 392	1	62.100	199 240 752	62.100
*	450	199 240 393	1	77.100	199 240 753	77.100
*	500	199 240 394	1	92.100	199 240 754	92.100
*	630	199 240 395	1	127.100	199 240 755	127.100

d	Actuator unit	d2	D	D1	D1	H	H1	H2	H3	H4	H5	L	
(mm)	type	(mm)	(mm)	min.	max.	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
				(mm)	(mm)								
63	PA-35 DA	104	19	120	125	317	77	134	107	60	15	45	
75	PA-35 DA	115	19	140	145	330	83	140	107	60	15	46	
90	PA-40 DA	131	19	150	160	348	89	146	113	66	15	49	
110	PA-45 DA	161	19	175	191	372	104	167	102	71		56	
140	PA-45 DA	187	23	210	216	408	117	181	111	78		64	
160	PA-55 DA	215	24	241	241	448	130	189	129	86		72	
225	PA-55 DA	267	23	290	295	507	158	210	139	96		73	
280	PA-65 DA	329	25	353	362	748	205	264	161	118		113	
315	PA-70 DA	379	25	400	432	816	228	285	173	130		113	
*	355	APD 140	535	29	445	477	863	268	410	185	155	27	129

table continued on the next page





	<b>d</b> (mm)	<b>Actuator unit type</b>	<b>d2</b> (mm)	<b>D</b> (mm)	<b>D1 min.</b> (mm)	<b>D1 max.</b> (mm)	<b>H</b> (mm)	<b>H1</b> (mm)	<b>H2</b> (mm)	<b>H3</b> (mm)	<b>H4</b> (mm)	<b>H5</b> (mm)	<b>L</b> (mm)
*	400	APD 140	595	29	510	540	941	300	435	206	176	27	169
*	450	APD 160	635	32	565	578	1046	320	520	206	176	36	179
*	500	APD 190	700	32	620	635	1130	350	550	230	200	36	190
*	630	APD 190	813	35	725	750	1330	420	610	300	250	36	209

	<b>d</b> (mm)	<b>L1</b> (mm)	<b>Q1</b> (mm)	<b>Q2</b> (mm)
	63	177	40	
	75	177	54	35
	90	190	67	50
	110	235	88	74
	140	235	113	97
	160	279	139	123
	225	279	178	169
	280	350	210	207
	315	381	256	253
*	355	360	325	305
*	400	380	353	350
*	450	380	393	390
*	500	462	444	440
*	630	530	530	527

# Butterfly valves pneumatic type 243



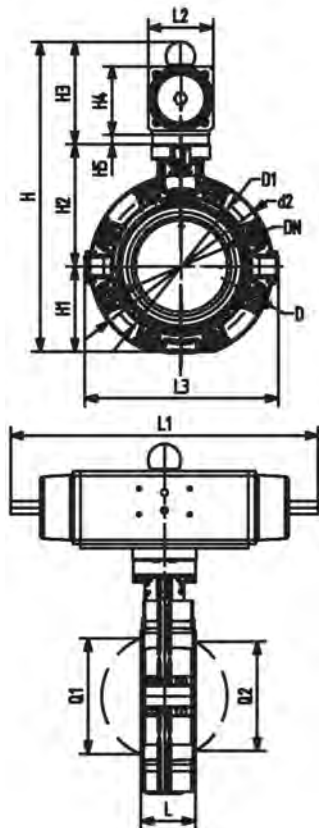
**PROGEF Standard**  
**Lugstyle butterfly valve type 243**  
**FC (Fail safe to close)**  
**Without manual override**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
63	2	50	10	1470	<b>199 243 282</b>	1	3.499	<b>199 243 302</b>	1	3.499
75	2 ½	65	10	2200	<b>199 243 283</b>	1	3.656	<b>199 243 303</b>	1	3.656
90	3	80	10	3000	<b>199 243 284</b>	1	4.692	<b>199 243 304</b>	1	4.692
110	4	100	10	6500	<b>199 243 285</b>	1	6.406	<b>199 243 305</b>	1	6.406
140	5	125	10	11500	<b>199 243 286</b>	1	9.222	<b>199 243 306</b>	1	9.222
160	6	150	10	16600	<b>199 243 287</b>	1	12.902	<b>199 243 307</b>	1	12.902
225	8	200	10	39600	<b>199 243 288</b>	1	16.691	<b>199 243 308</b>	1	16.691
280	10	250	8	55200	<b>199 243 289</b>	1	33.880	<b>199 243 309</b>	1	33.880
315	12	300	8	80000	<b>199 243 290</b>	1	43.985	<b>199 243 310</b>	1	43.985

d	Actuator unit	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
(mm)	type	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	PA-30 FC	160	M16	125	328	77	134	117	70	15	45	276	65	165
75	PA-30 FC	180	M16	145	340	83	140	117	70	15	46	276	65	182
90	PA-35 FC	195	M16	160	361	89	146	126	78	15	49	326	72	210
110	PA-40 FC	226	M16	180	400	106	167	129	86		56	370	80	240
140	PA-45 FC	258	M16	210	441	121	181	139	96		64	411	90	272
160	PA-50 FC	284	M20	240	471	133	189	149	106		72	423	100	300
225	PA-55 FC	341	M20	295	530	159	210	161	118		73	452	112	360
280	PA-65 FC	412	M20	350	660	205	264	191	148		113	648	137	440
315	PA-70 FC	482	M20	400	715	234	285	196	157		113	663	145	510

d	Q1	Q2
(mm)	(mm)	(mm)
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253



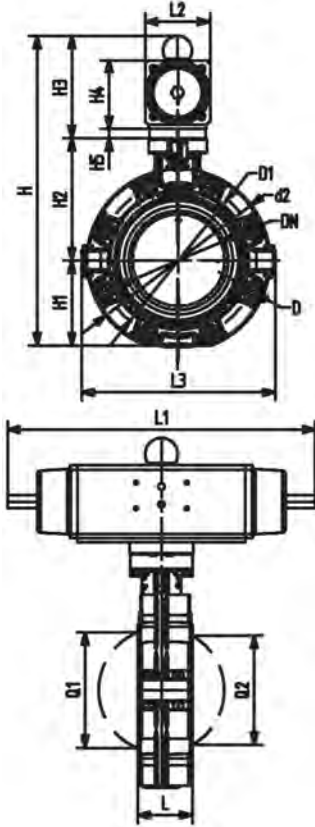
**PROGEF Standard**  
**Lugstyle butterfly valve type 243**  
**FO (Fail safe to open)**  
**Without manual override**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(l/min)						
63	2	50	10	1470	199 243 322	1	3.499	199 243 342	1	3.499
75	2 ½	65	10	2200	199 243 323	1	3.656	199 243 343	1	3.656
90	3	80	10	3000	199 243 324	1	4.692	199 243 344	1	4.692
110	4	100	10	6500	199 243 325	1	6.406	199 243 345	1	6.406
140	5	125	10	11500	199 243 326	1	9.222	199 243 346	1	9.222
160	6	150	10	16600	199 243 327	1	12.902	199 243 347	1	12.902
225	8	200	10	39600	199 243 328	1	16.691	199 243 348	1	16.691
280	10	250	8	55200	199 243 329	1	33.880	199 243 349	1	33.880
315	12	300	8	80000	199 243 330	1	43.985	199 243 350	1	43.985

d	Actuator unit	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
(mm)	type	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	PA-30 FO	160	M16	125	328	77	134	117	70	15	45	276	65	165
75	PA-30 FO	180	M16	145	340	83	140	117	70	15	46	276	65	182
90	PA-35 FO	195	M16	160	361	89	146	126	78	15	49	326	72	210
110	PA-40 FO	226	M16	180	402	106	167	129	86		56	370	80	240
140	PA-45 FO	258	M16	210	441	121	181	139	96		64	411	90	272
160	PA-50 FO	284	M20	240	471	133	189	149	106		72	423	100	300
225	PA-55 FO	341	M20	295	530	159	210	161	118		73	452	112	360
280	PA-70 FO	412	M20	350	660	205	264	191	148		113	648	137	440
315	PA-70 FO	482	M20	400	715	234	285	196	157		113	663	145	510

d	Q1	Q2
(mm)	(mm)	(mm)
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253



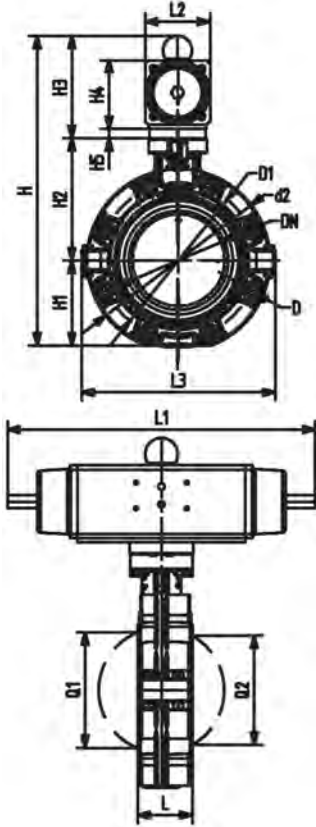
**PROGEF Standard**  
**Lugstyle butterfly valve type 243**  
**DA (Double acting)**  
**Without manual override**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
63	2	50	10	1470	<b>199 243 362</b>	1	3.499	<b>199 243 382</b>	1	3.499
75	2 ½	65	10	2200	<b>199 243 363</b>	1	3.656	<b>199 243 383</b>	1	3.656
90	3	80	10	3000	<b>199 243 364</b>	1	4.692	<b>199 243 384</b>	1	4.692
110	4	100	10	6500	<b>199 243 365</b>	1	6.406	<b>199 243 385</b>	1	6.406
140	5	125	10	11500	<b>199 243 366</b>	1	9.222	<b>199 243 386</b>	1	9.222
160	6	150	10	16600	<b>199 243 367</b>	1	12.902	<b>199 243 387</b>	1	12.902
225	8	200	10	39600	<b>199 243 368</b>	1	16.691	<b>199 243 388</b>	1	16.691
280	10	250	8	55200	<b>199 243 369</b>	1	33.880	<b>199 243 389</b>	1	33.880
315	12	300	8	80000	<b>199 243 370</b>	1	43.985	<b>199 243 390</b>	1	43.985

d	Actuator unit type	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	PA-35 DA	160	M16	125	318	77	134	107	60	15	45	177	55	165
75	PA-35 DA	180	M16	145	330	83	140	107	60	15	46	177	55	182
90	PA-40 DA	195	M16	160	348	89	146	113	66	15	49	190	60	210
110	PA-45 DA	226	M16	180	375	106	167	102	71		56	235	65	240
140	PA-45 DA	258	M16	210	413	121	181	111	78		64	235	72	272
160	PA-55 DA	284	M20	240	451	133	189	129	86		72	279	80	300
225	PA-55 DA	341	M20	295	508	159	210	139	96		73	279	90	360
280	PA-65 DA	412	M20	350	630	205	264	161	118		113	350	112	440
315	PA-70 DA	482	M20	400	692	234	285	173	130		113	381	124	510

d	Q1	Q2
(mm)	(mm)	(mm)
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253

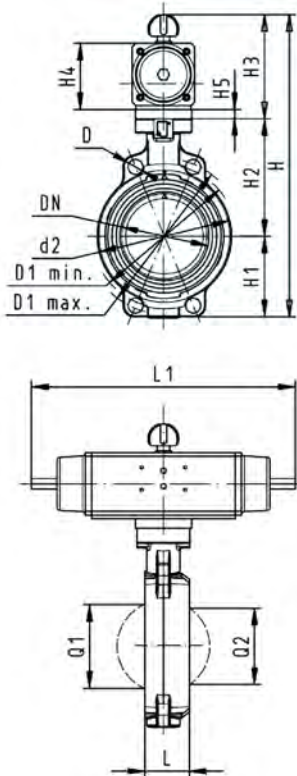
# Butterfly valves pneumatic type 563



**PROGEF Standard**  
**Butterfly valve type 563**  
**FC (Fail safe to close)**  
**Without manual override**

**Model:**

- Material: PP-H
- Only useable for system pressure of max. 4 bar
- Control range 90°<
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)
63	2	50	4	1470	<b>167 563 242</b>	1	3.143
75	2 ½	65	4	2200	<b>167 563 243</b>	1	3.234
90	3	80	4	3000	<b>167 563 244</b>	1	3.362
110	4	100	4	6500	<b>167 563 245</b>	1	4.072
140	5	125	4	11500	<b>167 563 246</b>	1	6.511
160	6	150	4	16600	<b>167 563 247</b>	1	9.617
225	8	200	4	39600	<b>167 563 248</b>	1	10.986
280	10	250	4	55200	<b>167 563 249</b>	1	26.888
315	12	300	4	80000	<b>167 563 250</b>	1	33.459

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)
63	PA-21 FC	104	19	120	125	345	77	134	119	99	15	45	224
75	PA-21 FC	115	19	140	145	363	83	140	119	99	15	46	224
90	PA-21 FC	131	19	150	160	369	89	146	119	99	15	49	224
110	PA-35 FC	161	19	175	191	382	104	167	111	78		56	342
140	PA-40 FC	187	23	210	216	427	117	181	129	87		64	370
160	PA-45 FC	215	24	241	241	458	130	189	139	96		72	409
225	PA-50 FC	267	23	290	295	517	158	210	149	107		73	424
280	PA-65 FC	329	25	353	362	660	205	264	191	148		113	621
315	PA-65 FC	379	25	400	432	704	228	285	191	148		113	621

d (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253

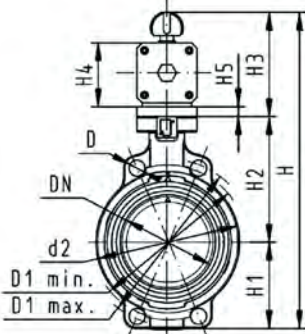


**PROGEF Standard**  
**Butterfly valve type 563**  
**DA (Double acting)**  
**Without manual override**

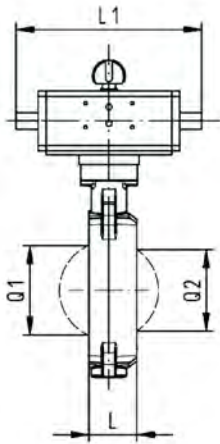
**Model:**

- Material: PP-H
- Only useable for system pressure of max. 4 bar
- Control range 90°<
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

d	Size	DN	PN	kv-value	EPDM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)
				(l/min)			
63	2	50	4	1470	<b>167 563 202</b>	1	1.993
75	2 ½	65	4	2200	<b>167 563 203</b>	1	2.084
90	3	80	4	3000	<b>167 563 204</b>	1	2.693
110	4	100	4	6500	<b>167 563 205</b>	1	3.317
140	5	125	4	11500	<b>167 563 206</b>	1	3.761
160	6	150	4	16600	<b>167 563 207</b>	1	6.096
225	8	200	4	39600	<b>167 563 208</b>	1	7.976
280	10	250	4	55200	<b>167 563 209</b>	1	18.188
315	12	300	4	80000	<b>167 563 210</b>	1	24.263



d	Actuator unit	d2	D	D1	D1	H	H1	H2	H3	H4	H5	L	L1
(mm)	type	(mm)	(mm)	min.	max.	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
				(mm)	(mm)								
63	PA-21 DA	104	19	120	125	345	77	134	134	99	15	45	224
75	PA-21 DA	115	19	140	145	357	83	140	134	99	15	46	224
90	PA-21 DA	131	19	150	160	369	89	146	134	99	15	49	224
110	PA-45 DA	161	19	175	191	382	104	167	111	78		56	235
140	PA-45 DA	187	23	210	216	409	117	181	111	78		64	235
160	PA-55 DA	215	24	241	241	458	130	189	139	96		72	279
225	PA-55 DA	267	23	290	295	507	158	210	139	96		73	279
280	PA-65 DA	329	25	353	362	630	205	264	161	118		113	350
315	PA-65 DA	379	25	400	432	674	228	285	161	118		113	350



d	L2	Q1	Q2
(mm)	(mm)	(mm)	(mm)
63	55	40	
75	55	54	35
90	60	67	50
110	65	88	74
140	72	113	97
160	80	139	123
225	90	178	169
280	112	210	207
315	125	256	253

A class of their own

# Diaphragm valves



## System overview

# A solution for every situation

GF Piping Systems offers a wide range of diaphragm valves to cover the individual demands of our customers. No matter which pressure level, media temperature, dimension or actuator – we provide every kind of diaphragm valves to meet your expectations perfectly.

## + Manual diaphragm valves



**Type 514, 515, 517**  
**Manual 2-way diaphragm valve**

- Full plastic valve with optimized body design for improved flow profile
- Lockable handwheel
- Optical position indicator

Dimension range:  
d20/DN15 to d65/DN50

Pressure range:  
0 to 16 bar



**Type 519**  
**3-way zero-static**

- Full plastic valve with optimized body design for improved flow profile
- No dead space
- Different outlet sizes available

Dimension range:  
d16/DN15 to d110/DN50

Pressure range:  
0 to 16 bar



**Type 317**  
**Big dimensions**

- Proven screw design for big dimension
- Optical position indicator

Dimension range:  
d75/DN65 to d160/DN150

Pressure range:  
0 to 10 bar





## + Pneumatic diaphragm valves



**Type 604/605**

- Full plastic valve with optimized body design for improved flow profile
- Control mode: FC, FO, DA
- Optical position indicator

Dimension:  
d20/DN15

Pressure range:  
0 to 6 bar



**DIASTAR range**

- Full plastic valve with optimized body design for improved flow profile
- Control mode: FC, FO, DA
- Wide selection of accessories

Dimension range:  
d20/DN15 to d65/DN50

Pressure range:  
0 to 16 bar

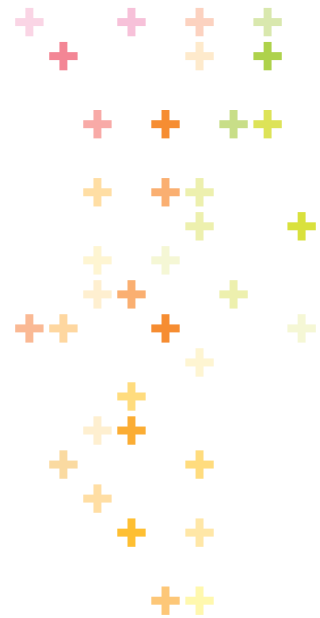


**Type 025  
big dimensions**

- Proven screw design for big dimensions
- Optical position indicator

Dimension range:  
d75/DN65 to d160/DN150

Pressure range:  
0 to 10 bar



Configurator

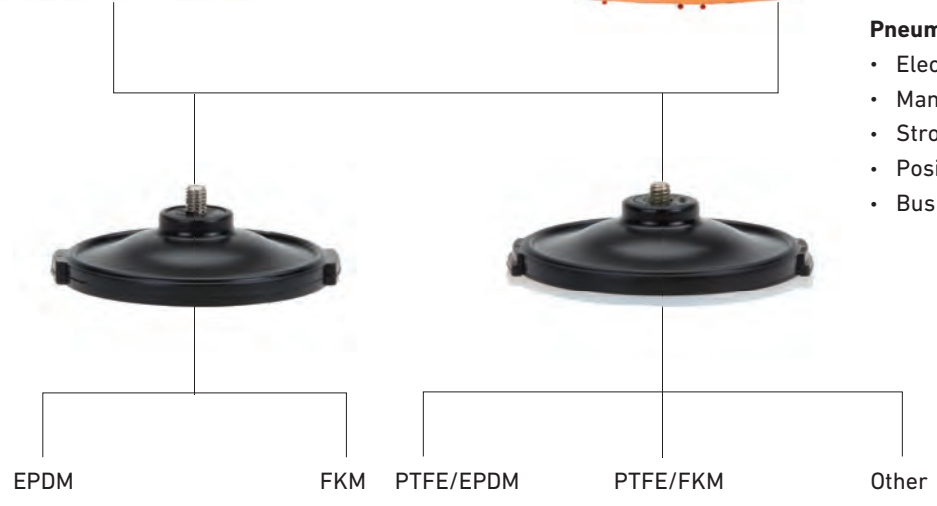
# A valve with hundreds of options

Due to the modularity of the GF diaphragm valves, there are many different options to choose from. You can easily adjust your valve to your process conditions to get the most out of it.



**Manual option:**  
 • Electric feedback

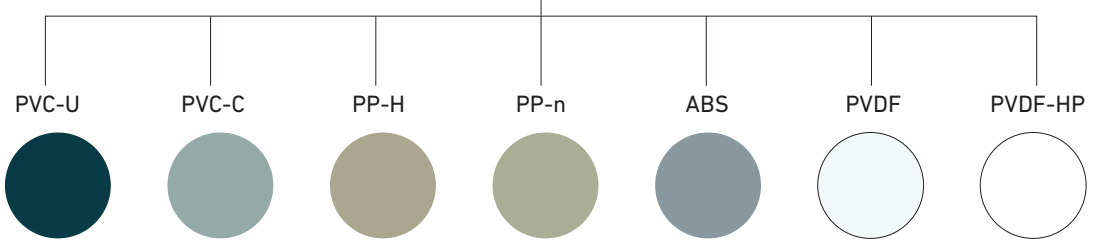
**Pneumatic Option:**  
 • Electric feedback  
 • Manual override  
 • Stroke limiter  
 • Positioner  
 • Bus connection



ISO  
 ANSI  
 BS  
 JIS



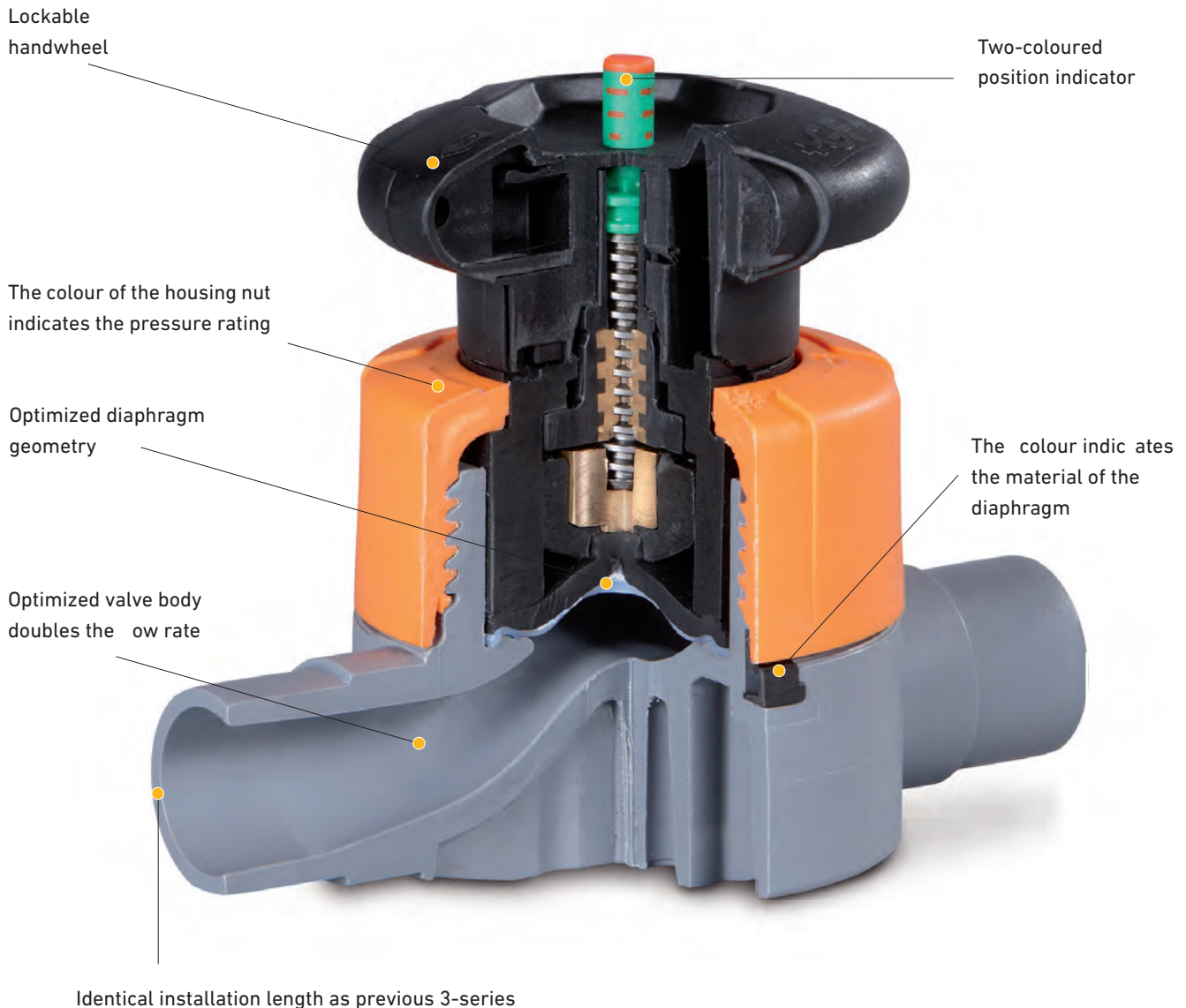
Socket 514  
 Spigot 515  
 Flange 517  
 3-way 519



## Features of the manual diaphragm valve

# Manual mode in every detail

Optimized valve body, higher flow rate, straightforward installation and a central housing, the strength of this full plastic diaphragm valve is located in every detail. Have a closer look and find out many other features.



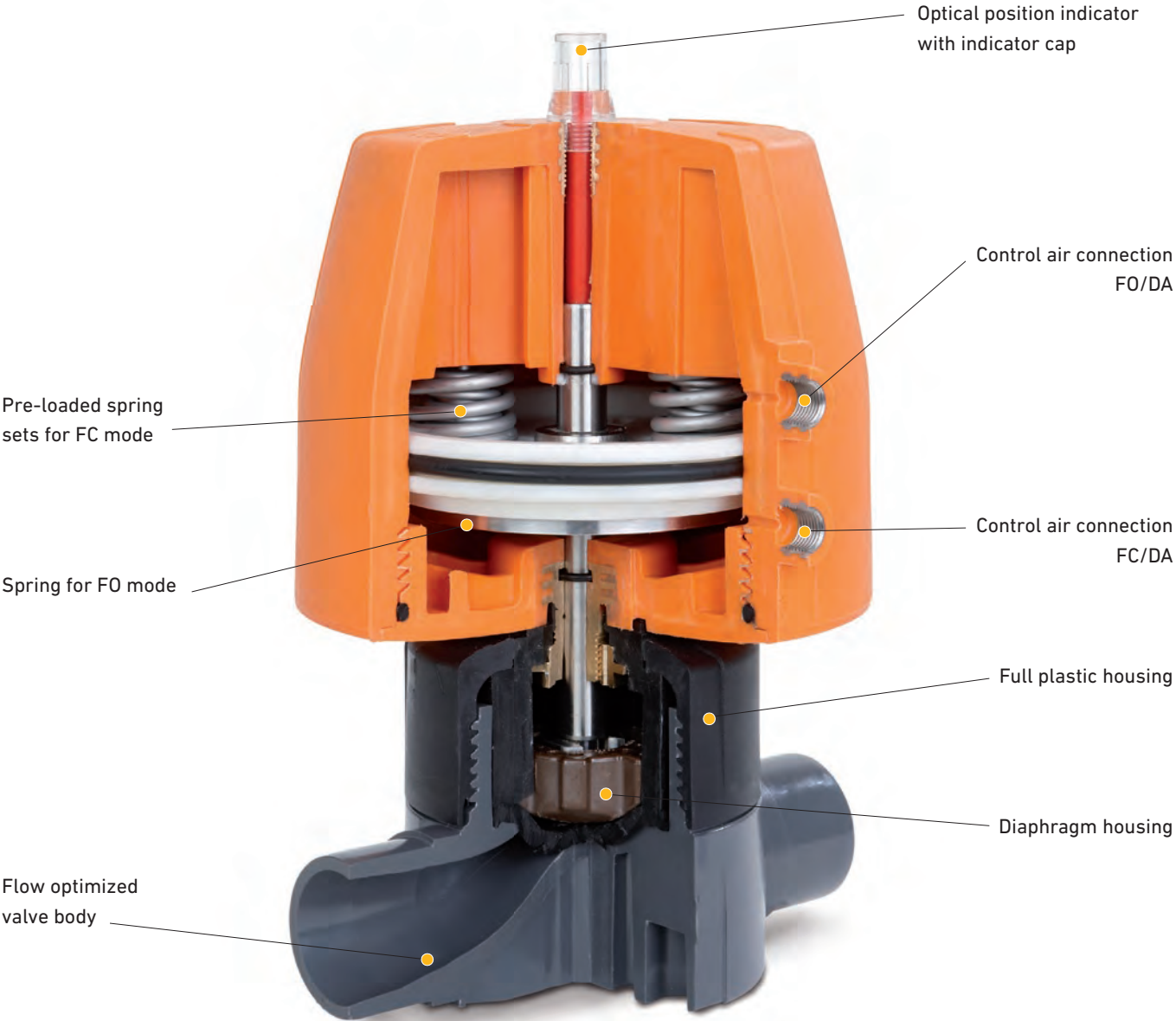
Functions and configurations can differ from the illustration, depending on the type.



Features of the pneumatic diaphragm valve

# Perfect teamwork

Same advantages and features, different technology. The perfect interaction of the pneumatic actuator and the high-tech body makes GF diaphragm valves a leading technology in this field.



## Features

# The DIASTAR system

Different pressure levels require different handling. Therefore, GF Piping Systems offers the optimal actuator configuration for your individual needs.



## + Differentiation DIASTAR



### DIASTAR Six

For low pressure applications

- DN15 to DN50
- FC-function
- Cost effective



### DIASTAR Ten

All-rounder for standard applications

- DN15 to DN50
- FC-, FO and DA-function



### DIASTAR TenPlus

Use only when pressure is applied from both sides

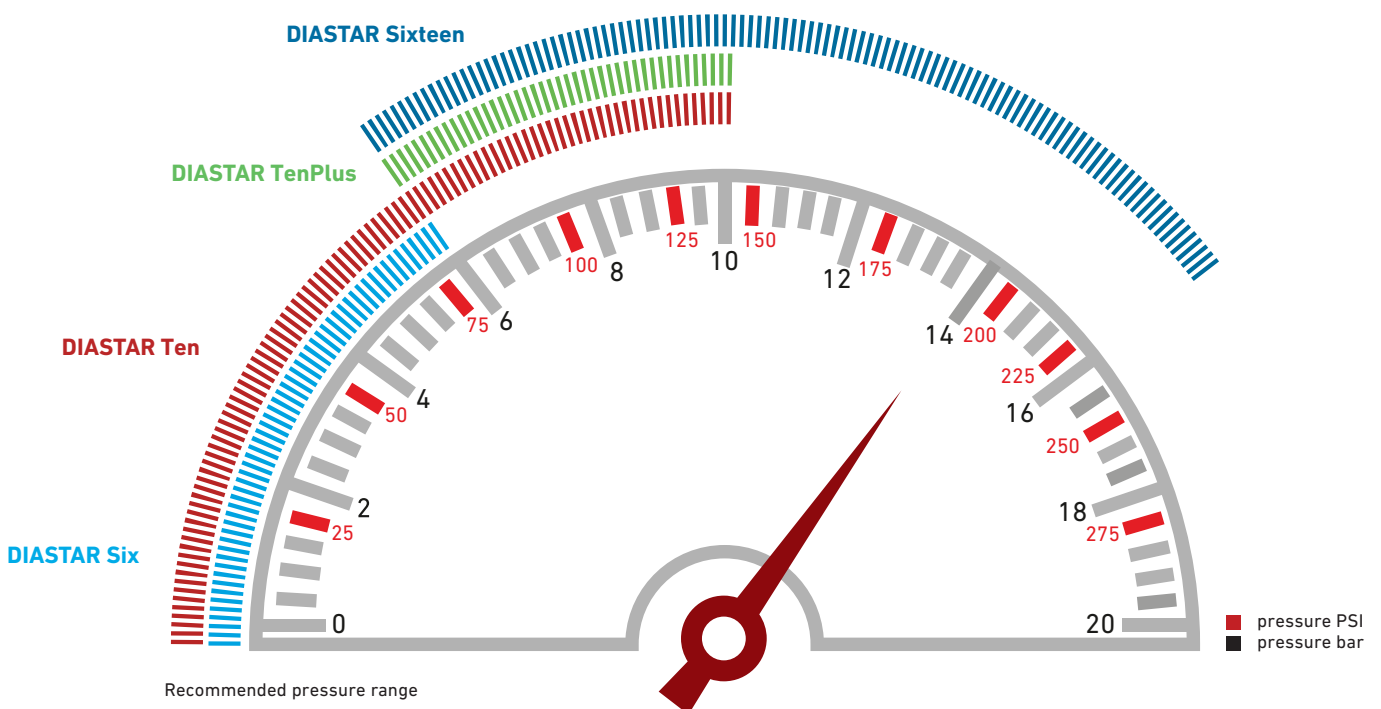
- DN15 to DN50
- FC-function



### DIASTAR Sixteen

For water applications with high pressure

- DN15 to DN50
- FC-, FO-, DA-function



## Diaphragm valves 5-series

# Full plastic solution brings safety

The full plastic design of GF diaphragm valves is a revolution and has a lot of advantages against the metal versions. The benefits of the design simplify your daily business and optimize your plant to make the best of your applications.

### + No corrosion & maintenance

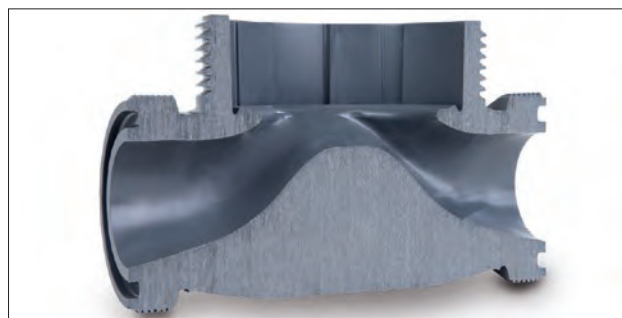
Instead of four metal screws the full plastic diaphragm valve has only one central housing nut. The result is a homogeneous expansion during temperature changes. This results in zero maintenance and no leakages during temperature cycles.



### + 100% more flow

The development aimed to increase the flow and provide a valve for a stable process. Through the optimization of the patented valve body you benefit from:

- Double flow rate
- Linear flow characteristics
- Minimized dead space for maximal hygiene



### + Absolute reliability

All diaphragm valves are 100% leak-tested. Even by exceeding ISO 9393-2, after passing this test the QR code and quality check sticker is put on the valve. By scanning the QR code you will find the service site online ([www.gfps.com/dv](http://www.gfps.com/dv)) with information regarding the latest developments.

- Product catalog
- Technical specification
- Service manuals
- Service videos
- Tips and Tricks



Diaphragm valve type 604/605

# Packs a punch for dosing applications

The full-plastic diaphragm valve 604 / 605 with integrated pneumatic actuator from GF Piping Systems ensures best flow performance in compact design. With this corrosion free valve we offer an additional product with the most economic price-performance ratio which is suitable for many applications.

## Easy installation and operation

- The compact design enables installation in limited spaces
- No re-torquing needed due to full plastic design without metal parts and screws
- Radially dismountable due to true unions
- Maintenance free
- Same installation length as all GF diaphragm valves and market standard valves
- Integrated optical position feedback
- QR code on valve leads to online available product documents

## High safety

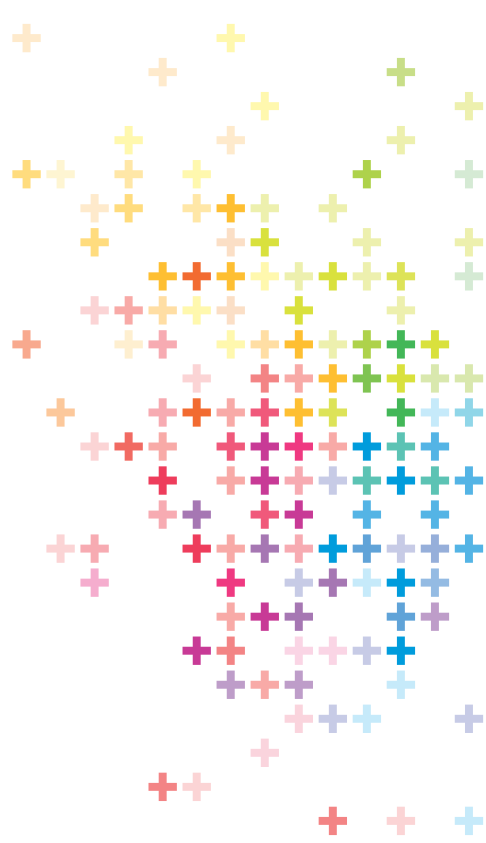
- Uniform temperature expansion of plastic/plastic connection prevents leakages
- High chemical resistance due to large material range
- Best quality and reliability for high number of cycles

## + Features





# System overview – it's your choice

GF Piping Systems offers you a wide variety of valves to meet your needs in every situation. The following valve overview should simplify your decision by offering every detail of the valves. Have a closer look to find the perfect valve.



## Manual operated

### General

Type	514	515	517	519	317
					
Description	True union	Spigot ends	Flange version	3-way	Big dimension
Dimension			DN15-DN50		DN65-DN150
Pressure level			PN10/PN16 *		PN10 (PN6*)
<b>Materials</b>					
PVC-U	✓	✓	✓		✓
PVC-C	✓	✓	✓		✓
ABS	✓	✓			✓
PP-H	✓	✓	✓	✓	✓
PP-n		✓			
PVDF	✓	✓	✓	✓	✓
PVDF-HP	✓	✓	✓	✓	✓
<b>Diaphragm materials</b>					
EPDM	✓	✓	✓	✓	✓
PTFE/EPDM	✓	✓	✓	✓	✓
PTFE/FKM	✓	✓	✓	✓	
FKM	✓	✓	✓		✓
NBR	✓	✓	✓		✓
<b>Accessories</b>					
Feedback electric	✓	✓	✓	✓	

\*See pressure-temperature diagram in the respective data sheet



## Pneumatically operated

### General

Type	604	605	DIASTAR Six	DIASTAR Ten	DIASTAR TenPlus	DIASTAR Sixteen	025
							
Dimension	DN15		DN15-DN50				DN65-DN150
Pressure level	PN6		PN6	PN10	PN10 on both sides	PN16	PN10 (PN6*)

### Functions

FC	✓	✓	✓	✓	✓	✓	✓
FO	✓	✓		✓		✓	✓
DA	✓	✓		✓		✓	✓

### Pneumatic connections

Size	G¼"	G¼"	G½"	to DN40: G½" from DN40: G¼"	to DN32: G½" from DN32: G¼"	to DN32: G½" from DN32: G¼"	G ¼"
PVC-U	✓	✓	✓	✓	✓		✓
PVC-C	✓	✓	✓	✓	✓		✓
ABS	✓	✓	✓	✓	✓		✓
PP-H	✓	✓	✓	✓	✓		✓
PP-n				✓			
PVDF	✓	✓		✓	✓	✓	✓
PVDF-HP				✓	✓	✓	✓

### Connection

Sockets	✓		✓	✓	✓	✓	
Spigot		✓	✓	✓	✓	✓	
Flange			✓	✓	✓	✓	✓
Threaded socket			✓	✓	✓	✓	

### Diaphragm

EPDM	✓	✓	✓	✓	✓	✓	✓
PTFE/EPDM	✓	✓		✓	✓	✓	✓
PTFE/FKM	✓	✓		✓	✓	✓	
FKM	✓	✓	✓	✓	✓	✓	✓
NBR			✓	✓	✓	✓	✓

### Accessories

Feedback electric				✓	✓	✓	✓
Emergency manual override				✓	✓	✓	✓
Stroke limiter	✓	✓		✓	✓	✓	✓
Positioner				✓	✓	✓	✓
Bus connection				✓	✓	✓	✓



## Technical data

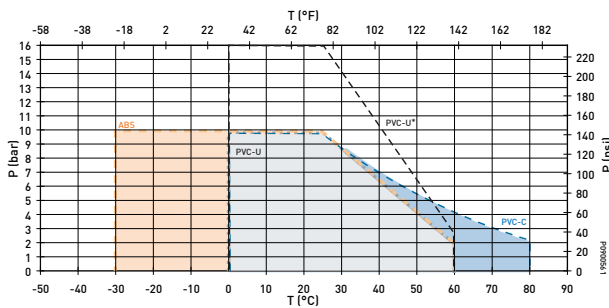
# Specifications

The most important data at a glance.

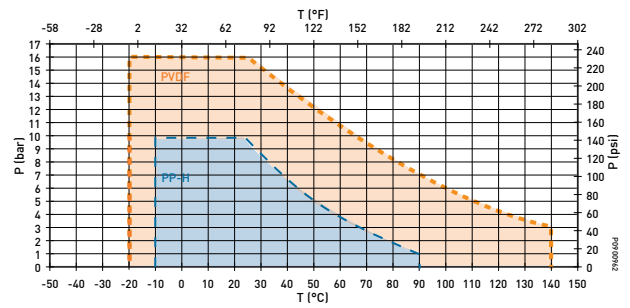


## + Pressure-temperature diagram

Pressure temperature diagram ABS, PVC-U, PVC-C (water, 25 years)

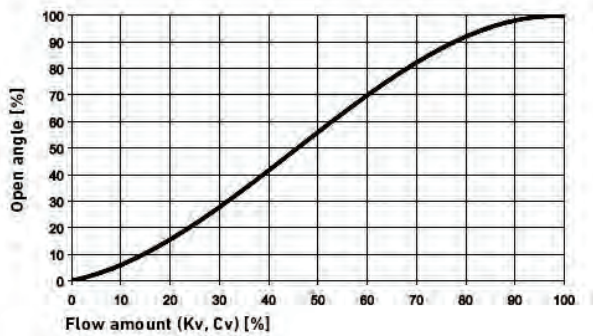


Pressure-temperature diagram PVDF, PP-H (water, 25 years)

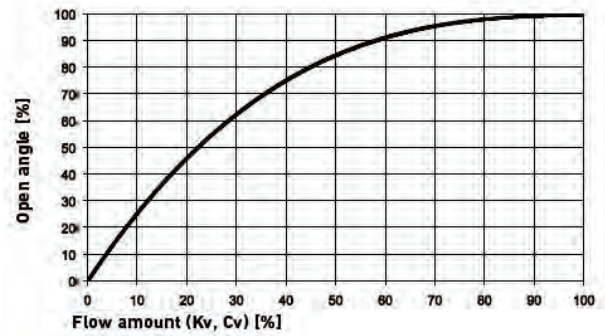


## + Flow characteristics

2-Way diaphragm valve type 514–517/DIASTAR



3-way diaphragm valve type 519/DIASTAR



### KV 100 values

d [mm]	DN	Inch	Kv 100 (l/min)	Cv 100 (gal/min)	Increased flow to comparable valve <sup>1</sup>
20	15	1/2	125	9	74%
25	20	3/4	271	19	98%
32	25	1	481	33	132%
40	32	1 1/4	759	52	114%
50	40	1 1/2	1263	87	144%
63	50	2	1728	119	142%

<sup>1</sup> Compared with the precursor type 317 in the correlation dimension.



## + Accessories and special valves



**Solenoid pilot valve 3/2-ways type PV94**

- 230 V, 50-60 Hz
- 115 V, 50-60 Hz
- 24 V, 50-60 Hz
- 24 V DC
- G $\frac{1}{8}$ , G $\frac{1}{4}$ , G6mm
- DN1.2



**Solenoid pilot valve 3/2-ways type PV95**

- 230 V, 50-60 Hz
- 115 V, 50-60 Hz
- 24 V, 50-60 Hz
- 24 V DC
- G $\frac{1}{8}$ , G $\frac{1}{4}$
- DN1.5 - DN2



**Height compensation and mounting plate**

- 5 different sizes to reach the required height
- Mounting plate for easy fixation
- Suitable for all 5-series diaphragm valves



**Solenoid pilot valve type MNL 532**

- Version for 3/2-way and 5/2-way
- Namur connection
- Material of body: Aluminum
- 24 V AC, 24 V DC, 48 V AC, 110 V AC, 230 V AC



**Electric position feedback type ER 52-1/ER53-1**

- For pneumatic stroke actuators
- For DIASTAR Ten, TenPLUS, Sixteen, 025
- Mechanical switches (AgNi or Au)
- NPN/PNP, Namur connection
- With visual position indication



**Diaphragm Valve type 517 (317)**

- PVC-U, PVC-C, PP-H, PVDF, PVDF-HP
- EPDM, PTFE/EPDM, FPM, PTFE/FPM
- DN15-DN50 (type 317: DN65-DN150)
- Up to PN16
- Lockable handwheel
- Electrical feedback module



**Stroke limiter/ manual override**

- For DIASTAR types



**Digital electro-pneumatic positioner type DSR 500**

- Mounted on pneumatic control valves
- Linear and rotary actuators
- Nominal stroke 3 - 28 mm
- Self-learning
- Control signal 4 - 20 mA
- 24 V DC

High purity

# Clean room production



**Our quality aspirations are binding throughout the entire process chain and have been verified with numerous certificates and awards.**

Our clean room, one of the largest clean-room production facilities in Europe, is equipped with everything that is required for the perfect manufacturing of high-purity products consisting of synthetic materials.

Verified and monitored incoming and outgoing process, clean-room quality up to ISO Class 5 and a thoroughgoing double-door system ensure maximum purity.

## Reference case

# Full-plastic diaphragm valves in ion-exchange systems

Water treatment and environmental protection are becoming increasingly important in today's society. It is also a big cost-driver for companies. In many applications of metal processing companies, deionised water (DI-Water) with very low conductivity values is required. With an ion-exchange system, the water can be treated economically for the processes. The company Gross Wassertechnik GmbH, based in Pforzheim, Germany, is a specialist in the plant construction industry. The company specializes in industrial water treatment plants and wastewater treatment.

### Ion-exchange systems

In an ion-exchange system, water is passed through various resins. The resins absorb ions and organic substances from the water. The result is "DI-water", which can be used for various processes. As soon as the resins' capacity is reached, they are regenerated with hydrogen chloride (HCL) or sodium hydroxide (NaOH). Due to the use of chemicals, it is expedient to use plastics for this process for their excellent chemical and corrosion resistance. The application conditions and chemical resistance require the use of two different plastics in this ion-exchange system. 80% of the plant are built of PVC-U and the remaining 20% of PP-h. In addition, high quality standards are required, so that the process remains constant at a high level. In order to meet these customer requirements, GF Piping Systems develops and supplies the entire system of the pipes, valves and connection technology over the entire dimension range of the materials.

### Valves used in this ion-exchange system

- Manual diaphragm valve type 514 (d20 mm – d32 mm)
- Pneumatic diaphragm valve DIASTAR Six (d25 mm – d32 mm)
- Pneumatic diaphragm DIASTAR Ten (d32 mm – d63 mm)
- Manual butterfly valve type 567 (d63 mm – d90 mm)
- Manual ball valve type 546 (d20 mm – d63 mm)

### Reasons for GF Piping Systems

- Flow characteristics of the diaphragm valves
- Increase flow rate and improved flow control characteristics, lead to reduced dimensions and costs
- Corrosion free full plastic solution
- Excellent controllability and simple signal input of the diaphragm valves



# Diaphragm valves type 317



## PROGEF Standard Diaphragm valve type 317 With backing flanges PP-V metric

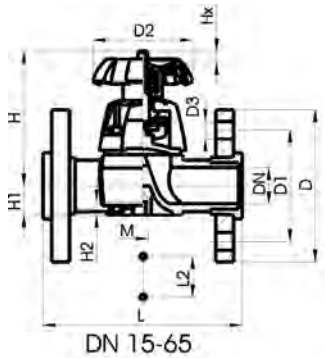
### Model:

- Material: PP-H
- Joining faces flat/serrated
- DN65 with backing flange
- DN 80-150 with fixed flange
- Overall length according to EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

### Option:

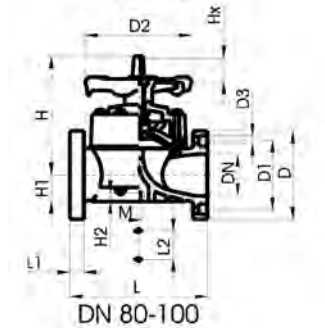
- Handwheel lockable DN65 (basic version not lockable)
- \* **DN80, DN100 and DN150 fixed flanges metric and inch ANSI B16.5**

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	NBR Code	Weight (kg)	EPDM Code	Weight (kg)
	75	2 1/2	65	10	992	<b>167 317 158</b>	4.700	<b>167 317 173</b>	4.651
*	90	3	80	10	1700	<b>167 317 009</b>	7.954	<b>167 317 024</b>	8.689
*	110	4	100	10	2700	<b>167 317 010</b>	11.291	<b>167 317 025</b>	11.237
*	160	6	150	6	6033	<b>167 317 012</b>	25.000	<b>167 317 027</b>	24.707



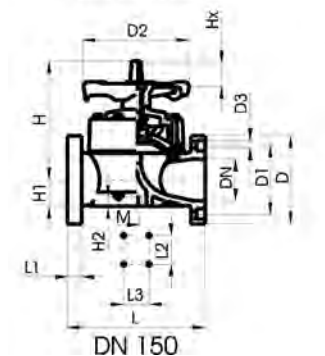
### d PTFE with EPDM supporting diaphragm Weight (kg) Code

	75	<b>167 317 188</b>	5.480
*	90	<b>167 317 039</b>	8.088
*	110	<b>167 317 040</b>	11.439
*	160	<b>167 317 042</b>	25.000



### d D D1 D2 D3 H H1 H2 L L1 L2 L3 M Lift = Hx AL (mm)

	75	185	145	152	18	210	46	15	290		70		M8	35	4
*	90	200	160	270	18	265	57	23	310	35	120		M12	40	8
*	110	225	180	270	18	304	69	23	350	38	120		M12	50	8
*	160	282	241	400	23	437	108	23	480	29	100	200	M12	70	8





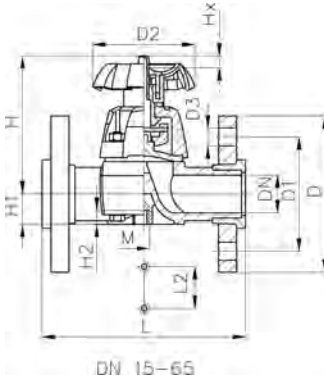
**PROGEF Standard**  
**Diaphragm valve type 317**  
**With backing flanges PP-st metric**

**Model:**

- Material: PP-H
- Joining faces flat/serrated
- Overall length according to EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

**Option:**

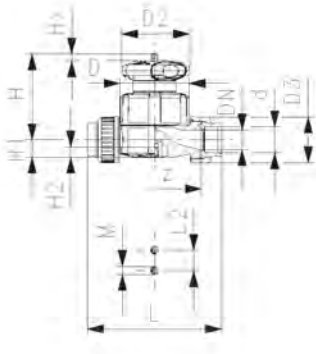
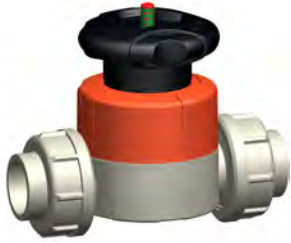
- Handwheel lockable DN15-65 (basic version not lockable)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE with EPDM supporting diaphragm Code	Weight (kg)
75	2 ½	65	10	992	<b>167 317 278</b>	7.040

d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	AL
75	185	145	152	18	210	46	15	290	70	M8	35	4

# Diaphragm valves type 514



## PROGEF Standard Diaphragm valve type 514 With fusion sockets metric

### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

### Option:

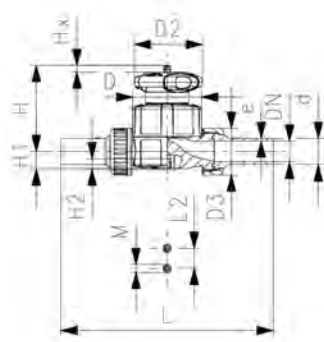
- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)
20	15	10	125
25	20	10	271
32	25	10	481
40	32	10	759
50	40	10	1263
63	50	10	1728

d (mm)	NBR Code	EPDM Code	PTFE/EPDM Code	FKM Code	SP	Weight (kg)
20	167 514 002	167 514 012	167 514 032	167 514 062	1	0.267
25	167 514 003	167 514 013	167 514 033	167 514 063	1	0.391
32	167 514 004	167 514 014	167 514 034	167 514 064	1	1.151
40	167 514 005	167 514 015	167 514 035	167 514 065	1	1.277
50	167 514 006	167 514 016	167 514 036	167 514 066	1	1.386
63	167 514 007	167 514 017	167 514 037	167 514 067	1	3.030

d (mm)	D (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M (mm)	z (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	48	73	14	12	128	25	M6	100	7	1/2
25	80	65	58	81	18	12	150	25	M6	118	10	3/4
32	88	87	65	107	22	12	162	25	M6	126	13	1
40	101	87	79	115	26	15	184	45	M8	144	15	1 1/4
50	117	135	91	148	32	15	210	45	M8	164	19	1 1/2
63	144	135	111	166	39	15	248	45	M8	194	25	2





**PROGEF Standard**  
**Diaphragm valve type 514**  
**With butt fusion spigots SDR11 metric**

**Model:**

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

**Option:**

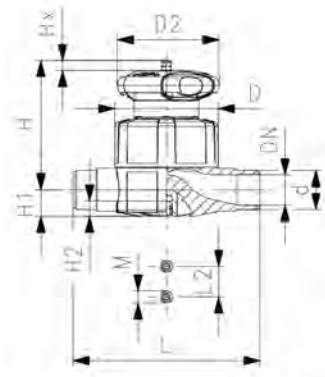
- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	NBR Code	GP
20	15	10	125	<b>167 514 102</b>	6
25	20	10	271	<b>167 514 103</b>	6
32	25	10	481	<b>167 514 104</b>	6
40	32	10	759	<b>167 514 105</b>	8
50	40	10	1263	<b>167 514 106</b>	8
63	50	10	1728	<b>167 514 107</b>	0

d (mm)	EPDM Code	PTFE/EPDM Code	FKM Code	PTFE/FKM Code	SP	Weight (kg)
20	<b>167 514 112</b>	<b>167 514 132</b>	<b>167 514 162</b>	<b>800 047 314</b>	1	0.390
25	<b>167 514 113</b>	<b>167 514 133</b>	<b>167 514 163</b>	<b>800 047 316</b>	1	0.520
32	<b>167 514 114</b>	<b>167 514 134</b>	<b>167 514 164</b>	<b>800 047 317</b>	1	1.130
40	<b>167 514 115</b>	<b>167 514 135</b>	<b>167 514 165</b>	<b>800 047 318</b>	1	1.340
50	<b>167 514 116</b>	<b>167 514 136</b>	<b>167 514 166</b>	<b>800 047 319</b>	1	2.360
63	<b>167 514 117</b>	<b>167 514 137</b>	<b>167 514 167</b>	<b>800 047 320</b>	1	3.090

d (mm)	D (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	48	73	14	12	196	25	M6	1.9	7	½
25	80	65	58	81	18	12	221	25	M6	2.3	10	¾
32	88	87	65	107	22	12	234	25	M6	2.9	13	1
40	101	87	79	115	26	15	260	45	M8	3.7	15	1 ¼
50	117	135	91	148	32	15	284	45	M8	4.6	19	1 ½
63	144	135	111	166	39	15	321	45	M8	5.8	25	2

# Diaphragm valves type 515



## PROGEF Standard Diaphragm valve type 515 With socket fusion spigots metric

### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

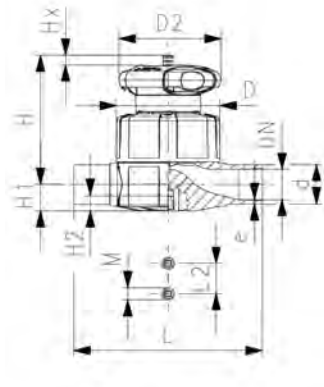
### Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	NBR Code	EPDM Code	GP
20	15	10	125	167 515 002	167 515 012	10
25	20	10	271	167 515 003	167 515 013	6
32	25	10	481	167 515 004	167 515 014	6
40	32	10	759	167 515 005	167 515 015	6
50	40	10	1263	167 515 006	167 515 016	8
63	50	10	1728	167 515 007	167 515 017	0

d (mm)	PTFE/EPDM Code	FKM Code	SP	Weight (kg)
20	167 515 032	167 515 062	1	0.298
25	167 515 033	167 515 063	1	0.293
32	167 515 034	167 515 064	1	0.950
40	167 515 035	167 515 065	1	1.108
50	167 515 036	167 515 066	1	2.057
63	167 515 037	167 515 067	1	2.604

d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	73	14	12	124	25	M6	1.9	7	½
25	80	65	81	18	12	144	25	M6	2.3	10	¾
32	88	87	107	22	12	154	25	M6	2.9	13	1
40	101	87	115	26	15	174	45	M8	3.7	15	1 ¼
50	117	135	148	32	15	194	45	M8	4.6	19	1 ½
63	144	135	166	39	15	223	45	M8	5.8	25	2



**PROGEF Standard**  
**Diaphragm valve type 515**  
**With butt fusion spigots SDR11 metric**

**Model:**

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

**Option:**

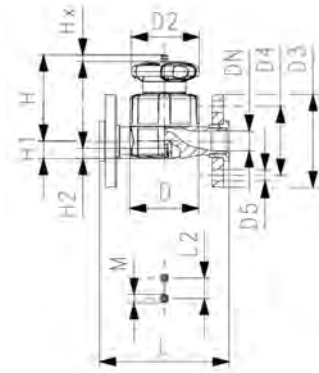
- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	NBR Code	EPDM Code	GP
20	15	10	125	<b>167 515 102</b>	<b>167 515 112</b>	10
25	20	10	271	<b>167 515 103</b>	<b>167 515 113</b>	6
32	25	10	481	<b>167 515 104</b>	<b>167 515 114</b>	6
40	32	10	759	<b>167 515 105</b>	<b>167 515 115</b>	6
50	40	10	1263	<b>167 515 106</b>	<b>167 515 116</b>	8
63	50	10	1728	<b>167 515 107</b>	<b>167 515 117</b>	0

d (mm)	PTFE/EPDM Code	FKM Code	SP	Weight (kg)
20	<b>167 515 132</b>	<b>167 515 162</b>	1	0.297
25	<b>167 515 133</b>	<b>167 515 163</b>	1	0.381
32	<b>167 515 134</b>	<b>167 515 164</b>	1	0.948
40	<b>167 515 135</b>	<b>167 515 165</b>	1	1.104
50	<b>167 515 136</b>	<b>167 515 166</b>	1	2.052
63	<b>167 515 137</b>	<b>167 515 167</b>	1	2.601

d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	73	14	12	124	25	M6	1.9	7	1/2
25	80	65	81	18	12	144	25	M6	2.3	10	3/4
32	88	87	107	22	12	155	25	M6	2.9	13	1
40	101	87	115	26	15	176	45	M8	3.7	15	1 1/4
50	117	135	148	32	15	193	45	M8	4.6	19	1 1/2
63	144	135	166	39	15	223	45	M8	5.8	25	2

# Diaphragm valves type 517



## PROGEF Standard Diaphragm valve type 517 With backing flanges PP-V metric/BS

### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)
20	15	10	125
25	20	10	271
32	25	10	481
40	32	10	759
50	40	10	1263
63	50	10	1728

d (mm)	NBR Code	EPDM Code	PTFE/EPDM Code	FKM Code	SP	Weight (kg)
20	167 517 102	167 517 112	167 517 132	167 517 162	1	0.480
25	167 517 103	167 517 113	167 517 133	167 517 163	1	0.629
32	167 517 104	167 517 114	167 517 134	167 517 164	1	1.296
40	167 517 105	167 517 115	167 517 135	167 517 165	1	1.640
50	167 517 106	167 517 116	167 517 136	167 517 166	1	2.601
63	167 517 107	167 517 117	167 517 137	167 517 167	1	3.544

d (mm)	D (mm)	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	65	65	95	65	14	73	14	12	130	25	M6	7	½
25	80	65	105	75	14	81	18	12	150	25	M6	10	¾
32	88	87	115	85	14	107	22	12	160	25	M6	13	1
40	101	87	140	100	18	115	26	15	180	45	M8	15	1 ¼
50	117	135	150	110	18	148	32	15	200	45	M8	19	1 ½
63	144	135	165	125	18	166	39	15	230	45	M8	25	2

# Diaphragm valves type 519



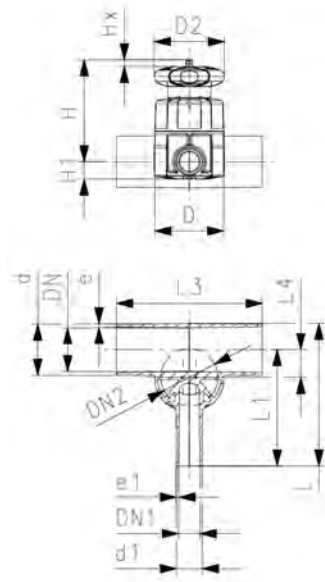
**PROGEF Standard**  
**Diaphragm valve type 519**  
**With butt fusion spigots metric**

**Model:**

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Smallest possible dead space

**Option:**

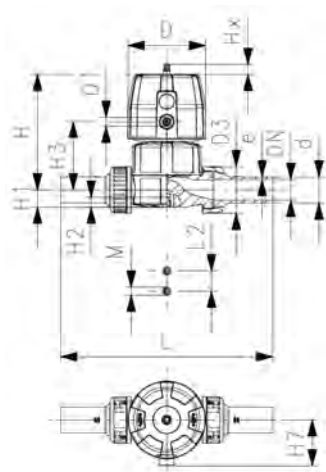
- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d (mm)	d1 (mm)	DN (mm)	DN1 (mm)	Valve Size d (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	PTFE/EPDM Code	Weight (kg)
20	20	15	15	20	10	57	167 519 101	167 519 301	0.321
25	20	20	15	25	10	89	167 519 103	167 519 303	0.397
25	25	20	20	25	10	118	167 519 104	167 519 304	0.399
32	20	25	15	25	10	80	167 519 107	167 519 307	0.424
32	25	25	20	25	10	105	167 519 108	167 519 308	0.426
32	32	25	25	32	10	231	167 519 109	167 519 309	0.980
40	20	32	15	32	10	85	167 519 112	167 519 312	0.553
40	40	32	32	32	10	187	167 519 115	167 519 315	1.034
50	20	40	15	25	10	86	167 519 118	167 519 318	0.485
50	25	40	20	32	10	160	167 519 119	167 519 319	1.054
50	32	40	25	32	10	206	167 519 120	167 519 320	1.056
63	20	50	15	25	10	84	167 519 125	167 519 325	0.525
63	25	50	20	32	10	150	167 519 126	167 519 326	1.097
63	32	50	25	32	10	184	167 519 127	167 519 327	1.100

d (mm)	D (mm)	D2 (mm)	H (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	DN2 (mm)	closest inch (inch)	e1 (mm)
20	65	65	75	117	96	162	12	1.9	7	15	½	1.9
25	80	65	80	133	108	162	16	2.3	10	20	¾	1.9
25	80	65	80	133	108	162	16	2.3	10	20	¾	2.3
32	80	65	84	142	120	162	19	2.9	10	20	1	1.9
32	80	65	84	142	120	162	19	2.9	10	20	1	2.3
32	88	87	107	145	120	160	19	2.9	13	25	1	2.9
40	88	87	115	149	128	180	23	3.7	13	25	1 ¼	1.9
40	88	87	115	174	153	180	23	3.7	13	25	1 ¼	3.7
50	80	65	97	160	134	180	27	4.6	10	20	1 ½	1.9
50	88	87	120	160	134	180	28	4.6	13	25	1 ½	2.3
50	88	87	120	160	134	180	28	4.6	13	25	1 ½	2.9
63	80	65	104	177	144	180	33	5.8	10	20	2	1.9
63	88	87	127	177	144	180	35	5.8	13	25	2	2.3
63	88	87	127	177	144	180	35	5.8	13	25	2	2.9

# Diaphragm valves pneumatic DIASTAR Six



**PROGEF Standard**  
**Diaphragm valve DIASTAR Six**  
**FC (Fail safe to close)**  
**Unions with butt fusion spigots SDR11 metric**

**Model:**

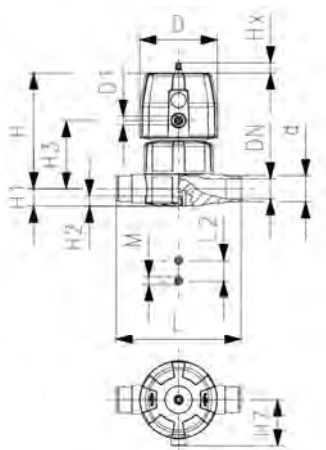
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
25	20	6	271	167 614 113	1	0.871	800 047 262	1	1.760
32	25	6	481	167 614 114	1	1.589	800 047 263	1	2.610
40	32	6	759	167 614 115	1	1.805	800 047 259	1	3.760
50	40	6	960	167 614 116	1	2.279	800 047 264	1	6.220
63	50	6	1181	167 614 117	1	3.421	800 047 265	1	7.800

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
25	96	¾	132	18	12	73	57	221	25	M6	2.3	10	¾
32	96	¾	143	22	12	84	57	234	25	M6	2.9	13	1
40	120	½	173	26	15	99	69	260	45	M8	3.7	14	1 ¼
50	120	½	193	32	15	119	69	284	45	M8	4.6	16	1 ½
63	120	½	205	39	15	132	69	321	45	M8	5.8	16	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Six**  
**FC (Fail safe to close)**  
**With socket fusion spigots metric**

**Model:**

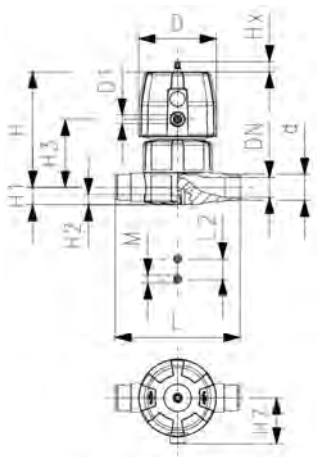
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)
25	20	6	271	167 615 013	1	0.904
32	25	6	481	167 615 014	1	1.054
40	32	6	759	167 615 015	1	1.747
50	40	6	960	167 615 016	1	2.207
63	50	6	1181	167 615 017	1	2.981

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d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
25	96	⅜	132	18	12	73	57	144	25	M6	2.3	10	⅜
32	96	⅜	143	22	12	84	57	154	25	M6	2.9	13	1
40	120	⅜	173	26	15	99	69	174	45	M8	3.7	14	1 ¼
50	120	⅜	193	32	15	119	69	194	45	M8	4.6	16	1 ½
63	120	⅜	205	39	15	132	69	224	45	M8	5.8	16	2



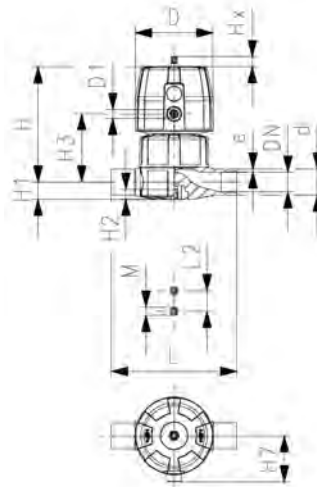
**PROGEF Standard**  
**Diaphragm valve DIASTAR Six**  
**FC (Fail safe to close)**  
**With butt fusion spigots SDR11 metric**

**Model:**

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)
25	20	6	271	<b>167 615 113</b>	1	0.900
32	25	6	481	<b>167 615 114</b>	1	1.062
40	32	6	759	<b>167 615 115</b>	1	1.743
50	40	6	960	<b>167 615 116</b>	1	2.202
63	50	6	1181	<b>167 615 117</b>	1	2.978

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
25	96	⅜	132	18	12	73	57	144	25	M6	2.3	10	⅜
32	96	⅜	143	22	12	84	57	154	25	M6	2.9	13	1
40	120	⅜	173	26	15	99	69	174	45	M8	3.7	14	1 ¼
50	120	⅜	193	32	15	119	69	194	45	M8	4.6	16	1 ½
63	120	⅜	205	39	15	132	69	224	45	M8	5.8	16	2



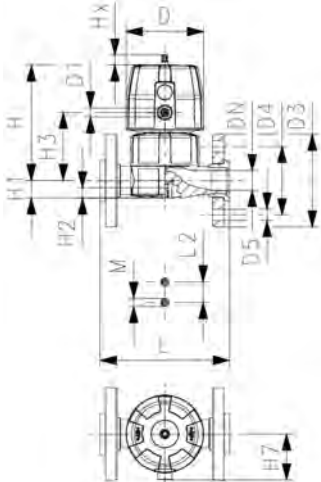
**PROGEF Standard**  
**Diaphragm valve DIASTAR Six**  
**FC (Fail safe to close)**  
**With backing flanges PP-V metric/BS**

**Model:**

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

**Option:**

- Individual configuration of the valve (see diagram)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)
25	20	6	271	<b>167 617 113</b>	1	1.148
32	25	6	481	<b>167 617 114</b>	1	1.410
40	32	6	759	<b>167 617 115</b>	1	2.279
50	40	6	960	<b>167 617 116</b>	1	2.751
63	50	6	1181	<b>167 617 117</b>	1	3.921

d (mm)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)
25	96	3/8	105	75	14	132	18	12	73	57	150	25	M6	10
32	96	3/8	115	85	14	143	22	12	84	69	160	25	M6	13
40	120	1/2	140	100	18	173	26	15	99	69	180	45	M8	14
50	120	1/2	150	110	18	193	32	15	119	69	200	45	M8	16
63	120	1/2	165	125	18	205	39	15	132	69	230	45	M8	16

d (mm)	closest inch (inch)
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





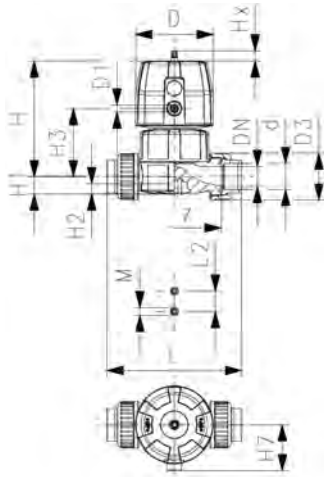
**PROGEF Standard**  
**Diaphragm valve DIASTAR Six**  
**FC (Fail safe to close)**  
**Unions with fusion sockets metric**

**Model:**

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)
25	20	6	271	<b>167 614 013</b>	1	0.974
32	25	6	481	<b>167 614 014</b>	1	1.180
40	32	6	759	<b>167 614 015</b>	1	1.949
50	40	6	960	<b>167 614 016</b>	1	2.450
63	50	6	1181	<b>167 614 017</b>	1	3.153

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)	closest inch (inch)
25	96	3/8	132	18	12	73	57	150	25	M6	118	10	3/8
32	96	3/8	143	22	12	84	57	162	25	M6	126	13	1
40	120	3/8	173	26	15	99	69	184	45	M8	144	14	1 1/4
50	120	3/8	193	32	15	119	69	210	45	M8	164	16	1 1/2
63	120	3/8	205	39	15	132	69	248	45	M8	194	16	2

# Diaphragm valves pneumatic DIASTAR Ten



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**Unions with fusion sockets metric**

**Model:**

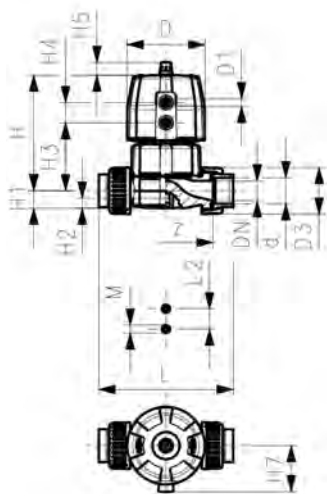
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**

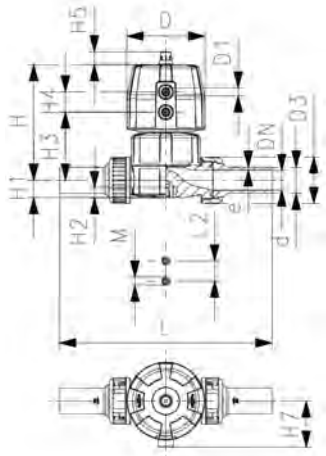
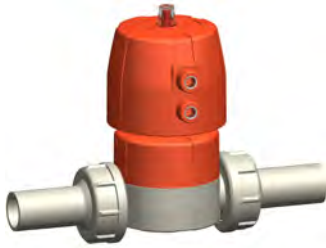


d (mm)	DN (mm)	PN (psi)	PN* (bar)	kv-value (Δp=1 bar) (L/min)	EPDM Code	SP	Weight (kg)
20	15	150/150*	10/10*	125	<b>167 624 012</b>	1	0.524
25	20	150/150*	10/10*	271	<b>167 624 013</b>	1	1.061
32	25	150/150*	10/10*	481	<b>167 624 014</b>	1	1.272
40	32	150/150*	10/10*	759	<b>167 624 015</b>	1	2.123
50	40	150/150*	10/10*	1263	<b>167 624 016</b>	1	3.593
63	50	150/90*	10/6*	1728	<b>167 624 017</b>	1	4.195

d (mm)	FKM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	<b>167 624 062</b>	1	0.555	<b>167 624 032</b>	1	0.526	<b>167 624 052</b>	1	0.526
25	<b>167 624 063</b>	1	1.082	<b>167 624 033</b>	1	1.071	<b>167 624 053</b>	1	1.071
32	<b>167 624 064</b>	1	1.267	<b>167 624 034</b>	1	1.286	<b>167 624 054</b>	1	1.286
40	<b>167 624 065</b>	1	2.066	<b>167 624 035</b>	1	2.152	<b>167 624 055</b>	1	2.152
50	<b>167 624 066</b>	1	3.593	<b>167 624 036</b>	1	3.623	<b>167 624 056</b>	1	3.623
63	<b>167 624 067</b>	1	4.328	<b>167 624 037</b>	1	5.032	<b>167 624 057</b>	1	5.032

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	68	⅜	101	14	12	60	24	16	43	128	25	M6	100	7
25	96	⅜	132	18	12	73	25	16	57	150	25	M6	118	10
32	96	⅜	143	22	12	84	25	16	57	162	25	M6	126	13
40	120	⅜	173	26	15	99	26	26	69	184	45	M8	144	15
50	150	¼	214	32	15	119	36	26	88	210	45	M8	164	19
63	150	¼	226	39	15	132	36	26	88	248	45	M8	194	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**Unions with butt fusion spigots SDR11 metric**

**Model:**

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**

d (mm)	DN (mm)	PN (psi)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)
20	15	150/150*	10/10*	125	<b>167 624 112</b>	1	0.534
25	20	150/150*	10/10*	271	<b>167 624 113</b>	1	0.975
32	25	150/150*	10/10*	481	<b>167 624 114</b>	1	1.679
40	32	150/150*	10/10*	759	<b>167 624 115</b>	1	2.656
50	40	150/150*	10/10*	1263	<b>167 624 116</b>	1	3.470
63	50	150/90*	10/6*	1728	<b>167 624 117</b>	1	5.087

d (mm)	FKM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	<b>167 624 162</b>	1	0.563	<b>167 624 132</b>	1	0.533	<b>167 624 152</b>	1	0.533
25	<b>167 624 163</b>	1	1.094	<b>167 624 133</b>	1	0.971	<b>167 624 153</b>	1	0.971
32	<b>167 624 164</b>	1	1.287	<b>167 624 134</b>	1	1.698	<b>167 624 154</b>	1	1.698
40	<b>167 624 165</b>	1	2.098	<b>167 624 135</b>	1	2.682	<b>167 624 155</b>	1	2.682
50	<b>167 624 166</b>	1	3.601	<b>167 624 136</b>	1	4.378	<b>167 624 156</b>	1	4.378
63	<b>167 624 167</b>	1	4.342	<b>167 624 137</b>	1	4.076	<b>167 624 157</b>	1	4.076

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	⅜	101	14	12	60	24	16	43	196	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	221	25	M6	2.3	10
32	96	⅜	143	22	12	84	25	16	57	234	25	M6	2.9	13
40	120	⅜	173	26	15	99	26	26	69	260	45	M8	3.7	15
50	150	⅜	214	32	15	119	36	26	88	284	45	M8	4.6	19
63	150	⅜	226	39	15	132	36	26	88	321	45	M8	5.8	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**Unions with fusion sockets metric**

**Model:**

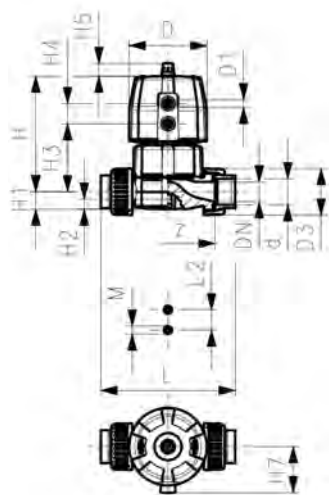
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
20	15	10/10*	125	<b>167 644 012</b>	1	0.469	<b>167 644 032</b>
25	20	10/10*	271	<b>167 644 013</b>	1	0.908	<b>167 644 033</b>
32	25	10/10*	481	<b>167 644 014</b>	1	1.070	<b>167 644 034</b>
40	32	10/10*	759	<b>167 644 015</b>	1	1.706	<b>167 644 035</b>
50	40	10/10*	1263	<b>167 644 016</b>	1	3.503	<b>167 644 036</b>
63	50	10/10*	1728	<b>167 644 017</b>	1	4.238	<b>167 644 037</b>

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	128	25	M6	100	7
25	96	1/8	132	18	12	73	25	16	57	150	25	M6	118	10
32	96	1/8	143	22	12	84	25	16	57	162	25	M6	126	13
40	120	1/8	173	26	15	99	26	26	69	184	45	M8	144	15
50	150	1/4	214	32	15	119	36	26	88	210	45	M8	164	19
63	150	1/4	226	39	15	132	36	26	88	248	45	M8	194	23

d (mm)	closest inch (inch)
20	3/8
25	1/2
32	1
40	1 1/4
50	1 1/2
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**Unions with butt fusion spigots SDR11 metric**

**Model:**

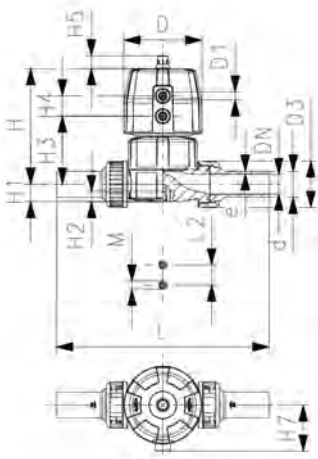
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
20	15	10/10*	125	<b>167 644 112</b>	1	0.477	<b>167 644 132</b>
25	20	10/10*	271	<b>167 644 113</b>	1	0.920	<b>167 644 133</b>
32	25	10/10*	481	<b>167 644 114</b>	1	0.954	<b>167 644 134</b>
40	32	10/10*	759	<b>167 644 115</b>	1	1.738	<b>167 644 135</b>
50	40	10/10*	1263	<b>167 644 116</b>	1	2.814	<b>167 644 136</b>
63	50	10/10*	1728	<b>167 644 117</b>	1	4.413	<b>167 644 137</b>

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	196	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	221	25	M6	2.3	10
32	96	1/8	143	22	12	84	25	16	57	234	25	M6	2.9	13
40	120	1/8	173	26	15	99	26	26	69	260	45	M8	3.7	15
50	150	1/4	214	32	15	119	36	26	69	284	45	M8	4.6	19
63	150	1/4	226	39	15	132	36	26	69	321	45	M8	5.8	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**With socket fusion spigots metric**

**Model:**

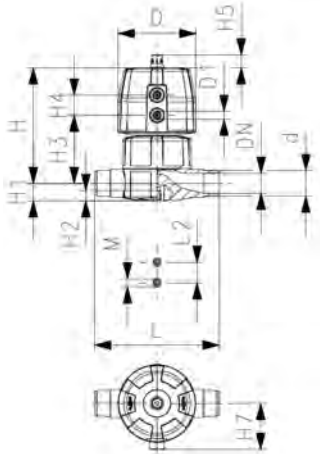
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
20	15	10/10*	125	<b>167 645 012</b>	1	0.442	<b>167 645 032</b>
25	20	10/10*	271	<b>167 645 013</b>	1	0.805	<b>167 645 033</b>
32	25	10/10*	481	<b>167 645 014</b>	1	0.956	<b>167 645 034</b>
40	32	10/10*	759	<b>167 645 015</b>	1	1.537	<b>167 645 035</b>
50	40	10/10*	1263	<b>167 645 016</b>	1	3.255	<b>167 645 036</b>
63	50	10/10*	1728	<b>167 645 017</b>	1	3.812	<b>167 645 037</b>

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	⅜	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	2.3	10
32	96	⅜	143	22	12	84	25	16	57	154	25	M6	2.9	13
40	120	⅜	173	26	15	99	26	26	69	174	45	M8	3.7	15
50	150	⅜	214	32	15	119	36	26	88	194	45	M8	4.6	19
63	150	⅜	226	39	15	132	36	26	88	224	45	M8	5.8	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**Unions with fusion sockets metric**

**Model:**

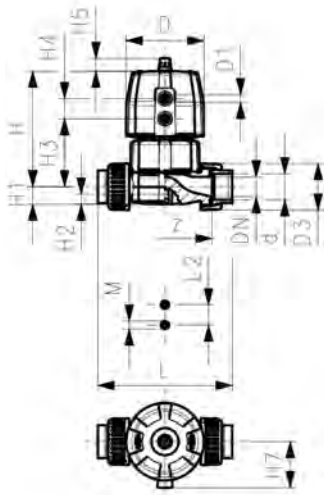
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)
20	15	10/10*	125	<b>167 654 012</b>	1	0.474	<b>167 654 032</b>	1	0.499
25	20	10/10*	271	<b>167 654 013</b>	1	0.872	<b>167 654 033</b>	1	0.884
32	25	10/10*	481	<b>167 654 014</b>	1	1.057	<b>167 654 034</b>	1	1.077
40	32	10/10*	759	<b>167 654 015</b>	1	1.806	<b>167 654 035</b>	1	1.666
50	40	10/10*	1263	<b>167 654 016</b>	1	2.954	<b>167 654 036</b>	1	2.783
63	50	10/10*	1728	<b>167 654 017</b>	1	3.516	<b>167 654 037</b>	1	3.516

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	128	25	M6	100	7
25	96	1/8	132	18	12	73	25	16	57	150	25	M6	118	10
32	96	1/8	143	22	12	84	25	16	57	162	25	M6	126	13
40	120	1/8	173	26	15	99	26	26	69	184	45	M8	144	15
50	150	1/4	214	32	15	119	36	26	88	210	45	M8	164	19
63	150	1/4	226	39	15	132	36	26	88	248	45	M8	194	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**Unions with butt fusion spigots SDR11 metric**

**Model:**

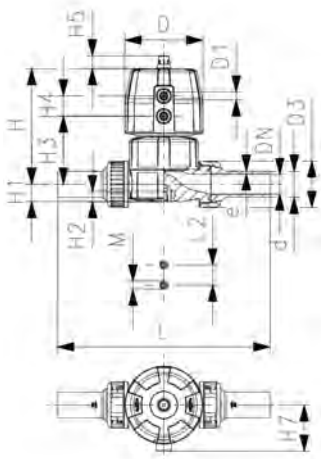
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
20	15	10/10*	125	<b>167 654 112</b>	1	0.498	<b>167 654 132</b>
25	20	10/10*	271	<b>167 654 113</b>	1	0.884	<b>167 654 133</b>
32	25	10/10*	481	<b>167 654 114</b>	1	1.077	<b>167 654 134</b>
40	32	10/10*	759	<b>167 654 115</b>	1	1.678	<b>167 654 135</b>
50	40	10/10*	1263	<b>167 654 116</b>	1	2.761	<b>167 654 136</b>
63	50	10/10*	1728	<b>167 654 117</b>	1	3.502	<b>167 654 137</b>

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	196	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	221	25	M6	2.3	10
32	96	1/8	143	22	12	84	25	16	57	234	25	M6	2.9	13
40	120	1/8	173	26	15	99	26	26	69	260	45	M8	3.7	15
50	150	1/4	214	32	15	119	36	26	69	284	45	M8	4.6	19
63	150	1/4	226	39	15	132	36	26	69	321	45	M8	5.8	23

d (mm)	closest inch (inch)
20	3/8
25	1/2
32	1
40	1 1/4
50	1 1/2
63	2





**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**With socket fusion spigots metric**

**Model:**

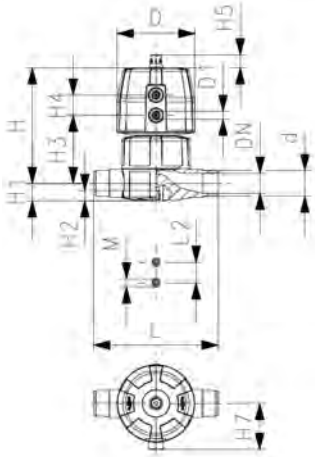
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
20	15	10/10*	125	<b>167 655 012</b>	1	0.426	<b>167 655 032</b>
25	20	10/10*	271	<b>167 655 013</b>	1	0.768	<b>167 655 033</b>
32	25	10/10*	481	<b>167 655 014</b>	1	0.925	<b>167 655 034</b>
40	32	10/10*	759	<b>167 655 015</b>	1	1.477	<b>167 655 035</b>
50	40	10/10*	1263	<b>167 655 016</b>	1	2.505	<b>167 655 036</b>
63	50	10/10*	1728	<b>167 655 017</b>	1	3.062	<b>167 655 037</b>

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	e (mm)
20	68	⅜	101	14	12	60	24	16	43	124	25	M6	7	1.9
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	10	2.3
32	96	⅜	143	22	12	84	25	16	57	154	25	M6	13	2.9
40	120	⅜	173	26	15	99	26	26	69	174	45	M8	15	3.7
50	150	⅜	214	32	15	119	36	26	88	194	45	M8	19	4.6
63	150	⅜	226	39	15	132	36	26	88	224	45	M8	23	5.8

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**With butt fusion spigots SDR11 metric**

**Model:**

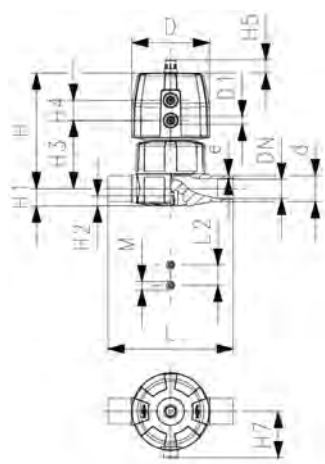
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
20	15	10/10*	125	<b>167 655 112</b>	1	0.425	<b>167 655 132</b>
25	20	10/10*	271	<b>167 655 113</b>	1	0.765	<b>167 655 133</b>
32	25	10/10*	481	<b>167 655 114</b>	1	0.924	<b>167 655 134</b>
40	32	10/10*	759	<b>167 655 115</b>	1	1.473	<b>167 655 135</b>
50	40	10/10*	1263	<b>167 655 116</b>	1	2.500	<b>167 655 136</b>
63	50	10/10*	1728	<b>167 655 117</b>	1	3.059	<b>167 655 137</b>

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/4	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	3/8	132	18	12	73	25	16	57	144	25	M6	2.3	10
32	96	1/2	143	22	12	84	25	16	57	154	25	M6	2.9	13
40	120	3/4	173	26	15	99	26	26	69	174	45	M8	3.7	15
50	150	1/2	214	32	15	119	36	26	88	194	45	M8	4.6	19
63	150	3/4	226	39	15	132	36	26	88	224	45	M8	5.8	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**With backing flanges PP-V metric/BS**

**Model:**

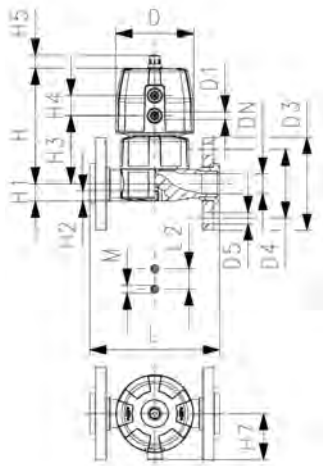
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)
20	15	10/10*	125	<b>167 657 112</b>	1	0.608	<b>167 657 132</b>	1	0.618
25	20	10/10*	271	<b>167 657 113</b>	1	1.013	<b>167 657 133</b>	1	1.024
32	25	10/10*	481	<b>167 657 114</b>	1	1.272	<b>167 657 134</b>	1	1.292
40	32	10/10*	759	<b>167 657 115</b>	1	2.009	<b>167 657 135</b>	1	2.029
50	40	10/10*	1263	<b>167 657 116</b>	1	3.049	<b>167 657 136</b>	1	3.079
63	50	10/10*	1728	<b>167 657 117</b>	1	4.002	<b>167 657 137</b>	1	4.030

d (mm)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
20	68	1/8	95	65	14	101	14	12	60	24	16	57	130	25	M6
25	96	1/8	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	96	1/8	115	85	14	143	22	12	84	25	16	69	160	25	M6
40	120	1/8	140	100	18	173	26	15	99	26	26	88	180	45	M8
50	150	1/4	150	110	18	214	32	15	119	36	26	103	200	45	M8
63	150	1/4	165	125	18	226	39	15	132	36	26	103	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	1/2
25	10	3/4
32	13	1
40	15	1 1/4
50	19	1 1/2
63	23	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**With butt fusion spigots SDR11 metric**

**Model:**

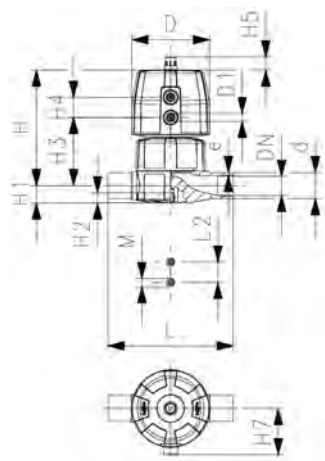
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
20	15	10/10*	125	<b>167 645 112</b>	1	<b>167 645 132</b>	1
25	20	10/10*	271	<b>167 645 113</b>	1	<b>167 645 133</b>	1
32	25	10/10*	481	<b>167 645 114</b>	1	<b>167 645 134</b>	1
40	32	10/10*	759	<b>167 645 115</b>	1	<b>167 645 135</b>	1
50	40	10/10*	1263	<b>167 645 116</b>	1	<b>167 645 136</b>	1
63	50	10/10*	1728	<b>167 645 117</b>	1	<b>167 645 137</b>	1

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/4	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	3/8	132	18	12	73	25	16	57	144	25	M6	2.3	10
32	96	1/2	143	22	12	84	25	16	57	154	25	M6	2.9	13
40	120	3/4	173	26	15	99	26	26	69	174	45	M8	3.7	15
50	150	1/2	214	32	15	119	36	26	88	194	45	M8	4.6	19
63	150	3/4	226	39	15	132	36	26	88	224	45	M8	5.8	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**With backing flanges PP-V metric/BS**

**Model:**

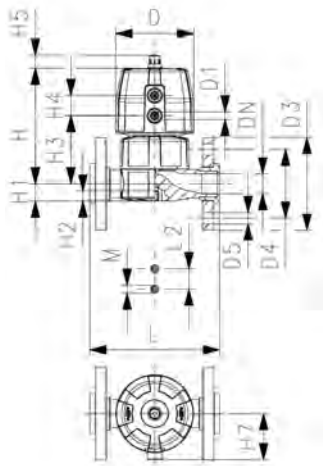
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)
20	15	10/10*	125	<b>167 647 112</b>	1	0.624	<b>167 647 132</b>	1	0.634
25	20	10/10*	271	<b>167 647 113</b>	1	1.049	<b>167 647 133</b>	1	1.060
32	25	10/10*	481	<b>167 647 114</b>	1	1.302	<b>167 647 134</b>	1	1.322
40	32	10/10*	759	<b>167 647 115</b>	1	2.069	<b>167 647 135</b>	1	2.089
50	40	10/10*	1263	<b>167 647 116</b>	1	3.799	<b>167 647 136</b>	1	3.829
63	50	10/10*	1728	<b>167 647 117</b>	1	4.752	<b>167 647 137</b>	1	4.780

d (mm)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
20	68	1/8	95	65	14	101	14	12	60	24	16	57	130	25	M6
25	96	1/8	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	96	1/8	115	85	14	143	22	12	84	25	16	69	160	25	M6
40	120	1/8	140	100	18	173	26	15	99	26	26	88	180	45	M8
50	150	1/4	150	110	18	214	32	15	119	36	26	103	200	45	M8
63	150	1/4	165	125	18	226	39	15	132	36	26	103	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	1/2
25	10	3/4
32	13	1
40	15	1 1/4
50	19	1 1/2
63	23	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**With socket fusion spigots metric**

**Model:**

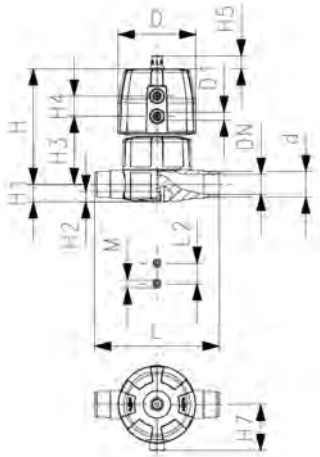
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN (psi)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)
20	15	150/150*	10/10*	125	<b>167 625 012</b>	1	0.461
25	20	150/150*	10/10*	271	<b>167 625 013</b>	1	0.968
32	25	150/150*	10/10*	481	<b>167 625 014</b>	1	1.146
40	32	150/150*	10/10*	759	<b>167 625 015</b>	1	1.897
50	40	150/150*	10/10*	1263	<b>167 625 016</b>	1	3.345
63	50	150/90*	10/6*	1728	<b>167 625 017</b>	1	4.006

d (mm)	PTFE/EPDM Code	SP	Weight (kg)
20	<b>167 625 032</b>	1	0.502
25	<b>167 625 033</b>	1	0.990
32	<b>167 625 034</b>	1	1.156
40	<b>167 625 035</b>	1	1.917
50	<b>167 625 036</b>	1	3.375
63	<b>167 625 037</b>	1	4.054

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	2.3	10
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	2.9	13
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	3.7	15
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	4.6	19
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	5.8	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**With butt fusion spigots SDR11 metric**

**Model:**

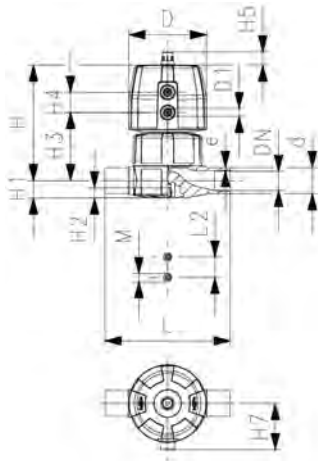
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN (psi)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)
20	15	150/150*	10/10*	125	<b>167 625 112</b>	1 0.491
25	20	150/150*	10/10*	271	<b>167 625 113</b>	1 0.975
32	25	150/150*	10/10*	481	<b>167 625 114</b>	1 1.134
40	32	150/150*	10/10*	759	<b>167 625 115</b>	1 1.893
50	40	150/150*	10/10*	1263	<b>167 625 116</b>	1 3.340
63	50	150/90*	10/6*	1728	<b>167 625 117</b>	1 3.899

d (mm)	PTFE/EPDM Code	SP Weight (kg)
20	<b>167 625 132</b>	1 0.501
25	<b>167 625 133</b>	1 0.986
32	<b>167 625 134</b>	1 1.154
40	<b>167 625 135</b>	1 1.913
50	<b>167 625 136</b>	1 3.370
63	<b>167 625 137</b>	1 3.927

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	7	1/2
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	10	3/4
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	13	1
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	15	1 1/4
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	19	1 1/2
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	23	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**With backing flanges PP-V metric/BS**

**Model:**

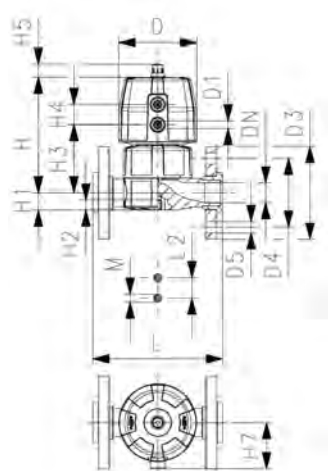
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN (psi)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)
20	15	150/150*	10/10*	125	<b>167 627 112</b>	1	0.674
25	20	150/150*	10/10*	271	<b>167 627 113</b>	1	1.223
32	25	150/150*	10/10*	481	<b>167 627 114</b>	1	1.482
40	32	150/150*	10/10*	759	<b>167 627 115</b>	1	2.554
50	40	150/150*	10/10*	1263	<b>167 627 116</b>	1	3.889
63	50	150/90*	10/6*	1728	<b>167 627 117</b>	1	4.918

d (mm)	DN (mm)	FKM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	<b>167 627 162</b>	1	0.674	<b>167 627 132</b>	1	0.684	<b>167 627 152</b>	1	0.684
25	20	<b>167 627 163</b>	1	1.223	<b>167 627 133</b>	1	1.234	<b>167 627 153</b>	1	1.234
32	25	<b>167 627 164</b>	1	1.482	<b>167 627 134</b>	1	1.526	<b>167 627 154</b>	1	1.526
40	32	<b>167 627 165</b>	1	2.429	<b>167 627 135</b>	1	2.562	<b>167 627 155</b>	1	2.562
50	40	<b>167 627 166</b>	1	3.889	<b>167 627 136</b>	1	3.919	<b>167 627 156</b>	1	3.919
63	50	<b>167 627 167</b>	1	4.842	<b>167 627 137</b>	1	4.952	<b>167 627 157</b>	1	4.952

d (mm)	DN (mm)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)
20	15	68	1/8	95	65	14	101	14	12	60	24	16	43	130	25
25	20	96	1/8	105	75	14	132	18	12	73	25	16	57	150	25
32	25	96	1/8	115	85	14	143	22	12	84	25	16	69	160	25
40	32	120	1/8	140	100	18	173	26	15	99	26	26	69	180	45
50	40	150	1/4	150	110	18	193	32	15	119	36	26	88	200	45
63	50	150	1/4	165	125	18	205	39	15	132	36	26	88	230	45

d (mm)	DN (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	15	M6	7	1/2
25	20	M6	10	3/4
32	25	M6	13	1
40	32	M8	15	1 1/4
50	40	M8	19	1 1/2
63	50	M8	23	2



# Diaphragm valves pneumatic DIASTAR TenPlus



**PROGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**Unions with fusion sockets metric**

**Model:**

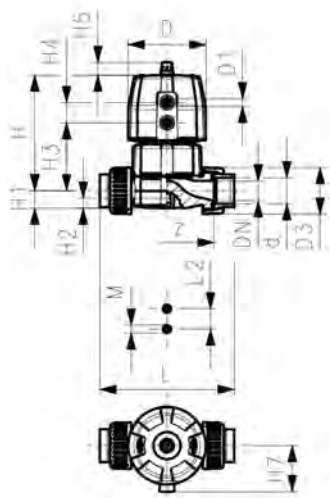
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **both sides**



d (mm)	DN (mm)	PN* (bar)	kv-value (Δp=1 bar) (L/min)	EPDM Code	SP	Weight (kg)	FKM Code	Weight (kg)
20	15	10/10*	125	<b>167 684 012</b>	1	0.958	<b>167 684 062</b>	0.958
25	20	10/10*	271	<b>167 684 013</b>	1	1.082	<b>167 684 063</b>	1.082
32	25	10/10*	481	<b>167 684 014</b>	1	1.970	<b>167 684 064</b>	1.970
40	32	10/10*	759	<b>167 684 015</b>	1	3.136	<b>167 684 065</b>	3.136
50	40	10/10*	1263	<b>167 684 016</b>	1	4.784	<b>167 684 066</b>	4.784
63	50	10/10*	1728	<b>167 684 017</b>	1	6.076	<b>167 684 067</b>	6.076

d (mm)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	Weight (kg)
20	<b>167 684 032</b>	1	0.958	<b>167 684 052</b>	0.958
25	<b>167 684 033</b>	1	1.094	<b>167 684 053</b>	1.094
32	<b>167 684 034</b>	1	1.881	<b>167 684 054</b>	1.881
40	<b>167 684 035</b>	1	3.156	<b>167 684 055</b>	3.156
50	<b>167 684 036</b>	1	4.827	<b>167 684 056</b>	4.827
63	<b>167 684 037</b>	1	5.763	<b>167 684 057</b>	5.763

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	96	¾	127	14	12	68	25	16	57	128	25	M6	100	7
25	96	¾	132	18	12	73	25	16	57	150	25	M6	118	10
32	120	½	167	22	12	93	26	26	69	162	25	M6	126	13
40	150	¼	196	26	15	101	36	26	88	184	45	M8	144	15
50	180	¼	239	32	15	124	37	26	103	210	45	M8	164	19
63	180	¼	251	39	15	137	37	26	103	248	45	M8	194	23

d (mm)	closest inch (inch)
20	¾
25	¾
32	1
40	1 ¼
50	1 ½
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**Unions with butt fusion spigots SDR11 metric**

**Model:**

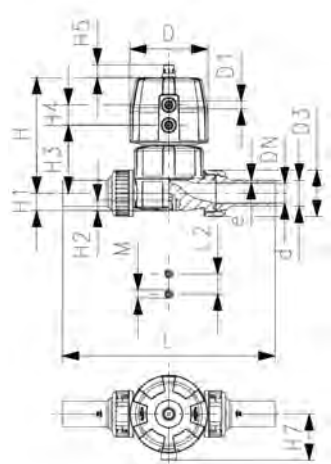
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **both sides**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10/10*	125	<b>167 684 112</b>	1	0.966	<b>167 684 162</b>
25	20	10/10*	271	<b>167 684 113</b>	1	1.094	<b>167 684 163</b>
32	25	10/10*	481	<b>167 684 114</b>	1	1.859	<b>167 684 164</b>
40	32	10/10*	759	<b>167 684 115</b>	1	3.168	<b>167 684 165</b>
50	40	10/10*	1263	<b>167 684 116</b>	1	5.009	<b>167 684 166</b>
63	50	10/10*	1728	<b>167 684 117</b>	1	5.964	<b>167 684 167</b>

d (mm)	PTFE/EPDM Code	SP Weight (kg)	PTFE/FKM Code	SP Weight (kg)
20	<b>167 684 132</b>	1	0.969	<b>167 684 152</b>
25	<b>167 684 133</b>	1	1.106	<b>167 684 153</b>
32	<b>167 684 134</b>	1	1.870	<b>167 684 154</b>
40	<b>167 684 135</b>	1	3.188	<b>167 684 155</b>
50	<b>167 684 136</b>	1	5.039	<b>167 684 156</b>
63	<b>167 684 137</b>	1	5.777	<b>167 684 157</b>

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M (mm)	e (mm)	Lift = Hx (mm)
20	96	¾	127	14	12	68	25	16	57	196	25	M6	1.9	7
25	96	¾	132	18	12	73	25	16	57	221	25	M6	2.3	10
32	120	½	167	22	12	93	26	26	69	234	25	M6	2.9	13
40	150	¾	196	26	15	101	36	26	88	260	45	M8	3.7	15
50	180	¾	239	32	15	124	37	26	103	284	45	M8	4.6	19
63	180	¾	251	39	15	137	37	26	103	321	45	M8	5.8	23

d (mm)	closest inch (inch)
20	¾
25	¾
32	1
40	1 ¼
50	1 ½
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**With socket fusion spigots metric**

**Model:**

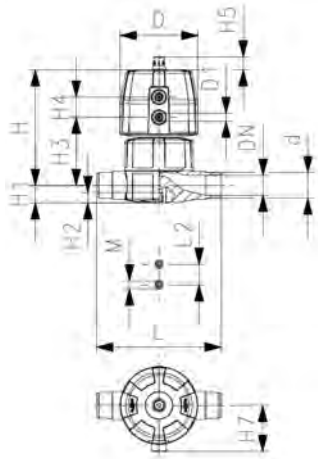
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Overall length EN 558
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **both sides**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)
20	15	10/10*	125	167 685 012	1	0.892	167 685 032	1	0.902
25	20	10/10*	271	167 685 013	1	0.979	167 685 033	1	0.990
32	25	10/10*	481	167 685 014	1	1.730	167 685 034	1	1.750
40	32	10/10*	759	167 685 015	1	3.044	167 685 035	1	2.987
50	40	10/10*	1263	167 685 016	1	4.615	167 685 036	1	4.650
63	50	10/10*	1728	167 685 017	1	5.309	167 685 037	1	5.337

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	124	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	2.3	10
32	120	⅜	167	22	12	93	26	26	69	154	25	M6	2.9	13
40	150	⅜	196	26	15	101	36	26	88	174	45	M8	3.7	15
50	180	⅜	239	32	15	124	37	26	103	194	45	M8	4.6	19
63	180	⅜	251	39	15	137	37	26	103	224	45	M8	5.8	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**With butt fusion spigots SDR11 metric**

**Model:**

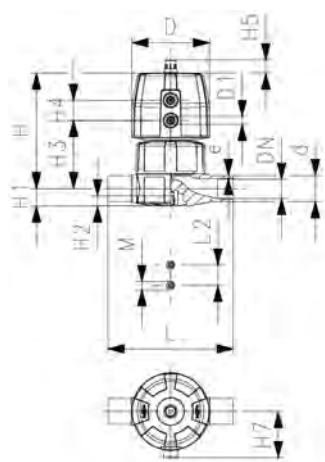
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **both sides**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
20	15	10/10*	125	<b>167 685 112</b>	1	0.891	<b>167 685 132</b>
25	20	10/10*	271	<b>167 685 113</b>	1	0.975	<b>167 685 133</b>
32	25	10/10*	481	<b>167 685 114</b>	1	1.728	<b>167 685 134</b>
40	32	10/10*	759	<b>167 685 115</b>	1	2.963	<b>167 685 135</b>
50	40	10/10*	1263	<b>167 685 116</b>	1	4.748	<b>167 685 136</b>
63	50	10/10*	1728	<b>167 685 117</b>	1	5.306	<b>167 685 137</b>

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	¾	127	14	12	68	25	16	57	124	25	M6	1.9	7
25	96	¾	132	18	12	73	25	16	57	144	25	M6	2.3	10
32	120	½	167	22	12	93	26	26	69	154	25	M6	2.9	13
40	150	½	196	26	15	101	36	26	88	174	45	M8	3.7	15
50	180	¼	239	32	15	124	37	26	103	194	45	M8	4.6	19
63	180	¼	251	39	15	137	37	26	103	224	45	M8	5.8	23

d (mm)	closest inch (inch)
20	¾
25	¾
32	1
40	1 ¼
50	1 ½
63	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**With backing flanges PP-V metric/BS**

**Model:**

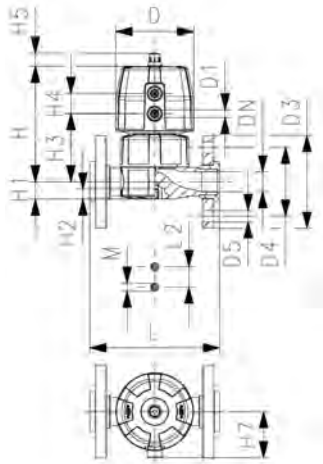
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- For easy installation and removal
- Overall length EN 558
- Short overall length
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **both sides**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10/10*	125	<b>167 687 112</b>	1	1.074	<b>167 687 162</b>
25	20	10/10*	271	<b>167 687 113</b>	1	1.223	<b>167 687 163</b>
32	25	10/10*	481	<b>167 687 114</b>	1	2.076	<b>167 687 164</b>
40	32	10/10*	759	<b>167 687 115</b>	1	3.499	<b>167 687 165</b>
50	40	10/10*	1263	<b>167 687 116</b>	1	5.297	<b>167 687 166</b>
63	50	10/10*	1728	<b>167 687 117</b>	1	6.643	<b>167 687 167</b>

d (mm)	PTFE/EPDM Code	SP Weight (kg)
20	<b>167 687 132</b>	1 1.103
25	<b>167 687 133</b>	1 1.276
32	<b>167 687 134</b>	1 2.096
40	<b>167 687 135</b>	1 3.350
50	<b>167 687 136</b>	1 5.327
63	<b>167 687 137</b>	1 6.678

d (mm)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
20	96	⅜	95	65	14	127	14	12	68	25	16	57	130	25	M6
25	96	⅜	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	120	⅜	115	85	14	167	22	12	93	26	26	69	160	25	M6
40	150	¼	140	100	18	196	26	15	101	36	26	88	180	45	M8
50	180	¼	150	110	18	239	32	15	124	37	26	103	200	45	M8
63	180	¼	165	125	18	251	39	15	137	37	26	103	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	½
25	10	¾
32	13	1
40	15	1 ¼
50	19	1 ½
63	23	2



**PROGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**With butt fusion spigots SDR11 metric**

**Model:**

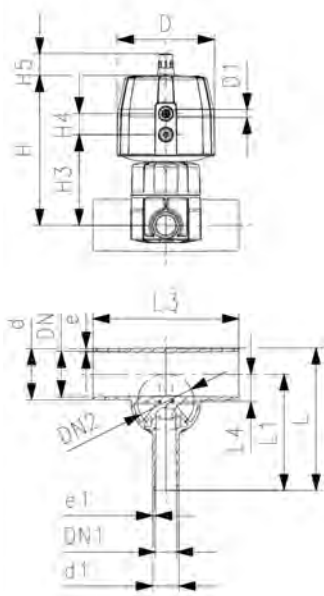
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **both sides**

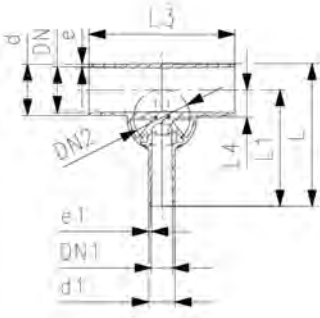
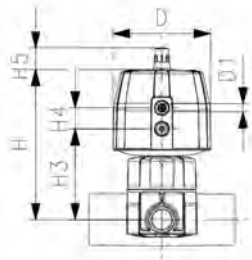


d (mm)	d1 (mm)	DN (mm)	DN1 (mm)	Valve Size d (mm)	PN* (bar)	kv-value (Δp=1 bar) (L/min)	EPDM Code	SP	Weight (kg)
20	20	15	15	20	10/10*	57	<b>167 689 101</b>	1	0.906
25	20	20	15	25	10/10*	89	<b>167 689 103</b>	1	0.981
25	25	20	20	25	10/10*	118	<b>167 689 104</b>	1	0.982
32	20	25	15	25	10/10*	80	<b>167 689 107</b>	1	1.008
32	25	25	20	25	10/10*	105	<b>167 689 108</b>	1	1.010
32	32	25	25	32	10/10*	231	<b>167 689 109</b>	1	1.741
40	20	32	15	32	10/10*	85	<b>167 689 112</b>	1	1.768
50	20	40	15	25	10/10*	86	<b>167 689 118</b>	1	1.068
50	25	40	20	32	10/10*	160	<b>167 689 119</b>	1	1.814
50	32	40	25	32	10/10*	206	<b>167 689 120</b>	1	1.816
63	20	50	15	25	10/10*	84	<b>167 689 125</b>	1	1.107
63	25	50	20	32	10/10*	150	<b>167 689 126</b>	1	1.857
63	32	50	25	32	10/10*	184	<b>167 689 127</b>	1	1.860

d (mm)	PTFE/EPDM Code	SP	Weight (kg)
20	<b>167 689 301</b>	1	0.916
25	<b>167 689 303</b>	1	0.992
25	<b>167 689 304</b>	1	0.993
32	<b>167 689 307</b>	1	1.019
32	<b>167 689 308</b>	1	1.021
32	<b>167 689 309</b>	1	1.761
40	<b>167 689 312</b>	1	1.788
50	<b>167 689 318</b>	1	1.079
50	<b>167 689 319</b>	1	1.834
50	<b>167 689 320</b>	1	1.836
63	<b>167 689 325</b>	1	1.119
63	<b>167 689 326</b>	1	1.877
63	<b>167 689 327</b>	1	1.880

d (mm)	D (mm)	D1 (inch)	H (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	DN2 (mm)	e1 (mm)
20	96	⅜	130	71	25	16	117	96	162	12	1.9	7	15	1.9
25	96	⅜	131	72	25	16	133	108	162	16	2.3	10	20	1.9
25	96	⅜	131	72	25	16	133	108	162	16	2.3	10	20	2.3
32	96	⅜	135	76	25	16	142	120	162	19	2.9	10	20	1.9
32	96	⅜	135	76	25	16	142	120	162	19	2.9	10	20	2.3
32	120	⅜	167	93	26	26	145	120	160	19	2.9	13	25	2.9
40	120	⅜	175	101	26	26	149	128	180	23	3.7	13	25	1.9
50	96	⅜	148	90	25	16	160	134	180	27	4.6	10	20	1.9
50	120	⅜	180	106	26	26	160	134	180	28	4.6	13	25	2.3

table continued on the next page



d (mm)	D (mm)	D1 (inch)	H (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	DN2 (mm)	e1 (mm)
50	120	1/2	180	106	26	26	160	134	180	28	4.6	13	25	2.9
63	96	1/2	155	96	25	26	177	144	180	33	5.8	10	20	1.9
63	120	1/2	187	113	26	16	177	144	180	35	5.8	13	25	2.3
63	120	1/2	187	113	26	26	177	144	180	35	5.8	13	25	2.9

# Diaphragm valves DIASTAR big dimensions



**PROGEF Standard**  
**Diaphragm valve type DIASTAR**  
**Series 025 FC (Fail safe to close)**  
**With fixed flanges PP metric**

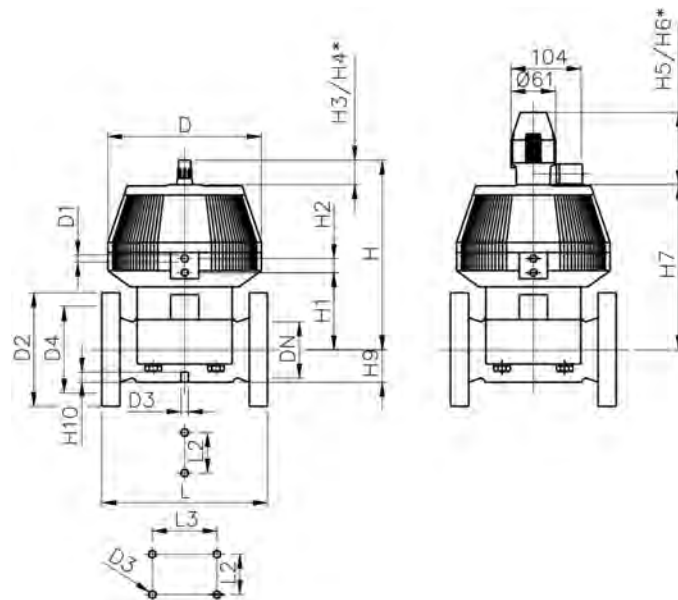
**Model:**

- Material: PP-H
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: **one side**
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	Weight (kg)	PTFE/EPDM Code	Weight (kg)
*	75	2 ½	65	10	992	<b>199 025 267</b>	14.810	<b>199 025 297</b>	14.715
**	90	3	80	10	1700	<b>199 025 268</b>	17.400	<b>199 025 298</b>	16.162
	110	4	100	6	2700	<b>199 025 269</b>	25.523	<b>199 025 299</b>	24.700
**	160	6	150	6	6033	<b>199 025 270</b>	35.000		

	d (mm)	D (mm)	D1_G (inch)	D2 (mm)	D3[M] (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H9 (mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	¼	285	12	240	455	237	24	46	100	129	195	409	108

	d (mm)	H10 (mm)	L (mm)	L2 (mm)	L3 (mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200







**PROGEF Standard**  
**Diaphragm valve type DIASTAR**  
**Series 025 FO (Fail safe to open)**  
**With fixed flanges PP metric**

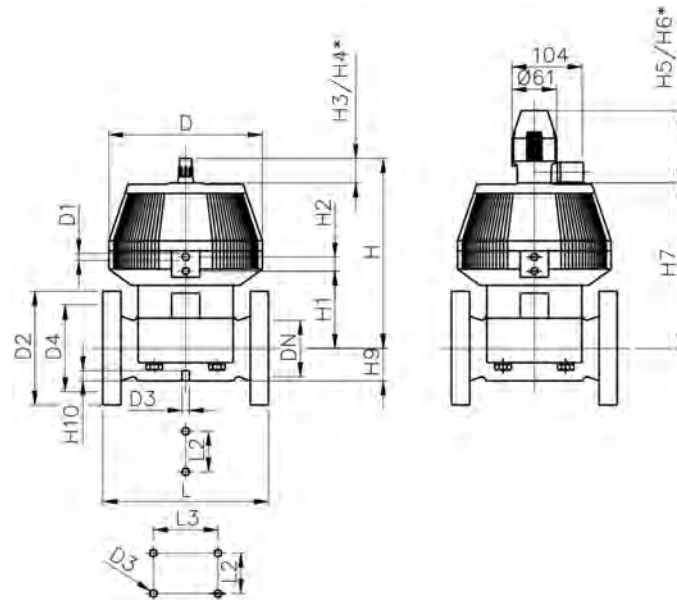
**Model:**

- Material: PP-H
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: **one side**
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	PTFE/EPDM Code	Weight (kg)
*	75	2 ½	65	10	992	<b>199 025 277</b>	13.110	<b>199 025 307</b>	13.600
**	90	3	80	10	1700	<b>199 025 278</b>	17.400	<b>199 025 308</b>	17.400
	110	4	100	6	2700	<b>199 025 279</b>	19.700	<b>199 025 309</b>	24.700
**	160	6	150	6	6033	<b>199 025 280</b>	35.000	<b>199 025 310</b>	35.000

	d (mm)	D (mm)	D1_G (inch)	D2 (mm)	D3[M] (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H9 (mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	¼	285	12	240	455	237	24	46	100	129	195	409	108

	d (mm)	H10 (mm)	L (mm)	L2 (mm)	L3 (mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200





**PROGEF Standard**  
**Diaphragm valve type DIASTAR**  
**Series 025 DA (Double acting)**  
**With fixed flanges PP metric**

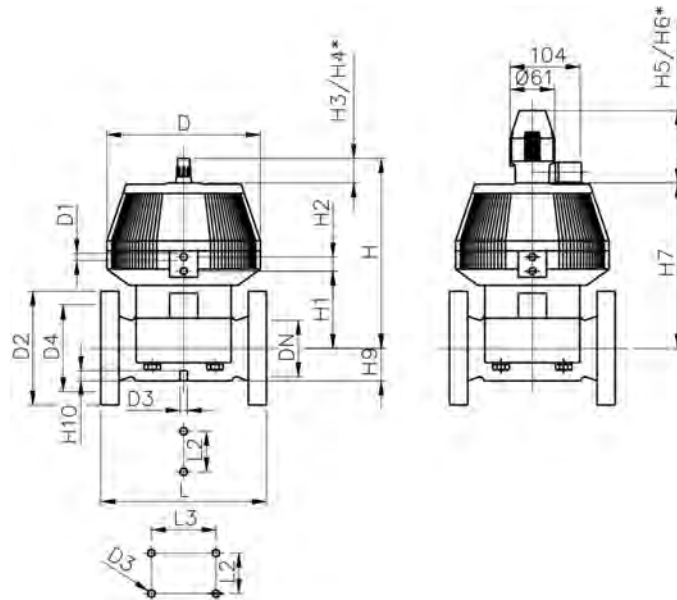
**Model:**

- Material: PP-H
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: **one side**
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d	Size	DN	PN	kv-value	EPDM	Weight	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)	Code	(kg)
					(L/min)				
*	75	2 1/2	65	10	992	<b>199 025 287</b>	12.096	<b>199 025 317</b>	13.600
**	90	3	80	10	1700	<b>199 025 288</b>	13.145	<b>199 025 318</b>	17.400
	110	4	100	6	2700	<b>199 025 289</b>	23.941	<b>199 025 319</b>	24.700
**	160	6	150	6	6033	<b>199 025 290</b>	35.000	<b>199 025 320</b>	35.000

	d	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9
	(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	75	280	1/4	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	1/4	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	1/4	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	1/4	285	12	240	455	237	24	46	100	129	195	409	108

	d	H10	L	L2	L3
	(mm)	(mm)	(mm)	(mm)	(mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200



## Diaphragm Valve Type 604 / 605

# Packs a punch



The full-plastic diaphragm valve 604 / 605 with integrated pneumatic actuator from GF Piping Systems ensures best flow performance in compact design. With this corrosion free valve we offer an additional product with the most economic price-performance ratio which is suitable for many applications.

### Easy installation and operation

- The compact design enables installation in limited spaces
- No re-torquing needed due to full plastic design without metal parts and screws
- Radially dismountable due to true unions
- Maintenance free
- Same installation length as all GF diaphragm valves and market standard valves
- Integrated optical position feedback
- QR-Code on valve leads to online available product documents

### High safety

- Uniform temperature expansion of plastic/plastic connection prevents leakages
- High chemical resistance due to large material range

### High Flexibility

- Operation options: FC, FO, DA
- Diaphragms available in PTFE, FKM, EPDM for neutral and aggressive media
- Various connection options with true union or spigot version
- Available Standards: Metric, ASTM, BS, JIS
- Best quality and reliability for high number of cycles
- Long lifetime

### Best flow performance

- Linear flow characteristic for simple valve control
- Optimized flow geometry with soft transitions and radii doubles the flow rate
- Suitable for media with low number of particles/solids

### Applications

- Chemical Process Industry
- Dosing
- Water Treatment

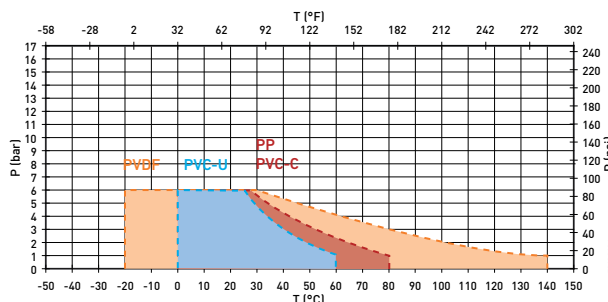


## + Technical Data

<b>Dimension</b>	DN 15 (1/2")
<b>Pressure Rating</b>	PN 6
<b>Body</b>	PVC-U / CPVC (Polyvinylchlorid) PP-H (Polypropylen) PVDF (Polyvinylidenfluorid) Other materials on request
<b>Diaphragms</b>	PTFE with EPDM Backing Diaphragm PTFE with FPM Backing Diaphragm EPDM FPM
<b>Valve Housing</b>	PP-GF (orange)
<b>Connections</b>	<b>Type 604:</b> Body with true union connection to match all standard GF unions and end-connections  <b>Type 605:</b> Body with cementing resp. welding spigots  Available on request: Various inserts from the GF range
<b>Mounting</b>	Threaded inserts for safe mounting on valve body
<b>Flow</b>	Double flow rate compared to a typical diaphragm valve
<b>Standards</b>	ISO 9393 EN 12266

### Pressure-Temperature Diagram

The following Pressure-Temperature Diagram is based on a lifetime of 25 years with water or similar media.



### Diaphragm Valve Type 604 / 605

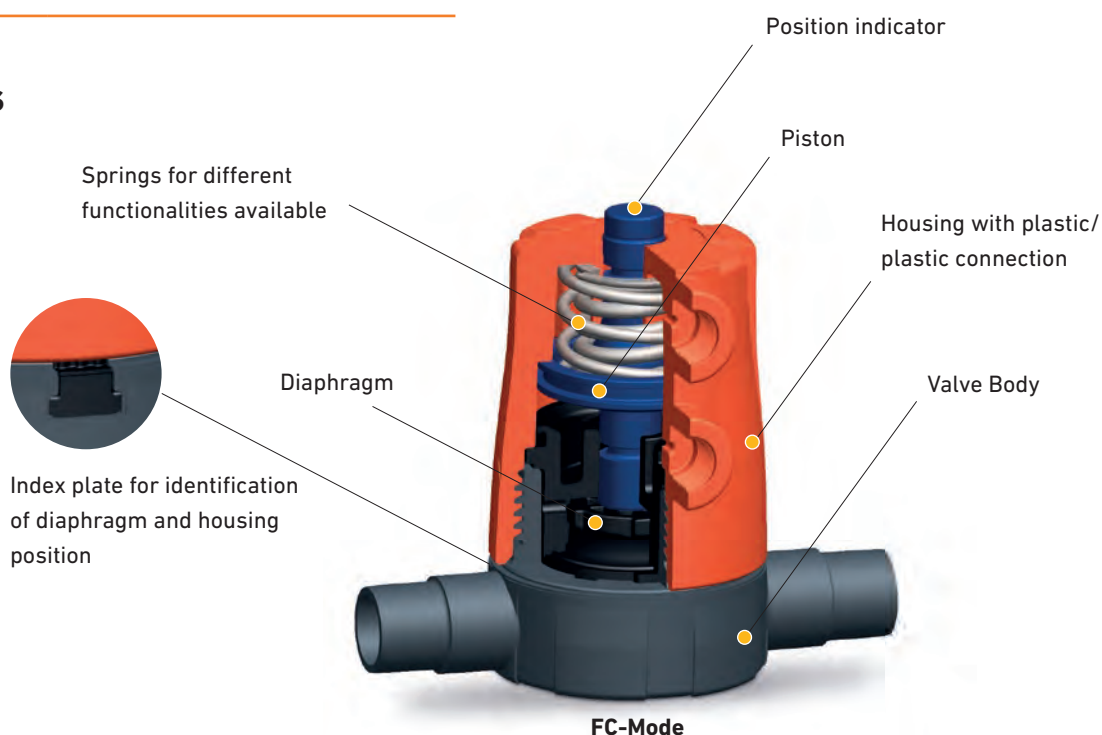
DN	d	inch	Kv 100 l/min	m <sup>3</sup> /h	Cv100 gpm
15	20	1/2"	125	7,5	0,55

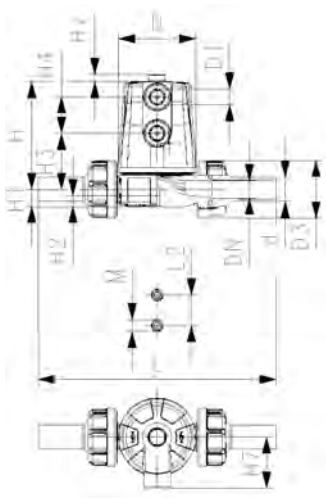
#### Kv Values

KV 100 at pressure differential p = 1 bar

CV100 at pressure differential p = 1 psi

## + Features





**PROGEF Standard**  
**Diaphragm valve type 604**  
**Unions with butt fusion spigot metric**

**Model:**

- Material: PP-H
- Compact full plastic design without screws
- High flow rate
- Actuator housing with thread for easy maintenance
- Quick opening & closing times
- For easy installation and removal
- Market standard installation length

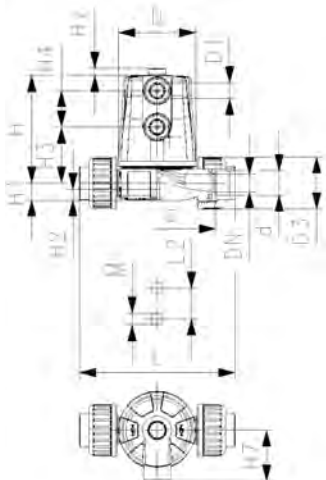
**Option:**

- Individual configuration of the valve (see diagram)

Actuator	d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	FKM Code	Weight (kg)	PTFE/EPDM Code
FC	20	15	6	125	167 604 112	167 604 162	0.35	167 604 132
FO	20	15	6	125	167 604 114	167 604 164	0.32	167 604 134
DA	20	15	6	125	167 604 115	167 604 165	0.30	167 604 135

Actuator	d (mm)	D (mm)	D1_G (inch)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)
FC	20	65	¼	48	89	14	12	46	30	42	196	25	M6	100
FO	20	65	¼	48	89	14	12	46	30	42	196	25	M6	100
DA	20	65	¼	48	89	14	12	46	30	42	196	25	M6	100

Actuator	d (mm)	Lift = Hx (mm)
FC	20	6
FO	20	6
DA	20	6



**PROGEF Standard**  
**Diaphragm valve type 604**  
**Unions with fusion socket metric**

**Model:**

- Material: PP-H
- Compact full plastic design without screws
- High flow rate
- Actuator housing with thread for easy maintenance
- Quick opening & closing times
- For easy installation and removal
- Market standard installation length

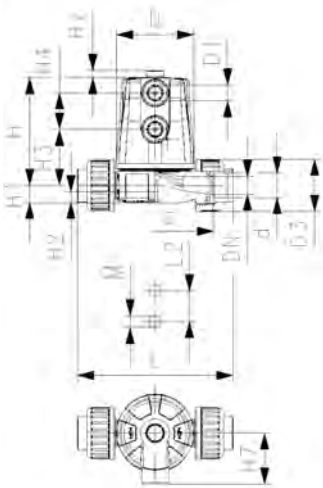
**Option:**

- Individual configuration of the valve (see diagram)

Actuator	d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	FKM Code	Weight (kg)	PTFE/EPDM Code
FC	20	15	6	125	167 604 012	167 604 062	0.35	167 604 032
FO	20	15	6	125	167 604 014	167 604 064	0.32	167 604 034
DA	20	15	6	125	167 604 015	167 604 065	0.30	167 604 035

Actuator	d (mm)	D (mm)	D1_G (inch)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)
FC	20	65	¼	48	89	14	12	46	30	42	128	25	M6	96
FO	20	65	¼	48	89	14	12	46	30	42	128	25	M6	96
DA	20	65	¼	48	89	14	12	46	30	42	128	25	M6	96

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Actuator	d (mm)	Lift = Hx (mm)
FC	20	6
FO	20	6
DA	20	6



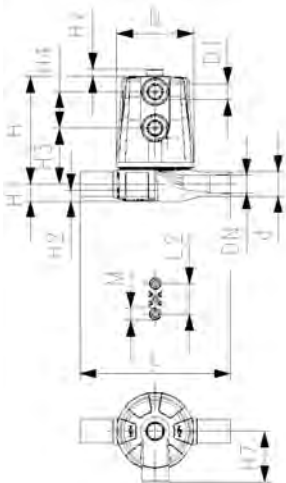
**PROGEF Standard**  
**Diaphragm valve type 605**  
**With butt fusion spigot metric**

**Model:**

- Material: PP-H
- Compact full plastic design without screws
- High flow rate
- Actuator housing with thread for easy maintenance
- Quick opening & closing times
- For easy installation and removal
- Market standard installation length

**Option:**

- Individual configuration of the valve (see diagram)



Actuator	d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	FKM Code	Weight (kg)	PTFE/EPDM Code
FC	20	15	6	125	167 605 112	167 605 162	0.31	167 605 132
FO	20	15	6	125	167 605 114	167 605 164	0.28	167 605 134
DA	20	15	6	125	167 605 115	167 605 165	0.26	167 605 135

Actuator	d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H7 (mm)	L (mm)	L2 (mm)	e (mm)	M	z (mm)
FC	20	65	¼	89	14	12	46	30	42	124	25	1.9	M6	100
FO	20	65	¼	89	14	12	46	30	42	124	25	1.9	M6	100
DA	20	65	¼	89	14	12	46	30	42	124	25	1.9	M6	100

Actuator	d (mm)	Lift = Hx (mm)
FC	20	6
FO	20	6
DA	20	6

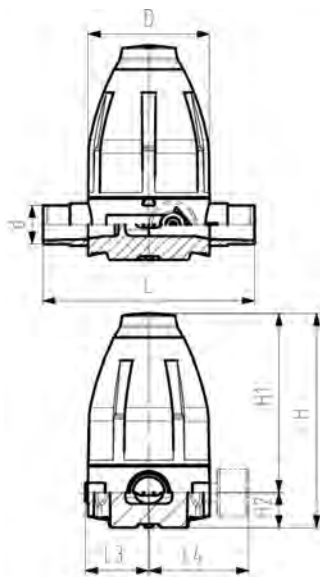
# Pressure regulating valves type 582



**PROGEF Standard**  
**Pressure reducing valve type 582**  
**With butt fusion spigots SDR11 metric**  
**Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
  - Integrated stainless steel mounting inserts
  - 0.5-9.0 bar (7-130 psi)
- 0.3-3.0 bar (4-44 psi) on request  
 Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings EPDM Code	Weight (kg)	SP	GP	O-rings FKM Code
20	15	10	<b>167 582 002</b>	0.560	1	0	<b>167 582 012</b>
25	20	10	<b>167 582 003</b>	1.250	1	0	<b>167 582 013</b>
32	25	10	<b>167 582 004</b>	1.250	1	0	<b>167 582 014</b>
40	32	10	<b>167 582 005</b>	3.450	1	0	<b>167 582 015</b>
50	40	10	<b>167 582 006</b>	3.460	1	0	<b>167 582 016</b>
63	50	10	<b>167 582 007</b>	3.520	1	0	<b>167 582 017</b>

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L3 (mm)	M	closest inch (inch)
20	79	132	111	21	14	150	42	M6	½
25	100	177	148	29	14	190	53	M6	¾
32	100	177	148	29	14	190	53	M6	1
40	147	251	207	44	21	240	76	M8	1 ¼
50	147	251	207	44	21	240	76	M8	1 ½
63	147	251	207	44	21	260	76	M8	2



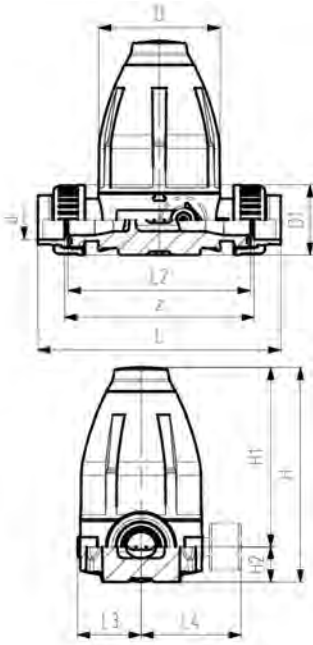
**PROGEF Standard**  
**Pressure reducing valve type 582**  
**Unions with fusion sockets metric**  
**Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings EPDM Code	Weight (kg)	SP	GP	O-rings FKM Code
20	15	10	<b>167 582 102</b>	0.600	1	0	<b>167 582 112</b>
25	20	10	<b>167 582 103</b>	1.300	1	0	<b>167 582 113</b>
32	25	10	<b>167 582 104</b>	1.320	1	0	<b>167 582 114</b>
40	32	10	<b>167 582 105</b>	3.530	1	0	<b>167 582 115</b>
50	40	10	<b>167 582 106</b>	3.650	1	0	<b>167 582 116</b>
63	50	10	<b>167 582 107</b>	3.800	1	0	<b>167 582 117</b>

d (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	L3 (mm)	M	z (mm)	closest inch (inch)
20	79	48	132	111	21	12	158	120	42	M6	126	½
25	100	58	177	148	29	14	192	150	53	M6	156	¾
32	100	65	177	148	29	14	196	150	53	M6	156	1
40	147	77	251	207	44	21	255	205	76	M8	211	1 ¼
50	147	84	251	207	44	21	261	205	76	M8	211	1 ½
63	147	111	251	207	44	21	269	205	76	M8	211	2





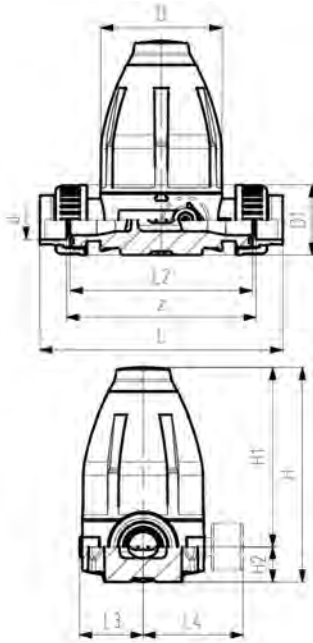
**PROGEF Standard**  
**Pressure reducing valve type 582**  
**Unions with butt fusion spigots SDR11 metric**  
**Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

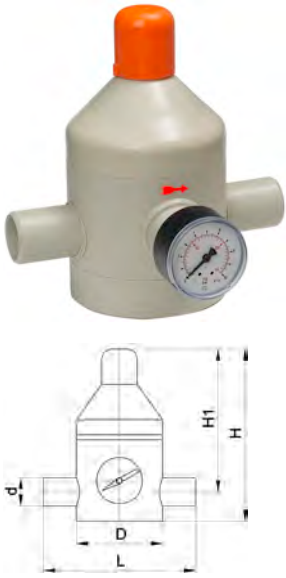
0.3-3.0 bar (4-44 psi) on request

Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings EPDM Code	Weight (kg)	SP	GP	O-rings FKM Code
20	15	10	<b>167 582 502</b>	0.640	1	0	<b>167 582 512</b>
25	20	10	<b>167 582 503</b>	1.350	1	0	<b>167 582 513</b>
32	25	10	<b>167 582 504</b>	1.370	1	0	<b>167 582 514</b>
40	32	10	<b>167 582 505</b>	3.660	1	0	<b>167 582 515</b>
50	40	10	<b>167 582 506</b>	3.710	1	0	<b>167 582 516</b>
63	50	10	<b>167 582 507</b>	3.860	1	0	<b>167 582 517</b>

d (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	L3 (mm)	M	z (mm)	closest inch (inch)
20	79	48	132	111	21	12	158	120	42	M6	126	1/2
25	100	58	177	148	29	14	192	150	53	M6	156	3/4
32	100	65	177	148	29	14	196	150	53	M6	156	1
40	147	77	251	207	44	21	255	205	76	M8	211	1 1/4
50	147	84	251	207	44	21	261	205	76	M8	211	1 1/2
63	147	111	251	207	44	21	269	205	76	M8	211	2



**PROGEF Standard**  
**Pressure reducing valve type V82**  
**With fusion spigots metric**

**Model:**

- Material: PP-H

Type	d (mm)	DN (mm)	EPDM Code	Weight (kg)	D (mm)	H (mm)	H1 (mm)	L (mm)	closest inch (inch)	Pressure range (bar)	PN
V82	75	65	199 041 039	7.900	200	350	250	300	2 ½	0.5 - 5.0	6
V82	90	80	199 041 040	12.900	250	425	305	360	3	0.5 - 5.0	6
V82	110	100	199 041 041	23.300	300	495	345	420	4	1.0 - 3.0	4



**PROGEF Standard**  
**Pressure reducing valve type V82**  
**With butt fusion spigots IR metric**

**Model:**

- Material: PP-H

Type	d (mm)	DN (mm)	EPDM Code	Weight (kg)	D (mm)	H (mm)	H1 (mm)	L (mm)	closest inch (inch)	Pressure range (bar)	PN
V82	75	65	<b>199 041 417</b>	7.910	200	350	250	300	2 ½	0.5 - 5.0	6
V82	90	80	<b>199 041 418</b>	12.910	250	425	305	360	3	0.5 - 5.0	6
V82	110	100	<b>199 041 419</b>	23.300	300	495	345	420	4	1.0 - 3.0	4

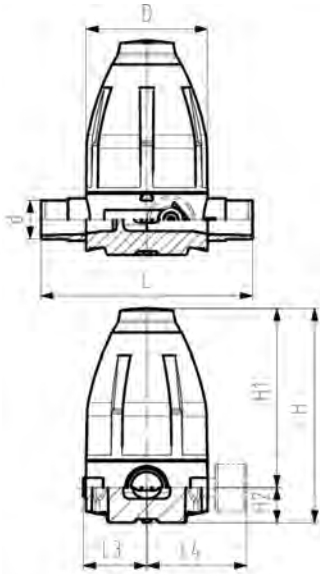
# Pressure regulating valves type 586



**PROGEF Standard**  
**Pressure retaining valve type 586**  
**With butt fusion spigots SDR11 metric**  
**Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
  - Integrated stainless steel mounting inserts
  - 0.5-9.0 bar (7-130 psi)
- 0.3-3.0 bar (4-44 psi) on request  
 Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings EPDM Code	Weight (kg)	SP	GP	O-rings FKM Code
20	15	10	<b>167 586 002</b>	0.550	1	0	<b>167 586 012</b>
25	20	10	<b>167 586 003</b>	1.260	1	0	<b>167 586 013</b>
32	25	10	<b>167 586 004</b>	1.260	1	0	<b>167 586 014</b>
40	32	10	<b>167 586 005</b>	3.460	1	0	<b>167 586 015</b>
50	40	10	<b>167 586 006</b>	3.470	1	0	<b>167 586 016</b>
63	50	10	<b>167 586 007</b>	3.540	1	0	<b>167 586 017</b>

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L3 (mm)	M	closest inch (inch)
20	79	132	111	21	14	150	42	M6	½
25	100	177	148	29	14	190	53	M6	¾
32	100	177	148	29	14	190	53	M6	1
40	147	251	207	44	21	240	76	M8	1 ¼
50	147	251	207	44	21	240	76	M8	1 ½
63	147	251	207	44	21	260	76	M8	2



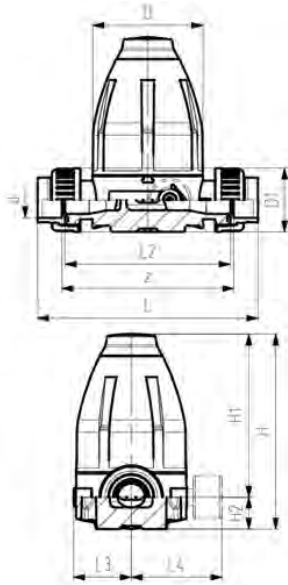
**PROGEF Standard**  
**Pressure retaining valve type 586**  
**Unions with fusion sockets metric**  
**Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings EPDM Code	Weight (kg)	SP	GP	O-rings FKM Code
20	15	10	<b>167 586 102</b>	0.590	1	0	<b>167 586 112</b>
25	20	10	<b>167 586 103</b>	1.310	1	0	<b>167 586 113</b>
32	25	10	<b>167 586 104</b>	1.330	1	0	<b>167 586 114</b>
40	32	10	<b>167 586 105</b>	3.610	1	0	<b>167 586 115</b>
50	40	10	<b>167 586 106</b>	3.660	1	0	<b>167 586 116</b>
63	50	10	<b>167 586 107</b>	3.810	1	0	<b>167 586 117</b>

d (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	L3 (mm)	M	z (mm)	closest inch (inch)
20	79	48	132	111	21	12	158	120	42	M6	126	1/2
25	100	58	177	148	29	14	192	150	53	M6	156	3/4
32	100	65	177	148	29	14	196	150	53	M6	156	1
40	147	77	251	207	44	21	255	205	76	M8	211	1 1/4
50	147	84	251	207	44	21	261	205	76	M8	211	1 1/2
63	147	111	251	207	44	21	269	205	76	M8	211	2



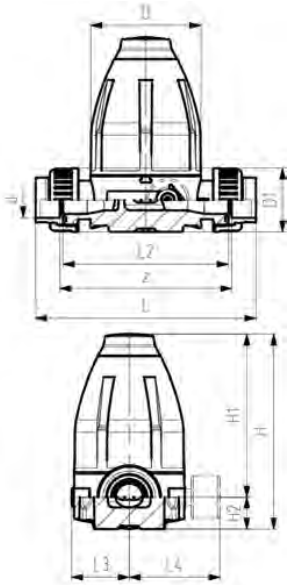
**PROGEF Standard**  
**Pressure retaining valve type 586**  
**Unions with butt fusion spigots SDR11 metric**  
**Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

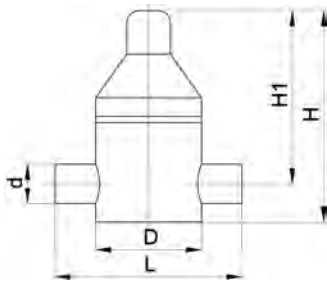
0.3-3.0 bar (4-44 psi) on request

Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings EPDM Code	Weight (kg)	SP	GP	O-rings FKM Code
20	15	10	<b>167 586 502</b>	0.630	1	0	<b>167 586 512</b>
25	20	10	<b>167 586 503</b>	1.350	1	0	<b>167 586 513</b>
32	25	10	<b>167 586 504</b>	1.370	1	0	<b>167 586 514</b>
40	32	10	<b>167 586 505</b>	3.650	1	0	<b>167 586 515</b>
50	40	10	<b>167 586 506</b>	3.700	1	0	<b>167 586 516</b>
63	50	10	<b>167 586 507</b>	3.850	1	0	<b>167 586 517</b>

d (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	L3 (mm)	M	z (mm)	closest inch (inch)
20	79	48	132	111	21	12	228	120	42	M6	126	½
25	100	58	177	148	29	14	264	150	53	M6	156	¾
32	100	65	177	148	29	14	270	150	53	M6	156	1
40	147	77	251	207	44	21	331	205	76	M8	211	1 ¼
50	147	84	251	207	44	21	337	205	76	M8	211	1 ½
63	147	111	251	207	44	21	343	205	76	M8	211	2



**PROGEF Standard**  
**Pressure retaining valve type V86**  
**With butt fusion spigots IR metric**

**Model:**

- Material: PP-H

Type	d (mm)	DN (mm)	EPDM Code	SP	Weight (kg)	PTFE Code	SP	Weight (kg)
V86	75	65	<b>199 041 471</b>	1	5.900	<b>199 041 476</b>	1	5.900
V86	90	80	<b>199 041 473</b>	0	12.900	<b>199 041 478</b>	1	12.900
V86	110	100	<b>199 041 474</b>	1	14.500	<b>199 041 479</b>	1	14.500

D (mm)	H (mm)	H1 (mm)	L (mm)	closest inch (inch)	Pressure range (bar)	PN
180	275	230	284	2 ½	0.5 - 5.0	6
250	410	320	360	3	0.5 - 5.0	6
250	485	415	380	4	1.0 - 3.0	4

# Solenoid valves

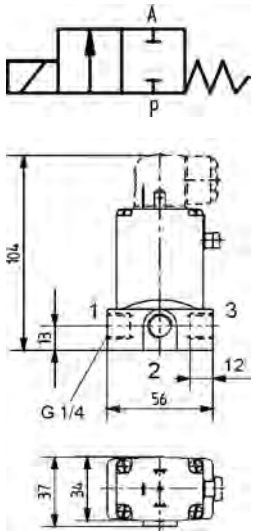
## Type 166



### Solenoid valve type 166 Straight-through valve 2/2 ways

**Model:**

- Material: PVDF, PP-H
- Function A
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



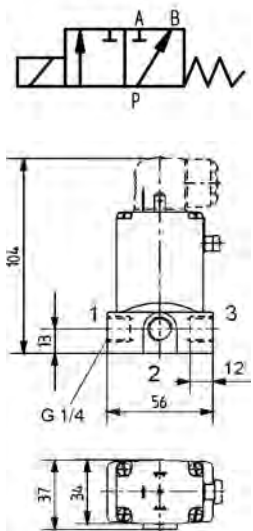
DN (mm)	D1_G (inch)	Voltage	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PP-H EPDM Code	PP-H FKM Code	PVDF FKM Code
3	1/4	24V DC	0.0 - 8.0	4	199 166 000	199 166 005	199 166 505
4	1/4	24V DC	0.0 - 4.0	5	199 166 001	199 166 006	199 166 506
5	1/4	24V DC	0.0 - 3.0	6	199 166 002	199 166 007	199 166 507
3	1/4	230V 50Hz $\pm$ 10%	0.0 - 10.0	4	199 166 010	199 166 015	199 166 515
4	1/4	230V 50Hz $\pm$ 10%	0.0 - 5.0	5	199 166 011	199 166 016	199 166 516
5	1/4	230V 50Hz $\pm$ 10%	0.0 - 4.5	6	199 166 012	199 166 017	199 166 517



### Solenoid valve type 166 Distribution valve 3/2 ways

**Model:**

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN (mm)	D1_G (inch)	Voltage	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	Function	EPDM Code	FKM Code
4	1/4	24V AC/DC	0 - 4	5	F	199 166 201	199 166 206
4	1/4	24V AC/DC	0 - 5	5	F	199 166 211	199 166 216

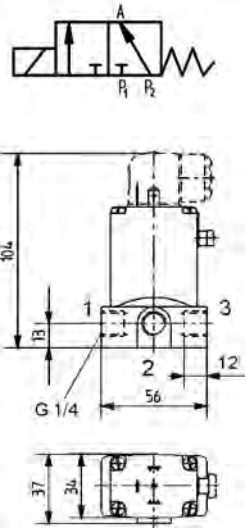




**Solenoid valve type 166**  
**Mixing valve 3/2 ways**

**Model:**

- Material: PVDF, PP-H
- Function E
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN (mm)	D1_G (inch)	Voltage	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PP-H EPDM Code	PP-H FKM Code	PVDF FKM Code
3	1/4	24V AC/DC	0 - 4	4	<b>199 166 150</b>	<b>199 166 155</b>	
3	1/4	230V 50Hz $\pm$ 10%	0 - 6	4	<b>199 166 160</b>	<b>199 166 165</b>	
4	1/4	24V AC/DC	0 - 2	5	<b>199 166 151</b>	<b>199 166 156</b>	<b>199 166 656</b>
4	1/4	230V 50Hz $\pm$ 10%	0 - 3	5	<b>199 166 161</b>	<b>199 166 166</b>	<b>199 166 666</b>

# Cone check valves

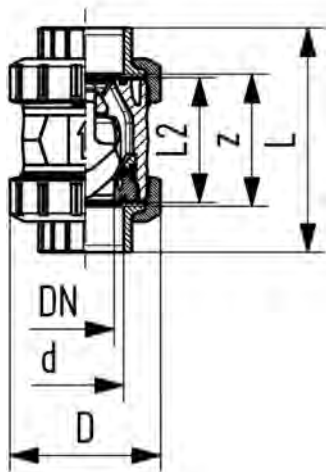
## Type 561



**PROGEF Standard**  
**Check valve type 561**  
**With fusion sockets metric**

**Model:**

- Material: PP-H
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
16	10	10	190	167 561 001	1	0.080	167 561 011
20	15	10	180	167 561 002	1	0.083	167 561 012
25	20	10	380	167 561 003	1	0.128	167 561 013
32	25	10	460	167 561 004	1	0.200	167 561 014
40	32	10	850	167 561 005	1	0.332	167 561 015
50	40	10	1080	167 561 006	1	0.498	167 561 016
63	50	10	1670	167 561 007	1	0.941	167 561 017
75	65	10	2950	167 561 008	1	2.300	167 561 018
90	80	10	3600	167 561 009	1	3.560	167 561 019
110	100	10	4150	167 561 010	1	5.900	167 561 020

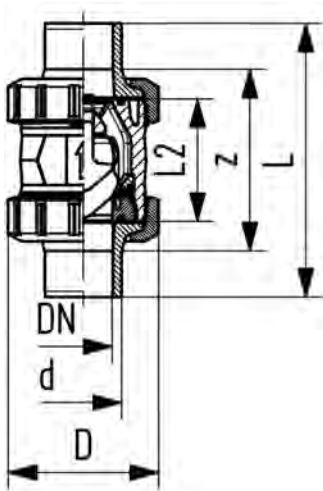
d (mm)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	50	93	56	67	3/8
20	50	95	56	66	1/2
25	58	109	65	77	3/4
32	68	119	71	83	1
40	84	135	85	99	1 1/4
50	97	147	89	105	1 1/2
63	124	168	101	117	2
75	166	233	136	167	2 1/2
90	200	254	141	180	3
110	238	301	164	215	4



**PROGEF Standard**  
**Check valve type 561**  
**With socket fusion spigots metric**

**Model:**

- Material: PP-H
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	190	<b>167 561 041</b>	1	0.080	<b>167 561 051</b>	1	0.080
20	15	10	180	<b>167 561 042</b>	1	0.090	<b>167 561 052</b>	1	0.090
25	20	10	380	<b>167 561 043</b>	1	0.170	<b>167 561 053</b>	1	0.190
32	25	10	460	<b>167 561 044</b>	1	0.200	<b>167 561 054</b>	1	0.200
40	32	10	850	<b>167 561 045</b>	1	0.340	<b>167 561 055</b>	1	0.350
50	40	10	1080	<b>167 561 046</b>	1	0.510	<b>167 561 056</b>	1	0.510
63	50	10	1670	<b>167 561 047</b>	1	0.940	<b>167 561 057</b>	1	0.950
75	65	10	2950	<b>167 561 048</b>	1	2.360	<b>167 561 058</b>	1	2.370
90	80	10	3600	<b>167 561 049</b>	1	3.730	<b>167 561 059</b>	1	3.750
110	100	10	4150	<b>167 561 050</b>	1	5.960	<b>167 561 060</b>	1	5.980

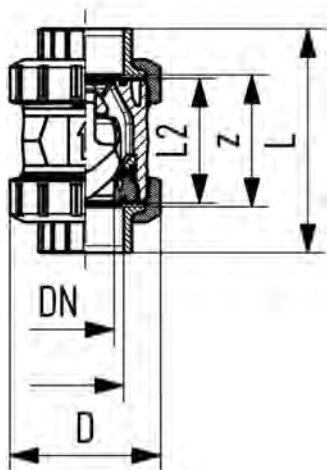
d (mm)	D (mm)	L (mm)	L2 (mm)	closest inch (inch)
16	50	110	56	$\frac{3}{8}$
20	50	120	56	$\frac{1}{2}$
25	58	139	65	$\frac{3}{4}$
32	68	150	71	1
40	84	170	85	$1 \frac{1}{4}$
50	97	190	89	$1 \frac{1}{2}$
63	124	220	101	2
75	166	280	136	$2 \frac{1}{2}$
90	200	296	141	3
110	238	336	164	4



**PROGEF Standard**  
**Check valve type 561**  
**With threaded sockets reinforced Rp**

**Model:**

- Material: PP-H
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



Rp (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
3/8	10	10	190	<b>167 561 021</b>	1	0.080	<b>167 561 031</b>	1	0.080
1/2	15	10	180	<b>167 561 022</b>	1	0.090	<b>167 561 032</b>	1	0.090
3/4	20	10	380	<b>167 561 023</b>	1	0.170	<b>167 561 033</b>	1	0.180
1	25	10	460	<b>167 561 024</b>	1	0.200	<b>167 561 034</b>	1	0.210
1 1/4	32	10	850	<b>167 561 025</b>	1	0.350	<b>167 561 035</b>	1	0.360
1 1/2	40	10	1080	<b>167 561 026</b>	1	0.500	<b>167 561 036</b>	1	0.510
2	50	10	1670	<b>167 561 027</b>	1	0.920	<b>167 561 037</b>	1	0.920

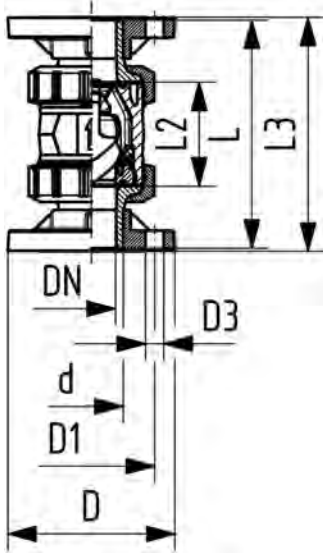
Rp (inch)	D (mm)	L (mm)	L2 (mm)	z (mm)
3/8	50	96	56	69
1/2	50	99	56	67
3/4	58	111	65	78
1	68	127	71	85
1 1/4	84	146	85	100
1 1/2	97	157	89	106
2	124	183	101	121



**PROGEF Standard**  
**Check valve type 561**  
**With fixed flanges metric**

**Model:**

- Material: PP-H
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Installation length according to EN 558-1
- Z-length, end connectors and union nuts **not** compatible with type 360
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10	180	<b>167 561 182</b>	1	0.220	<b>167 561 192</b>
25	20	10	380	<b>167 561 183</b>	1	0.340	<b>167 561 193</b>
32	25	10	460	<b>167 561 184</b>	1	0.440	<b>167 561 194</b>
40	32	10	850	<b>167 561 185</b>	1	0.730	<b>167 561 195</b>
50	40	10	1080	<b>167 561 186</b>	1	0.970	<b>167 561 196</b>
63	50	10	1670	<b>167 561 187</b>	1	1.600	<b>167 561 197</b>

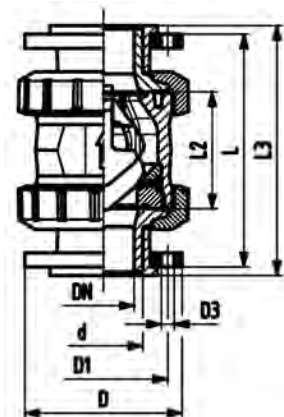
d (mm)	D (mm)	D1 (mm)	D3 (mm)	L (mm)	L2 (mm)	L3 (mm)	closest inch (inch)
20	95	65	14	120	56	130	½
25	105	75	14	140	65	150	¾
32	115	85	14	150	71	160	1
40	140	100	18	170	85	180	1 ¼
50	150	110	18	190	89	200	1 ½
63	165	125	18	220	101	230	2



**PROGEF Standard**  
**Check valve type 561**  
**With backing flanges PP-st metric**

**Model:**

- Material: PP-H
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
75	65	10	2950	<b>167 561 428</b>	1	4.710	<b>167 561 438</b>
90	80	10	3600	<b>167 561 429</b>	1	6.850	<b>167 561 439</b>
110	100	10	4150	<b>167 561 430</b>	1	9.280	<b>167 561 440</b>

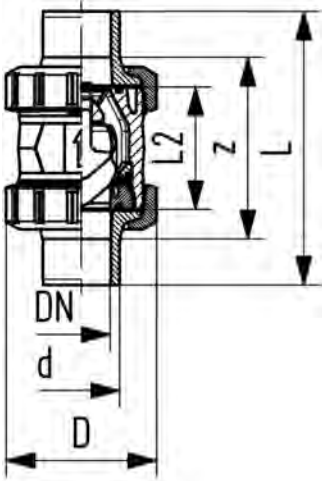
d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
75	166	145	18	149	85	280	270	136	290	70	64	206	M8	1 ¼
90	200	160	18	161	105	296	270	141	310	70	64	206	M8	1 ½
110	238	180	18	178	123	336	320	164	350	120	64	256	M12	2



**PROGEF Standard**  
**Check valve type 561**  
**With butt fusion spigots**  
**SDR17,6 metric**

**Model:**

- Material: PP-H
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
50	40	10	1080	<b>167 561 066</b>	1	0.510	<b>167 561 076</b>
63	50	10	1670	<b>167 561 067</b>	1	0.940	<b>167 561 077</b>
75	65	10	2950	<b>167 561 068</b>	1	2.340	<b>167 561 078</b>
90	80	10	3600	<b>167 561 069</b>	1	3.650	<b>167 561 079</b>
110	100	10	4150	<b>167 561 070</b>	1	5.790	<b>167 561 080</b>

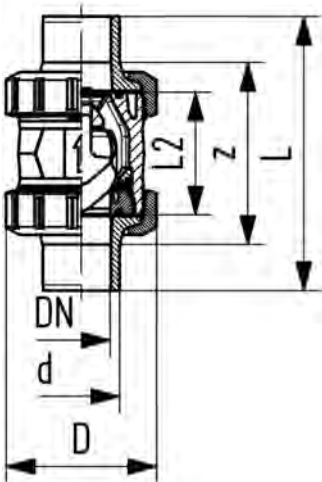
d (mm)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
50	97	191	89	2.9	1 ½
63	124	220	101	3.6	2
75	166	266	136	4.7	2 ½
90	200	264	141	5.5	3
110	238	301	164	6.8	4



**PROGEF Standard**  
**Check valve type 561**  
**With butt fusion spigots IR-Plus**  
**SDR11 metric**

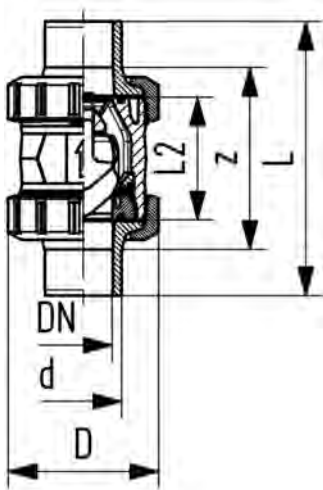
**Model:**

- Material: PP-H
- Ball is sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10	180	<b>167 561 082</b>	1	0.080	<b>167 561 092</b>
25	20	10	380	<b>167 561 083</b>	1	0.170	<b>167 561 093</b>
32	25	10	460	<b>167 561 084</b>	1	0.203	<b>167 561 094</b>
40	32	10	850	<b>167 561 085</b>	1	0.340	<b>167 561 095</b>
50	40	10	1080	<b>167 561 086</b>	1	0.523	<b>167 561 096</b>
63	50	10	1670	<b>167 561 087</b>	1	0.989	<b>167 561 097</b>
75	65	10	2950	<b>167 561 088</b>	1	2.350	<b>167 561 098</b>
90	80	10	3600	<b>167 561 089</b>	1	3.660	<b>167 561 099</b>
110	100	10	4150	<b>167 561 090</b>	1	5.810	<b>167 561 100</b>

table continued on the next page



d (mm)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	50	130	56	1.9	½
25	58	143	65	2.3	¾
32	68	150	71	2.9	1
40	84	171	85	3.7	1 ¼
50	97	191	89	4.6	1 ½
63	124	220	101	5.8	2
75	166	266	136	6.8	2 ½
90	200	264	141	8.2	3
110	238	301	164	10.0	4

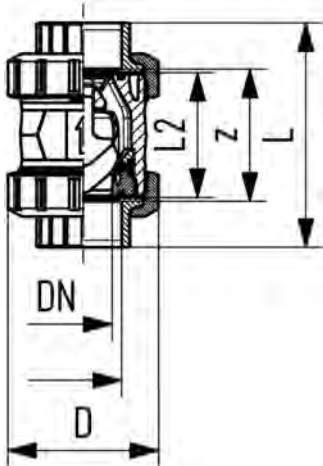
## Type 562



### PROGEF Standard Check valve type 562 With threaded sockets reinforced Rp

#### Model:

- Material: PP-H
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



Rp (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
¾	10	10	190	<b>167 562 021</b>	1	0.080	<b>167 562 031</b>
½	15	10	180	<b>167 562 022</b>	1	0.090	<b>167 562 032</b>
¾	20	10	380	<b>167 562 023</b>	1	0.170	<b>167 562 033</b>
1	25	10	460	<b>167 562 024</b>	1	0.200	<b>167 562 034</b>
1 ¼	32	10	850	<b>167 562 025</b>	1	0.350	<b>167 562 035</b>
1 ½	40	10	1080	<b>167 562 026</b>	1	0.500	<b>167 562 036</b>
2	50	10	1670	<b>167 562 027</b>	1	0.920	<b>167 562 037</b>

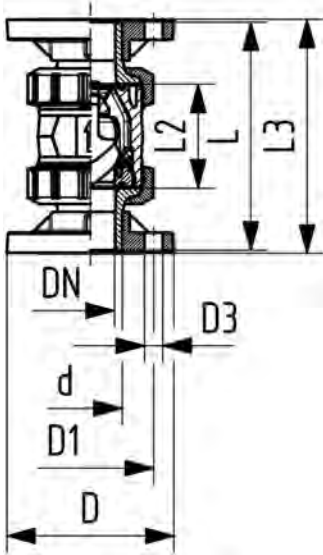
Rp (inch)	D (mm)	L (mm)	L2 (mm)	z (mm)
¾	50	96	56	69
½	50	99	56	67
¾	58	111	65	78
1	68	127	71	85
1 ¼	84	146	85	100
1 ½	97	157	89	106
2	124	183	101	121



**PROGEF Standard**  
**Check valve type 562**  
**With fixed flanges metric**

**Model:**

- Material: PP-H
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Installation length according to EN 558-1
- Z-length, end connectors and union nuts **not** compatible with type 360
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	10	180	<b>167 562 182</b>	1	0.220	<b>167 562 192</b>	1	0.220
25	20	10	380	<b>167 562 183</b>	1	0.340	<b>167 562 193</b>	1	0.350
32	25	10	460	<b>167 562 184</b>	1	0.440	<b>167 562 194</b>	1	0.440
40	32	10	850	<b>167 562 185</b>	1	0.730	<b>167 562 195</b>	1	0.730
50	40	10	1080	<b>167 562 186</b>	1	0.970	<b>167 562 196</b>	1	0.970
63	50	10	1670	<b>167 562 187</b>	1	1.600	<b>167 562 197</b>	1	1.600

d (mm)	D (mm)	D1 (mm)	D3 (mm)	L (mm)	L2 (mm)	L3 (mm)	closest inch (inch)
20	95	65	14	120	56	130	½
25	105	75	14	140	65	150	¾
32	115	85	14	150	71	160	1
40	140	100	18	170	85	180	1 ¼
50	150	110	18	190	89	200	1 ½
63	165	125	18	220	101	230	2

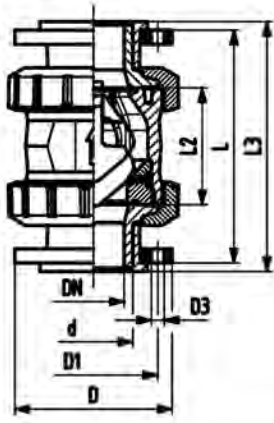




**PROGEF Standard**  
**Check valve type 562**  
**With backing flanges PP-st metric**

**Model:**

- Material: PP-H
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501



d	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
			(l/min)						
75	65	10	2950	167 562 428	1	4.710	167 562 438	1	4.720
90	80	10	3600	167 562 429	1	6.850	167 562 439	1	6.860
110	100	10	4150	167 562 430	1	9.280	167 562 440	1	9.300

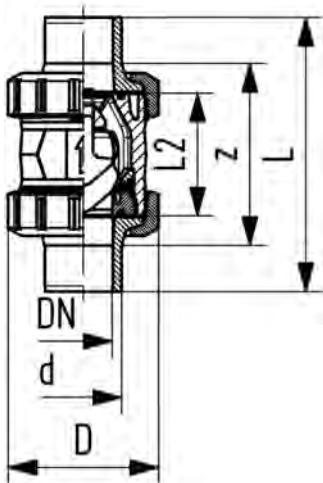
d	D	D1	D3	H	H1	L	L1	L2	L3	L4	L5	L6	M	closest
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		inch
														(inch)
75	166	145	18	149	85	280	270	136	290	70	64	206	M8	1 ¼
90	200	160	18	161	105	296	270	141	310	70	64	206	M8	1 ½
110	238	180	18	178	123	336	320	164	350	120	64	256	M12	2



**PROGEF Standard**  
**Check valve type 562**  
**With butt fusion spigots**  
**SDR17,6 metric**

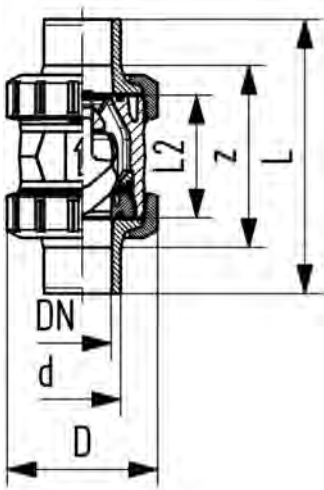
**Model:**

- Material: PP-H
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100



d	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
			(l/min)						
50	40	10	1080	167 562 066	1	0.510	167 562 076	1	0.510
63	50	10	1670	167 562 067	1	0.940	167 562 077	1	0.940
75	65	10	2950	167 562 068	1	2.340	167 562 078	1	2.360
90	80	10	3600	167 562 069	1	3.650	167 562 079	1	3.670
110	100	10	4150	167 562 070	1	5.790	167 562 080	1	5.820

table continued on the next page



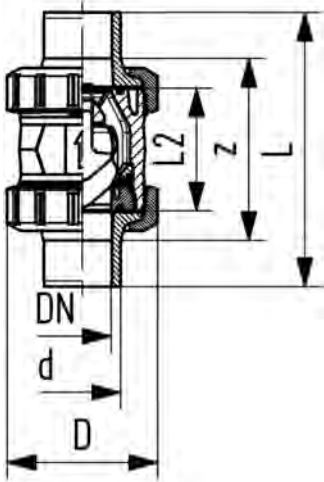
d (mm)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
50	97	191	89	2.9	1 ½
63	124	220	101	3.6	2
75	166	266	136	4.7	2 ½
90	200	264	141	5.5	3
110	238	301	164	6.8	4



**PROGEF Standard**  
**Check valve type 562**  
 With butt fusion spigots IR-Plus  
 SDR11 metric

**Model:**

- Material: PP-H
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10	180	<b>167 562 082</b>	1	0.080	<b>167 562 092</b>
25	20	10	380	<b>167 562 083</b>	1	0.170	<b>167 562 093</b>
32	25	10	460	<b>167 562 084</b>	1	0.190	<b>167 562 094</b>
40	32	10	850	<b>167 562 085</b>	1	0.340	<b>167 562 095</b>
50	40	10	1080	<b>167 562 086</b>	1	0.490	<b>167 562 096</b>
63	50	10	1670	<b>167 562 087</b>	1	0.930	<b>167 562 097</b>
75	65	10	2950	<b>167 562 088</b>	1	2.350	<b>167 562 098</b>
90	80	10	3600	<b>167 562 089</b>	1	3.660	<b>167 562 099</b>
110	100	10	4150	<b>167 562 090</b>	1	5.810	<b>167 562 100</b>

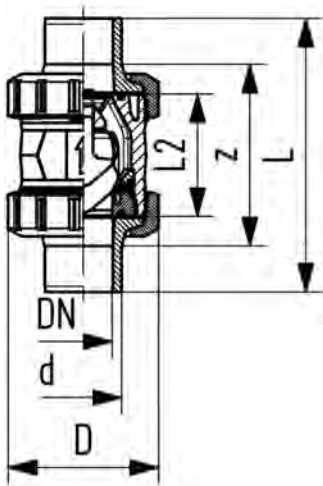
d (mm)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	50	130	56	1.9	¾
25	58	143	65	2.3	1
32	68	150	71	2.9	1 ¼
40	84	171	85	3.7	1 ½
50	97	191	89	4.6	2
63	124	220	101	5.8	2 ½
75	166	266	136	6.8	3
90	200	264	141	8.2	4
110	238	301	164	10.0	



**PROGEF Standard**  
**Check valve type 562**  
**With socket fusion spigots metric**

**Model:**

- Material: PP-H
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
16	10	10	190	<b>167 562 041</b>	1	0.080	<b>167 562 051</b>
20	15	10	180	<b>167 562 042</b>	1	0.090	<b>167 562 052</b>
25	20	10	380	<b>167 562 043</b>	1	0.170	<b>167 562 053</b>
32	25	10	460	<b>167 562 044</b>	1	0.200	<b>167 562 054</b>
40	32	10	850	<b>167 562 045</b>	1	0.340	<b>167 562 055</b>
50	40	10	1080	<b>167 562 046</b>	1	0.510	<b>167 562 056</b>
63	50	10	1670	<b>167 562 047</b>	1	0.940	<b>167 562 057</b>
75	65	10	2950	<b>167 562 048</b>	1	2.360	<b>167 562 058</b>
90	80	10	3600	<b>167 562 049</b>	1	3.730	<b>167 562 059</b>
110	100	10	4150	<b>167 562 050</b>	1	5.960	<b>167 562 060</b>

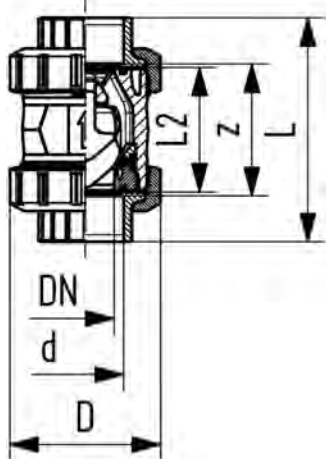
d (mm)	D (mm)	L (mm)	L2 (mm)	closest inch (inch)
16	50	110	56	$\frac{3}{8}$
20	50	120	56	$\frac{1}{2}$
25	58	139	65	$\frac{3}{4}$
32	68	150	71	1
40	84	170	85	1 $\frac{1}{4}$
50	97	190	89	1 $\frac{1}{2}$
63	124	220	101	2
75	166	280	136	2 $\frac{1}{2}$
90	200	296	141	3
110	238	336	164	4



**PROGEF Standard**  
**Check valve type 562**  
**With fusion sockets metric**

**Model:**

- Material: PP-H
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100

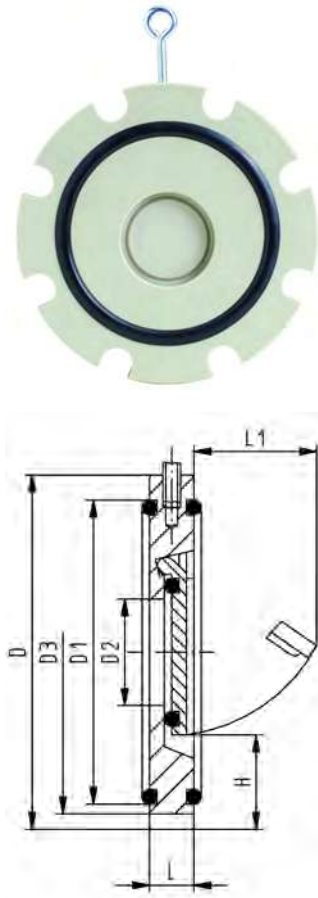


d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	190	167 562 001	1	0.080	167 562 011	1	0.080
20	15	10	180	167 562 002	1	0.080	167 562 012	1	0.080
25	20	10	380	167 562 003	1	0.170	167 562 013	1	0.180
32	25	10	460	167 562 004	1	0.190	167 562 014	1	0.190
40	32	10	850	167 562 005	1	0.330	167 562 015	1	0.340
50	40	10	1080	167 562 006	1	0.480	167 562 016	1	0.480
63	50	10	1670	167 562 007	1	0.880	167 562 017	1	0.880
75	65	10	2950	167 562 008	1	2.300	167 562 018	1	2.310
90	80	10	3600	167 562 009	1	3.560	167 562 019	1	3.580
110	100	10	4150	167 562 010	1	5.900	167 562 020	1	5.930

d (mm)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	50	93	56	67	¾
20	50	95	56	66	½
25	58	109	65	77	¾
32	68	119	71	83	1
40	84	135	85	99	1 ¼
50	97	147	89	105	1 ½
63	124	168	101	117	2
75	166	233	136	167	2 ½
90	200	254	141	180	3
110	238	301	164	215	4

# Wafer check valves

## Type 369



### PROGEF Standard Wafer check valve type 369 Without spring

#### Model:

- Material: PP-H
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

#### Installation instruction:

- Installation between ISO/DIN (all dimensions) and ANSI flange adaptors (all except DN32 and DN125)
- Installation with ANSI flange adaptor: for wafer check valves DN40 to DN80 you have to use ANSI flange adaptors with the next bigger dimension (example DN40 wafer check valve between DN50 ANSI flange adaptor)
- Centering by body diameter (ISO/DIN by D3, ANSI by D)
- It is necessary to use a special outlet flange adaptor PP or PE on the outgoing side of the wafer check valve
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed
- Wafer check valves without reset spring are not recommended for pulsating flows (production of noise)

d (mm)	DN (mm)	PN (bar)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
40	32	10	167 369 002	1	0.070	167 369 022	1	0.084
50	40	10	167 369 003	1	0.099	167 369 023	1	0.110
63	50	10	167 369 004	1	0.143	167 369 024	1	0.159
75	65	10	167 369 005	1	0.218	167 369 025	1	0.232
90	80	10	167 369 006	1	0.272	167 369 026	1	0.264
110	100	10	167 369 007	1	0.378	167 369 027	1	0.405
140	125	10	167 369 009	1	0.532	167 369 029	1	0.594
160	150	6	167 369 010	1	0.754	167 369 030	1	0.805
225	200	6	167 369 011	1	1.409	167 369 031	1	1.400
280	250	6	167 369 012	1	2.201	167 369 032	1	2.524
315	300	6	167 369 013	1	3.671	167 369 033	1	3.520

d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	L (mm)	L1 (mm)	Opening pressure vertical (mbar)	Opening pressure horizontal (mbar)	closest inch (inch)	Minimum water col- umn for sealing (m)
40	85	59	18	85	25	15	22	10	1	1 ¼	3
50	105	72	22	95	28	16	27	10	1	1 ½	3
63	124	86	32	109	29	18	40	10	1	2	3
75	137	105	40	129	31	20	55	10	1	2 ½	3
90	175	119	54	144	32	20	67	10	1	3	3
110	175	146	70	164	31	23	67	10	1	4	3
140	195	173	92	195	35	23	94	10	1	5	3
160	222	197	105	220	42	26	100	10	1	6	3
225	279	255	154	275	38	35	152	18	1	8	3
280	340	312	192	330	41	40	180	18	1	10	3
315	410	363	227	380	41	45	215	18	1	12	3



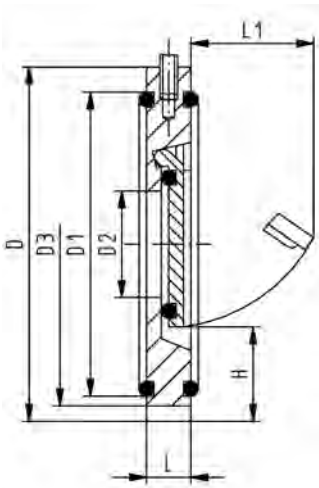
**PROGEF Standard**  
**Wafer check valve type 369**  
**With Hastelloy C spring**

**Model:**

- Material: PP-H
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

**Installation instruction:**

- Installation between ISO/DIN (all dimensions) and ANSI flange adaptors (all except DN32 and DN125)
- Installation with ANSI flange adaptor: for wafer check valves DN40 to DN80 you have to use ANSI flange adaptors with the next bigger dimension (example DN40 wafer check valve between DN50 ANSI flange adaptor)
- Centering by body diameter (ISO/DIN by D3, ANSI by D)
- It is necessary to use a special outlet flange adaptor PP or PE on the outgoing side of the wafer check valve
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed



d (mm)	DN (mm)	PN (bar)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
40	32	10	167 369 082	1	0.090	167 369 102	1	0.090
50	40	10	167 369 083	1	0.096	167 369 103	1	0.097
63	50	10	167 369 084	1	0.170	167 369 104	1	0.170
75	65	10	167 369 085	1	0.220	167 369 105	1	0.220
90	80	10	167 369 086	1	0.272	167 369 106	1	0.264
110	100	10	167 369 087	1	0.366	167 369 107	1	0.370
140	125	10	167 369 089	1	0.529	167 369 109	1	0.500
160	150	6	167 369 090	1	0.762	167 369 110	1	0.760
225	200	6	167 369 091	1	0.535	167 369 111	1	1.400
280	250	6	167 369 092	1	2.400	167 369 112	1	2.400
315	300	6	167 369 093	1	3.520	167 369 113	1	3.520

d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	L (mm)	L1 (mm)	Opening pressure vertical (mbar)	Opening pressure horizontal (mbar)	closest inch (inch)	Minimum water col- umn for sealing (m)
40	85	59	18	85	25	15	22	30	20	1 ¼	3
50	105	72	22	95	28	16	27	30	20	1 ½	3
63	124	86	32	109	29	18	40	30	20	2	3
75	137	105	40	129	31	20	55	30	20	2 ½	3
90	175	119	54	144	32	20	67	30	20	3	3
110	175	146	70	164	31	23	67	30	20	4	3
140	195	173	92	195	35	23	94	30	20	5	3
160	222	197	105	220	42	26	100	30	20	6	3
225	279	255	154	275	38	35	152	38	20	8	3
280	340	312	192	330	41	40	180	38	20	10	3
315	410	363	227	380	41	45	215	38	20	12	3



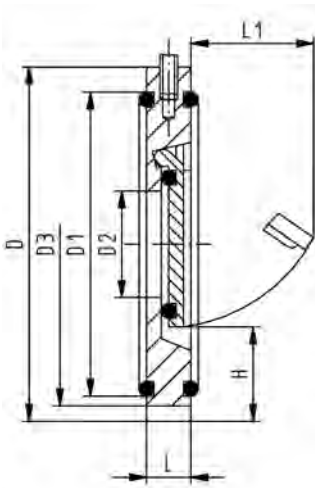
**PROGEF Standard**  
**Wafer check valve type 369**  
**With V4A spring (stainless steel 316)**

**Model:**

- Material: PP-H
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

**Installation instruction:**

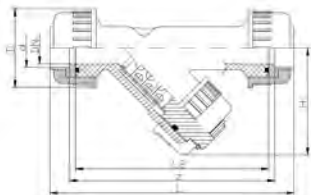
- Installation between ISO/DIN (all dimensions) and ANSI flange adaptors (all except DN32 and DN125)
- Installation with ANSI flange adaptor: for wafer check valves DN40 to DN80 you have to use ANSI flange adaptors with the next bigger dimension (example DN40 wafer check valve between DN50 ANSI flange adaptor)
- Centering by body diameter (ISO/DIN by D3, ANSI by D)
- It is necessary to use a special outlet flange adaptor PP or PE on the outgoing side of the wafer check valve
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed



d (mm)	DN (mm)	PN (bar)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
40	32	10	167 369 042	1	0.090	167 369 062	1	0.071
50	40	10	167 369 043	1	0.095	167 369 063	1	0.100
63	50	10	167 369 044	1	0.141	167 369 064	1	0.170
75	65	10	167 369 045	1	0.218	167 369 065	1	0.245
90	80	10	167 369 046	1	0.260	167 369 066	1	0.260
110	100	10	167 369 047	1	0.375	167 369 067	1	0.370
140	125	10	167 369 049	1	0.535	167 369 069	1	0.500
160	150	6	167 369 050	1	0.740	167 369 070	1	0.740
225	200	6	167 369 051	1	1.376	167 369 071	1	1.400
280	250	6	167 369 052	1	2.345	167 369 072	1	2.400
315	300	6	167 369 053	1	3.520	167 369 073	1	3.520

d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	L (mm)	L1 (mm)	Opening pressure vertical (mbar)	Opening pressure horizontal (mbar)	closest inch (inch)	Minimum water col- umn for sealing (m)
40	85	59	18	85	25	15	22	30	20	1 ¼	3
50	105	72	22	95	28	16	27	30	20	1 ½	3
63	124	86	32	109	29	18	40	30	20	2	3
75	137	105	40	129	31	20	55	30	20	2 ½	3
90	175	119	54	144	32	20	67	30	20	3	3
110	175	146	70	164	31	23	67	30	20	4	3
140	195	173	92	195	35	23	94	30	20	5	3
160	222	197	105	220	42	26	100	30	20	6	3
225	279	255	154	275	38	35	152	38	20	8	3
280	340	312	192	330	41	40	180	38	20	10	3
315	410	363	227	380	41	45	215	38	20	12	3

# Strainers



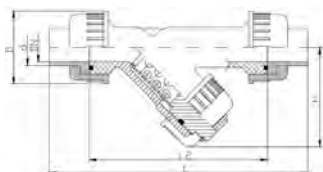
## PROGEF Standard Line strainer type 305 With fusion sockets metric

### Model:

- Material: PP-H
- Protects valves, pumps, etc. from becoming soiled
- Easy dismantling for cleaning the screens
- Screen perforation 0.5 mm
- For easy installation and removal
- Overall length according to EN 558

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	10	35	167 305 000	1	0.209	167 305 049	1	0.214
25	20	10	65	167 305 050	1	0.256	167 305 099	1	0.257
32	25	10	90	167 305 100	1	0.329	167 305 149	1	0.327
40	32	10	155	167 305 150	1	0.579	167 305 199	1	0.586
50	40	10	225	167 305 200	1	0.758	167 305 249	1	0.748
63	50	10	370	167 305 250	1	1.188	167 305 299	1	1.185

d (mm)	D (mm)	H (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
20	52	75	168	130	140	½
25	62	80	192	150	160	¾
32	68	90	206	160	170	1
40	85	110	230	180	190	1 ¼
50	85	125	256	200	210	1 ½
63	102	150	294	230	240	2



## PROGEF Standard Line strainers type 305 With butt fusion spigots IR-Plus SDR11 metric

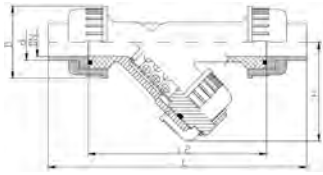
### Model:

- Material: PP-H
- Protects valves, pumps, etc. from becoming soiled
- Easy dismantling for cleaning the screens
- Screen perforation 0.5 mm
- For easy installation and removal
- Overall length according to EN 558

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
20	15	10	35	167 305 300	0.218	167 305 349	0.219
25	20	10	65	167 305 350	0.267	167 305 399	0.268
32	25	10	90	167 305 400	0.353	167 305 449	0.354
40	32	10	155	167 305 450	0.616	167 305 499	0.623
50	40	10	225	167 305 500	0.805	167 305 549	0.816
63	50	10	370	167 305 550	1.282	167 305 599	1.295

table continued on the next page






















<b>d</b> (mm)	<b>D</b> (mm)	<b>H</b> (mm)	<b>L</b> (mm)	<b>L2</b> (mm)	<b>e</b> (mm)	<b>closest inch</b> (inch)
20	52	75	238	130	1.9	½
25	62	80	264	150	2.3	¾
32	68	90	280	160	3.0	1
40	85	110	306	180	3.7	1 ¼
50	85	125	332	200	4.6	1 ½
63	102	150	368	230	5.8	2

# PROGEF Standard ASTM / ANSI



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Diaphragm valves DIASTAR big dimensions

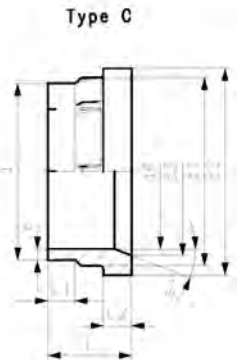
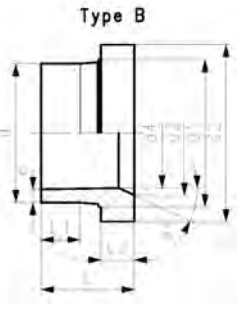
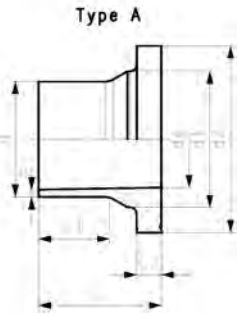
315



Cone check valves

317

# Butt fusion fittings



**PROGEF Standard flange adaptor S5/SDR11 (PN10) ANSI**  
**Combined jointing face: flat and serrated**

**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR compatible. Choose fusion parameters: PP-H
- Suitable for flange connections to **ANSI/ASME B 16.5**
- Up to d315, suitable for butterfly valve type 567/578 and 038/039. Above use PROGEF Standard adaptor for butterfly valves SDR11 (d355-d500)
- Gasket: profile flange gasket EPDM No. 48 44 07, FKM No. 49 44 07
- \* Material: PP-R, not suitable for butterfly valves

d (mm)	DN (mm)	FM	Code	Weight (kg)
20	15	IR	<b>727 798 706</b>	0.015
25	20	IR	<b>727 798 757</b>	0.022
32	25	IR	<b>727 798 758</b>	0.039
40	32	IR	<b>727 798 759</b>	0.056
50	40	IR	<b>727 798 760</b>	0.087
63	50	IR	<b>727 798 711</b>	0.144
75	65	IR	<b>727 798 712</b>	0.243
90	80	IR	<b>727 798 763</b>	0.310
110	100	IR	<b>727 798 714</b>	0.441
125	100	IR	<b>727 798 715</b>	0.520
140	125	IR	<b>727 798 716</b>	0.800
160	150	IR	<b>727 798 317</b>	0.927
180	150	IR	<b>727 798 318</b>	1.026
200	200	IR	<b>727 798 319</b>	1.652
225	200	IR	<b>727 798 320</b>	1.665
250	250		<b>727 798 321</b>	2.630
280	250		<b>727 798 322</b>	2.521
315	300		<b>727 798 323</b>	3.247
*	355	350	<b>727 798 324</b>	6.600
*	400	400	<b>727 798 325</b>	9.100
*	450	500	<b>727 798 326</b>	17.300
*	500	500	<b>727 798 327</b>	18.400

d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	Type	a°	
26	45		16	50	29	7	1.9	A		
33	54		20	52	27	9	2.3	A		
40	63		26	54	28	10	3.0	A		
50	73		32	55	25	11	3.7	A		
61	82		40	62	32	12	4.6	A		
75	102		51	68	38	14	5.8	A		
89	122	66	61	80	43	16	6.8	B	30	
105	133	78	70	80	42	17	8.2	B	30	
125	158	100	90	80	40	18	10.0	B	30	
132	158	114	102	82	35	25	11.4	B	25	
155	188	127	114	89	39	25	12.8	B	27	
175	212	151	127	92	40	25	14.6	C	30	
180	212	154	148	92	40	30	17.4	B	30	
232	268	203	174	100	35	32	19.3	C	30	
235	268	210	196	100	35	32	21.7	C	30	
285	320	252	203	120	45	35	24.0	C	25	
291	320	265	228	120	45	37	26.8	C	30	
335	370	300	256	150	50	50	30.2	C	22	
*	373	430	342	284	162	70	40	33.9	C	45
*	427	482	387	320	172	70	46	38.2	C	45
*	514	585	400	360	225	105	60	43.0	C	15
*	530	585	442	400	231	105	60	47.8	C	15

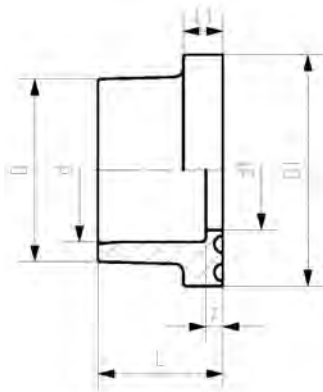
# Socket fusion fittings



## PROGEF Standard flange adaptor (PN10) Joining face serrated ANSI

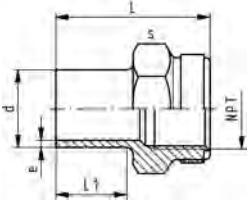
### Model:

- Material: PP-H
- Counterpart: flange adaptor serrated
- Gasket: profile flange gasket EPDM No. 48 44 05, FKM No. 49 44 05
- Flanges: PP - steel, No. 27 70 02, PP-V, No 27 70 04



d (mm)	DN (mm)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	D (mm)	D1 (mm)	d1 (mm)	z (mm)
20	15	<b>727 790 206</b>	10	0.011	19	7	27	45	16	5
25		<b>727 790 257</b>	10	0.018	21	7	33	54	21	5
32		<b>727 790 258</b>	10	0.026	23	7	41	63	28	5
40		<b>727 790 259</b>	10	0.041	25	8	50	73	36	5
50		<b>727 790 260</b>	5	0.055	28	8	61	82	45	5
63	50	<b>727 790 211</b>	5	0.090	32	14	76	102	57	5
75	65	<b>727 790 212</b>	10	0.155	36	16	90	122	69	5
90		<b>727 790 263</b>	10	0.189	36	16	108	133	84	5
110	100	<b>727 790 214</b>	10	0.286	48	18	131	158	100	7

# Adaptor fittings for butt fusion

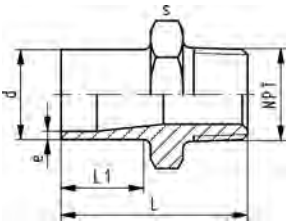


## PROGEF Standard adaptor socket metric NPT (PN10)

### Model:

- Material: PP-H
- With butt fusion spigot **SDR11** and NPT tapered female thread, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d	NPT	FM	Code	SP	Weight	L	L1	s	e
(mm)	(inch)				(kg)	(mm)	(mm)	(mm)	(mm)
20	½	IR	<b>727 914 356</b>	10	0.017	49	23	32	1.9
25	¾	IR	<b>727 914 357</b>	10	0.022	51	23	36	2.3
32	1	IR	<b>727 914 358</b>	10	0.039	54	23	46	2.9
40	1 ¼	IR	<b>727 914 359</b>	10	0.057	56	23	55	3.7
50	1 ½	IR	<b>727 914 360</b>	10	0.085	60	23	65	4.6
63	2	IR	<b>727 914 361</b>	5	0.122	62	23	80	5.8



## PROGEF Standard adaptor nipple metric NPT (PN10)

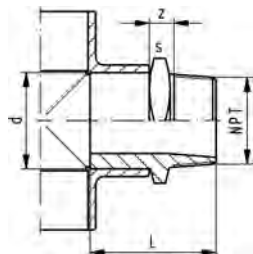
### Model:

- Material: PP-H
- With butt fusion spigot **SDR11** and NPT tapered male thread
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d	NPT	FM	Code	SP	Weight	L	L1	s	e
(mm)	(inch)				(kg)	(mm)	(mm)	(mm)	(mm)
20	½	IR	<b>727 914 656</b>	10	0.013	51	23	32	1.9
25	¾	IR	<b>727 914 657</b>	10	0.026	52	23	36	2.3
32	1	IR	<b>727 914 658</b>	10	0.026	55	23	46	2.9
40	1 ¼	IR	<b>727 914 659</b>	10	0.041	58	24	55	3.7
50	1 ½	IR	<b>727 914 660</b>	10	0.062	60	23	65	4.6
63	2	IR	<b>727 914 661</b>	5	0.097	67	26	80	5.8



# Adaptor fittings for socket fusion

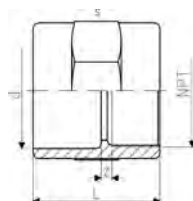


## PROGEF Standard adaptor nipple metric NPT (PN10)

### Model:

- Material: PP-H
- With fusion spigot metric and NPT tapered male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d (mm)	NPT (inch)	Code	SP	Weight (kg)	L (mm)	s (mm)	z (mm)
16	¾	<b>727 914 555</b>	10	0.008	37	27	13
20	½	<b>727 914 556</b>	10	0.013	42	32	13
25	¾	<b>727 914 557</b>	10	0.015	46	36	13
32	1	<b>727 914 558</b>	10	0.026	52	46	12
40	1 ¼	<b>727 914 559</b>	10	0.041	56	55	14
50	1 ½	<b>727 914 560</b>	10	0.061	60	65	15
63	2	<b>727 914 561</b>	5	0.100	69	80	16



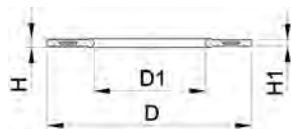
## PROGEF Standard adaptor socket metric NPT (PN10)

### Model:

- Material: PP-H
- With fusion socket metric and NPT tapered female thread, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d (mm)	NPT (inch)	Code	SP	Weight (kg)	L (mm)	s (mm)	z (mm)
20	½	<b>727 914 266</b>	10	0.018	40	32	7
25	¾	<b>727 914 267</b>	10	0.023	42	36	7
32	1	<b>727 914 268</b>	10	0.039	48	46	7
40	1 ¼	<b>727 914 269</b>	10	0.056	53	55	7
50	1 ½	<b>727 914 270</b>	10	0.095	54	65	9
63	2	<b>727 914 271</b>	5	0.145	62	80	9

# Gaskets



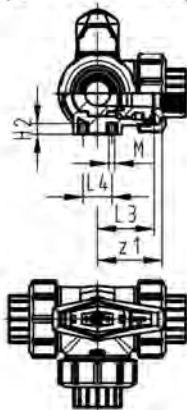
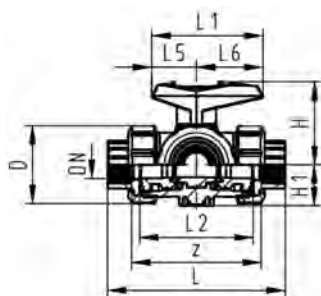
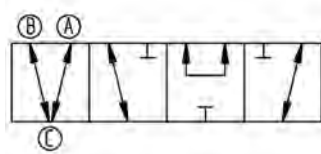
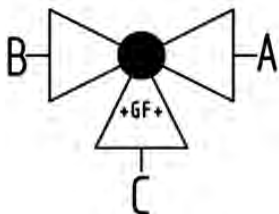
## Profile Flange Gaskets ANSI

### Model:

- Suitable for flanges adaptors PP/PE PVDF
- Hardness: 70° Shore EPDM, 75° Shore FKM
- Centered by the flange bolts
- Dimension D is in accordance with the inner diameter of the bolt circle

d (mm)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)	Inch (inch)	DN (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)
25	<b>748 440 502</b>	0.010	<b>749 440 502</b>	0.011	3/4	20	54	27	4	3
32	<b>748 440 503</b>	0.011	<b>749 440 503</b>	0.023	1	25	64	33	4	3
40	<b>748 440 504</b>	0.017	<b>749 440 504</b>	0.024	1 1/4	32	73	42	4	3
50	<b>748 440 505</b>	0.030	<b>749 440 505</b>	0.030	1 1/2	40	83	48	4	3
63	<b>748 440 506</b>	0.029	<b>749 440 506</b>	0.042	2	50	102	60	5	4
75	<b>748 440 507</b>	0.046	<b>749 440 507</b>	0.068	2 1/2	65	121	73	5	4
90	<b>748 440 508</b>	0.053	<b>749 440 508</b>	0.083	3	80	133	89	5	4
110	<b>748 440 509</b>	0.088	<b>749 440 509</b>	0.139	4	100	171	115	6	5
160 - 180	<b>748 440 512</b>	0.127	<b>749 440 512</b>	0.240	6	150	222	160	8	6
225	<b>748 440 515</b>	0.195	<b>749 440 515</b>	0.316	8	200	279	220	8	6
250	<b>748 440 517</b>	0.243	<b>749 440 517</b>	0.373	10	250	337	273	8	6
315	<b>748 440 518</b>	0.398	<b>749 440 518</b>	0.750	12	300	406	325	8	6
355	<b>748 440 519</b>	0.800	<b>749 440 519</b>	0.800	14	350	448	356	10	7
400	<b>748 440 520</b>	0.900	<b>749 440 520</b>	0.900	16	400	512	406	10	7
450	<b>748 440 521</b>	1.000	<b>749 440 521</b>	1.000	18	450	547	457	10	7
500	<b>748 440 522</b>	1.000	<b>749 440 522</b>	1.000	20	500	604	508	10	7

# Ball valves type 543



**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With threaded sockets reinforced NPT**

**Model:**

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
3/8	10	10	140	<b>167 543 361</b>	0.160	<b>167 543 371</b>	0.160
1/2	15	10	200	<b>167 543 362</b>	0.164	<b>167 543 372</b>	0.164
3/4	20	10	470	<b>167 543 363</b>	0.236	<b>167 543 373</b>	0.236
1	25	10	793	<b>167 543 364</b>	0.357	<b>167 543 374</b>	0.357
1 1/4	32	10	1290	<b>167 543 365</b>	0.609	<b>167 543 375</b>	0.609
1 1/2	40	10	1910	<b>167 543 366</b>	0.898	<b>167 543 376</b>	0.898
2	50	10	3100	<b>167 543 367</b>	1.964	<b>167 543 377</b>	1.744

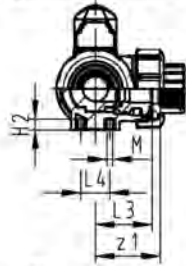
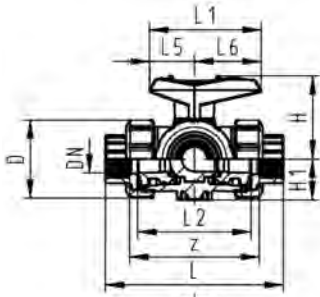
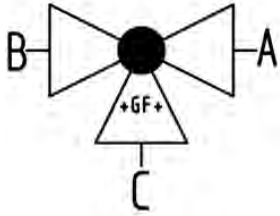
NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	50	57	28	8	112	77	72	36	25	32	45	6	86	43
1/2	50	57	28	8	114	77	72	36	25	32	45	6	80	40
3/4	58	67	32	8	131	97	85	43	25	39	58	6	95	48
1	68	73	36	8	154	97	98	49	25	39	58	6	110	55
1 1/4	84	90	45	9	180	128	118	59	45	54	74	8	132	66
1 1/2	97	97	51	9	203	128	135	68	45	54	74	8	157	79
2	124	116	65	9	258	152	176	88	45	66	87	8	210	105



**PROGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With threaded sockets reinforced NPT**

**Model:**

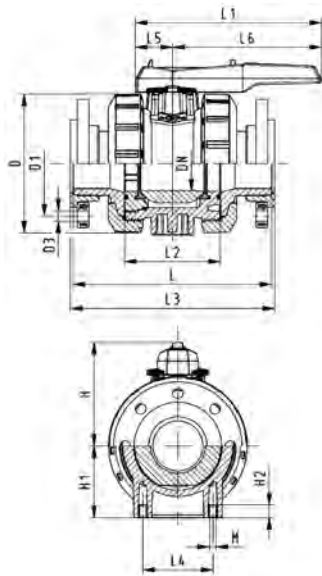
- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme



NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
3/8	10	10	50	<b>167 543 161</b>	0.161	<b>167 543 171</b>	0.161
1/2	15	10	75	<b>167 543 162</b>	0.165	<b>167 543 172</b>	0.165
3/4	20	10	150	<b>167 543 163</b>	0.237	<b>167 543 173</b>	0.237
1	25	10	280	<b>167 543 164</b>	0.361	<b>167 543 174</b>	0.361
1 1/4	32	10	480	<b>167 543 165</b>	0.616	<b>167 543 175</b>	0.616
1 1/2	40	10	620	<b>167 543 166</b>	0.912	<b>167 543 176</b>	0.912
2	50	10	1230	<b>167 543 167</b>	1.773	<b>167 543 177</b>	1.773

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	50	57	28	8	112	77	72	36	25	32	45	6	86	43
1/2	50	57	28	8	114	77	72	36	25	32	45	6	80	40
3/4	58	67	32	8	131	97	85	43	25	39	58	6	95	48
1	68	73	36	8	154	97	98	49	25	39	58	6	110	55
1 1/4	84	90	45	9	180	128	118	59	45	54	74	8	132	66
1 1/2	97	97	51	9	203	128	135	68	45	54	74	8	157	79
2	124	116	65	9	258	152	176	88	45	66	87	8	210	105

# Ball valves type 546



**PROGEF Standard**  
**Ball valve type 546**  
**With mounting inserts**  
**With backing flanges PP-st ANSI**

**Model:**

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

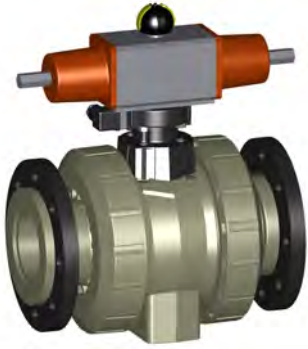
**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF

Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
			(l/min)						
2 1/2	65	10	5000	<b>167 546 868</b>	1	5.098	<b>167 546 878</b>	1	5.864
3	80	10	7000	<b>167 546 869</b>	1	6.400	<b>167 546 879</b>	1	8.291
4	100	10	11000	<b>167 546 870</b>	1	10.000	<b>167 546 880</b>	1	10.314

Size	D	D1	D3	H	H1	L	L1	L2	L3	L4	L5	L6	M	closest
(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		inch
														(inch)
2 1/2	166	145	18	149	85	280	270	136	290	70	64	206	8	2 1/2
3	200	160	18	161	105	296	270	141	310	70	64	206	8	3
4	238	180	18	178	123	336	320	164	350	120	64	256	12	4

# Ball valves pneumatic type 231



**PROGEF Standard**  
**Ball valve type 231 FC (Fail safe to close)**  
**Without manual override**  
**With backing flanges PP-st ASTM**

**Model:**

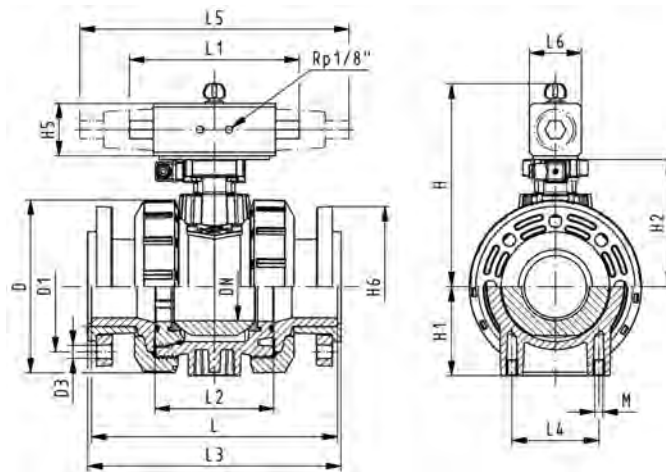
- Material: PP-H
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

**Option:**

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(L/min)						
75	2 1/2	65	10	5000	199 231 729	1	10.900	199 231 739	1	10.900
90	3	80	10	7000	199 231 730	1	13.600	199 231 740	1	13.600
110	4	100	10	11000	199 231 731	1	19.800	199 231 741	1	19.800

d	D	H	H1	H2	H5	H6	L	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	115	336	164	350	120	369	80





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 FC (Fail safe to close)**  
**Without manual override**  
**With threaded sockets reinforced NPT**

**Model:**

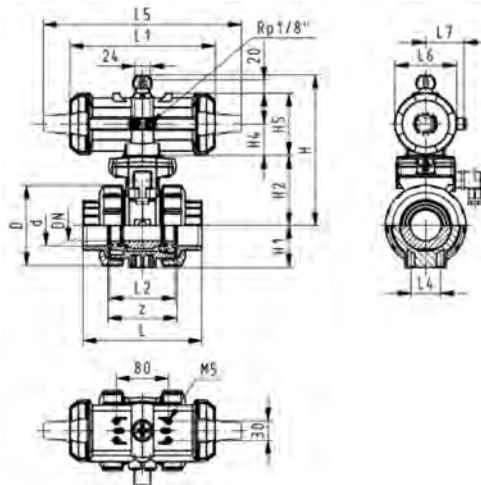
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

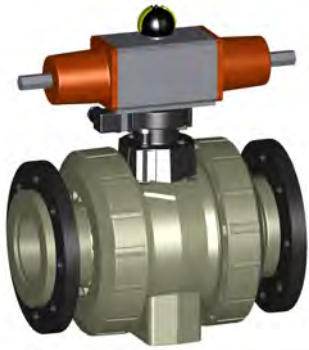
**Option:**

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
3/8	10	10	70	199 231 562	1	1.200	199 231 572	1	1.200
1/2	15	10	185	199 231 563	1	1.200	199 231 573	1	1.200
3/4	20	10	350	199 231 564	1	1.300	199 231 574	1	1.300
1	25	10	700	199 231 565	1	1.400	199 231 575	1	1.400
1 1/4	32	10	1000	199 231 566	1	2.500	199 231 576	1	2.500
1 1/2	40	10	1600	199 231 567	1	2.800	199 231 577	1	2.800
2	50	10	3100	199 231 568	1	3.700	199 231 578	0	3.885

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
3/8	50	159	27	62	168	40	77	96	194	56	25	261	76	48	71
1/2	50	159	27	62	168	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	168	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	100
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	134





**PROGEF Standard**  
**Ball valve type 231 FO (Fail safe to open)**  
**Without manual override**  
**With backing flanges PP-st Inch ANSI**

**Model:**

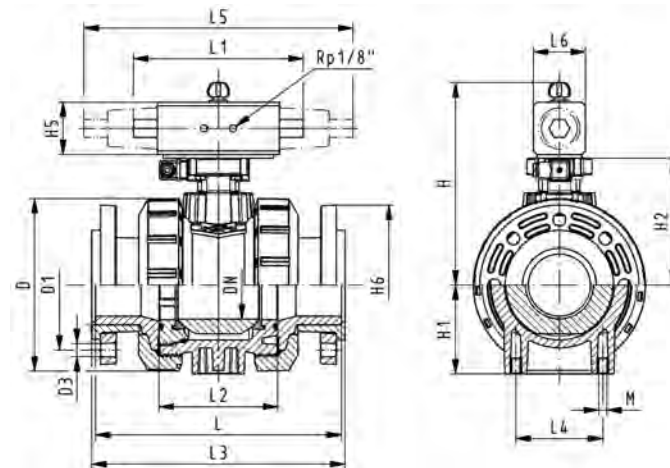
- Material: PP-H
- Control time  $90^\circ <$  1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

**Option:**

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
75	2 1/2	65	10	5000	<b>199 231 749</b>	1	10.900	<b>199 231 759</b>	1	10.900
90	3	80	10	7000	<b>199 231 750</b>	1	13.600	<b>199 231 760</b>	1	13.600
110	4	100	10	11000	<b>199 231 751</b>	1	19.800	<b>199 231 761</b>	1	19.800

d	D	H	H1	H2	H5	H6	L	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	115	336	164	350	120	369	80







**PROGEF Standard**  
**Ball valve type 231 DA (Double acting)**  
**Without manual override**  
**With backing flanges PP-st Inch ANSI**

**Model:**

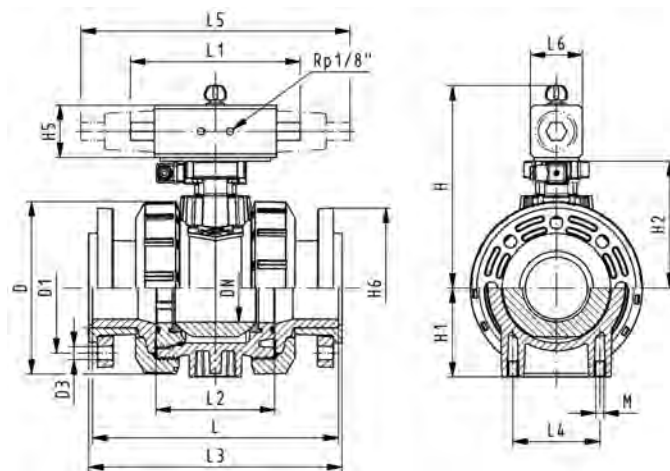
- Material: PP-H
- Control time  $90^\circ <$  1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

**Option:**

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(L/min)						
75	2 ½	65	10	5000	<b>199 231 769</b>	1	9.700	<b>199 231 779</b>	1	9.700
90	3	80	10	7000	<b>199 231 770</b>	1	13.000	<b>199 231 780</b>	1	13.000
110	4	100	10	11000	<b>199 231 771</b>	1	18.000	<b>199 231 781</b>	1	18.000

d	D	H	H1	H2	H5	H6	L	L1	L2	L3	L4	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
75	166	257	85	156	66	93	280	144	136	290	70	60
90	200	274	105	168	70	100	296	152	141	310	70	65
110	238	273	123	175	78	115	336	169	164	350	120	72





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 DA (Double acting)**  
**Without manual override**  
**With threaded sockets reinforced NPT**

**Model:**

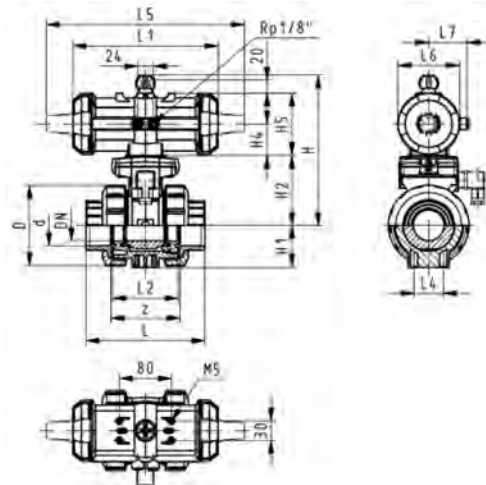
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
			(L/min)						
3/8	10	10	70	199 231 602	0	1.200	199 231 612	0	1.200
1/2	15	10	185	199 231 603	0	1.200	199 231 613	0	1.200
3/4	20	10	350	199 231 604	0	1.300	199 231 614	0	1.790
1	25	10	700	199 231 605	0	1.400	199 231 615	0	1.400
1 1/4	32	10	1000	199 231 606	0	2.500	199 231 616	0	2.500
1 1/2	40	10	1600	199 231 607	0	2.800	199 231 617	0	2.800
2	50	10	3100	199 231 608	0	3.700	199 231 618	0	3.700

Size	D	H	H1	H2	H3	H4	H5	L	L1	L2	L4	L5	L6	L7	z
(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
3/8	50	159	27	62	168	40	77	96	194	56	25	261	76	48	71
1/2	50	159	27	62	168	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	168	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	100
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	134





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 FC (Fail safe to close)**  
**With manual override**  
**With threaded sockets reinforced NPT**

**Model:**

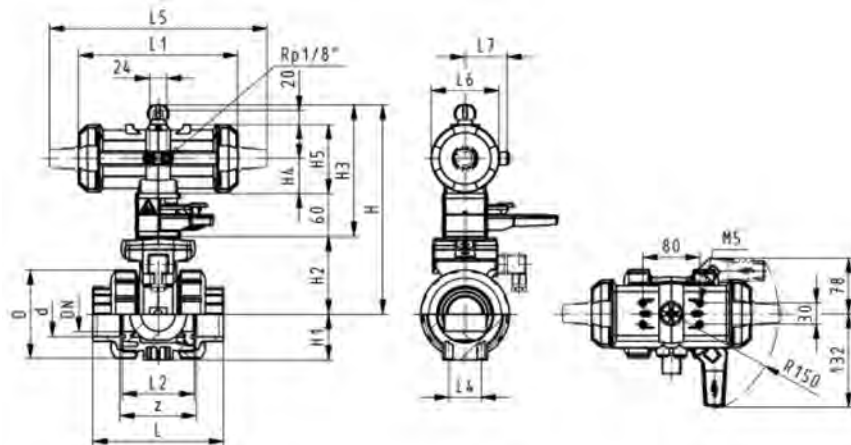
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
			(L/min)						
3/8	10	10	70	199 231 502	1	1.500	199 231 512	0	1.500
1/2	15	10	185	199 231 503	1	1.500	199 231 513	0	1.500
3/4	20	10	350	199 231 504	1	1.600	199 231 514	0	1.600
1	25	10	700	199 231 505	1	2.105	199 231 515	1	2.405
1 1/4	32	10	1000	199 231 506	1	2.800	199 231 516	0	2.800
1 1/2	40	10	1600	199 231 507	1	3.600	199 231 517	0	3.665
2	50	10	3100	199 231 508	1	4.000	199 231 518	0	4.000

Size	D	H	H1	H2	H3	H4	H5	L	L1	L2	L4	L5	L6	L7	z
(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
3/8	50	159	27	62	168	40	77	96	194	56	25	261	76	48	71
1/2	50	159	27	62	168	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	168	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	100
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	134





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 231 DA (Double acting)**  
**With manual override**  
**With threaded sockets reinforced NPT**

**Model:**

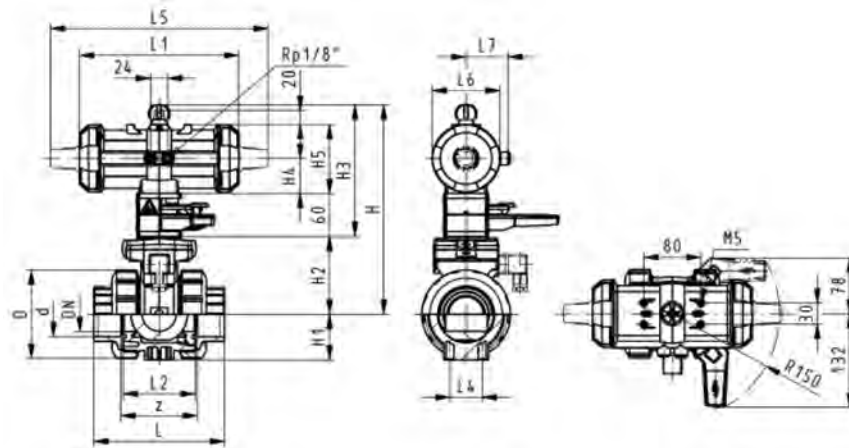
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

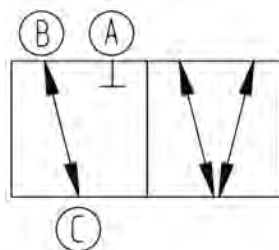
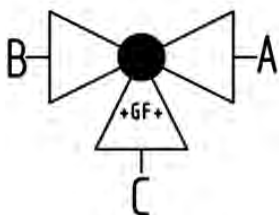
- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
3/8	10	10	70	199 231 542	1	1.500	199 231 552	1	1.200
1/2	15	10	185	199 231 543	0	1.500	199 231 553	1	1.200
3/4	20	10	350	199 231 544	1	1.300	199 231 554	1	1.300
1	25	10	700	199 231 545	1	1.400	199 231 555	1	1.400
1 1/4	32	10	1000	199 231 546	1	2.500	199 231 556	1	2.500
1 1/2	40	10	1600	199 231 547	1	2.800	199 231 557	1	2.800
2	50	10	3100	199 231 548	1	3.700	199 231 558	1	3.700

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
3/8	50	159	27	62	168	40	77	96	194	56	25	261	76	48	71
1/2	50	159	27	62	168	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	168	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	100
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	134



# Ball valves pneumatic type 286



**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/T-port**  
**Without manual override**  
**With threaded sockets reinforced NPT**

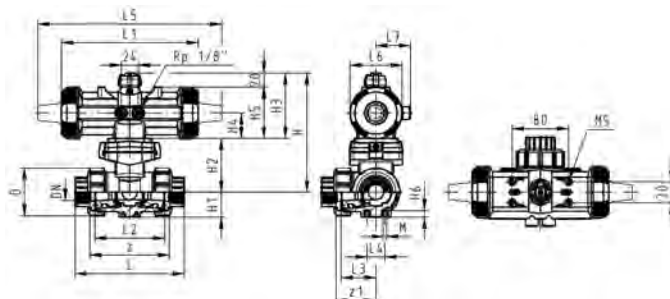
**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
3/8	10	10	140	199 286 342	1	1.031	199 286 352	1	1.031
1/2	15	10	200	199 286 343	1	1.035	199 286 353	1	1.035
3/4	20	10	470	199 286 344	1	1.124	199 286 354	1	1.124
1	25	10	793	199 286 345	1	1.245	199 286 355	1	1.245
1 1/4	32	10	1290	199 286 346	1	2.210	199 286 356	1	2.210
1 1/2	40	10	1910	199 286 347	1	2.499	199 286 357	1	2.499
2	50	10	3100	199 286 348	1	3.391	199 286 358	1	3.391

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT (inch)	L7 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105

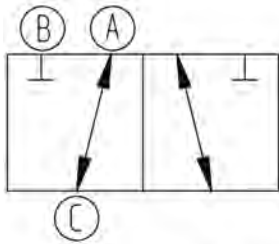
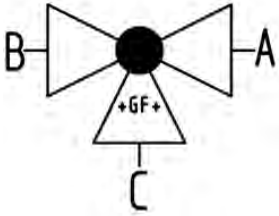




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/L-port DA (Double acting)**  
**Without manual override**  
**With threaded sockets reinforced NPT**

**Model:**

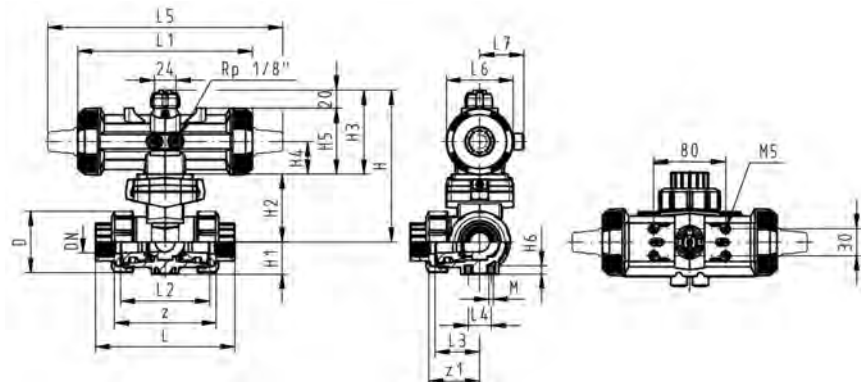
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

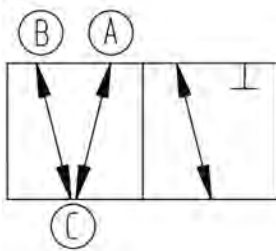
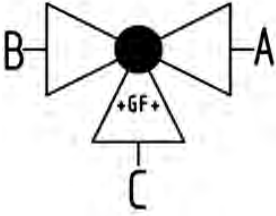


NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
3/8	10	10	50	199 286 362	1	0.841	199 286 372	1	0.841
1/2	15	10	75	199 286 363	1	0.845	199 286 373	1	0.845
3/4	20	10	150	199 286 364	1	0.935	199 286 374	1	0.935
1	25	10	280	199 286 365	1	1.060	199 286 375	1	1.060
1 1/4	32	10	480	199 286 366	1	1.793	199 286 376	1	1.793
1 1/2	40	10	620	199 286 367	1	2.089	199 286 377	1	2.089
2	50	10	1230	199 286 368	1	2.996	199 286 378	1	2.996

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT (inch)	L7 (mm)	M	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105





**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/T-port DA (Double acting)**  
**Without manual override)**  
**With threaded sockets reinforced NPT**

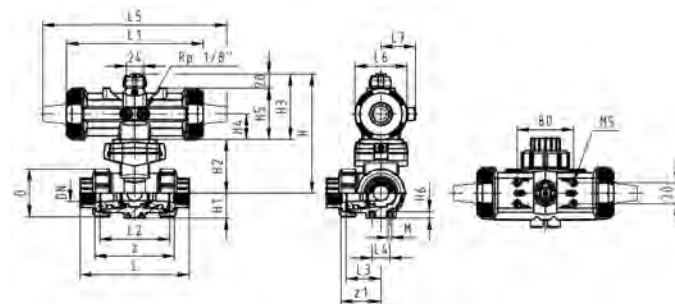
**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
3/8	10	10	140	<b>199 286 382</b>	1	0.840	<b>199 286 392</b>	1	0.840
1/2	15	10	200	<b>199 286 383</b>	1	0.844	<b>199 286 393</b>	1	0.844
3/4	20	10	470	<b>199 286 384</b>	1	0.934	<b>199 286 394</b>	1	0.934
1	25	10	793	<b>199 286 385</b>	1	1.055	<b>199 286 395</b>	1	1.055
1 1/4	32	10	1290	<b>199 286 386</b>	1	1.786	<b>199 286 396</b>	1	1.786
1 1/2	40	10	1910	<b>199 286 387</b>	1	2.075	<b>199 286 397</b>	1	2.075
2	50	10	3100	<b>199 286 388</b>	1	2.967	<b>199 286 398</b>	1	2.967

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT (inch)	L7 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105

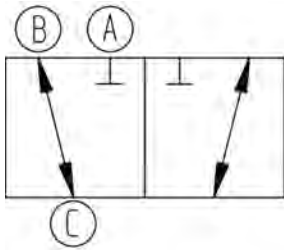
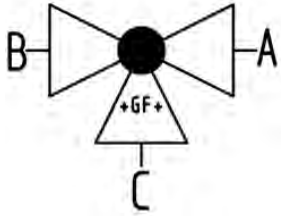




**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/L-port**  
**Without manual override**  
**With threaded sockets reinforced NPT**

**Model:**

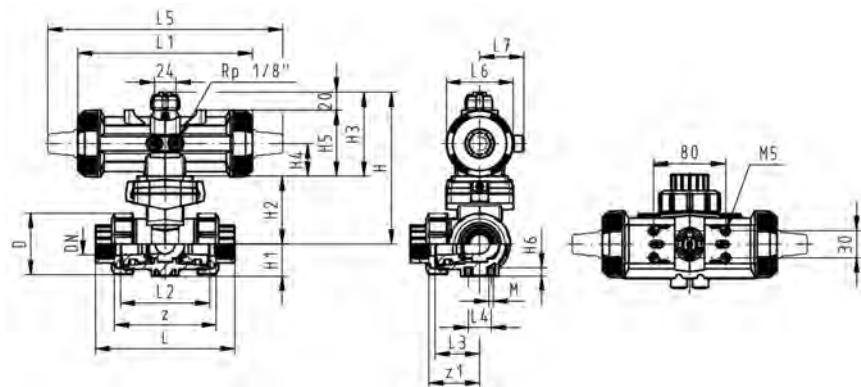
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
3/8	10	10	50	199 286 322	1	1.031	199 286 332	1	1.031
1/2	15	10	75	199 286 323	1	1.035	199 286 333	1	1.035
3/4	20	10	150	199 286 324	1	1.125	199 286 334	1	1.125
1	25	10	280	199 286 325	1	1.250	199 286 335	1	1.250
1 1/4	32	10	480	199 286 326	1	2.217	199 286 336	1	2.217
1 1/2	40	10	620	199 286 327	1	2.513	199 286 337	1	2.513
2	50	10	1230	199 286 328	1	3.420	199 286 338	1	3.420

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT (inch)	L7 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105





# Butterfly valves type 578



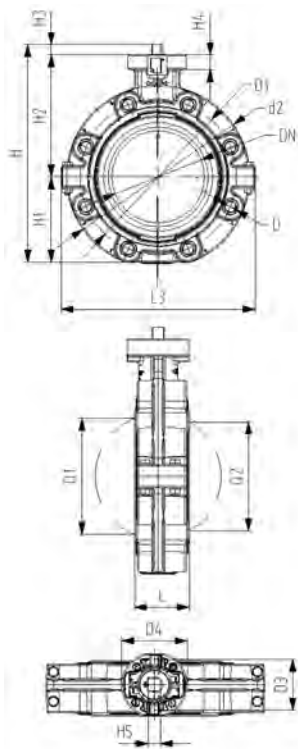
## PROGEF Standard Lugstyle butterfly valve type 578 Bare shaft

### Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Interface F07 according to DIN/ISO 5211
- Interface F10 for the dimensions DN250-300 according to DIN/ISO 5211

### Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
2	50	10	1470	<b>167 578 902</b>	1	1.299	<b>167 578 922</b>	1	1.299
2 ½	65	10	2200	<b>167 578 903</b>	1	1.456	<b>167 578 923</b>	1	1.456
3	80	10	3000	<b>167 578 904</b>	1	1.701	<b>167 578 924</b>	1	1.701
4	100	10	6500	<b>167 578 905</b>	1	2.606	<b>167 578 925</b>	1	2.606
5	125	10	11500	<b>167 578 906</b>	1	4.120	<b>167 578 926</b>	1	4.120
6	150	10	16600	<b>167 578 907</b>	1	5.881	<b>167 578 927</b>	1	5.881
8	200	10	39600	<b>167 578 908</b>	1	7.125	<b>167 578 928</b>	1	7.125
10	250	8	55200	<b>167 578 909</b>	1	17.880	<b>167 578 929</b>	1	17.880
12	300	8	80000	<b>167 578 910</b>	1	24.416	<b>167 578 930</b>	1	24.416

Size (inch)	d2 (mm)	D	D1 (mm)	D3 (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L3 (mm)	Q1 (mm)
2	160	UNC 5/8	120.6	70	90	238	77	134	27	23	11	45	165	40
2 ½	180	UNC 5/8	139.7	70	90	250	83	140	27	23	11	46	182	54
3	195	UNC 5/8	152.4	70	90	262	89	146	27	23	11	49	210	67
4	226	UNC 5/8	190.5	70	90	289	106	167	16	23	14	56	240	88
5	258	UNC 3/4	215.9	70	90	318	121	181	16	23	14	64	272	113
6	284	UNC 3/4	241.3	70	90	341	133	189	19	23	17	72	300	139
8	341	UNC 3/4	298.4	70	90	388	159	210	19	23	17	73	360	178
10	412	UNC 7/8	362.0	102	125	509	205	264	40	23	22	113	440	210
12	482	UNC 7/8	431.8	102	125	559	234	285	40	23	22	113	510	256

Size (inch)	Q2 (mm)
2	
2 ½	35
3	50
4	74
5	97
6	123
8	169
10	207
12	253



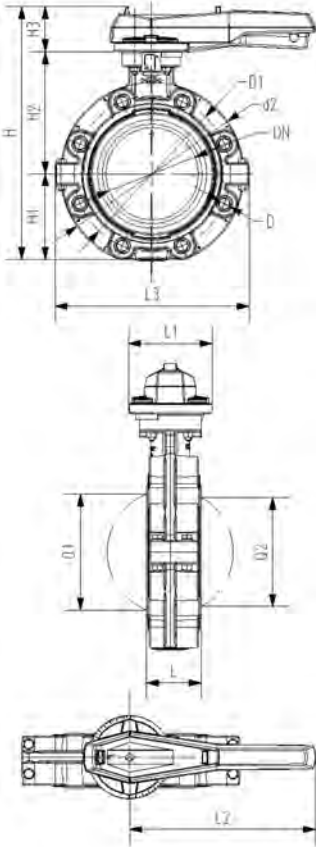
**PROGEF Plus silicone free  
Lugstyle butterfly valve type 578  
Hand lever with ratchet settings**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Silicone free/paint-compatible
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
63	2	50	10	1470	<b>167 578 402</b>	1	1.800	<b>167 578 422</b>	1	1.800
75	2 ½	65	10	2200	<b>167 578 403</b>	1	1.895	<b>167 578 423</b>	1	1.895
90	3	80	10	3000	<b>167 578 404</b>	1	2.251	<b>167 578 424</b>	1	2.251
110	4	100	10	6500	<b>167 578 405</b>	1	3.146	<b>167 578 425</b>	1	3.146
140	5	125	10	11500	<b>167 578 406</b>	1	4.660	<b>167 578 426</b>	1	4.660
160	6	150	10	16600	<b>167 578 407</b>	1	6.430	<b>167 578 427</b>	1	6.430
225	8	200	10	39600	<b>167 578 408</b>	1	8.625	<b>167 578 428</b>	1	8.625
280	10	250	10	55200	<b>167 578 409</b>	1	19.528	<b>167 578 429</b>	1	19.528
315	12	300	10	80000	<b>167 578 410</b>	1	26.106	<b>167 578 430</b>	1	26.106

d	d2	D	D1	H	H1	H2	H3	L	L1	L2	L3	Q1	Q2
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	160	M16	125	265	77	134	54	45	106	205	165	40	
75	180	M16	145	277	83	140	54	46	106	205	182	54	35
90	195	M16	160	289	89	146	54	49	106	205	210	67	50
110	226	M16	180	326	106	167	55	56	106	255	240	88	74
140	258	M16	210	357	121	181	55	64	106	255	272	113	97
160	284	M20	240	377	133	189	55	72	106	255	300	139	123
225	341	M20	295	436	159	210	67	73	140	408	360	178	169
280	412	M20	350	536	205	264	67	113	140	408	440	210	207
315	482	M20	400	586	234	285	67	113	140	408	510	256	253



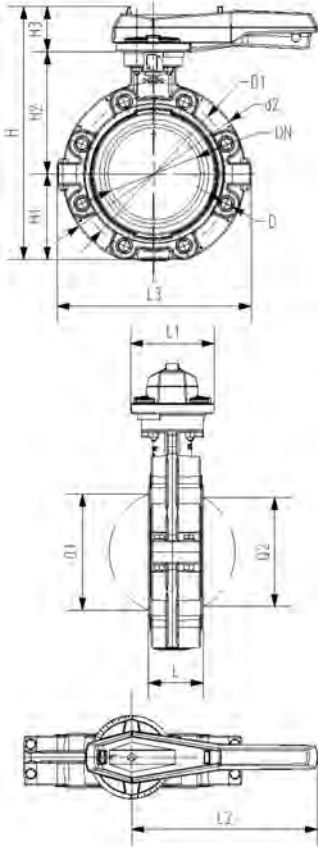
**PROGEF Plus silicone free  
Lugstyle butterfly valve 578 ANSI  
Hand lever with ratchet settings**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Silicone free/paint-compatible
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(L/min)						
63	2	50	10	1470	<b>167 578 502</b>	1	1.800	<b>167 578 522</b>	1	1.800
75	2 ½	65	10	2200	<b>167 578 503</b>	1	1.895	<b>167 578 523</b>	1	1.895
90	3	80	10	3000	<b>167 578 504</b>	1	2.251	<b>167 578 524</b>	1	2.251
110	4	100	10	6500	<b>167 578 505</b>	1	3.146	<b>167 578 525</b>	1	3.146
140	5	125	10	11500	<b>167 578 506</b>	1	4.660	<b>167 578 526</b>	1	4.660
160	6	150	10	16600	<b>167 578 507</b>	1	6.430	<b>167 578 527</b>	1	6.430
225	8	200	10	39600	<b>167 578 508</b>	1	8.625	<b>167 578 528</b>	1	8.625
280	10	250	10	55200	<b>167 578 509</b>	1	19.528	<b>167 578 529</b>	1	19.528
315	12	300	10	80000	<b>167 578 510</b>	1	26.106	<b>167 578 530</b>	1	26.106

d2	D	D1	H	H1	H2	H3	L	L1	L2	L3	Q1	Q2
(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
160	UNC 5/8	120.6	265	77	134	54	45	106	205	165	40	
180	UNC 5/8	139.7	277	83	140	54	46	106	205	182	54	35
195	UNC 5/8	152.4	289	89	146	54	49	106	205	210	67	50
226	UNC 5/8	190.5	328	106	167	55	56	106	255	240	88	74
258	UNC 3/4	215.9	357	121	181	55	64	106	255	272	113	97
284	UNC 3/4	241.3	377	133	189	55	72	106	255	300	139	123
341	UNC 3/4	298.4	436	159	210	67	73	140	408	360	178	169
412	UNC 3/4	362.0	536	205	264	67	113	140	408	440	210	207
482	UNC 3/4	431.8	586	234	285	67	113	140	408	510	256	253

# Butterfly valves electric type 147



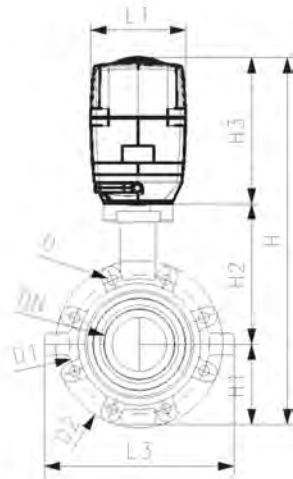
## PROGEF Standard Lugstyle butterfly valve type 147 100-230V Without manual override

### Model:

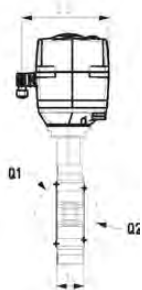
- Material: PP-H
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension ANSI/ASME B 16.5 Class 150

### Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	PTFE Code
63	2	50	10	1470	199 147 362	6.193	199 147 802
75	2 ½	65	10	2200	199 147 363	6.535	199 147 803
90	3	80	10	3000	199 147 364	6.911	199 147 804
110	4	100	10	6500	199 147 365	8.925	199 147 805
140	5	125	10	11500	199 147 366	10.755	199 147 806
160	6	150	10	16600	199 147 367	12.539	199 147 807
225	8	200	10	39600	199 147 368	21.747	199 147 808
280	10	250	6	55200	199 147 369	24.385	
315	12	300	4	80000	199 147 370	30.916	



d (mm)	Size (inch)	Actuator unit type	d2 (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	D1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)
63	2	EA-45	150	UNC 5/8	399	77	134	188	139.7	45	122	180	150	40
75	2 ½	EA-45	170	UNC 5/8	411	83	140	188	120.6	46	122	180	160	54
90	3	EA-120	177	UNC 5/8	423	89	146	188	152.4	49	122	180	175	67
110	4	EA-120	216	UNC 5/8	459	104	167	188	190.5	56	122	180	244	88
140	5	EA-120	246	UNC 3/4	486	117	181	188	215.9	64	122	180	272	113
160	6	EA-120	273	UNC 3/4	507	130	189	188	241.3	72	122	180	297	139
225	8	EA-250	334	UNC 3/4	576	158	210	208	298.4	73	122	180	360	178
280	10	EA-250	412	UNC 7/8	677	205	264	208	362.0	113	122	180	440	210
315	12	EA-250	482	UNC 7/8	727	234	285	208	431.8	113	122	180	510	256

d (mm)	Size (inch)	Q2 (mm)
63	2	
75	2 ½	35
90	3	50
110	4	74
140	5	97
160	6	123
225	8	169
280	10	207
315	12	253

# Butterfly valves pneumatic type 244



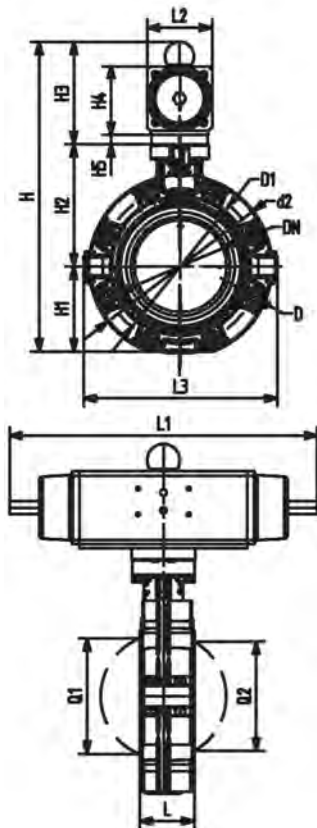
**PROGEF Standard**  
**Lugstyle butterfly valve type 244**  
**FC (Fail safe to close)**  
**Without manual override**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(l/min)						
63	2	50	10	1470	<b>199 244 282</b>	1	3.499	<b>199 244 302</b>	1	3.499
75	2 ½	65	10	2200	<b>199 244 283</b>	1	3.656	<b>199 244 303</b>	1	3.656
90	3	80	10	3000	<b>199 244 284</b>	1	4.692	<b>199 244 304</b>	1	4.692
110	4	100	10	6500	<b>199 244 285</b>	1	6.406	<b>199 244 305</b>	1	6.406
140	5	125	10	11500	<b>199 244 286</b>	1	9.222	<b>199 244 306</b>	1	9.222
160	6	150	10	16600	<b>199 244 287</b>	1	12.902	<b>199 244 307</b>	1	12.902
225	8	200	10	39600	<b>199 244 288</b>	1	16.691	<b>199 244 308</b>	1	16.691
280	10	250	8	55200	<b>199 244 289</b>	1	33.880	<b>199 244 309</b>	1	33.880
315	12	300	8	80000	<b>199 244 290</b>	1	43.985	<b>199 244 310</b>	1	43.985

d	Size	Actuator unit	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1
(mm)	(inch)	type	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	2	PA-30 FC	160	UNC 5/8	120.6	328	77	134	117	70	15	45	276
75	2 ½	PA-30 FC	180	UNC 5/8	139.7	340	83	140	117	70	15	46	276
90	3	PA-35 FC	195	UNC 5/8	152.4	361	89	146	126	78	15	49	326
110	4	PA-40 FC	226	UNC 5/8	190.5	402	106	167	129	86		56	370
140	5	PA-45 FC	258	UNC 3/4	215.9	441	121	181	139	96		64	411
160	6	PA-50 FC	284	UNC 3/4	241.3	471	133	189	149	106		72	423
225	8	PA-55 FC	341	UNC 3/4	298.4	530	159	210	161	118		73	452
280	10	PA-65 FC	412	UNC 3/4	362.0	660	205	264	191	148		113	648
315	12	PA-70 FC	482	UNC 3/4	431.8	715	234	285	196	157		113	663

d	Size	L2	L3	Q1	Q2
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)
63	2	65	165	40	
75	2 ½	65	182	54	35
90	3	72	210	67	50
110	4	80	240	88	74
140	5	90	272	113	97
160	6	100	300	139	123
225	8	112	360	178	169
280	10	137	440	210	207
315	12	145	510	256	253



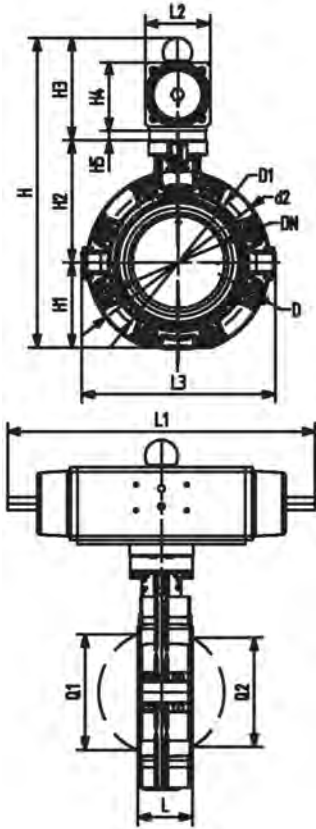
**PROGEF Standard**  
**Lugstyle butterfly valve type 244**  
**FO (Fail safe to open)**  
**Without manual override**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	FKM Code
63	2	50	10	1470	199 244 322	199 244 342
75	2 ½	65	10	2200	199 244 323	199 244 343
90	3	80	10	3000	199 244 324	199 244 344
110	4	100	10	6500	199 244 325	199 244 345
140	5	125	10	11500	199 244 326	199 244 346
160	6	150	10	16600	199 244 327	199 244 347
225	8	200	10	39600	199 244 328	199 244 348
280	10	250	8	55200	199 244 329	199 244 349
315	12	300	8	80000	199 244 330	199 244 350

d (mm)	Size (inch)	Actuator unit type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)
63	2	PA-30 FO	160	UNC 5/8	120.6	328	77	134	117	70	15	45	276
75	2 ½	PA-30 FO	180	UNC 5/8	139.7	340	83	140	117	70	15	46	276
90	3	PA-35 FO	195	UNC 5/8	152.4	361	89	146	126	78	15	49	326
110	4	PA-40 FO	226	UNC 5/8	190.5	402	106	167	129	86		56	370
140	5	PA-45 FO	258	UNC 3/4	215.9	441	121	181	139	96		64	411
160	6	PA-50 FO	284	UNC 3/4	241.3	471	133	189	149	106		72	423
225	8	PA-55 FO	341	UNC 3/4	298.4	530	159	210	161	118		73	452
280	10	PA-70 FO	412	UNC 7/8	362.0	660	205	264	191	148		113	648
315	12	PA-70 FO	482	UNC 7/8	431.8	715	234	285	196	157		113	663

d (mm)	Size (inch)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	2	65	165	40	
75	2 ½	65	182	54	35
90	3	72	210	67	50
110	4	80	240	88	74
140	5	90	272	113	97
160	6	100	300	139	123
225	8	112	360	178	169
280	10	137	440	210	207
315	12	145	510	256	253



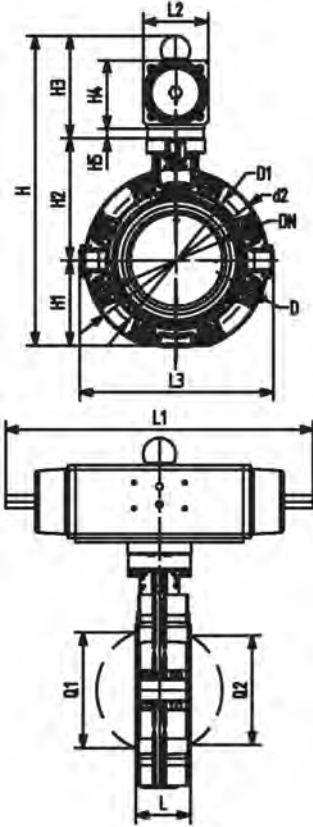
**PROGEF Standard**  
**Lugstyle butterfly valve type 244**  
**DA (Double acting)**  
**Without manual override**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	EPDM	FKM
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	Code
				(l/min)		
63	2	50	10	1470	199 244 362	199 244 382
75	2 ½	65	10	2200	199 244 363	199 244 383
90	3	80	10	3000	199 244 364	199 244 384
110	4	100	10	6500	199 244 365	199 244 385
140	5	125	10	11500	199 244 366	199 244 386
160	6	150	10	16600	199 244 367	199 244 387
225	8	200	10	39600	199 244 368	199 244 388
280	10	250	8	55200	199 244 369	199 244 389
315	12	300	8	80000	199 244 370	199 244 390

d	Size	Actuator unit type	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1
(mm)	(inch)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	2	PA-35 DA	160	UNC 5/8	120.6	318	77	134	107	60	15	45	177
75	2 ½	PA-35 DA	180	UNC 5/8	139.7	330	83	140	107	60	15	46	177
90	3	PA-40 DA	195	UNC 5/8	152.4	348	89	146	113	66	15	49	190
110	4	PA-45 DA	226	UNC 5/8	190.5	384	104	167	111	78		56	235
140	5	PA-45 DA	258	UNC 3/4	215.9	413	121	181	111	78		64	235
160	6	PA-55 DA	284	UNC 3/4	241.3	461	133	189	139	96		72	279
225	8	PA-55 DA	341	UNC 3/4	298.4	508	159	210	139	96		73	279
280	10	PA-65 DA	412	UNC 7/8	362.0	630	205	264	161	118		113	350
315	12	PA-70 DA	482	UNC 7/8	431.8	692	234	285	173	130		113	381

d	Size	L2	L3	Q1	Q2
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)
63	2	55	165	40	
75	2 ½	55	182	54	35
90	3	60	210	67	50
110	4	72	240	88	74
140	5	72	272	113	97
160	6	90	300	139	123
225	8	90	360	178	169
280	10	112	440	210	207
315	12	124	510	256	253

# Diaphragm valves type 317



## PROGEF Standard Diaphragm valve type 317 With backing flanges PP-V Inch ANSI

### Model:

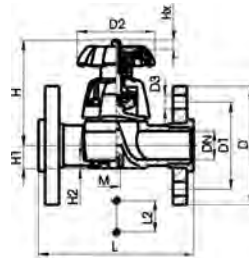
- Material: PP-H
- Joining faces serrated
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With PP-V backing flanges DN65

### Option:

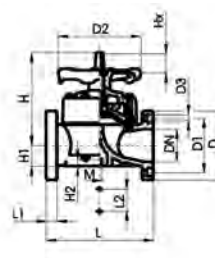
- Handwheel lockable DN65 (basic version not lockable)
- \* **DN80, DN100 and DN150 fixed flanges metric and inch ANSI B16.5**

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	Weight (kg)	PTFE with EPDM supporting diaphragm Code	Weight (kg)
		2 1/2	65	10	992	<b>167 317 523</b>	4.605	<b>167 317 538</b>	4.000
*	90	3	80	10	1700	<b>167 317 024</b>	8.689	<b>167 317 039</b>	8.088
*	110	4	100	10	2700	<b>167 317 025</b>	11.237	<b>167 317 040</b>	11.439
*	160	6	150	6	6033	<b>167 317 027</b>	24.707	<b>167 317 042</b>	25.000

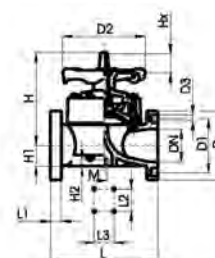
	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	M	Lift = Hx (mm)	AL
	185	140	152	19	210	46	15	290		70		M8	35	4
*	200	160	270	18	265	57	23	310	35	120		M12	40	8
*	225	180	270	18	304	69	23	350	38	120		M12	50	8
*	282	241	400	23	437	108	23	480	29	100	200	M12	70	8



DN 15-65



DN 80-100



DN 150



# Diaphragm valves type 517



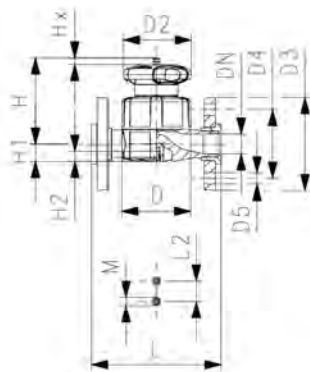
## PROGEF Standard Diaphragm valve type 517 With backing flanges PP-V Inch ANSI

### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

### Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)
½	15	10	125	<b>167 517 712</b>	1	0.480	<b>167 517 732</b>	1	0.490
¾	20	10	271	<b>167 517 713</b>	1	0.629	<b>167 517 733</b>	1	0.640
1	25	10	481	<b>167 517 714</b>	1	1.296	<b>167 517 734</b>	1	1.316
1 ¼	32	10	759	<b>167 517 715</b>	1	1.640	<b>167 517 735</b>	1	1.660
1 ½	40	10	1263	<b>167 517 716</b>	1	1.872	<b>167 517 736</b>	1	2.631
2	50	10	1728	<b>167 517 717</b>	1	2.609	<b>167 517 737</b>	1	3.572

Size (inch)	D (mm)	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)
½	65	65	95	60	16	73	14	12	130	25	M6	7
¾	80	65	105	70	16	81	18	12	150	25	M6	10
1	88	87	115	79	16	107	22	12	160	25	M6	13
1 ¼	101	87	140	89	16	115	26	15	180	45	M8	15
1 ½	117	135	150	98	16	148	32	15	200	45	M8	19
2	144	135	165	121	19	166	39	15	230	45	M8	25

# Diaphragm valves pneumatic DIASTAR Six



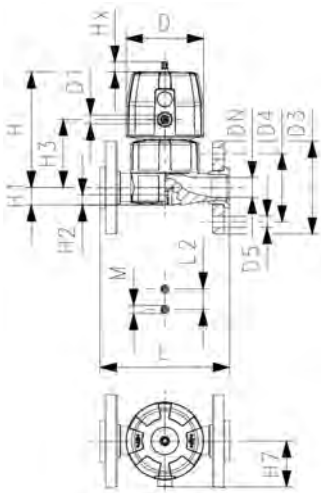
**PROGEF Standard**  
**Diaphragm valve DIASTAR Six**  
**FC (Fail safe to close)**  
**With backing flanges PP-V Inch ANSI**

**Model:**

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

**Option:**

- Individual configuration of the valve (see diagram)



Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)
¾	20	6	271	<b>167 617 713</b>	1	1.148
1	25	6	481	<b>167 617 714</b>	1	1.410
1 ¼	32	6	759	<b>167 617 715</b>	1	2.279
1 ½	40	6	960	<b>167 617 716</b>	1	2.751
2	50	6	1181	<b>167 617 717</b>	1	3.921

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)
¾	96	¾	105	70	16	132	18	12	73	57	150	25	M6	10
1	96	¾	115	79	16	143	22	12	84	69	160	25	M6	13
1 ¼	120	¾	140	89	16	173	26	15	99	69	180	45	M8	14
1 ½	120	¾	150	98	16	193	32	15	119	69	200	45	M8	16
2	120	¾	165	121	19	205	39	15	132	69	230	45	M8	16

# Diaphragm valves pneumatic DIASTAR Ten



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**With backing flanges PP-V Inch ANSI**

**Model:**

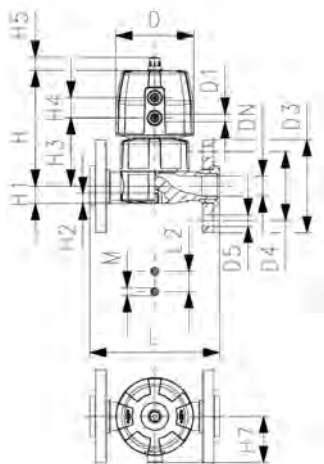
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



Size (inch)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
½	15	10/10*	125	<b>167 657 712</b>	1	0.608	<b>167 657 732</b>
¾	20	10/10*	271	<b>167 657 713</b>	1	1.013	<b>167 657 733</b>
1	25	10/10*	481	<b>167 657 714</b>	1	1.272	<b>167 657 734</b>
1 ¼	32	10/10*	759	<b>167 657 715</b>	1	2.009	<b>167 657 735</b>
1 ½	40	10/10*	1263	<b>167 657 716</b>	1	3.049	<b>167 657 736</b>
2	50	10/10*	1728	<b>167 657 717</b>	1	4.002	<b>167 657 737</b>

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	68	⅝	95	60	16	101	14	12	60	24	16	57	130	25	M6
¾	96	⅝	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	96	⅝	115	79	16	143	22	12	84	25	16	69	160	25	M6
1 ¼	120	⅝	140	89	16	173	26	15	99	26	26	88	180	45	M8
1 ½	150	¾	150	98	16	214	32	15	119	36	26	103	200	45	M8
2	150	¾	165	121	19	226	39	15	132	36	26	103	230	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**With backing flanges PP-V Inch ANSI**

**Model:**

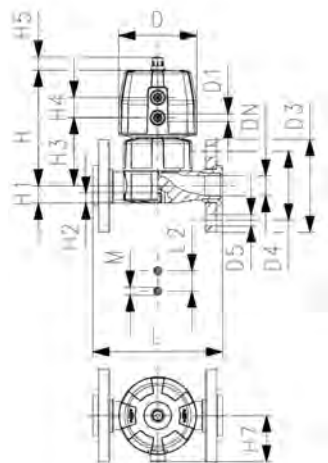
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



Size (inch)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
½	15	10/10*	125	<b>167 647 712</b>	1	0.624	<b>167 647 732</b>
¾	20	10/10*	271	<b>167 647 713</b>	1	1.049	<b>167 647 733</b>
1	25	10/10*	481	<b>167 647 714</b>	1	1.302	<b>167 647 734</b>
1 ¼	32	10/10*	759	<b>167 647 715</b>	1	2.069	<b>167 647 735</b>
1 ½	40	10/10*	1263	<b>167 647 716</b>	1	3.506	<b>167 647 736</b>
2	50	10/10*	1728	<b>167 647 717</b>	1	4.752	<b>167 647 737</b>

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	68	¾	95	60	16	101	14	12	60	24	16	57	130	25	M6
¾	96	¾	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	96	¾	115	79	16	143	22	12	84	25	16	69	160	25	M6
1 ¼	120	¾	140	89	16	173	26	15	99	26	26	88	180	45	M8
1 ½	150	¾	150	98	16	214	32	15	119	36	26	103	200	45	M8
2	150	¾	165	121	19	226	39	15	132	36	26	103	230	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**With backing flanges PP-V Inch ANSI**

**Model:**

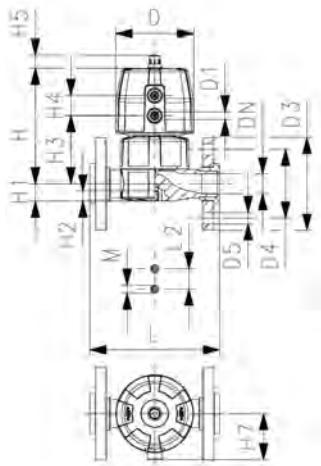
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



Size (inch)	DN (mm)	PN (psi)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)
1/2	15	150/150*	10/10*	125	<b>167 627 712</b>	1 0.674
3/4	20	150/150*	10/10*	271	<b>167 627 713</b>	1 1.223
1	25	150/150*	10/10*	481	<b>167 627 714</b>	1 1.482
1 1/4	32	150/150*	10/10*	759	<b>167 627 715</b>	1 2.429
1 1/2	40	150/150*	10/10*	1263	<b>167 627 716</b>	1 3.889
2	50	150/90*	10/6*	1728	<b>167 627 717</b>	1 4.842

Size (inch)	PTFE/EPDM Code	SP Weight (kg)
1/2	<b>167 627 732</b>	1 0.684
3/4	<b>167 627 733</b>	1 1.234
1	<b>167 627 734</b>	1 1.502
1 1/4	<b>167 627 735</b>	1 2.449
1 1/2	<b>167 627 736</b>	1 3.919
2	<b>167 627 737</b>	1 4.870

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
1/2	68	1/8	95	60	16	101	14	12	60	24	16	43	130	25	M6
3/4	96	1/8	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	96	1/8	115	79	16	143	22	12	84	25	16	69	160	25	M6
1 1/4	120	1/8	140	89	16	173	26	15	99	26	26	69	180	45	M8
1 1/2	150	1/4	150	98	16	193	32	15	119	36	26	88	200	45	M8
2	150	1/4	165	121	19	205	39	15	132	36	26	88	230	45	M8

Size (inch)	Lift = Hx (mm)
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23

# Diaphragm valves pneumatic DIASTAR TenPlus



**PROGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**With backing flanges PP-V Inch ANSI**

**Model:**

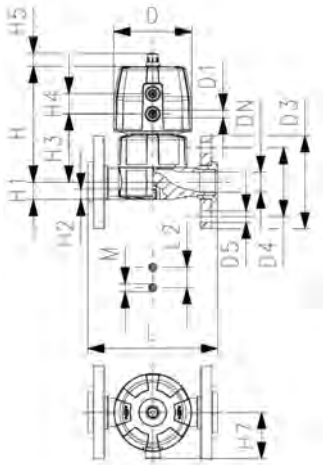
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **both sides**



Size (inch)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
½	15	10/10*	125	<b>167 687 712</b>	1	<b>167 687 732</b>	1 1.084
¾	20	10/10*	271	<b>167 687 713</b>	1	<b>167 687 733</b>	1 1.234
1	25	10/10*	481	<b>167 687 714</b>	1	<b>167 687 734</b>	1 2.096
1 ¼	32	10/10*	759	<b>167 687 715</b>	1	<b>167 687 735</b>	1 3.519
1 ½	40	10/10*	1263	<b>167 687 716</b>	1	<b>167 687 736</b>	1 5.327
2	50	10/10*	1728	<b>167 687 717</b>	1	<b>167 687 737</b>	1 6.277

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	96	⅜	95	60	16	127	14	12	68	25	16	57	130	25	M6
¾	96	⅜	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	120	⅜	115	79	16	167	22	12	93	26	26	69	160	25	M6
1 ¼	150	¼	140	89	16	196	26	15	101	36	26	88	180	45	M8
1 ½	180	¼	150	98	16	239	32	15	124	37	26	103	200	45	M8
2	180	¼	165	121	19	251	39	15	137	37	26	103	230	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23

# Diaphragm valves DIASTAR big dimensions



**PROGEF Standard**  
**Diaphragm valve type DIASTAR**  
**Series 025 FC (Fail safe to close)**  
**With fixed flanges Inch ANSI**

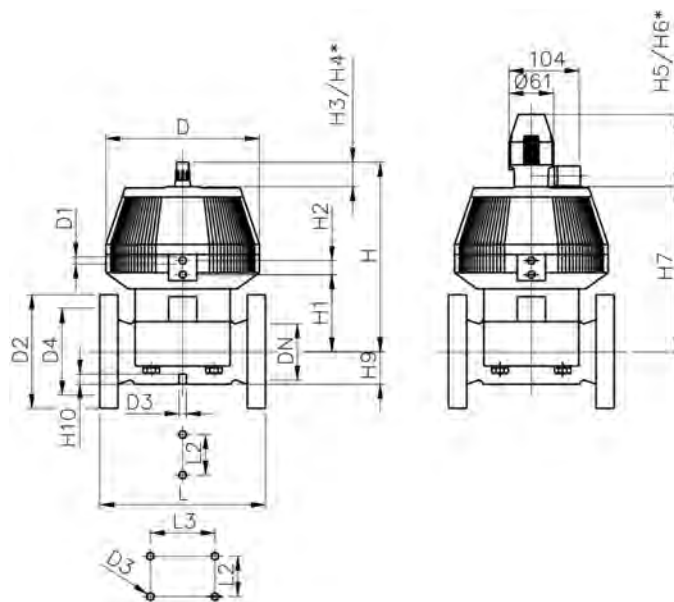
**Model:**

- Material: PP-H
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: **one side**
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	PTFE/EPDM Code	Weight (kg)
*		2 ½	65	10	992	<b>199 025 207</b>	13.700	<b>199 025 237</b>	13.700
**	90	3	80	10	1700	<b>199 025 268</b>	17.400	<b>199 025 298</b>	16.162
	110	4	100	6	2700	<b>199 025 209</b>	22.800	<b>199 025 239</b>	22.800
**	160	6	150	6	6033	<b>199 025 270</b>	35.000		

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	¼	285	12	240	455	237	24	46	100	129	195	409	108	20

	L	L2	L3
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200





**PROGEF Standard**  
**Diaphragm valve type DIASTAR**  
**Series 025 FO (Fail safe to open)**  
**With fixed flanges Inch ANSI**

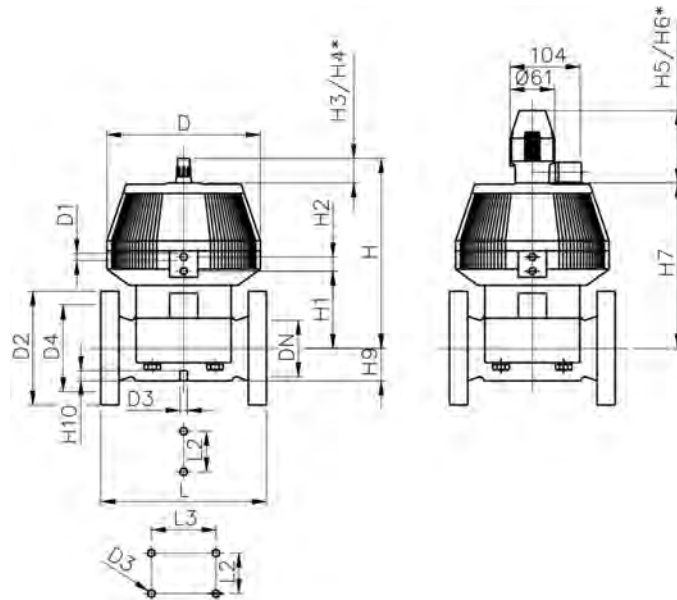
**Model:**

- Material: PP-H
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: **one side**
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	<b>d</b>	<b>Size</b>	<b>DN</b>	<b>PN</b>	<b>kv-value</b>	<b>EPDM</b>	<b>Weight</b>	<b>PTFE/EPDM</b>	<b>Weight</b>
	(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	<b>Code</b>	(kg)	<b>Code</b>	(kg)
					(L/min)				
*		2 1/2	65	10	992	<b>199 025 217</b>	11.300	<b>199 025 247</b>	11.300
**	90	3	80	10	1700	<b>199 025 278</b>	17.400	<b>199 025 308</b>	17.400
	110	4	100	6	2700	<b>199 025 219</b>	22.500	<b>199 025 249</b>	22.500
**	160	6	150	6	6033	<b>199 025 280</b>	35.000	<b>199 025 310</b>	35.000

	<b>D</b>	<b>D1_G</b>	<b>D2</b>	<b>D3[M]</b>	<b>D4</b>	<b>H</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>H6</b>	<b>H7</b>	<b>H9</b>	<b>H10</b>
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	1 1/4	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	1 1/4	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	1 3/8	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	1 3/8	285	12	240	455	237	24	46	100	129	195	409	108	20

	<b>L</b>	<b>L2</b>	<b>L3</b>
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200





# Cone check valves

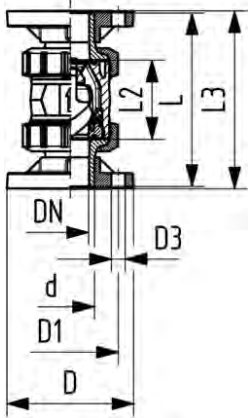
## Type 561



**PROGEF Standard**  
**Check valve type 561**  
**With fixed flanges ANSI**

**Model:**

- Material: PP-H
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Installation length according to EN 558-1
- Z-length, end connectors and union nuts **not** compatible with type 360
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759



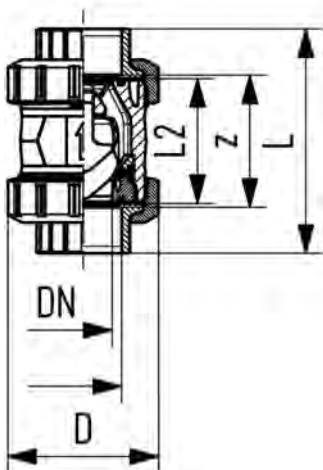
d	DN	PN	kv-value	EPDM	D	D1	D3	L	L2	L3	closest
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	inch
			(L/min)								(inch)
20	15	10	180	<b>800 052 461</b>	95	65	14	120	56	130	½
25	20	10	380	<b>800 052 462</b>	105	75	14	140	65	150	¾
32	25	10	460	<b>800 050 062</b>	115	85	14	150	71	160	1
50	40	10	1080	<b>800 052 060</b>	150	110	18	190	89	200	1 ½
63	50	10	1670	<b>800 048 807</b>	165	125	18	220	101	230	2
	80		1670	<b>800 050 404</b>							3
	100			<b>800 055 955</b>							
	65			<b>800 056 229</b>							



**PROGEF Standard**  
**Check valve type 561**  
**With threaded sockets reinforced NPT**

**Model:**

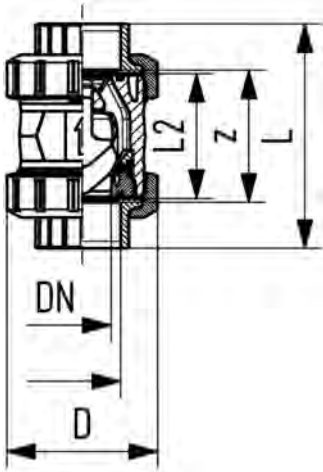
- Material: PP-H
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



NPT	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
			(L/min)						
¾	10	10	190	<b>167 561 101</b>	1	0.080	<b>167 561 111</b>	1	0.080
½	15	10	180	<b>167 561 102</b>	1	0.090	<b>167 561 112</b>	1	0.090
¾	20	10	380	<b>167 561 103</b>	1	0.170	<b>167 561 113</b>	1	0.180
1	25	10	460	<b>167 561 104</b>	1	0.200	<b>167 561 114</b>	1	0.210
1 ¼	32	10	850	<b>167 561 105</b>	1	0.350	<b>167 561 115</b>	1	0.360
1 ½	40	10	1080	<b>167 561 106</b>	1	0.500	<b>167 561 116</b>	1	0.510
2	50	10	1670	<b>167 561 107</b>	1	0.920	<b>167 561 117</b>	1	0.920

NPT	D	L	L2	z
(inch)	(mm)	(mm)	(mm)	(mm)
¾	50	96	56	71
½	50	99	56	64
¾	58	111	65	76

table continued on the next page



NPT	D	L	L2	z
(inch)	(mm)	(mm)	(mm)	(mm)
1	68	127	71	83
1 ¼	84	146	85	100
1 ½	97	157	89	111
2	124	183	101	134

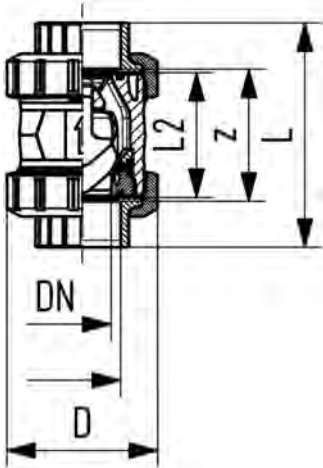
## Type 562



**PROGEF Standard**  
**Check valve type 562**  
**With threaded sockets reinforced NPT**

**Model:**

- Material: PP-H
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



NPT	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
¾	10	10	190	<b>167 562 101</b>	1	0.080	<b>167 562 111</b>	1	0.080
½	15	10	180	<b>167 562 102</b>	1	0.090	<b>167 562 112</b>	1	0.090
¾	20	10	380	<b>167 562 103</b>	1	0.170	<b>167 562 113</b>	1	0.180
1	25	10	460	<b>167 562 104</b>	1	0.200	<b>167 562 114</b>	1	0.210
1 ¼	32	10	850	<b>167 562 105</b>	1	0.350	<b>167 562 115</b>	1	0.360
1 ½	40	10	1080	<b>167 562 106</b>	1	0.500	<b>167 562 116</b>	1	0.510
2	50	10	1670	<b>167 562 107</b>	1	0.920	<b>167 562 117</b>	1	0.920

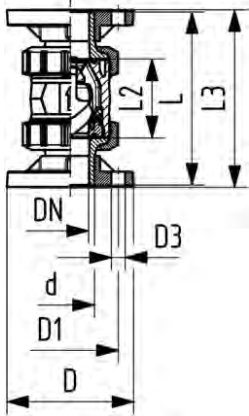
NPT	D	L	L2	z
(inch)	(mm)	(mm)	(mm)	(mm)
¾	50	96	56	71
½	50	99	56	64
¾	58	111	65	76
1	68	127	71	83
1 ¼	84	146	85	100
1 ½	97	157	89	111
2	124	183	101	134



**PROGEF Standard**  
**Check valve type 562**  
**With fixed flanges ANSI**

**Model:**

- Material: PP-H
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Installation length according to EN 558-1
- Z-length, end connectors and union nuts **not** compatible with type 360
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759



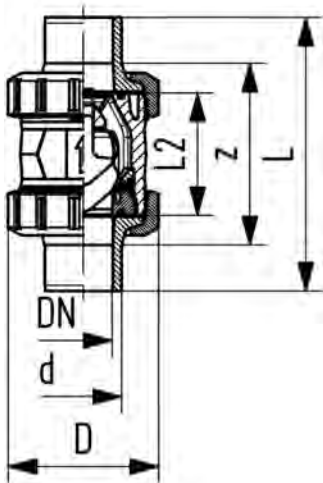
d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	D (mm)	D1 (mm)	D3 (mm)	L (mm)	L2 (mm)	L3 (mm)	closest inch (inch)
20	15	10	180		95	65	14	120	56	130	1/2
25	20	10	380		105	75	14	140	65	150	3/4
32	25	10	460	<b>800 052 016</b>	115	85	14	150	71	160	1
40	32	10	850		140	100	18	170	85	180	1 1/4
50	40	10	1080		150	110	18	190	89	200	1 1/2
63	50	10	1670	<b>800 052 015</b>	165	125	18	220	101	230	2
110	100	10	4150	<b>800 052 130</b>	238			336	164		4



**PROGEF Standard**  
**Check valve type 562**  
**With fixed flanges ANSI**

**Model:**

- Material: PP-H
- For horizontal or vertical installation
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	D (mm)	L (mm)	L2 (mm)	closest inch (inch)
16	10	10	190			50	110	56	3/8
20	15	10	180			50	120	56	1/2
25	20	10	380			58	139	65	3/4
32	25	10	460			68	150	71	1
40	32	10	850			84	170	85	1 1/4
50	40	10	1080			97	190	89	1 1/2
63	50	10	1670			124	220	101	2
75	65	10	2950			166	280	136	2 1/2
90	80	10	3600			200	296	141	3
110	100	10	4150	<b>800 052 130</b>	1	9.300	238	336	4

# PROGEF Standard JIS





Fittings for butt fusion

322



Fittings for socket fusion

325



Ball valves type 546

326



Ball valves pneumatic type 235

327



Diaphragm valves type 517

333



Diaphragm valves pneumatic DIASTAR Six

334



Diaphragm valves pneumatic DIASTAR Ten

335



Diaphragm valves pneumatic DIASTAR TenPlus

338

## Fittings for butt fusion

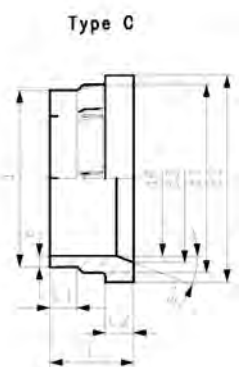
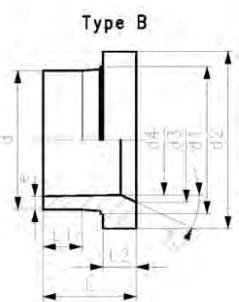
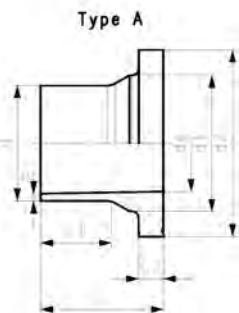


**PROGEF Standard flange adaptor**  
**JIS 10K S5/SDR11 (PN10)**  
**Jointing face: flat**

**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR compatible. Choose fusion parameters: PP-H
- Up to d315, suitable for butterfly valve type 567/578 and 038/039
- \* Material: PP-R, not suitable for butterfly valves

d (mm)	FM	DN (mm)	Code	Weight (kg)
20	IR	15	<b>727 905 706</b>	0.009
25	IR	20	<b>727 905 707</b>	0.017
32	IR	25	<b>727 905 708</b>	0.025
40	IR	32	<b>727 905 709</b>	0.042
50	IR	40	<b>727 905 710</b>	0.066
63	IR	50	<b>727 905 711</b>	0.103
75	IR	65	<b>727 905 712</b>	0.243
90	IR	80	<b>727 905 713</b>	0.326
110	IR	100	<b>727 905 714</b>	0.358
140	IR	125	<b>727 905 716</b>	0.800
160	IR	150	<b>727 905 317</b>	0.785
225	IR	200	<b>727 798 320</b>	1.665
280		250	<b>727 798 322</b>	2.521
315		300	<b>727 798 323</b>	3.247
* 355		350	<b>727 798 324</b>	6.600



d (mm)	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	Type	a°
20	26	34		16	49	29	6	1.9	A	
25	32	41		20	51	27	8	2.3	A	
32	40	50		26	52	28	8	2.9	A	
40	49	61		32	54	25	9	3.7	A	
50	60	73		40	59	32	9	4.6	A	
63	75	90		51	64	38	10	5.8	A	
75	89	106	66	61	75	43	11	6.9	B	30
90	105	125	78	73	75	41	12	8.2	B	30
110	125	150	100	90	75	40	13	10.0	B	30
140	155	188	127	114	88	39	24	12.8	B	30
160	175	212	145	127	84	40	17	14.6	C	30
225	235	268	210	196	100	35	32	21.7	C	30
280	291	320	265	228	120	45	37	26.8	C	30
315	335	370	300	256	150	50	50	30.2	C	22
* 355	373	430	342	284	162	70	40	33.9	C	45



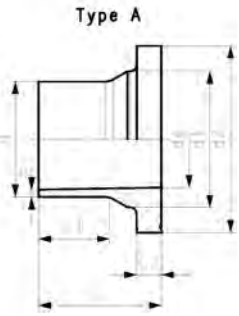
**PROGEF Standard flange adaptor**  
**JIS 10K S8.3/SDR17.6 (PN6)**  
**Joining face: flat**

**Model:**

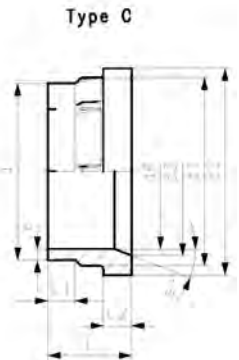
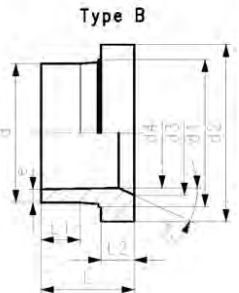
- Material: PP-H
- IR compatible. Choose fusion parameters: PP-H
- Suitable for butterfly valves type 567/578 and 037/038/039
- Conventional butt-welding according to DVS 2207

Material: PP-R

d (mm)	DN (mm)	FM	Code	Weight (kg)
50	40	IR	<b>727 905 210</b>	0.052
63	50	IR	<b>727 905 211</b>	0.087
75	65	IR	<b>727 905 787</b>	0.203
90	80	IR	<b>727 905 788</b>	0.273
110	100	IR	<b>727 905 789</b>	0.363
140	125	IR	<b>727 905 216</b>	0.499
160	150	IR	<b>727 905 217</b>	0.770
225	200	IR	<b>727 798 220</b>	1.330
280	250		<b>727 798 222</b>	1.785
315	300		<b>727 798 223</b>	2.499
*	355	350	<b>727 798 224</b>	4.600

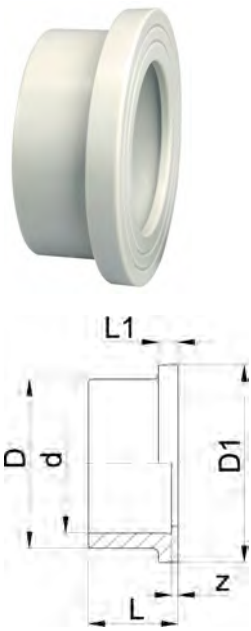


d (mm)	DN (mm)	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	Type	a°
50	40	60	73		44	59	32	9	3.2	A	
63	50	63	90		55	66	38	10	4.0	A	
75	65	89	106		65	75	43	11	4.5	A	
90	80	105	125		78	75	41	12	5.4	A	
110	100	125	150		96	75	40	13	6.6	A	
140	125	155	188	127	120	79	34	17	8.3	B	27
160	150	175	212	153	142	84	45	17	9.1	C	30
225	200	235	268	210	196	100	42	24	13.9	B	30
280	250	291	320	265	247	120	45	35	17.2	C	30
315	300	335	370	300	278	150	50	50	19.3	C	21
*	355	350	373	430	346	310	70	33	21.7	C	21





# Fittings for socket fusion



## PROGEF Standard flange adaptor jointing face flat (PN10)

### Model:

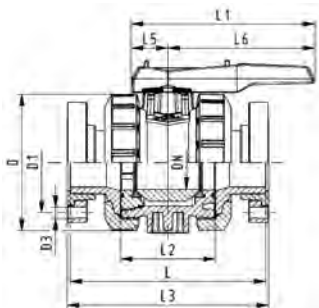
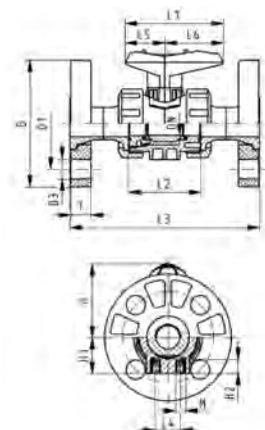
- Counterpart: flange adaptor flat or with O-ring groove
- Connection: according to JIS 10K, BS10
- Gasket: O-ring EPDM

Inch (inch)	DN (mm)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	D (mm)	D1 (mm)	z (mm)
1/2	15	<b>727 800 206</b>	10	0.007	19	6	27	34	5
3/4	20	<b>727 800 207</b>	10	0.010	21	7	33	41	5
1	25	<b>727 800 208</b>	10	0.015	23	7	41	50	5
1 1/4	32	<b>727 800 209</b>	10	0.028	25	8	50	61	5
1 1/2	40	<b>727 800 210</b>	10	0.034	28	8	61	73	5
2	50	<b>727 800 211</b>	5	0.058	32	9	76	90	5
2 1/2	65	<b>727 800 212</b>	10	0.090	35	10	91	106	5
3	80	<b>727 800 213</b>	10	0.145	42	11	109	125	7
4	100	<b>727 800 214</b>	10	0.227	49	12	131	150	7

# Ball valves type 546



DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 546**  
**With mounting inserts**  
**With backing flanges PP-GF JIS**

**Model:**

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)
- Overall length according to EN 558
- Connecting dimensions: JIS B 2220, 10K

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
½	15	10	185	167 546 942	1	0.314	167 546 952	1	0.314
¾	20	10	350	167 546 943	1	0.432	167 546 953	1	0.432
1	25	10	700	167 546 944	1	0.676	167 546 954	1	0.676
1 ¼	32	10	1000	167 546 945	1	0.970	167 546 955	1	0.970
1 ½	40	10	1600	167 546 946	1	1.216	167 546 956	1	1.216
2	50	10	3100	167 546 947	1	1.966	167 546 957	1	1.966
2 ½	65	10	5000	167 546 948	1	4.300	167 546 958	1	4.300
3	80	10	7000	167 546 949	1	5.953	167 546 959	1	6.400
4	100	10	11000	167 546 950	1	8.148	167 546 960	1	10.000

Size (inch)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M
½	95	70	15	57	27	12	120	77	56	130	25	32	45	M6
¾	100	75	15	67	30	12	140	97	65	150	25	39	58	M6
1	125	90	19	73	36	12	150	97	71	187	25	39	58	M6
1 ¼	135	100	19	90	44	15	170	128	85	180	45	54	74	M8
1 ½	140	105	19	97	51	15	190	128	89	200	45	54	74	M8
2	155	120	19	116	64	15	220	152	101	234	45	66	87	M8
2 ½	166	140	19	149	85	15	280	270	136	290	70	64	206	M8
3	200	150	19	161	105	15	296	270	141	310	70	64	206	M8
4	238	175	19	178	123	22	336	320	164	350	120	64	256	M12

# Ball valves pneumatic type 235



DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 235 FC (Fail safe to close)**  
**With manual override**  
**With fixed flanges JIS**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

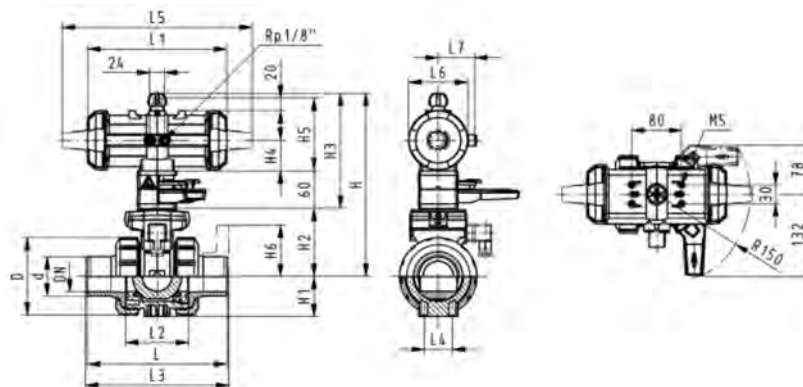
**Option:**

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
½	15	10	185	199 235 363	1	1.700	199 235 373	1	1.700
¾	20	10	350	199 235 364	1	1.900	199 235 374	1	1.900
1	25	10	700	199 235 365	1	2.100	199 235 375	1	2.100
1 ¼	32	10	1000	199 235 366	1	3.400	199 235 376	1	3.400
1 ½	40	10	1600	199 235 367	1	3.900	199 235 377	1	3.900
2	50	10	3100	199 235 368	1	4.900	199 235 378	1	4.900

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
½	50	159	27	62	168	40	77	48	120	194	56	130	25	261	76
¾	58	168	30	71	168	40	77	53	139	194	65	150	25	261	76
1	68	168	36	71	168	40	77	58	150	194	71	160	25	261	76
1 ¼	84	202	44	84	187	51	99	70	170	224	85	180	45	305	95
1 ½	97	202	51	84	187	51	99	75	190	224	89	200	45	305	95
2	124	225	64	106	187	51	99	83	220	224	101	230	45	305	95

Size (inch)	L7 (mm)
½	48
¾	48
1	48
1 ¼	59
1 ½	59
2	59





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 235 FO (Fail safe to open)**  
**With manual override**  
**With fixed flanges JIS**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

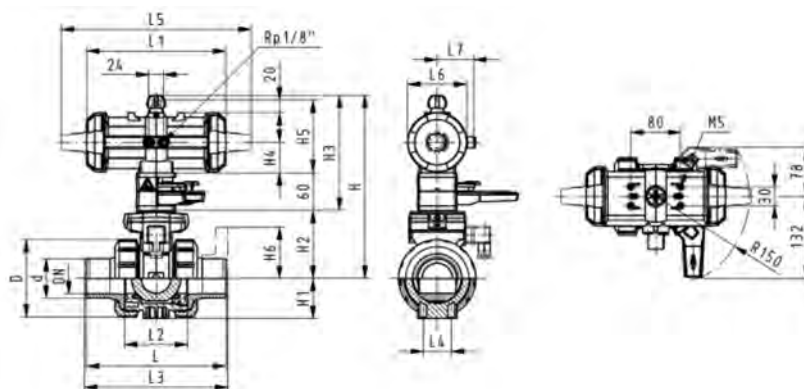
**Option:**

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
½	15	10	185	199 235 383	1	1.700	199 235 393	1	1.700
¾	20	10	350	199 235 384	1	1.900	199 235 394	1	1.900
1	25	10	700	199 235 385	1	2.100	199 235 395	1	2.100
1 ¼	32	10	1000	199 235 386	1	3.400	199 235 396	1	3.400
1 ½	40	10	1600	199 235 387	1	3.900	199 235 397	1	3.900
2	50	10	3100	199 235 388	1	4.900	199 235 398	1	4.900

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
½	50	159	27	62	168	40	77	48	120	194	56	130	25	261	76
¾	58	168	30	71	168	40	77	53	139	194	65	150	25	261	76
1	68	168	36	71	168	40	77	58	150	194	71	160	25	261	76
1 ¼	84	202	44	84	187	51	99	70	170	224	85	180	45	305	95
1 ½	97	202	51	84	187	51	99	75	190	224	89	200	45	305	95
2	124	225	64	106	187	51	99	83	220	224	101	230	45	305	95

Size (inch)	L7 (mm)
½	48
¾	48
1	48
1 ¼	59
1 ½	59
2	59





DN10/15 - 50

**PROGEF Standard**  
**Ball valve type 235 DA (Double acting)**  
**With manual override**  
**With fixed flanges JIS**

**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

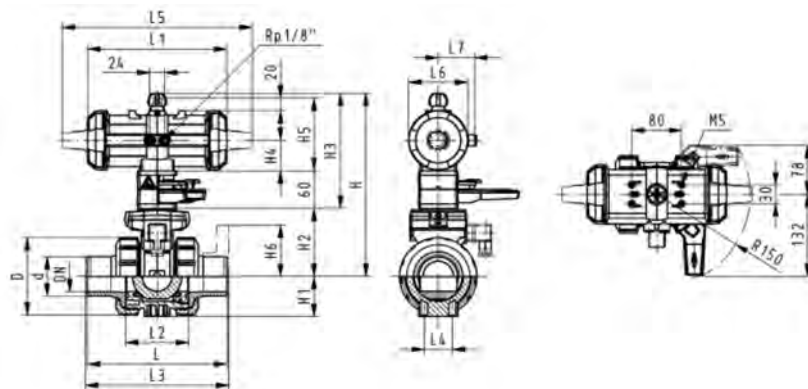
**Option:**

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
½	15	10	185	199 235 403	1	1.700	199 235 413	1	1.700
¾	20	10	350	199 235 404	1	1.900	199 235 414	1	1.900
1	25	10	700	199 235 405	1	2.100	199 235 415	1	2.100
1 ¼	32	10	1000	199 235 406	1	3.400	199 235 416	1	3.400
1 ½	40	10	1600	199 235 407	1	3.900	199 235 417	1	3.900
2	50	10	3100	199 235 408	1	4.900	199 235 418	1	4.900

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
½	50	159	27	62	168	40	77	48	120	194	56	130	25	261	76
¾	58	168	30	71	168	40	77	53	139	194	65	150	25	261	76
1	68	168	36	71	168	40	77	58	150	194	71	160	25	261	76
1 ¼	84	202	44	84	187	51	99	70	170	224	85	180	45	305	95
1 ½	97	202	51	84	187	51	99	75	190	224	89	200	45	305	95
2	124	225	64	106	187	51	99	83	220	224	101	230	45	305	95

Size (inch)	L7 (mm)
½	48
¾	48
1	48
1 ¼	59
1 ½	59
2	59





DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 235 FC (Fail safe to close)**  
**Without manual override**  
**With backing flanges JIS**

**Model:**

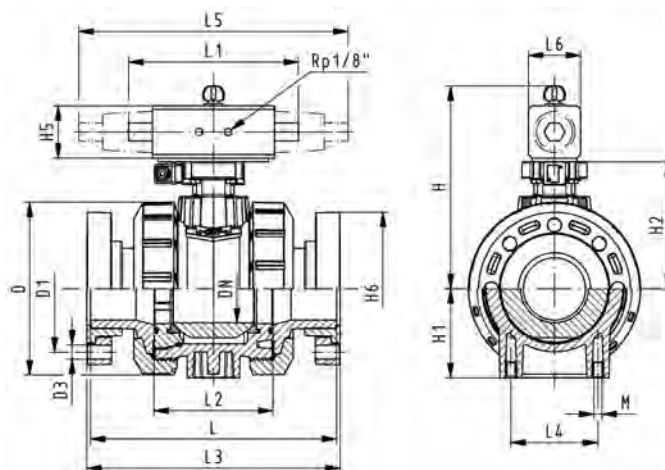
- Material: PP-H
- Control time 90°< 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimensions: JIS B 2220, 10K

**Option:**

- Individual configuration of the valve (see diagram)

Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
			(L/min)						
½	15	10	185	199 235 423	1	1.700	199 235 433	1	1.700
¾	20	10	350	199 235 424	1	1.900	199 235 434	1	1.900
1	25	10	700	199 235 425	1	2.100	199 235 435	1	2.100
1 ¼	32	10	1000	199 235 426	1	3.400	199 235 436	1	3.400
1 ½	40	10	1600	199 235 427	1	3.900	199 235 437	1	3.900
2	50	10	3100	199 235 428	1	4.900	199 235 438	1	4.900
2 ½	65	10	5000	199 235 429	1	8.600	199 235 439	1	8.600
3	80	10	7000	199 235 430	1	11.200	199 235 440	1	11.200
4	100	10	11000	199 235 431	1	16.600	199 235 441	1	16.600

Size	D	H	H1	H2	H5	L	L1	L2	L3	L4	L5	L6	L7
(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
½	50	159	27	62	77	120	194	56	130	25	261	76	48
¾	58	168	30	71	77	139	194	65	150	25	261	76	48
1	68	168	36	71	77	150	194	71	160	25	261	76	48
1 ¼	84	202	44	84	99	170	224	85	180	45	305	95	59
1 ½	97	202	51	84	99	190	224	89	200	45	305	95	59
2	124	225	64	106	99	220	224	101	230	45	305	95	59
2 ½	166	262	85	156	70	280		136	290	70	276	65	
3	200	281	105	168	78	296		141	310	70	341	72	
4	238	292	123	175	86	336		164	350	120	369	80	





DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 235 FO (Fail safe to close)**  
**Without manual override**  
**With backing flanges JIS**

**Model:**

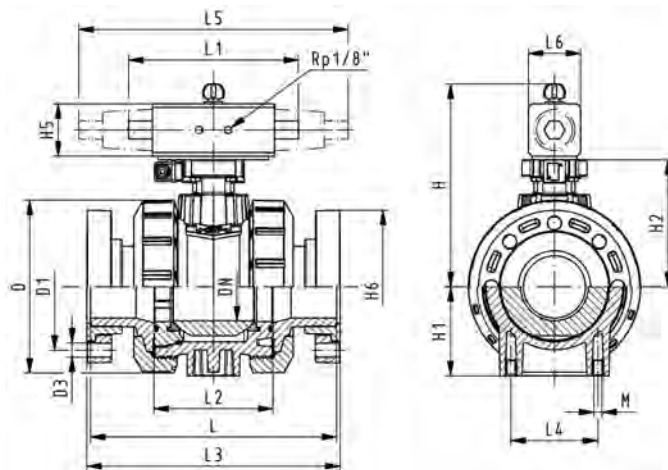
- Material: PP-H
- Control time 90° < 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimensions: JIS B 2220, 10K

**Option:**

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
½	15	10	185	199 235 443	1	1.700	199 235 453	1	1.700
¾	20	10	350	199 235 444	1	1.900	199 235 454	1	1.900
1	25	10	700	199 235 445	1	2.100	199 235 455	1	2.100
1 ¼	32	10	1000	199 235 446	1	3.400	199 235 456	1	3.400
1 ½	40	10	1600	199 235 447	1	3.900	199 235 457	1	3.900
2	50	10	3100	199 235 448	1	4.900	199 235 458	1	4.900
2 ½	65	10	5000	199 235 449	1	8.600	199 235 459	1	8.600
3	80	10	7000	199 235 450	1	11.200	199 235 460	1	11.200
4	100	10	11000	199 235 451	1	16.600	199 235 461	1	16.600

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
½	50	159	27	62	77	120	194	56	130	25	261	76	48
¾	58	168	30	71	77	139	194	65	150	25	261	76	48
1	68	168	36	71	77	150	194	71	160	25	261	76	48
1 ¼	84	202	44	84	99	170	224	85	180	45	305	95	59
1 ½	97	202	51	84	99	190	224	89	200	45	305	95	59
2	124	225	64	106	99	220	224	101	230	45	305	95	59
2 ½	166	262	85	156	70	280		136	290	70	276	65	
3	200	281	105	168	78	296		141	310	70	341	72	
4	238	292	123	175	86	336		164	350	120	369	80	





DN10/15 - 50



**PROGEF Standard**  
**Ball valve type 235 DA (Double acting)**  
**Without manual override**  
**With backing flanges JIS**

**Model:**

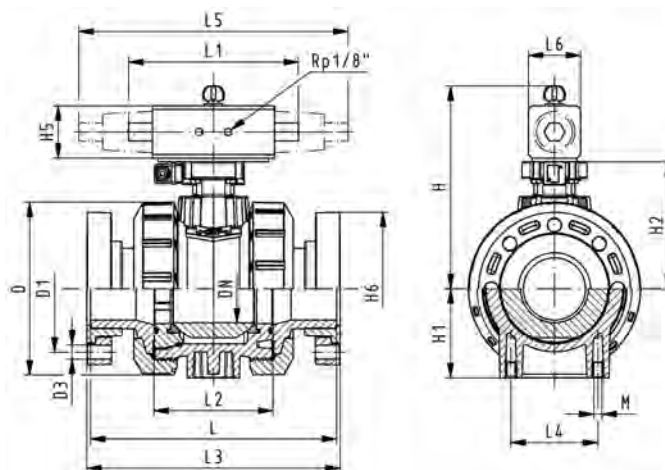
- Material: PP-H
- Control time 90°< 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimensions: JIS B 2220, 10K

**Option:**

- Individual configuration of the valve (see diagram)

Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
			(L/min)						
½	15	10	185	199 235 463	1	1.700	199 235 473	1	1.700
¾	20	10	350	199 235 464	1	1.900	199 235 474	1	1.900
1	25	10	700	199 235 465	1	2.100	199 235 475	1	2.100
1 ¼	32	10	1000	199 235 466	1	3.400	199 235 476	1	3.400
1 ½	40	10	1600	199 235 467	1	3.900	199 235 477	1	3.900
2	50	10	3100	199 235 468	1	4.900	199 235 478	1	4.900
2 ½	65	10	5000	199 235 469	1	7.500	199 235 479	1	7.500
3	80	10	7000	199 235 470	1	10.500	199 235 480	1	10.500
4	100	10	11000	199 235 471	1	14.800	199 235 481	1	14.800

Size	D	H	H1	H2	H5	L1	L2	L3	L4	L5	L6	L7
(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
½	50	159	27	62	77	194	56	143	25	261	76	48
¾	58	168	30	71	77	194	65	171	25	261	76	48
1	68	168	36	71	77	194	71	187	25	261	76	48
1 ¼	84	202	44	84	99	224	85	190	45	305	95	59
1 ½	97	202	51	84	99	224	89	212	45	305	95	59
2	124	225	64	106	99	224	101	234	45	305	95	59
2 ½	166	257	85	156	66	144	136	290	70		60	
3	200	274	105	168	70	152	141	310	70		65	
4	238	273	123	175	78	169	164	350	120		72	





# Diaphragm valves type 517



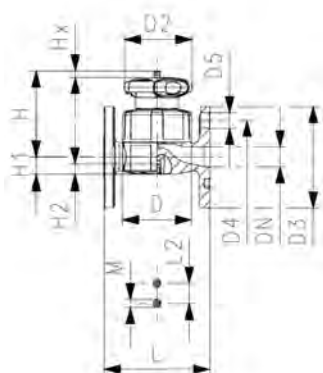
## PROGEF Plus oil free Diaphragm valve type 517 With fixed flanges PP-H JIS

### Model:

- Material: PP-H/oil free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Joining faces flat/serrated
- Connecting dimension: JIS B2238/39 10K

### Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)
½	15	10	125	<b>167 517 922</b>	1	0.425	<b>167 517 972</b>	1	0.434
¾	20	10	271	<b>167 517 923</b>	1	0.504	<b>167 517 973</b>	1	0.514
1	25	10	481	<b>167 517 924</b>	1	1.149	<b>167 517 974</b>	1	1.168
1 ¼	32	10	759	<b>167 517 925</b>	1	1.443	<b>167 517 975</b>	1	1.462
1 ½	40	10	1263	<b>167 517 926</b>	1	2.420	<b>167 517 976</b>	1	2.449
2	50	10	1728	<b>167 517 927</b>	1	3.055	<b>167 517 977</b>	1	3.082

Size (inch)	D (mm)	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)
½	65	65	95	70	15	73	14	12	110	25	M6	7
¾	80	65	100	75	15	81	18	12	120	25	M6	10
1	88	87	125	90	19	107	22	12	130	25	M6	13
1 ¼	101	87	135	100	19	115	26	15	180	45	M8	15
1 ½	117	135	140	105	19	148	32	15	180	45	M8	19
2	144	135	155	120	19	166	39	15	210	45	M8	25

# Diaphragm valves pneumatic DIASTAR Six



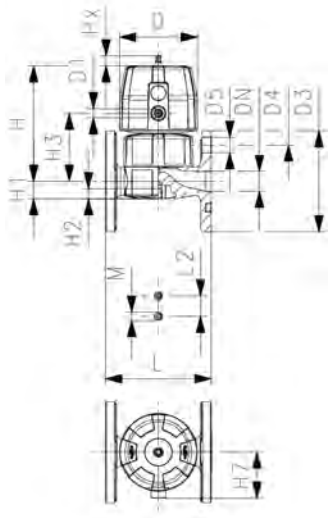
**PROGEF Standard**  
**Diaphragm valve DIASTAR Six**  
**FC (Fail safe to close)**  
**With fixed flanges PP-H JIS**

**Model:**

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: JIS B2238/39 10K

**Option:**

- Individual configuration of the valve (see diagram)



Size	DN	PN	kv-value	EPDM	SP	Weight
(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)
			(l/min)			
¾	20	6	271	<b>167 617 913</b>	1	1.023
1	25	6	481	<b>167 617 914</b>	1	1.263
1 ¼	32	6	759	<b>167 617 915</b>	1	2.082
1 ½	40	6	960	<b>167 617 916</b>	1	2.570
2	50	6	1181	<b>167 617 917</b>	1	3.432

Size	D	D1_G	D3	D4	D5	H	H1	H2	H3	H7	L	L2	M	Lift = Hx
(inch)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)
¾	96	⅝	100	75	15	132	18	12	73	57	120	25	M6	10
1	96	⅝	125	90	19	143	22	12	84	69	130	25	M6	13
1 ¼	120	⅝	135	100	19	173	26	15	99	69	180	45	M8	14
1 ½	120	⅝	140	105	19	193	32	15	119	69	180	45	M8	16
2	120	⅝	155	120	19	205	39	15	132	69	210	45	M8	16

# Diaphragm valves pneumatic DIASTAR Ten



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**With fixed flanges PP-H JIS**

**Model:**

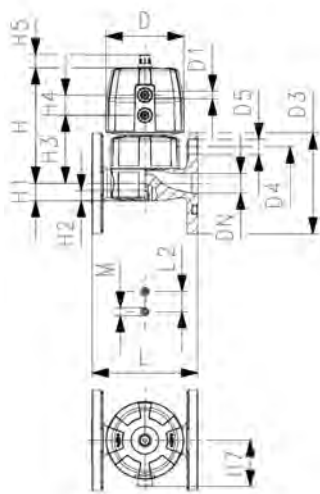
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: JIS B2238/39 10K

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



Size (inch)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)
½	15	10/10*	125	<b>167 657 912</b>	1	0.554	<b>167 657 932</b>	1	0.562
¾	20	10/10*	271	<b>167 657 913</b>	1	0.888	<b>167 657 933</b>	1	0.898
1	25	10/10*	481	<b>167 657 914</b>	1	1.125	<b>167 657 934</b>	1	1.144
1 ¼	32	10/10*	759	<b>167 657 915</b>	1	1.812	<b>167 657 935</b>	1	1.831
1 ½	40	10/10*	1263	<b>167 657 916</b>	1	2.868	<b>167 657 936</b>	1	2.897
2	50	10/10*	1728	<b>167 657 917</b>	1	3.513	<b>167 657 937</b>	1	3.540

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	68	⅝	95	70	15	101	14	12	60	24	16	57	110	25	M6
¾	96	⅝	100	75	15	132	18	12	73	25	16	57	120	25	M6
1	96	⅝	125	90	19	143	22	12	84	25	16	69	130	25	M6
1 ¼	120	⅝	135	100	19	173	26	15	99	26	26	88	180	45	M8
1 ½	150	¾	140	105	19	214	32	15	119	36	26	103	180	45	M8
2	150	¾	155	120	19	226	39	15	132	36	26	103	210	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**With fixed flanges PP-H JIS**

**Model:**

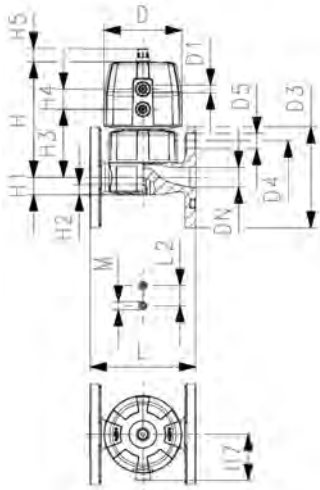
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: JIS B2238/39 10K

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



Size (inch)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
½	15	10/10*	125	<b>167 647 912</b>	1	0.570	<b>167 647 932</b>
¾	20	10/10*	271	<b>167 647 913</b>	1	0.924	<b>167 647 933</b>
1	25	10/10*	481	<b>167 647 914</b>	1	1.155	<b>167 647 934</b>
1 ¼	32	10/10*	759	<b>167 647 915</b>	1	1.872	<b>167 647 935</b>
1 ½	40	10/10*	1263	<b>167 647 916</b>	1	3.618	<b>167 647 936</b>
2	50	10/10*	1728	<b>167 647 917</b>	1	4.263	<b>167 647 937</b>

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	68	¾	95	70	15	101	14	12	60	24	16	57	110	25	M6
¾	96	¾	100	75	15	132	18	12	73	25	16	57	120	25	M6
1	96	¾	125	90	19	143	22	12	84	25	16	69	130	25	M6
1 ¼	120	¾	135	100	19	173	26	15	99	26	26	88	180	45	M8
1 ½	150	¾	140	105	19	214	32	15	119	36	26	103	180	45	M8
2	150	¾	155	120	19	226	39	15	132	36	26	103	210	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23



**PROGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**With fixed flanges PP-H JIS**

**Model:**

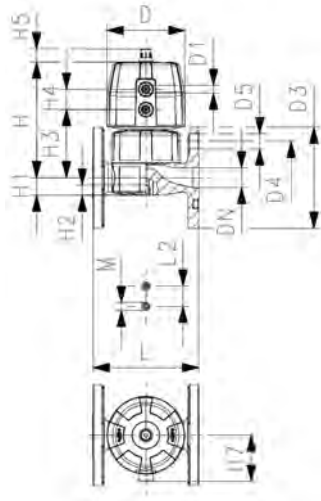
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: JIS B2238/39 10K

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



Size (inch)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
½	15	10/10*	125	<b>167 627 912</b>	1	<b>167 627 932</b>	1 0.628
¾	20	10/10*	271	<b>167 627 913</b>	1	<b>167 627 933</b>	1 1.108
1	25	10/10*	481	<b>167 627 914</b>	1	<b>167 627 934</b>	1 1.354
1 ¼	32	10/10*	759	<b>167 627 915</b>	1	<b>167 627 935</b>	1 2.251
1 ½	40	10/10*	1263	<b>167 627 916</b>	1	<b>167 627 936</b>	1 3.737
2	50	10/6*	1728	<b>167 627 917</b>	1	<b>167 627 937</b>	1 4.380

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	68	⅝	95	70	15	101	14	12	60	24	16	43	110	25	M6
¾	96	⅝	100	75	15	132	18	12	73	25	16	57	120	25	M6
1	96	⅝	125	90	19	143	22	12	84	25	16	69	130	25	M6
1 ¼	120	⅝	135	100	19	173	26	15	99	26	26	69	180	45	M8
1 ½	150	¾	140	105	19	193	32	15	119	36	26	88	180	45	M8
2	150	¾	155	120	19	205	39	15	132	36	26	88	210	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23

# Diaphragm valves pneumatic DIASTAR TenPlus



**PROGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close) low pressure**  
**With fixed flanges PP-H JIS**

**Model:**

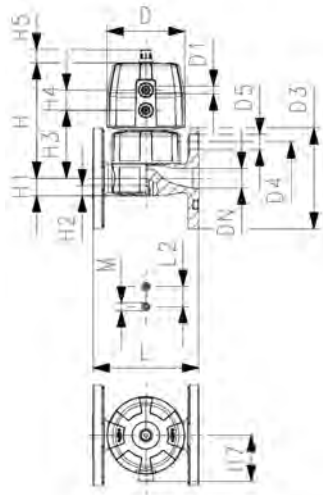
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: JIS B2238/39 10K

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **both sides**



Size (inch)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
½	15	10/8*	125	<b>167 687 912</b>	1	<b>167 687 932</b>	1 1.028
¾	20	10/8*	271	<b>167 687 913</b>	1	<b>167 687 933</b>	1 1.108
1	25	10/8*	481	<b>167 687 914</b>	1	<b>167 687 934</b>	1 1.948
1 ¼	32	10/8*	759	<b>167 687 915</b>	1	<b>167 687 935</b>	1 3.321
1 ½	40	10/8*	1263	<b>167 687 916</b>	1	<b>167 687 936</b>	1 5.145
2	50	10/6*	1728	<b>167 687 917</b>	1	<b>167 687 937</b>	1 5.787

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	96	⅜	95	70	15	127	14	12	68	25	16	57	110	25	M6
¾	96	⅜	100	75	15	132	18	12	73	25	16	57	120	25	M6
1	120	⅜	125	90	19	167	22	12	93	26	26	69	130	25	M6
1 ¼	150	¼	135	100	19	196	26	15	101	36	26	88	180	45	M8
1 ½	180	¼	140	105	19	239	32	15	124	37	26	103	180	45	M8
2	180	¼	155	120	19	251	39	15	137	37	26	103	210	45	M8


















Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23

# PROGEF Plus

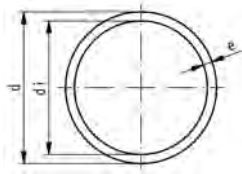






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# Pipes



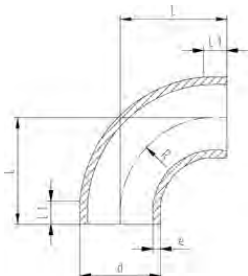
## PROGEF Plus SDR11/PN10/S5

### Model:

- Material: PP-H - homopolymer
- dimensions: acc. to DIN 8077/78
- Colour: light grey RAL 7032
- Pipe length: 5000mm, with plain ends
- High Purity-Quality
- both ends closed with caps, double bagged into foil
- **Note 1:** DIBT Z-40.23-4 Approval
- Attention: Pressure rates refer to operating temperatures at 20°C. Higher temperatures and aggressive flow media reduce pressure load (see above DIN and our technical documentation). Pressure load capacity has to be determined in consideration with safety demands of the respective applications and calculated in accordance.

Note	d (mm)	Code	Weight (kg/m)	e (mm)
1	20	<b>167 481 711</b>	0.107	1.9
1	25	<b>167 481 712</b>	0.164	2.3
1	32	<b>167 481 713</b>	0.261	2.9
1	40	<b>167 481 714</b>	0.412	3.7
1	50	<b>167 481 715</b>	0.638	4.6
1	63	<b>167 481 716</b>	1.010	5.8
1	75	<b>167 481 717</b>	1.410	6.8
1	90	<b>167 481 718</b>	2.030	8.2
1	110	<b>167 481 719</b>	3.010	10.0
1	125	<b>167 481 720</b>	3.910	11.4
1	140	<b>167 481 721</b>	4.870	12.7
1	160	<b>167 481 722</b>	6.380	14.6
	180	<b>167 481 723</b>	8.070	16.4
	200	<b>167 481 724</b>	9.950	18.2
	225	<b>167 481 725</b>	12.600	20.5
	250	<b>167 481 726</b>	15.500	22.7
	280	<b>167 481 727</b>	19.400	25.4
	315	<b>167 481 728</b>	24.600	28.6
	355	<b>167 481 730</b>	31.200	32.2
	400	<b>167 481 731</b>	39.600	36.3

# Butt fusion fittings

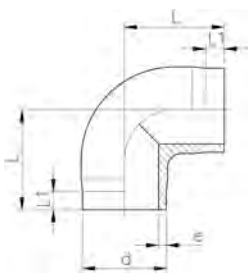


## PROGEF Plus bend 90° S5/SDR11 (PN10)

### Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Cleaned and double bagged

d (mm)	FM	Code	L (mm)	L1 (mm)	R (mm)	e (mm)
20	IR	<b>727 018 681</b>	38	23	15	1.9
25	IR	<b>727 018 682</b>	42	23	19	2.3
32	IR	<b>727 018 683</b>	46	22	24	2.9
40	IR	<b>727 018 684</b>	51	21	30	3.7
50	IR	<b>727 018 685</b>	58	21	37	4.6
63	IR	<b>727 018 686</b>	66	21	45	5.8
75	IR	<b>727 018 662</b>	100	20	90	6.8
90	IR	<b>727 018 663</b>	100	20	90	8.2
110	IR	<b>727 018 664</b>	141	25	130	10.0
125	IR	<b>727 018 690</b>	125	28	116	11.4
140	IR	<b>727 018 691</b>	140	33	131	12.7
160	IR	<b>727 018 692</b>	160	33	151	14.6
180	IR	<b>727 018 693</b>	180	33	171	16.4
200	IR	<b>727 018 694</b>	200	33	190	18.2
225	IR	<b>727 018 695</b>	220	33	210	20.5
250		<b>727 018 450</b>	256	49	232	22.7
280		<b>727 018 451</b>	286	44	262	25.4
315		<b>727 018 452</b>	321	51	297	28.6



## PROGEF Plus elbow 90° S5/SDR11 (PN10)

### Model:

- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Cleaned and double bagged
- Material: PP-H

d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	e (mm)
20	IR	<b>727 108 581</b>	1	0.008	38	25	1.9
25	IR	<b>727 108 582</b>	1	0.010	42	26	2.3
32	IR	<b>727 108 583</b>	1	0.024	46	27	2.9
40	IR	<b>727 108 584</b>	1	0.050	51	22	3.7
50	IR	<b>727 108 585</b>	1	0.079	58	23	4.6
63	IR	<b>727 108 586</b>	10	0.138	66	21	5.8



### PROGEF Plus elbow 45° S5/SDR11 (PN10)

**Model:**

- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Cleaned and double bagged
- Long version for d250, d280 and d315
- Material: PP-H

<sup>1</sup> Material: PP-R



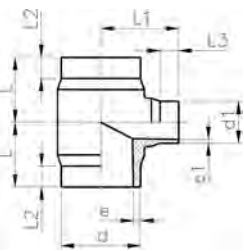
d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	e (mm)
20	IR	727 158 581	1	0.006	32	24	1.9
25	IR	727 158 582	1	0.012	34	25	2.3
32	IR	727 158 583	1	0.021	36	25	2.9
40	IR	727 158 584	1	0.035	39	25	3.7
50	IR	727 158 585	1	0.057	42	26	4.6
63	IR	727 158 586	1	0.098	47	29	5.8
75	IR	727 158 587	1	0.139	49	29	6.8
90	IR	727 158 588	1	0.227	57	34	8.2
110	IR	727 158 589	1	0.421	70	43	10.0
125	IR	727 158 590	1	0.607	79	48	11.4
140	IR	727 158 591	0	0.860	88	55	12.7
160	IR	727 158 592	1	1.260	100	60	14.6
200	IR	727 158 594	1	2.418	124	75	18.2
225	IR	727 158 595	1	3.400	140	85	20.5
1	250	727 158 596	1	7.772	225	133	22.7
1	280	727 158 597	1	10.170	235	143	25.4
1	315	727 158 598	1	13.656	255	154	28.6



### PROGEF Plus tee 90° reducing S5/SDR11 (PN10)

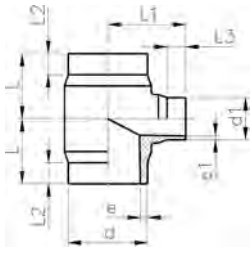
**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Cleaned and double bagged



d (mm)	d1 (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	e (mm)	e1 (mm)
63	32	IR	727 208 251	0	0.159	65	70	25	25	5.8	2.9
63	40	IR	727 208 250	1	0.175	65	70	25	25	5.8	3.7
63	50	IR	727 208 252	0	0.174	65	70	25	25	5.8	4.6
75	32	IR	727 208 253	0	0.240	70	75	25	25	6.8	2.9
75	50	IR	727 208 254	0	0.248	70	75	25	25	6.8	4.6
75	63	IR	727 208 255	0	0.260	70	75	25	25	6.8	5.8
90	50	IR	727 208 257	1	0.410	80	85	25	25	8.2	4.6
90	63	IR	727 208 258	0	0.431	80	85	25	25	8.2	5.8
90	75	IR	727 208 259	0	0.435	80	85	25	25	8.2	6.8
110	32	IR	727 208 260	0	0.648	90	95	30	25	10.0	2.9
110	50	IR	727 208 261	0	0.662	90	95	30	25	10.0	4.6
110	63	IR	727 208 262	0	0.669	90	95	30	25	10.0	5.8
110	75	IR	727 208 263	1	0.689	90	95	30	25	10.0	6.8
110	90	IR	727 208 264	1	0.694	90	95	30	25	10.0	8.2
125	63	IR	727 208 265	1	1.680	125	230	25	16	11.4	5.8
125	90	IR	727 208 266	1	1.520	125	223	25	22	11.4	8.2
125	110	IR	727 208 267	1	1.700	125	217	25	30	11.4	10.0
140	75	IR	727 208 268	1	2.140	140	256	28	19	12.7	6.8
140	90	IR	727 208 269	1	2.150	140	245	28	22	12.7	8.2
140	110	IR	727 208 270	1	2.380	140	242	28	33	12.7	10.0
160	125	IR	727 208 275	1	3.500	160	276	28	32	14.6	11.4
200	160	IR	727 208 285	1	6.600	200	332	35	40	18.2	14.6
200	180	IR	727 208 286	1	6.200	200	337	35	45	18.2	16.4

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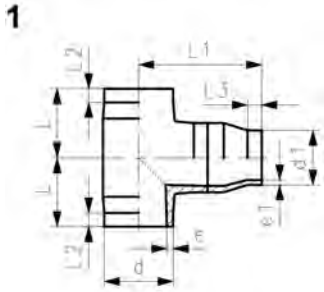
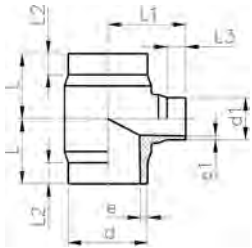


d (mm)	d1 (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	e (mm)	e1 (mm)
160	63	IR	727 208 271	0	2.125	142	135	50	30	14.6	5.8
160	75	IR	727 208 272	0	2.140	142	135	50	30	14.6	6.8
160	90	IR	727 208 273	0	2.164	142	135	50	30	14.6	8.2
160	110	IR	727 208 274	0	2.200	142	135	50	30	14.6	10.0
225	90	IR	727 208 288	1	4.597	155	165	40	30	20.5	8.2
225	110	IR	727 208 289	0	4.524	155	165	40	30	20.5	10.0
225	160	IR	727 208 291	1	4.710	155	165	40	30	20.5	14.6
250	160	IR	727 208 293	1	4.530	276	427	92	55	22.7	14.6

### PROGEF Plus tee 90° reducing S5/SDR11 (PN10)

#### Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Cleaned and double bagged



d (mm)	d1 (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	e (mm)	e1 (mm)	
63	32	IR	727 208 251	0	0.159	65	70	25	25	5.8	2.9	
63	40	IR	727 208 250	1	0.175	65	70	25	25	5.8	3.7	
63	50	IR	727 208 252	0	0.174	65	70	25	25	5.8	4.6	
75	32	IR	727 208 253	0	0.240	70	75	25	25	6.8	2.9	
75	50	IR	727 208 254	0	0.248	70	75	25	25	6.8	4.6	
75	63	IR	727 208 255	0	0.260	70	75	25	25	6.8	5.8	
90	50	IR	727 208 257	1	0.410	80	85	25	25	8.2	4.6	
90	63	IR	727 208 258	0	0.431	80	85	25	25	8.2	5.8	
90	75	IR	727 208 259	0	0.435	80	85	25	25	8.2	6.8	
110	32	IR	727 208 260	0	0.648	90	95	30	25	10.0	2.9	
110	50	IR	727 208 261	0	0.662	90	95	30	25	10.0	4.6	
110	63	IR	727 208 262	0	0.669	90	95	30	25	10.0	5.8	
110	75	IR	727 208 263	1	0.689	90	95	30	25	10.0	6.8	
110	90	IR	727 208 264	1	0.694	90	95	30	25	10.0	8.2	
1	125	63	IR	727 208 265	1	1.680	125	230	25	16	11.4	5.8
1	125	90	IR	727 208 466	1	1.700	125	225	25	40	11.4	8.2
1	125	110	IR	727 208 267	1	1.700	125	217	25	30	11.4	10.0
1	140	75	IR	727 208 468	1	2.400	140	245	28	41	11.4	10.0
1	140	90	IR	727 208 469	1	2.500	140	240	28	40	12.7	6.8
1	140	110	IR	727 208 270	1	2.380	140	242	28	33	12.7	10.0
160	125	IR	727 208 275	1	3.500	160	276	28	32	14.6	11.4	
200	160	IR	727 208 285	1	6.600	200	332	35	40	18.2	14.6	
200	180	IR	727 208 486	1	6.900	200	335	35	45	12.7	8.2	
160	63	IR	727 208 271	0	2.125	142	135	50	30	14.6	5.8	
160	75	IR	727 208 272	0	2.140	142	135	50	30	14.6	6.8	
160	90	IR	727 208 273	0	2.164	142	135	50	30	14.6	8.2	
160	110	IR	727 208 274	0	2.200	142	135	50	30	14.6	10.0	
225	90	IR	727 208 288	1	4.597	155	165	40	30	20.5	8.2	
225	110	IR	727 208 289	0	4.524	155	165	40	30	20.5	10.0	
225	160	IR	727 208 291	1	4.710	155	165	40	30	20.5	14.6	
1	250	160	IR	727 208 493	1	4.530	227	387	68	53	22.7	14.6

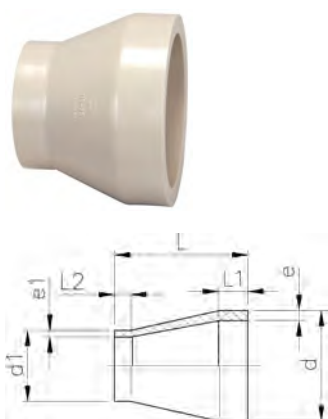


### PROGEF Plus tee 90° equal S5/SDR11 (PN10)

**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Cleaned and double bagged

d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	e (mm)
20	IR	727 208 581	0.009	38	17	1.9
25	IR	727 208 582	0.019	42	17	2.3
32	IR	727 208 583	0.033	46	17	2.9
40	IR	727 208 584	0.063	51	23	3.7
50	IR	727 208 585	0.106	58	22	4.6
63	IR	727 208 586	0.186	66	20	5.8
75	IR	727 208 587	0.294	75	20	6.8
90	IR	727 208 588	0.526	90	20	8.2
110	IR	727 208 589	0.935	110	20	10.0
125	IR	727 208 590	1.357	125	25	11.4
140	IR	727 208 591	2.209	140	28	12.7
160	IR	727 208 592	2.900	160	28	14.6
180	IR	727 208 693	5.475	215	94	16.4
200	IR	727 208 594	5.570	200	35	18.2
225	IR	727 208 595	7.882	220	35	20.5
250	IR	727 208 696	10.400	227	68	18.2
280		727 208 697	15.170	267	87	25.4
315		727 208 698	20.330	283	86	28.6



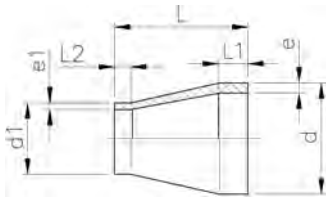
### PROGEF Plus reducer S5/SDR11 (PN10)

**Model:**

- Cleaned and double bagged
- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H

d (mm)	d1 (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	e1 (mm)
25	20	IR	727 908 637	0.008	50	20	20	2.3	1.9
32	20	IR	727 908 642	0.012	50	20	20	2.9	1.9
32	25	IR	727 908 641	0.013	50	20	20	2.9	2,3
40	20	IR	727 908 648	0.015	58	20	23	3.7	1,9
40	25	IR	727 908 647	0.017	55	20	20	3.7	2,3
40	32	IR	727 908 646	0.019	55	20	20	3.7	2,9
50	25	IR	727 908 654	0.026	60	20	20	4.6	2,3
50	32	IR	727 908 653	0.026	60	20	20	4.6	2,9
50	40	IR	727 908 652	0.032	60	20	20	4.6	3,7
63	32	IR	727 908 660	0.046	65	20	20	5.8	2,9
63	40	IR	727 908 659	0.048	65	20	20	5.8	3,7
63	50	IR	727 908 658	0.051	65	20	20	5.8	4,6
75	40	IR	727 908 666	0.063	68	20	20	6.8	3,7
75	50	IR	727 908 665	0.072	65	20	20	6.8	4,6
75	63	IR	727 908 664	0.079	65	20	20	6.8	5,8
90	63	IR	727 908 671	0.119	75	22	19	8.2	5,8
90	75	IR	727 908 670	0.131	75	21	19	8.2	6,8
110	63	IR	727 908 672	0.201	90	28	28	10.6	6,2
110	75	IR	727 908 677	0.211	90	28	18	10.0	6,8
110	90	IR	727 908 676	0.231	90	28	20	10.0	8,2
125	110	IR	727 908 680	0.325	100	31	30	11.4	10,0
140	110	IR	727 908 685	0.430	110	33	29	12.7	10,0
140	125	IR	727 908 684	0.468	110	34	30	12.7	11,4
160	110	IR	727 908 690	0.595	120	38	27	14.6	10,0

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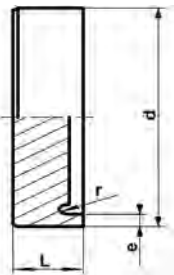
d (mm)	d1 (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	e1 (mm)
160	140	IR	<b>727 908 688</b>	0.652	120	40	35	14.6	12,7
180	90	IR	<b>727 908 780</b>	0.800	145	50	40	16.4	8,2
180	110	IR	<b>727 908 781</b>	1.010	150	50	40	16.4	10,0
180	125	IR	<b>727 908 782</b>	0.985	145	52	40	16.4	11,4
180	140	IR	<b>727 908 783</b>	0.995	135	51	47	16.4	12,7
180	160	IR	<b>727 908 784</b>	1.020	135	55	52	16.4	14,6
200	160	IR	<b>727 908 692</b>	1.120	145	50	40	18.2	14,6
200	180	IR	<b>727 908 785</b>	1.300	145	50	45	18.2	16,4
225	110	IR	<b>727 908 695</b>	1.489	160	55	35	20.5	10,0
225	160	IR	<b>727 908 696</b>	1.590	160	55	40	20.5	14,6
225	180	IR	<b>727 908 786</b>	1.770	163	60	58	20.5	16,4
225	200	IR	<b>727 908 697</b>	1.650	160	55	50	20.5	18,2
250	160		<b>727 908 787</b>	2.140	170	63	53	22.7	14,6
250	225		<b>727 908 788</b>	2.750	180	65	65	22.7	20,5
280	225		<b>727 908 789</b>	3.425	203	72	57	25.4	20,5
280	250		<b>727 908 790</b>	1.980	206	75	60	25.4	22,7
315	225		<b>727 908 791</b>	5.110	237	84	60	28.6	20,5
315	250		<b>727 908 792</b>	5.105	231	86	63	28.6	22,7
315	280		<b>727 908 793</b>	5.130	222	80	70	28.6	25,4



### PROGEF Plus end cap S5/SDR11 (PN10)

#### Model:

- Conventional butt-welding according to DVS 2207
- Cleaned and double bagged
- Machined
- Material: PP-H



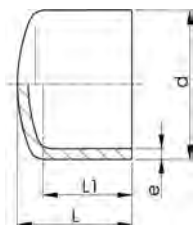
d (mm)	Code	SP	Weight (kg)	L (mm)	e (mm)
250	<b>727 968 896</b>	1	1.900	60	22.7
280	<b>727 968 897</b>	1	2.600	65	25.4
315	<b>727 968 898</b>	1	3.600	70	28.6



### PROGEF Plus end cap S5/SDR11 (PN10)

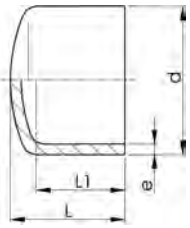
#### Model:

- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Material: PP-H
- Conventional butt-welding according to DVS 2207
- Cleaned and double bagged



d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	e (mm)
20	IR	<b>727 968 961</b>	0.005	49	42	1.9
25	IR	<b>727 968 962</b>	0.007	52	42	2.3
32	IR	<b>727 968 963</b>	0.016	57	47	2.9
40	IR	<b>727 968 964</b>	0.023	64	51	3.7
50	IR	<b>727 968 965</b>	0.048	72	59	4.6
63	IR	<b>727 968 966</b>	0.087	86	67	5.8
75	IR	<b>727 968 967</b>	0.138	94	73	6.8
90	IR	<b>727 968 968</b>	0.222	112	83	8.2
110	IR	<b>727 968 969</b>	0.375	124	90	10.0
125	IR	<b>727 968 970</b>	0.520	130	94	11.4
140	IR	<b>727 968 971</b>	0.695	142	99	12.7

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d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	e (mm)
160	IR	<b>727 968 972</b>	1.040	162	109	14.6
180	IR	<b>727 968 973</b>	1.375	170	113	16.4
200	IR	<b>727 968 974</b>	1.860	179	117	18.2
225	IR	<b>727 968 975</b>	2.625	203	127	20.5



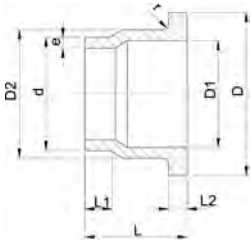
**PROGEF Plus outlet flange adaptor S5/SDR11 (PN10)**  
**Combined jointing Face: flat and serrated**

**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- To wafer check valves type 369
- Cleaned and double bagged

**Attention:**

- In conjunction with outlet flange adaptors, **flange rings for socket systems** must be used.



d (mm)	DN (mm)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	D (mm)	D1 (mm)	D2 (mm)	r (mm)	e (mm)
40	32	<b>727 808 134</b>	0	0.064	64	30	11	80	37	50	3	3.7
50	40	<b>727 808 135</b>	0	0.088	67	30	12	90	43	61	3	4.6
63	50	<b>727 808 136</b>	0	0.126	74	30	14	105	54	76	4	5.8
75	65	<b>727 808 137</b>	0	0.187	78	30	16	125	70	90	4	6.8
90	80	<b>727 808 138</b>	0	0.346	87	35	17	140	82	108	4	8.2
110	100	<b>727 808 139</b>	0	0.481	102	41	18	160	105	131	4	10.0
140	125	<b>727 808 141</b>	0	0.710	124	47	25	190	130	165	4	12.7
160	150	<b>727 808 142</b>	0	1.255	149	52	25	215	158	188	4	14.6
225	200	<b>727 808 145</b>	0	1.830	180	55	32	270	206	248	4	20.5
280	250	<b>727 808 147</b>	0	3.550	240	63	35	325	259	308	4	25.4
315	300	<b>727 808 148</b>	0	4.960	272	66	35	375	308	346	4	28.6



Type A



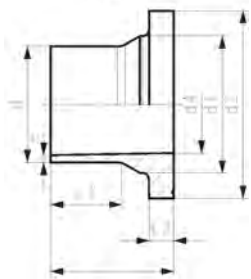
Type B



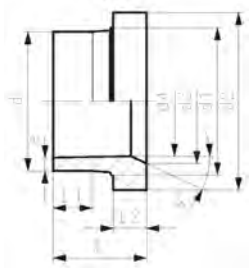
Type C



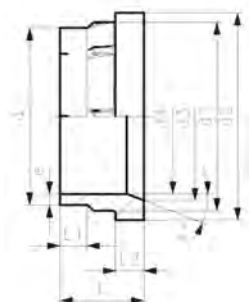
Type A



Type B



Type C



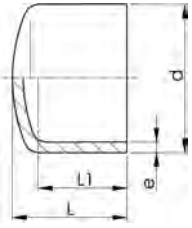
**PROGEF Plus flange adaptor S5/SDR11 (PN10)**  
**Combined jointing Face: flat and serrated**

**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR compatible. Choose fusion parameters: PP-H
- Suitable for flange connections to metric (from d110 also to ANSI/ASME B16.5)
- Suitable for butterfly valve type 567/578 and 038/039
- Gasket: profile flange gasket EPDM No. 48 44 17, FKM No. 49 44 17
- Cleaned and double bagged

d (mm)	DN (mm)	FM	Code	Weight (kg)
20	15	IR	<b>727 798 731</b>	0.015
25	20	IR	<b>727 798 732</b>	0.028
32	25	IR	<b>727 798 733</b>	0.042
40	32	IR	<b>727 798 734</b>	0.064
50	40	IR	<b>727 798 735</b>	0.094
63	50	IR	<b>727 798 736</b>	0.144
75	65	IR	<b>727 798 737</b>	0.243
90	80	IR	<b>727 798 738</b>	0.330
110	100	IR	<b>727 798 739</b>	0.444
125	100	IR	<b>727 798 740</b>	0.520
140	125	IR	<b>727 798 741</b>	0.800
160	150	IR	<b>727 798 772</b>	0.927
180	150	IR	<b>727 798 773</b>	1.026
200	200	IR	<b>727 798 774</b>	1.652
225	200	IR	<b>727 798 775</b>	1.665
250	250		<b>727 798 776</b>	2.630
280	250		<b>727 798 777</b>	2.784
315	300		<b>727 798 778</b>	3.410

d (mm)	DN (mm)	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	Type	a°
20	15	26	45			16	50	29	7	1.9	A
25	20	32	58			20	52	27	9	2.3	A
32	25	40	68			26	54	28	10	2.9	A
40	32	49	78			32	56	25	11	3.7	A
50	40	60	88			40	62	32	12	4.6	A
63	50	75	102			51	68	38	14	5.8	A
75	65	89	122	66	61	80	43	16	6.8	B	30
90	80	105	138	78	73	80	41	17	8.2	B	30
110	100	125	158	100	90	80	40	18	10.0	B	30
125	100	132	158	114	102	82	35	25	11.4	B	25
140	125	155	188	127	114	89	39	25	12.7	B	27
160	150	175	212	151	127	92	40	25	14.6	C	30
180	150	180	212	154	148	92	40	30	17.5	B	30
200	200	232	268	203	174	100	35	32	19.3	C	30
225	200	235	268	210	196	100	35	32	21.7	C	30
250	250	285	320	252	203	120	45	35	24.0	C	25
280	250	291	320	265	228	120	45	37	26.8	C	30
315	300	335	370	300	256	150	50	50	30.2	C	22



### PROGEF Plus end cap S5/SDR11

**Model:**

- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Material: PP-H
- Conventional butt-welding according to DVS 2207
- Cleaned and double bagged

d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	e (mm)
20	IR	727 968 981	1	0.006	42	35	1.9
25	IR	727 968 982	1	0.009	50	42	2.3
32	IR	727 968 983	1	0.015	55	44	2.9
40	IR	727 968 984	1	0.025	65	50	3.7
50	IR	727 968 985	1	0.044	70	55	4.6
63	IR	727 968 986	1	0.083	80	60	5.8
75	IR	727 968 987	1	0.125	90	63	6.8
90	IR	727 968 988	1	0.216	105	76	8.2
110	IR	727 968 989	1	0.386	125	83	10.0
125	IR	727 968 990	1	0.210	50	25	11.4
140	IR	727 968 991	1	0.323	60	30	12.7
160	IR	727 968 992	1	0.570	76	40	14.6
180	IR	727 968 993	0	1.113	125	88	16.4
200	IR	727 968 994	1	1.060	100	50	18.2
225	IR	727 968 995	1	1.365	103	60	20.5



### PROGEF Plus tee 90° equal S5/SDR11

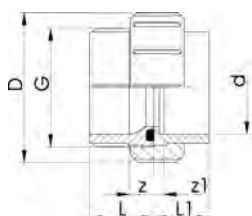
**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Cleaned and double bagged

d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	e (mm)
20	IR	727 208 581	1	0.009	38	24	1.9
25	IR	727 208 582	1	0.019	42	26	2.3
32	IR	727 208 583	1	0.033	46	26	2.9
40	IR	727 208 584	1	0.063	51	23	3.7
50	IR	727 208 585	1	0.106	58	22	4.6
63	IR	727 208 586	1	0.186	66	20	5.8
75	IR	727 208 587	1	0.294	75	20	6.8
90	IR	727 208 588	1	0.526	90	20	8.2
110	IR	727 208 589	1	0.935	110	20	10.0
125	IR	727 208 590	1	1.357	125	25	11.4
140	IR	727 208 591	1	2.209	140	28	12.7
160	IR	727 208 592	0	2.900	160	28	14.6
180	IR	727 208 593	0	4.864	195	73	16.4
200	IR	727 208 594	1	5.570	200	35	18.2
225	IR	727 208 595	1	7.882	220	35	20.5
250		727 208 596	0	12.480	275	86	22.7
280		727 208 597	0	17.250	310	105	25.4
315		727 208 598	0	25.705	350	111	28.6

# Unions

## Unions for socket fusion



### PROGEF Plus union (PN10)

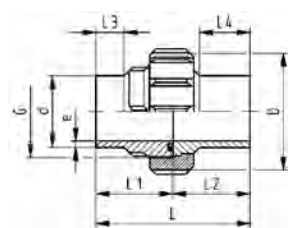
#### Model:

- Material: PP-H
- Fusion socket metric
- d75-110 with new thread geometry, now rated PN10 up to d110
- Jointing face: with O-ring
- Cleaned and double bagged

d (mm)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
16	<b>727 510 255</b>	1 0.020	<b>727 520 255</b>	1 0.020
20	<b>727 510 256</b>	1 0.041	<b>727 520 256</b>	1 0.039
25	<b>727 510 257</b>	1 0.064	<b>727 520 257</b>	1 0.063
32	<b>727 510 258</b>	1 0.079	<b>727 520 258</b>	1 0.079
40	<b>727 510 259</b>	1 0.137	<b>727 520 259</b>	1 0.137
50	<b>727 510 260</b>	1 0.135	<b>727 520 260</b>	1 0.180
63	<b>727 510 261</b>	1 0.251	<b>727 520 261</b>	1 0.312
75	<b>727 510 272</b>	2 0.450	<b>727 520 272</b>	2 0.450
90	<b>727 510 273</b>	2 0.624	<b>727 520 273</b>	2 0.636
110	<b>727 510 274</b>	1 1.020	<b>727 520 274</b>	1 1.020

d (mm)	L (mm)	L1 (mm)	D (mm)	G (inch)	z (mm)	z1 (mm)	Size	O-Ring EPDM	O-Ring FKM
16	24	18	35	3/4	5	11	15,54 x 2,62	748.413.005	749.413.005
20	26	19	48	1	5	12	20,22 x 3,53	748.413.006	749.413.006
25	28	21	58	1 1/4	5	12	28,17 x 3,53	748.413.007	749.413.007
32	30	23	65	1 1/2	5	12	32,93 x 3,53	748.413.008	749.413.008
40	34	25	79	2	5	14	40,65 x 5,54	748.413.009	749.413.009
50	39	28	91	2 1/4	5	16	47,00 x 5,34	748.413.010	749.413.010
63	47	32	111	2 3/4	5	20	59,69 x 5,34	748.413.011	749.413.011
75	51	36	135	S107,5x3,6	5	20	81,92 x 5,34	748.413.014	749.413.014
90	55	42	158	S127,5x3,6	7	20	101,00 x 5,34	748.413.015	749.413.015
110	54	49	188	S152,5x3,6	7	12	120,00 x 6,99	748.413.016	748.413.016

## Unions for butt fusion



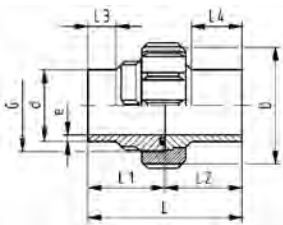
### PROGEF Plus union S5/SDR11 (PN10)

#### Model:

- Material: PP-H
- With butt fusion ends
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Cleaned and double bagged

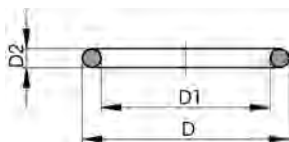
d (mm)	D (mm)	FM	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	48	IR	<b>727 518 606</b>	1 0.048	<b>727 528 606</b>	1 0.047
25	58	IR	<b>727 518 607</b>	1 0.073	<b>727 528 607</b>	1 0.074
32	65	IR	<b>727 518 608</b>	1 0.100	<b>727 528 608</b>	1 0.100
40	79	IR	<b>727 518 609</b>	1 0.141	<b>727 528 609</b>	1 0.142
50	91	IR	<b>727 518 610</b>	1 0.190	<b>727 528 610</b>	1 0.191
63	111	IR	<b>727 518 611</b>	1 0.329	<b>727 528 611</b>	1 0.333
75	135	IR	<b>727 518 612</b>	2 0.560	<b>727 528 612</b>	2 0.560
90	135	IR	<b>727 518 613</b>	2 0.537	<b>727 528 613</b>	2 0.588
110	158	IR	<b>727 518 614</b>	1 0.761	<b>727 528 614</b>	1 0.828

table continued on the next page



<b>d</b>	<b>L</b>	<b>L1</b>	<b>L2</b>	<b>L3</b>	<b>G</b>	<b>e</b>	<b>Size</b>	<b>O-Ring EPDM</b>	<b>O-Ring FKM</b>
(mm)	(mm)	(mm)	(mm)	(mm)	(inch)	(mm)			
20	107	54	53	26	1	1.9	20,22 x 3,53	748.413.006	749.413.006
25	113	57	56	26	1 1/4	2.3	28,17 x 3,53	748.413.007	749.413.007
32	119	60	59	26	1 1/2	2.9	32,93 x 3,53	748.413.008	749.413.008
40	126	63	63	26	2	3.7	40,65 x 5,34	748.413.009	749.413.009
50	131	66	66	26	2 1/4	4.6	47,00 x 5,34	748.413.010	749.413.010
63	137	69	68	26	2 3/4	5.8	59,69 x 5,34	748.413.011	749.413.011
75	132	66	66	24	S107,5x3,6	6.8	69,22 x 5,34	748.413.013	749.413.013
90	131	66	66	24	S107,5x3,6	8.2	81,92 x 5,34	748.413.014	749.413.014
110	131	66	66	25	S127,5x3,6	10.0	101,00 x 5,34	748.413.015	749.413.015

# Seals



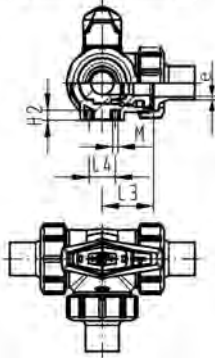
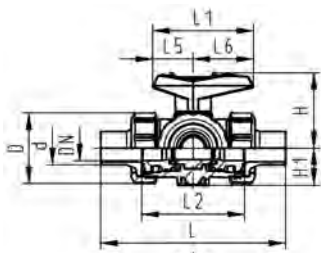
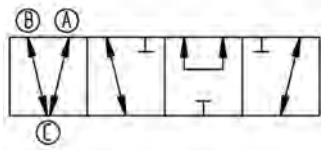
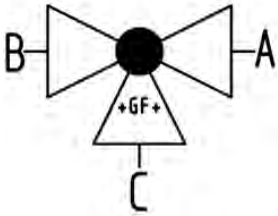
## O-ring silicone free

### Model:

- Silicone free/paint-compatible
- Hardness approx. 65° Shore
- For unions
- Double bagged, 2 pcs in bag

d (mm)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)
16	<b>748 413 005</b>	0.002	<b>749 413 005</b>	0.002	21	16	3
20	<b>748 413 006</b>	0.002	<b>749 413 006</b>	0.003	27	20	4
25	<b>748 413 007</b>	0.002	<b>749 413 007</b>	0.002	35	28	4
32	<b>748 413 008</b>	0.003	<b>749 413 008</b>	0.003	40	33	4
40	<b>748 413 009</b>	0.003	<b>749 413 009</b>	0.006	51	41	5
50	<b>748 413 010</b>	0.005	<b>749 413 010</b>	0.007	58	47	5
63	<b>748 413 011</b>	0.005	<b>749 413 011</b>	0.010	70	60	5
75	<b>748 413 014</b>	0.007	<b>749 413 014</b>	0.012	93	82	5
90	<b>748 413 015</b>	0.008	<b>749 413 015</b>	0.015	112	101	5
110	<b>748 413 016</b>	0.016	<b>749 413 016</b>	0.031	134	120	7

# Ball valves type 543



**PROGEF Plus silicone free**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With butt fusion spigots IR-Plus**  
**SDR11 metric**

**Model:**

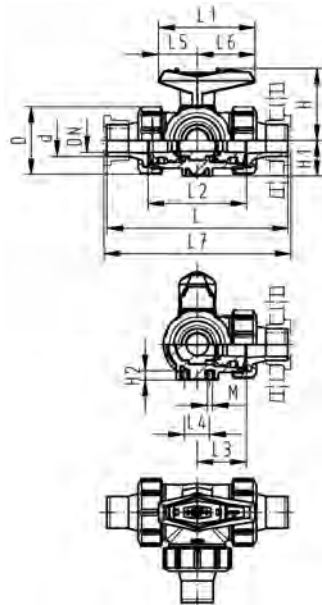
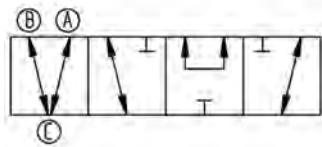
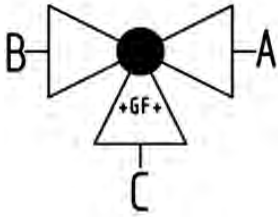
- Material: PP-H / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PVDF
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10	200	<b>167 543 542</b>	1	0.172	<b>167 543 552</b>
25	20	10	470	<b>167 543 543</b>	1	0.245	<b>167 543 553</b>
32	25	10	793	<b>167 543 544</b>	1	0.372	<b>167 543 554</b>
40	32	10	1290	<b>167 543 545</b>	1	0.622	<b>167 543 555</b>
50	40	10	1910	<b>167 543 546</b>	1	0.939	<b>167 543 556</b>
63	50	10	3100	<b>167 543 547</b>	1	1.826	<b>167 543 557</b>

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	146	77	72	36	25	32	45	6	1.9	1/2
25	58	67	32	8	163	97	85	43	25	39	58	6	2.3	3/4
32	68	73	36	8	178	97	98	49	25	39	58	6	2.9	1
40	84	90	45	9	204	128	118	59	45	54	74	8	3.7	1 1/4
50	97	97	51	9	237	128	135	68	45	54	74	8	4.6	1 1/2
63	124	116	65	9	296	152	176	88	45	66	87	8	5.8	2



**PROGEF Plus silicone free**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With socket fusion spigots metric**



**Model:**

- Material: PP-H / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PVDF
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	140	<b>167 543 521</b>	1	0.164	<b>167 543 531</b>	1	0.164
20	15	10	200	<b>167 543 522</b>	1	0.170	<b>167 543 532</b>	1	0.170
25	20	10	470	<b>167 543 523</b>	1	0.245	<b>167 543 533</b>	1	0.245
32	25	10	793	<b>167 543 524</b>	1	0.372	<b>167 543 534</b>	1	0.372
40	32	10	1290	<b>167 543 525</b>	1	0.622	<b>167 543 535</b>	1	0.622
50	40	10	1910	<b>167 543 526</b>	1	0.939	<b>167 543 536</b>	1	0.939
63	50	10	3100	<b>167 543 527</b>	1	1.826	<b>167 543 537</b>	1	1.826

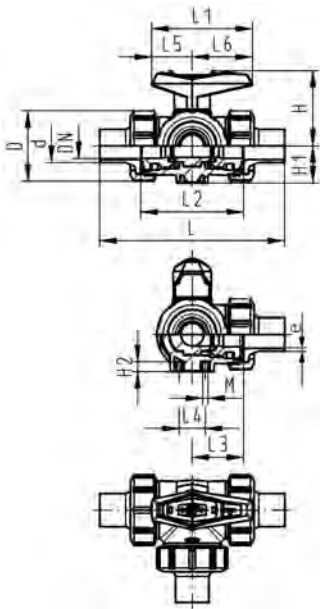
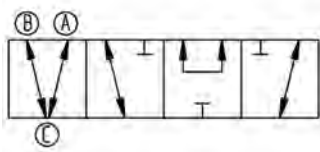
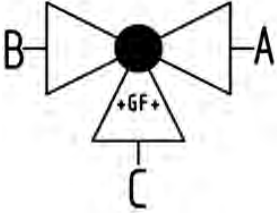
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	50	57	28	8	126	77	72	36	25	32	45	133	6	3/8
20	50	57	28	8	136	77	72	36	25	32	45	144	6	1/2
25	58	67	32	8	159	97	85	43	25	39	58	170	6	3/4
32	68	73	36	8	178	97	98	49	25	39	58	191	6	1
40	84	90	45	9	204	128	118	59	45	54	74	223	8	1 1/4
50	97	97	51	9	237	128	135	68	45	54	74	256	8	1 1/2
63	124	116	65	9	296	152	176	88	45	66	87	319	8	2



**PROGEF Plus silicone free  
3-Way ball valve type 543  
Horizontal/T-port  
With fusion sockets metric (US version)**

**Model:**

- Material: PP-H / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
16	10	10	140	<b>167 543 681</b>	1	0.160	<b>167 543 691</b>
20	15	10	200	<b>167 543 682</b>	1	0.164	<b>167 543 692</b>
25	20	10	470	<b>167 543 683</b>	1	0.236	<b>167 543 693</b>
32	25	10	793	<b>167 543 684</b>	1	0.357	<b>167 543 694</b>
40	32	10	1290	<b>167 543 685</b>	1	0.609	<b>167 543 695</b>
50	40	10	1910	<b>167 543 686</b>	1	0.898	<b>167 543 696</b>
63	50	10	3100	<b>167 543 687</b>	1	1.744	<b>167 543 697</b>

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	3/8
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	1/2
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	3/4
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 1/4
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 1/2
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2

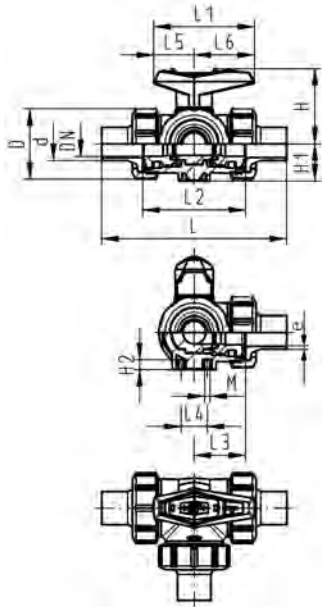
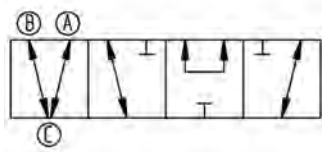
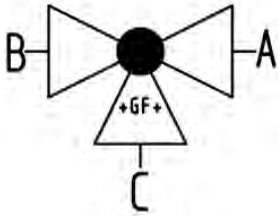




**PROGEF Plus silicone free  
3-Way ball valve type 543  
Horizontal/T-port  
With fusion sockets metric**

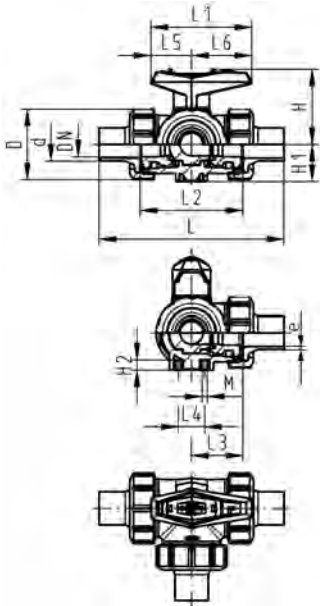
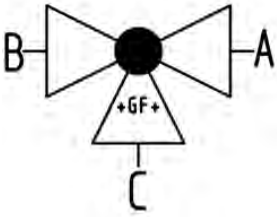
**Model:**

- Material: PP-H / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PVDF
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	140	<b>167 543 501</b>	1	0.160	<b>167 543 511</b>	1	0.160
20	15	10	200	<b>167 543 502</b>	1	0.164	<b>167 543 512</b>	1	0.164
25	20	10	470	<b>167 543 503</b>	1	0.236	<b>167 543 513</b>	1	0.236
32	25	10	793	<b>167 543 504</b>	1	0.357	<b>167 543 514</b>	1	0.357
40	32	10	1290	<b>167 543 505</b>	1	0.609	<b>167 543 515</b>	1	0.609
50	40	10	1910	<b>167 543 506</b>	1	0.898	<b>167 543 516</b>	1	0.898
63	50	10	3100	<b>167 543 507</b>	1	1.744	<b>167 543 517</b>	1	1.744

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 $\frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 $\frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



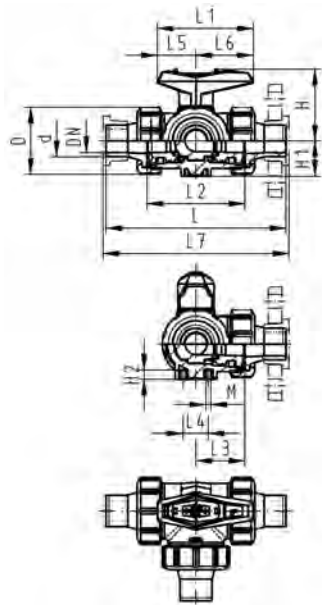
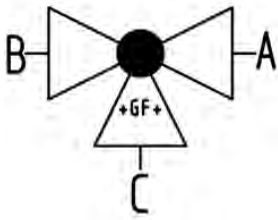
**PROGEF Plus silicone free  
3-Way ball valve type 543  
Horizontal/L-port  
With butt fusion spigots IR-Plus  
SDR11 metric**

**Model:**

- Material: PP-H / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PVDF
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10	75	<b>167 543 242</b>	1	0.171	<b>167 543 252</b>
25	20	10	150	<b>167 543 243</b>	1	0.247	<b>167 543 253</b>
32	25	10	280	<b>167 543 244</b>	1	0.377	<b>167 543 254</b>
40	32	10	480	<b>167 543 245</b>	1	0.629	<b>167 543 255</b>
50	40	10	620	<b>167 543 246</b>	1	0.953	<b>167 543 256</b>
63	50	10	1230	<b>167 543 247</b>	1	1.855	<b>167 543 257</b>

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	146	77	72	36	25	32	45	6	1.9	½
25	58	67	32	8	163	97	85	43	25	39	58	6	2.3	¾
32	68	73	36	8	178	97	98	49	25	39	58	6	2.9	1
40	84	90	45	9	204	128	118	59	45	54	74	8	3.7	1 ¼
50	97	97	51	9	237	128	135	68	45	54	74	8	4.6	1 ½
63	124	116	65	9	296	152	176	88	45	66	87	8	5.8	2



**PROGEF Plus silicone free  
3-Way ball valve type 543  
Horizontal/L-port  
With socket fusion spigots metric**

**Model:**

- Material: PP-H / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	50	<b>167 543 421</b>	1	0.165	<b>167 543 431</b>	1	0.165
20	15	10	75	<b>167 543 422</b>	1	0.171	<b>167 543 432</b>	1	0.171
25	20	10	150	<b>167 543 423</b>	1	0.247	<b>167 543 433</b>	1	0.247
32	25	10	280	<b>167 543 424</b>	1	0.377	<b>167 543 434</b>	1	0.377
40	32	10	480	<b>167 543 425</b>	1	0.629	<b>167 543 435</b>	1	0.629
50	40	10	620	<b>167 543 426</b>	1	0.953	<b>167 543 436</b>	1	0.953
63	50	10	1230	<b>167 543 427</b>	1	1.855	<b>167 543 437</b>	1	1.855

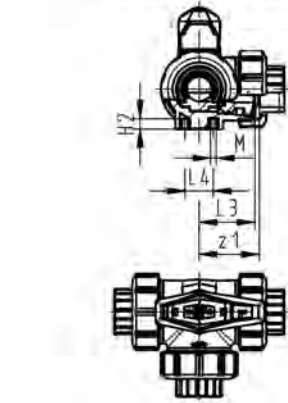
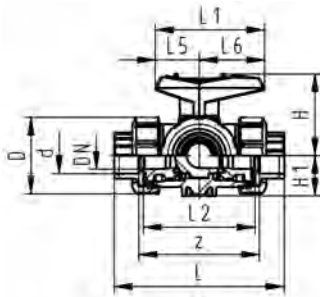
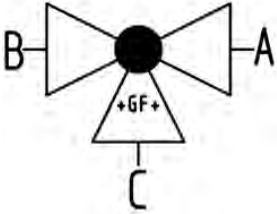
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	50	57	28	8	126	77	72	36	25	32	45	133	6	$\frac{3}{8}$
20	50	57	28	8	136	77	72	36	25	32	45	144	6	$\frac{1}{2}$
25	58	67	32	8	159	97	85	43	25	39	58	170	6	$\frac{3}{4}$
32	68	73	36	8	178	97	98	49	25	39	58	191	6	1
40	84	90	45	9	204	128	118	59	45	54	74	223	8	1 $\frac{1}{4}$
50	97	97	51	9	237	128	135	68	45	54	74	256	8	1 $\frac{1}{2}$
63	124	116	65	9	296	152	176	88	45	66	87	319	8	2



**PROGEF Plus silicone free**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With fusion sockets metric (US version)**

**Model:**

- Material: PP-H / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	50	167 543 661	1	0.161	167 543 671	1	0.161
20	15	10	75	167 543 662	1	0.165	167 543 672	1	0.165
25	20	10	150	167 543 663	1	0.237	167 543 673	1	0.237
32	25	10	280	167 543 664	1	0.361	167 543 674	1	0.361
40	32	10	480	167 543 665	1	0.616	167 543 675	1	0.616
50	40	10	620	167 543 666	1	0.912	167 543 676	1	0.912
63	50	10	1230	167 543 667	1	1.773	167 543 677	1	1.773

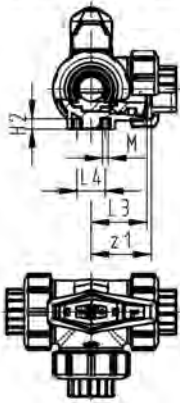
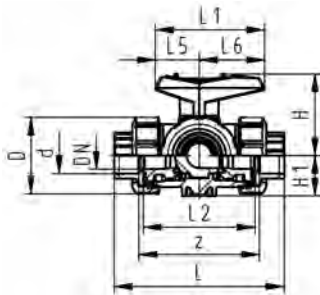
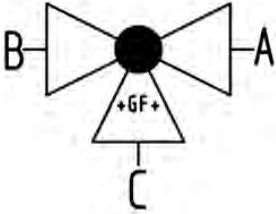
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	3/8
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	1/2
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	3/4
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 1/4
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 1/2
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



**PROGEF Plus silicone free  
3-Way ball valve type 543  
Horizontal/L-port  
With fusion sockets metric**

**Model:**

- Material: PP-H / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PVDF
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	50	<b>167 543 401</b>	1	0.161	<b>167 543 411</b>	1	0.161
20	15	10	75	<b>167 543 402</b>	1	0.165	<b>167 543 412</b>	1	0.172
25	20	10	150	<b>167 543 403</b>	1	0.237	<b>167 543 413</b>	1	0.237
32	25	10	280	<b>167 543 404</b>	1	0.361	<b>167 543 414</b>	1	0.361
40	32	10	480	<b>167 543 405</b>	1	0.616	<b>167 543 415</b>	1	0.616
50	40	10	620	<b>167 543 406</b>	1	0.912	<b>167 543 416</b>	1	0.912
63	50	10	1230	<b>167 543 407</b>	1	1.773	<b>167 543 417</b>	1	1.773

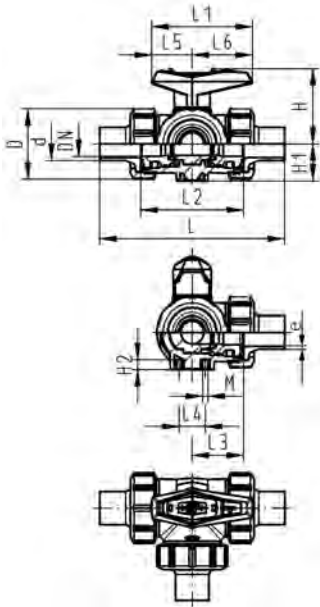
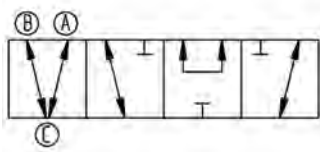
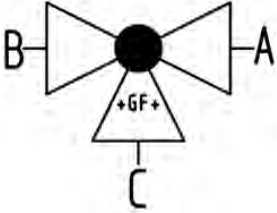
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	$1 \frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	$1 \frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



**PROGEF Plus oil free**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With fusion sockets metric**

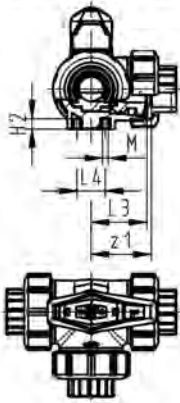
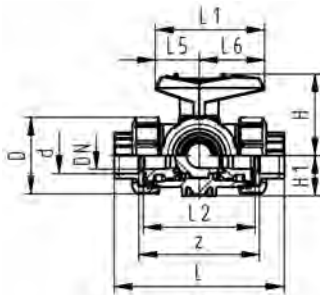
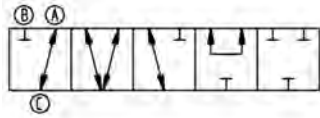
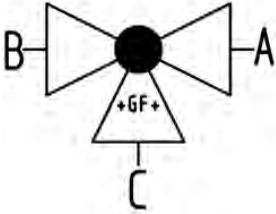
**Model:**

- Material: PP-H/oil free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	140	<b>167 543 381</b>	1	0.160	<b>167 543 391</b>	1	0.160
20	15	10	200	<b>167 543 382</b>	1	0.164	<b>167 543 392</b>	1	0.164
25	20	10	470	<b>167 543 383</b>	1	0.236	<b>167 543 393</b>	1	0.236
32	25	10	793	<b>167 543 384</b>	1	0.357	<b>167 543 394</b>	1	0.357
40	32	10	1290	<b>167 543 385</b>	1	0.609	<b>167 543 395</b>	1	0.609
50	40	10	1910	<b>167 543 386</b>	1	0.898	<b>167 543 396</b>	1	0.898
63	50	10	3100	<b>167 543 387</b>	1	1.744	<b>167 543 397</b>	1	1.744

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	3/8
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	1/2
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	3/4
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 1/4
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 1/2
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



**PROGEF Plus oil free**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With fusion sockets metric**

**Model:**

- Material: PP-H/oil free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	50	<b>167 543 181</b>	1	0.161	<b>167 543 191</b>	1	0.161
20	15	10	75	<b>167 543 182</b>	1	0.165	<b>167 543 192</b>	1	0.165
25	20	10	150	<b>167 543 183</b>	1	0.237	<b>167 543 193</b>	1	0.237
32	25	10	280	<b>167 543 184</b>	1	0.361	<b>167 543 194</b>	1	0.361
40	32	10	480	<b>167 543 185</b>	1	0.616	<b>167 543 195</b>	1	0.616
50	40	10	620	<b>167 543 186</b>	1	0.912	<b>167 543 196</b>	1	0.912
63	50	10	1230	<b>167 543 187</b>	1	1.773	<b>167 543 197</b>	1	1.773

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 $\frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 $\frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2

# Ball valves type 546



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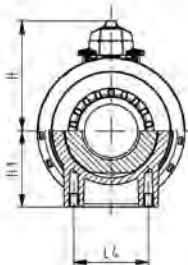
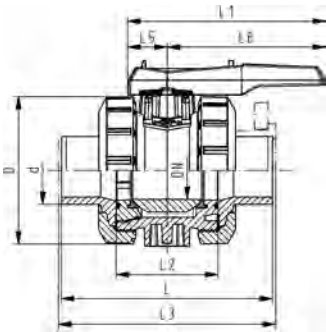
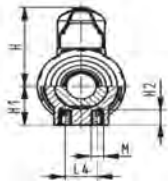
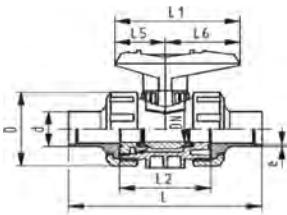
**PROGEF Plus oil free**  
**Ball valve type 546**  
**With mounting inserts**  
**With butt fusion spigots IR-Plus SDR11 metric**

**Model:**

- Material: PP-H/oil free cleaned
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)
20	15	10	185	<b>167 546 482</b>	1	0.120
25	20	10	350	<b>167 546 483</b>	1	0.183
32	25	10	700	<b>167 546 484</b>	1	0.259
40	32	10	1000	<b>167 546 485</b>	1	0.452
50	40	10	1600	<b>167 546 486</b>	1	0.620
63	50	10	3100	<b>167 546 487</b>	1	1.200
75	65	10	5000	<b>167 546 488</b>	1	3.800
90	80	10	7000	<b>167 546 489</b>	1	5.500
110	100	10	11000	<b>167 546 490</b>	0	8.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)	closest inch (inch)
20	50	57	27	12	130	77	56	25	32	45	M6	1.9	1/2
25	58	67	30	12	143	97	65	25	39	58	M6	2.3	3/4
32	68	73	36	12	150	97	71	25	39	58	M6	3.0	1
40	84	90	44	15	171	128	85	45	54	74	M8	3.7	1 1/4
50	97	97	51	15	191	128	89	45	54	74	M8	4.6	1 1/2
63	124	116	64	15	220	152	101	45	66	87	M8	5.8	2
75	166	149	85	15	266	270	136	70	64	206	M8	8.2	2 1/2
90	200	161	105	15	264	270	141	70	64	206	M8	9.9	3
110	238	178	123	22	301	320	164	120	64	256	M12	12.0	4





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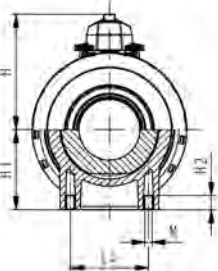
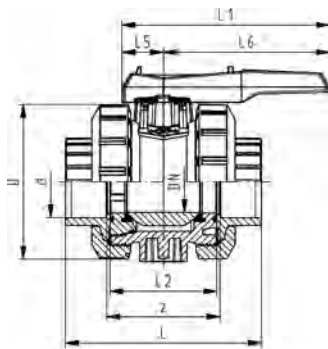
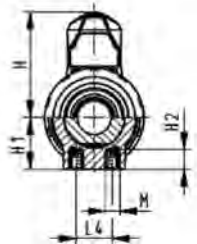
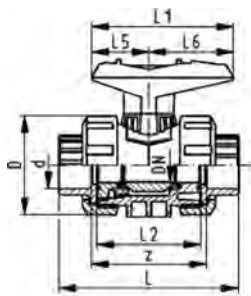
**PROGEF Plus oil free**  
**Ball valve type 546**  
**With mounting inserts**  
**With fusion sockets metric**

**Model:**

- Material: PP-H/oil free cleaned
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	10	185	<b>167 546 902</b>	1	0.119	<b>167 546 912</b>	1	0.115
25	20	10	350	<b>167 546 903</b>	1	0.183	<b>167 546 913</b>	1	0.184
32	25	10	700	<b>167 546 904</b>	1	0.258	<b>167 546 914</b>	1	0.260
40	32	10	1000	<b>167 546 905</b>	1	0.440	<b>167 546 915</b>	1	0.440
50	40	10	1600	<b>167 546 906</b>	1	0.610	<b>167 546 916</b>	1	0.620
63	50	10	3100	<b>167 546 907</b>	1	1.113	<b>167 546 917</b>	1	1.145
75	65	10	5000	<b>167 546 908</b>	1	3.700	<b>167 546 918</b>	1	3.700
90	80	10	7000	<b>167 546 909</b>	1	5.500	<b>167 546 919</b>	1	5.500
110	100	10	11000	<b>167 546 910</b>	0	8.700	<b>167 546 920</b>	0	8.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)	closest inch (inch)
20	50	57	27	12	95	77	56	25	32	45	M6	66	½
25	58	67	30	12	109	97	65	25	39	58	M6	77	¾
32	68	73	36	12	119	97	71	25	39	58	M6	83	1
40	84	90	44	15	135	128	85	45	54	74	M8	99	1 ¼
50	97	97	51	15	147	128	89	45	54	74	M8	105	1 ½
63	124	116	64	15	168	152	101	45	66	87	M8	117	2
75	166	149	85	15	233	270	136	70	64	206	M8	167	2 ½
90	200	161	105	15	254	270	141	70	64	206	M8	180	3
110	238	178	123	22	301	320	164	120	64	256	M12	215	4



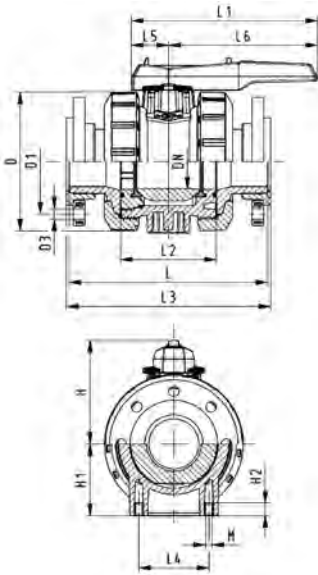
**PROGEF Plus silicone free**  
**Ball valve type 546**  
**With mounting inserts**  
**With backing flanges PP-st metric**

**Model:**

- Material: PP-H / silicone free cleaned
- For easy installation and removal
- Ball seal: PVDF
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 370 (DN65-100)
- Double bagged
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- Hole circle PN10

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
75	65	10	5000	<b>167 546 828</b>	1	4.300	<b>167 546 838</b>
90	80	10	7000	<b>167 546 829</b>	1	6.400	<b>167 546 839</b>
110	100	10	11000	<b>167 546 830</b>	1	10.000	<b>167 546 840</b>

d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
75	166	145	18	149	85	280	270	136	290	70	64	206	8	2 ½
90	200	160	18	161	105	296	270	141	310	70	64	206	8	3
110	238	180	18	178	123	336	320	164	350	120	64	256	12	4



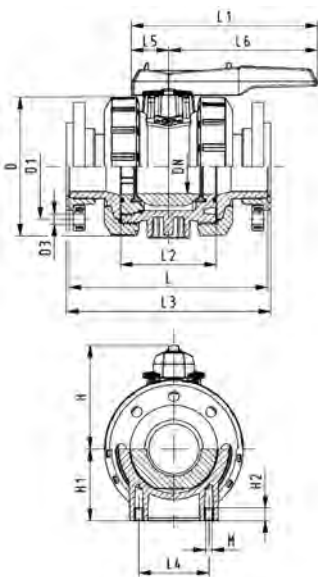
**PROGEF Plus silicone free**  
**Ball valve type 546**  
**With mounting inserts**  
**With backing flanges PP-st Inch ANSI**

**Model:**

- Material: PP-H / silicone free cleaned
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024
- Double bagged

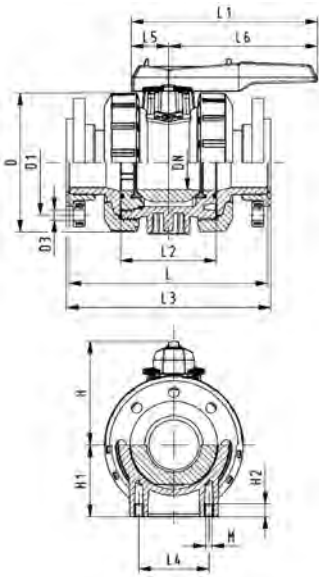
**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
75	65	10	5000	<b>167 546 888</b>	1	4.300	<b>167 546 898</b>
90	80	10	7000	<b>167 546 889</b>	1	6.400	<b>167 546 899</b>
110	100	10	11000	<b>167 546 890</b>	1	10.000	<b>167 546 900</b>

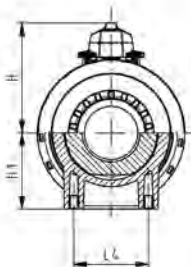
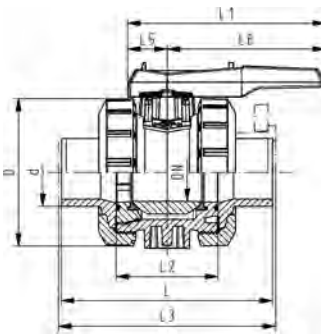
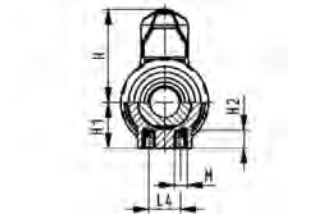
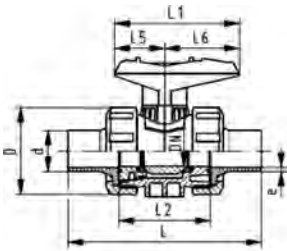
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d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
75	166	140	19	149	85	280	270	136	290	70	64	206	8	2 ½
90	200	152	19	161	105	296	270	141	310	70	64	206	8	3
110	238	191	19	178	123	336	320	164	350	120	64	256	12	4



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**PROGEF Plus silicone free**  
**Ball valve type 546**  
**With mounting inserts**  
**With butt fusion spigots metric**

**Model:**

- Material: PP-H / silicone free cleaned
- For easy installation and removal
- Ball seals PVDF
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)
- Double bagged

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	FKM Code	SP
20	15	10	185	167 546 662	1	167 546 672	1
25	20	10	350	167 546 663	1	167 546 673	1
32	25	10	700	167 546 664	1	167 546 674	1
40	32	10	1000	167 546 665	1	167 546 675	1
50	40	10	1600	167 546 666	1	167 546 676	1
63	50	10	3100	167 546 667	1	167 546 677	1
75	65	10	5000	167 546 668	1	167 546 678	1
90	80	10	7000	167 546 669	1	167 546 679	1
110	100	10	11000	167 546 670	1	167 546 680	1

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)	closest inch (inch)
20	50	57	27	12	130	77	56	25	32	45	M6	1.9	1/2
25	58	67	30	12	143	97	65	25	39	58	M6	2.3	3/4
32	68	73	36	12	150	97	71	25	39	58	M6	2.9	1
40	84	90	44	15	171	128	85	45	54	74	M8	3.7	1 1/4
50	97	97	51	15	191	128	89	45	54	74	M8	4.6	1 1/2
63	124	116	64	15	220	152	101	45	66	87	M8	5.8	2
75	166	149	85	15	266	270	136	70	64	206	M8	6.8	2 1/2
90	200	161	105	15	264	270	141	70	64	206	M8	8.2	3
110	238	178	123	22	301	320	164	120	64	256	M12	10.0	4



DN10/15 - 50



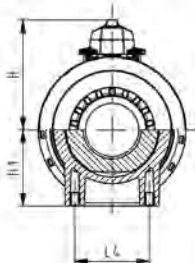
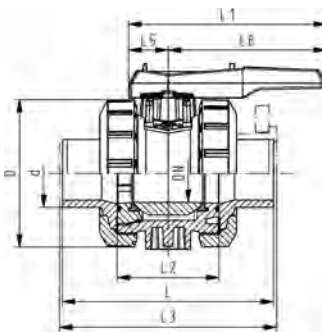
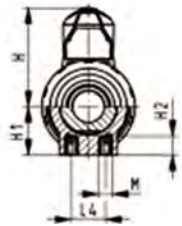
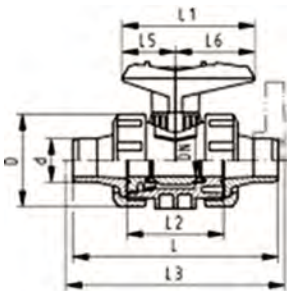
**PROGEF Plus silicone free**  
**Ball valve type 546**  
**With mounting inserts**  
**With socket fusion spigots metric**

**Model:**

- Material: PP-H / silicone free cleaned
- For easy installation and removal
- Ball seals PVDF
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)
- Double bagged

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	71	167 546 621	1	0.120	167 546 631	1	0.120
20	15	10	185	167 546 622	1	0.120	167 546 632	1	0.120
25	20	10	350	167 546 623	1	0.180	167 546 633	1	0.180
32	25	10	700	167 546 624	1	0.260	167 546 634	1	0.260
40	32	10	1000	167 546 625	1	0.450	167 546 635	1	0.450
50	40	10	1600	167 546 626	1	0.640	167 546 636	1	0.640
63	50	10	3100	167 546 627	1	1.210	167 546 637	1	1.210
75	65	10	5000	167 546 628	1	3.800	167 546 638	1	3.800
90	80	10	7000	167 546 629	1	5.600	167 546 639	1	5.600
110	100	10	11000	167 546 630	1	8.800	167 546 640	1	8.800

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
16	50	57	27	12	110	77	56		25	32	45	M6	3/8
20	50	57	27	12	120	77	56	130	25	32	45	M6	1/2
25	58	67	30	12	139	97	65	150	25	39	58	M6	3/4
32	68	73	36	12	150	97	71	160	25	39	58	M6	1
40	84	90	44	15	170	128	85	180	45	54	74	M8	1 1/4
50	97	97	51	15	190	128	89	200	45	54	74	M8	1 1/2
63	124	116	64	15	220	152	101	230	45	66	87	M8	2
75	166	149	85	15	280	270	136	290	70	64	206	M8	2 1/2
90	200	161	105	15	296	270	141	310	70	64	206	M8	3
110	238	178	123	22	336	320	164	350	120	64	256	M12	4



DN10/15 - 50



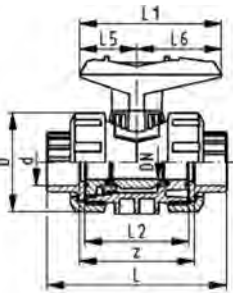
**PROGEF Plus silicone free  
Ball valve type 546  
With mounting inserts  
With fusion sockets metric**

**Model:**

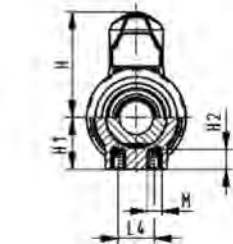
- Material: PP-H / silicone free cleaned
- For easy installation and removal
- Ball seals PVDF
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)
- Double bagged

**Option:**

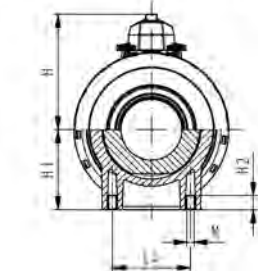
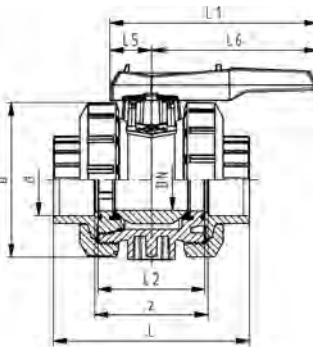
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	71	167 546 601	1	0.115	167 546 611	1	0.115
20	15	10	185	167 546 602	1	0.121	167 546 612	1	0.115
25	20	10	350	167 546 603	1	0.180	167 546 613	1	0.180
32	25	10	700	167 546 604	1	0.255	167 546 614	1	0.255
40	32	10	1000	167 546 605	1	0.440	167 546 615	1	0.440
50	40	10	1600	167 546 606	1	0.610	167 546 616	1	0.610
63	50	10	3100	167 546 607	1	1.145	167 546 617	1	1.145
75	65	10	5000	167 546 608	1	3.700	167 546 618	1	3.700
90	80	10	7000	167 546 609	1	5.500	167 546 619	1	5.500
110	100	10	11000	167 546 610	1	8.700	167 546 620	1	8.700

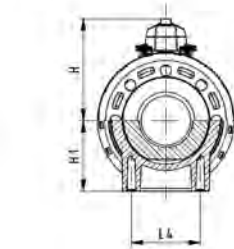
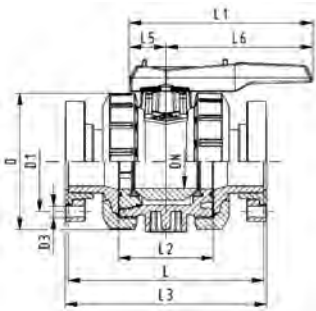
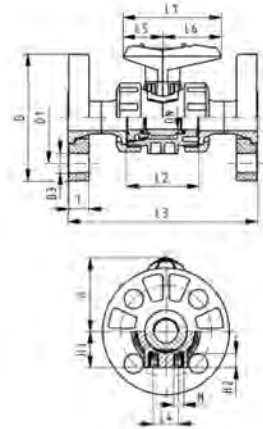


d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)	closest inch (inch)
16	50	57	27	12	93	77	56	25	32	45	M6	67	3/8
20	50	57	27	12	95	77	56	25	32	45	M6	66	1/2
25	58	67	30	12	108	97	65	25	39	58	M6	77	3/4
32	68	73	36	12	118	97	71	25	39	58	M6	83	1
40	84	90	44	15	137	128	85	45	54	74	M8	99	1 1/4
50	97	97	51	15	147	128	89	45	54	74	M8	105	1 1/2
63	124	116	64	15	168	152	101	45	66	87	M8	117	2
75	166	149	85	15	233	270	136	70	64	206	M8	167	2 1/2
90	200	161	105	15	254	270	141	70	64	206	M8	180	3
110	238	178	123	22	301	320	164	120	64	256	M12	215	4





DN10/15 - 50



**PROGEF Plus oil free  
Ball valve type 546  
With mounting inserts  
With backing flanges PP-GF JIS**

**Model:**

- Material: PP-H/oil free cleaned
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)
- Overall length according to EN 558
- Connecting dimensions: JIS B 2220, 10K

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
½	15	10	185	<b>167 546 922</b>	1	0.314	<b>167 546 932</b>	1	0.314
¾	20	10	350	<b>167 546 923</b>	1	0.432	<b>167 546 933</b>	1	0.432
1	25	10	700	<b>167 546 924</b>	1	0.676	<b>167 546 934</b>	1	0.676
1 ¼	32	10	1000	<b>167 546 925</b>	1	0.970	<b>167 546 935</b>	1	0.970
1 ½	40	10	1600	<b>167 546 926</b>	1	1.216	<b>167 546 936</b>	1	1.216
2	50	10	3100	<b>167 546 927</b>	1	1.966	<b>167 546 937</b>	1	1.966
2 ½	65	10	5000	<b>167 546 928</b>	1	4.300	<b>167 546 938</b>	1	4.300
3	80	10	7000	<b>167 546 929</b>	1	6.400	<b>167 546 939</b>	1	6.400
4	100	10	11000	<b>167 546 930</b>	1	10.000	<b>167 546 940</b>	1	10.000

Size (inch)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M
½	95	70	15	57	27	12	120	77	56	130	25	32	45	M6
¾	100	75	15	67	30	12	140	97	65	150	25	39	58	M6
1	125	90	19	73	36	12	150	97	71	160	25	39	58	M6
1 ¼	135	100	19	90	44	15	170	128	85	180	45	54	74	M8
1 ½	140	105	19	97	51	15	190	128	89	200	45	54	74	M8
2	155	120	19	116	64	15	220	152	101	230	45	66	87	M8
2 ½	166	140	19	149	85	15	280	270	136	290	70	64	206	M8
3	200	150	19	161	105	15	296	270	141	310	70	64	206	M8
4	238	175	19	178	123	22	336	320	164	350	120	64	256	M12

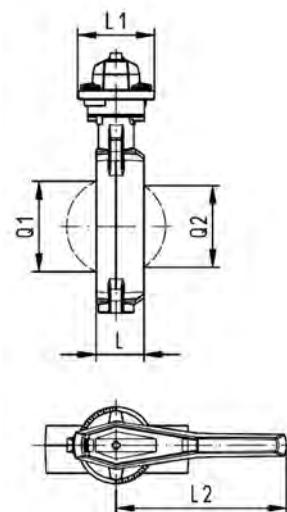
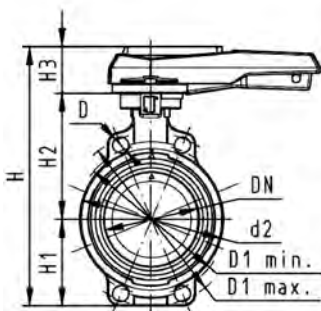
# Butterfly valves type 567



## PROGEF Plus silicone free Butterfly valve type 567 Hand lever with ratchet settings

### Model:

- Material: PP-H / silicone free cleaned
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
63	2	50	10	1470	167 567 402	1 1.277	167 567 422	1 0.969
75	2 1/2	65	10	2200	167 567 403	1 1.056	167 567 423	1 1.270
90	3	80	10	3000	167 567 404	1 1.184	167 567 424	1 1.191
110	4	100	10	6500	167 567 405	1 1.737	167 567 425	1 1.751
140	5	125	10	11500	167 567 406	1 2.181	167 567 426	1 2.199
160	6	150	10	16600	167 567 407	1 2.966	167 567 427	1 2.989
225	8	200	10	39600	167 567 408	1 4.678	167 567 428	1 4.706
280	10	250	8	55200	167 567 409	1 11.841	167 567 429	1 11.841
315	12	300	8	80000	167 567 410	1 14.816	167 567 430	1 14.816

d (mm)	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	104	19	120	125	264	77	134	54	45	106	205	40	
75	115	19	140	145	277	83	140	54	46	106	205	54	35
90	131	19	150	160	289	89	146	54	49	106	205	67	50
110	161	19	175	191	325	104	167	55	56	106	255	88	74
140	187	23	210	216	352	117	181	55	64	106	255	113	97
160	215	24	241	241	373	130	189	55	72	106	255	139	123
225	267	23	290	295	435	158	210	67	73	140	408	178	169
280	329	25	353	362	554	205	264	85	113	149	408	210	207
315	379	25	400	432	598	228	285	85	113	149	408	256	253

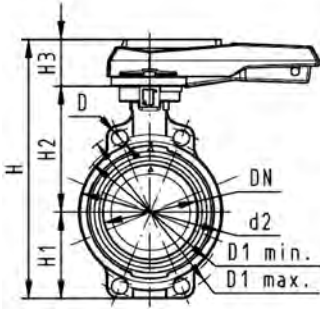




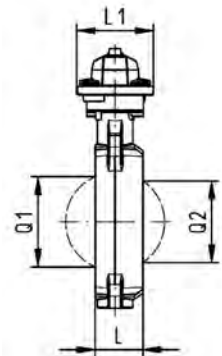
**PROGEF Plus oil free  
Butterfly valve type 567  
Hand lever with ratchet settings**

**Model:**

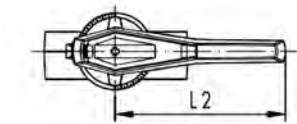
- Material: PP-H/oil free cleaned
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)
63	2	50	10	1470	<b>167 567 502</b>	1	0.965
75	2 ½	65	10	2200	<b>167 567 503</b>	1	1.056
90	3	80	10	3000	<b>167 567 504</b>	1	1.184
110	4	100	10	6500	<b>167 567 505</b>	1	1.737
140	5	125	10	11500	<b>167 567 506</b>	1	2.181
160	6	150	10	16600	<b>167 567 507</b>	1	2.966
225	8	200	10	39600	<b>167 567 508</b>	1	4.678



d (mm)	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	104	19	120	125	264	77	134	54	45	106	205	40	
75	115	19	140	145	277	83	140	54	46	106	205	54	35
90	131	19	150	160	289	89	146	54	49	106	205	67	50
110	161	19	175	191	325	104	167	55	56	106	255	88	74
140	187	23	210	216	352	117	181	55	64	106	255	113	97
160	215	24	241	241	373	130	189	55	72	106	255	139	123
225	267	23	290	295	435	158	210	67	73	140	408	178	169



# Butterfly valves type 578



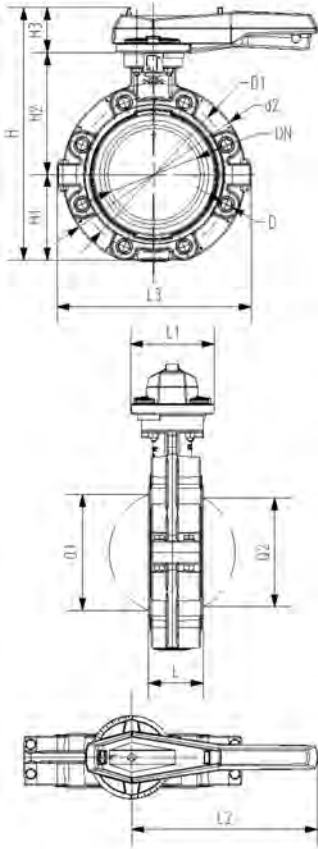
## PROGEF Plus silicone free Lugstyle butterfly valve type 578 Hand lever with ratchet settings

### Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Silicone free/paint-compatible
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version

### Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	EPDM	SP	Weight	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code		(kg)	Code		(kg)
63	2	50	10	1470	<b>167 578 402</b>	1	1.800	<b>167 578 422</b>	1	1.800
75	2 ½	65	10	2200	<b>167 578 403</b>	1	1.895	<b>167 578 423</b>	1	1.895
90	3	80	10	3000	<b>167 578 404</b>	1	2.251	<b>167 578 424</b>	1	2.251
110	4	100	10	6500	<b>167 578 405</b>	1	3.146	<b>167 578 425</b>	1	3.146
140	5	125	10	11500	<b>167 578 406</b>	1	4.660	<b>167 578 426</b>	1	4.660
160	6	150	10	16600	<b>167 578 407</b>	1	6.430	<b>167 578 427</b>	1	6.430
225	8	200	10	39600	<b>167 578 408</b>	1	8.625	<b>167 578 428</b>	1	8.625
280	10	250	10	55200	<b>167 578 409</b>	1	19.528	<b>167 578 429</b>	1	19.528
315	12	300	10	80000	<b>167 578 410</b>	1	26.106	<b>167 578 430</b>	1	26.106

d	d2	D	D1	H	H1	H2	H3	L	L1	L2	L3	Q1	Q2
(mm)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	160	M16	125	265	77	134	54	45	106	205	165	40	
75	180	M16	145	277	83	140	54	46	106	205	182	54	35
90	195	M16	160	289	89	146	54	49	106	205	210	67	50
110	226	M16	180	326	106	167	55	56	106	255	240	88	74
140	258	M16	210	357	121	181	55	64	106	255	272	113	97
160	284	M20	240	377	133	189	55	72	106	255	300	139	123
225	341	M20	295	436	159	210	67	73	140	408	360	178	169
280	412	M20	350	536	205	264	67	113	140	408	440	210	207
315	482	M20	400	586	234	285	67	113	140	408	510	256	253



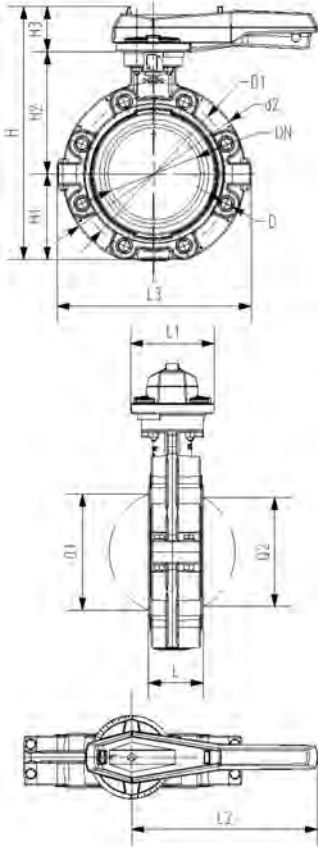
**PROGEF Plus silicone free  
Lugstyle butterfly valve 578 ANSI  
Hand lever with ratchet settings**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Silicone free/paint-compatible
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
63	2	50	10	1470	<b>167 578 502</b>	1	1.800	<b>167 578 522</b>	1	1.800
75	2 ½	65	10	2200	<b>167 578 503</b>	1	1.895	<b>167 578 523</b>	1	1.895
90	3	80	10	3000	<b>167 578 504</b>	1	2.251	<b>167 578 524</b>	1	2.251
110	4	100	10	6500	<b>167 578 505</b>	1	3.146	<b>167 578 525</b>	1	3.146
140	5	125	10	11500	<b>167 578 506</b>	1	4.660	<b>167 578 526</b>	1	4.660
160	6	150	10	16600	<b>167 578 507</b>	1	6.430	<b>167 578 527</b>	1	6.430
225	8	200	10	39600	<b>167 578 508</b>	1	8.625	<b>167 578 528</b>	1	8.625
280	10	250	10	55200	<b>167 578 509</b>	1	19.528	<b>167 578 529</b>	1	19.528
315	12	300	10	80000	<b>167 578 510</b>	1	26.106	<b>167 578 530</b>	1	26.106

d2 (mm)	D	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
160	UNC 5/8	120.6	265	77	134	54	45	106	205	165	40	
180	UNC 5/8	139.7	277	83	140	54	46	106	205	182	54	35
195	UNC 5/8	152.4	289	89	146	54	49	106	205	210	67	50
226	UNC 5/8	190.5	328	106	167	55	56	106	255	240	88	74
258	UNC 3/4	215.9	357	121	181	55	64	106	255	272	113	97
284	UNC 3/4	241.3	377	133	189	55	72	106	255	300	139	123
341	UNC 3/4	298.4	436	159	210	67	73	140	408	360	178	169
412	UNC 3/4	362.0	536	205	264	67	113	140	408	440	210	207
482	UNC 3/4	431.8	586	234	285	67	113	140	408	510	256	253

# Diaphragm valves type 317



## PROGEF Plus silicone free Diaphragm valve type 317 With flanges

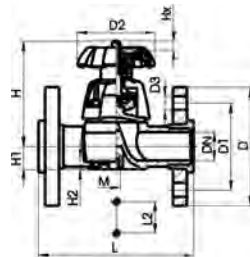
### Model:

- Material: PP-H / silicone free cleaned
- DN 80-150 with fixed flange
- Overall length according to EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- Double bagged
- Jointing surfaces: serrated or flat

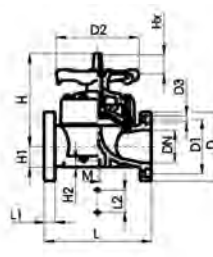
\* **DN80 and DN150 fixed flanges metric and inch ANSI B16.5**

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	Weight (kg)	PTFE with EPDM supporting diaphragm Code	Weight (kg)
	75	2 ½	65	10	992	<b>167 317 218</b>	4.672	<b>167 317 233</b>	5.480
*	90	3	80	10	1700	<b>167 317 129</b>	8.026	<b>167 317 144</b>	8.061
	110	4	100	10	2700	<b>167 317 130</b>	11.315	<b>167 317 145</b>	11.360
*	160	6	150	7	6033	<b>167 317 132</b>	25.000	<b>167 317 147</b>	25.000

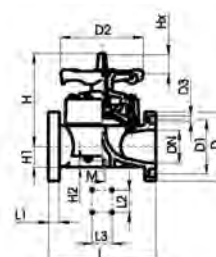
	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	M	Lift = Hx (mm)	AL
	185	145	152	18	210	46	15	290		70		M8	35	4
*	200	160	270	18	265	57	23	310	35	120		M12	40	8
	225	180	270	18	304	69	23	350	38	120		M12	50	8
*	282	241	400	23	437	108	23	480	29	100	200	M12	70	8



DN 15-65

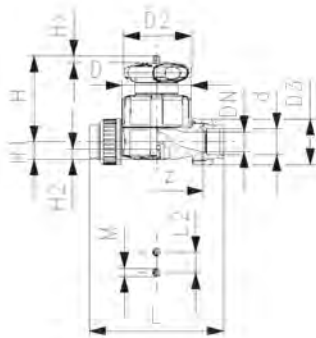
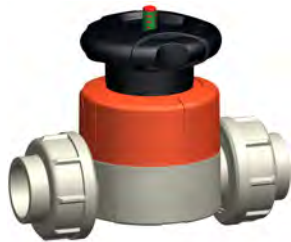


DN 80-100



DN 150

# Diaphragm valves type 514



## PROGEF Plus silicone free Diaphragm valve type 514 With fusion sockets metric

### Model:

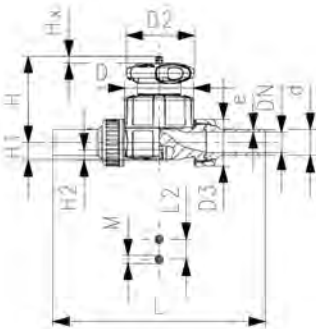
- Material: PP-H / silicone free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

### Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	PTFE/EPDM Code	SP	GP	Weight (kg)
20	15	10	125	167 514 022	167 514 072	1	10	0.371
25	20	10	271	167 514 023	167 514 073	1	6	0.500
32	25	10	481	167 514 024	167 514 074	1	6	1.101
40	32	10	759	167 514 025	167 514 075	1	8	1.297
50	40	10	1263	167 514 026	167 514 076	1	8	1.376
63	50	10	1728	167 514 027	167 514 077	1	0	3.058

d (mm)	D (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	43	73	14	12	128	25	M6	100	7	½
25	80	65	51	81	18	12	150	25	M6	118	10	¾
32	88	87	58	107	22	12	162	25	M6	126	13	1
40	101	87	72	115	26	15	184	45	M8	144	15	1 ¼
50	117	135	83	148	32	15	210	45	M8	164	19	1 ½
63	144	135	100	166	39	15	248	45	M8	194	25	2



## PROGEF Plus silicone free Diaphragm valve type 514 With butt fusion spigots SDR11 metric

### Model:

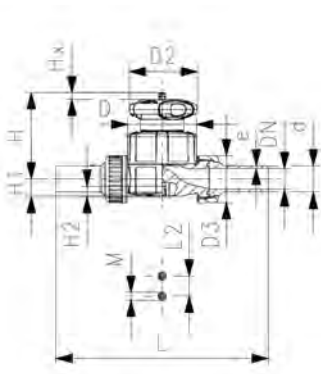
- Material: PP-H / silicone free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

### Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

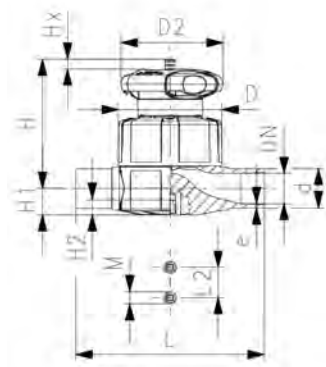
d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	PTFE/EPDM Code	SP	GP	Weight (kg)
20	15	10	125	167 514 122	167 514 172	1	6	0.274
25	20	10	271	167 514 123	167 514 173	1	6	0.404
32	25	10	481	167 514 124	167 514 174	1	4	0.652
40	32	10	759	167 514 125	167 514 175	1	8	0.853
50	40	10	1263	167 514 126	167 514 176	1	8	1.453
63	50	10	1728	167 514 127	167 514 177	1	0	3.072

table continued on the next page



<b>d</b> (mm)	<b>D</b> (mm)	<b>D2</b> (mm)	<b>D3</b> (mm)	<b>H</b> (mm)	<b>H1</b> (mm)	<b>H2</b> (mm)	<b>L</b> (mm)	<b>L2</b> (mm)	<b>M</b>	<b>e</b> (mm)	<b>Lift = Hx</b> (mm)	<b>closest inch</b> (inch)
20	65	65	43	73	14	12	196	25	M6	1.9	7	½
25	80	65	51	81	18	12	221	25	M6	2.3	10	¾
32	88	87	58	107	22	12	234	25	M6	2.9	13	1
40	101	87	72	115	26	15	260	45	M8	3.7	15	1 ¼
50	117	135	83	148	32	15	284	45	M8	4.6	19	1 ½
63	144	135	100	166	39	15	321	45	M8	5.8	25	2

# Diaphragm valves type 515



**PROGEF Plus silicone free  
Diaphragm valve type 515  
With butt fusion spigots SDR11 metric**

**Model:**

- Material: PP-H / silicone free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	PTFE/EPDM Code	Weight (kg)
20	15	10	125	167 515 122	167 515 172	0.307
25	20	10	271	167 515 123	167 515 173	0.392
32	25	10	481	167 515 124	167 515 174	0.968
40	32	10	759	167 515 125	167 515 175	0.655
50	40	10	1263	167 515 126	167 515 176	2.082
63	50	10	1728	167 515 127	167 515 177	2.629

d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	73	14	12	124	25	M6	1.9	7	1/2
25	80	65	81	18	12	144	25	M6	2.3	10	3/4
32	88	87	107	22	12	155	25	M6	2.9	13	1
40	101	87	115	26	15	176	45	M8	3.7	15	1 1/4
50	117	135	148	32	15	193	45	M8	4.6	19	1 1/2
63	144	135	166	39	15	223	45	M8	5.8	25	2

# Diaphragm valves type 517



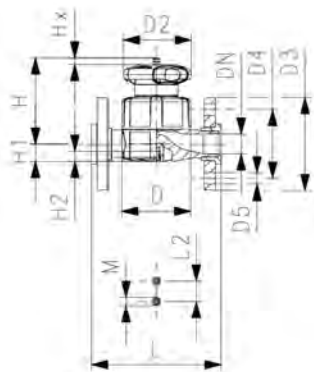
## PROGEF Plus silicone free Diaphragm valve type 517 With backing flanges PP-V metric/BS

### Model:

- Material: PP-H / silicone free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	PTFE/EPDM Code	SP	Weight (kg)
20	15	10	125	<b>167 517 122</b>	<b>167 517 172</b>	1	0.412
25	20	10	271	<b>167 517 123</b>	<b>167 517 173</b>	1	0.640
32	25	10	481	<b>167 517 124</b>	<b>167 517 174</b>	1	1.316
40	32	10	759	<b>167 517 125</b>	<b>167 517 175</b>	1	1.660
50	40	10	1263	<b>167 517 126</b>	<b>167 517 176</b>	1	2.601
63	50	10	1728	<b>167 517 127</b>	<b>167 517 177</b>	1	3.572

d (mm)	D (mm)	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	65	65	95	65	14	73	14	12	130	25	M6	7	½
25	80	65	105	75	14	81	18	12	150	25	M6	10	¾
32	88	87	115	85	14	107	22	12	160	25	M6	13	1
40	101	87	140	100	18	115	26	15	180	45	M8	15	1 ¼
50	117	135	150	110	18	148	32	15	200	45	M8	19	1 ½
63	144	135	165	125	18	166	39	15	230	45	M8	25	2



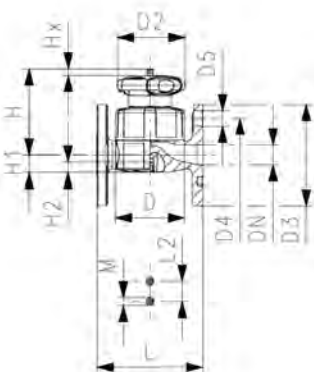
## PROGEF Plus oil free Diaphragm valve type 517 With fixed flanges PP-H JIS

### Model:

- Material: PP-H/oil free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Joining faces flat/serrated
- Connecting dimension: JIS B2238/39 10K

### Option:

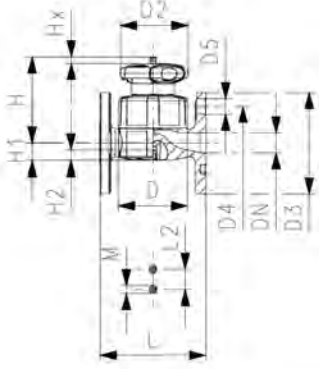
- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)
½	15	10	125	<b>167 517 922</b>	1	0.425	<b>167 517 972</b>	1	0.434
¾	20	10	271	<b>167 517 923</b>	1	0.504	<b>167 517 973</b>	1	0.514
1	25	10	481	<b>167 517 924</b>	1	1.149	<b>167 517 974</b>	1	1.168
1 ¼	32	10	759	<b>167 517 925</b>	1	1.443	<b>167 517 975</b>	1	1.462
1 ½	40	10	1263	<b>167 517 926</b>	1	2.420	<b>167 517 976</b>	1	2.449
2	50	10	1728	<b>167 517 927</b>	1	3.055	<b>167 517 977</b>	1	3.082

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Size (inch)	D (mm)	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)
½	65	65	95	70	15	73	14	12	110	25	M6	7
¾	80	65	100	75	15	81	18	12	120	25	M6	10
1	88	87	125	90	19	107	22	12	130	25	M6	13
1 ¼	101	87	135	100	19	115	26	15	180	45	M8	15
1 ½	117	135	140	105	19	148	32	15	180	45	M8	19
2	144	135	155	120	19	166	39	15	210	45	M8	25

# Diaphragm valves type 519



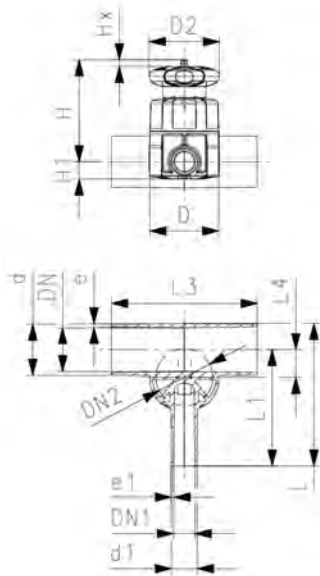
**PROGEF Plus silicone free**  
**Diaphragm valve type 519**  
**With butt fusion spigots SDR11 metric**

**Model:**

- Material: PP-H / silicone free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Smallest possible dead space

**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

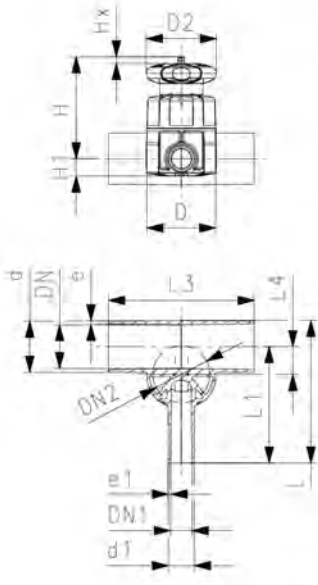


d (mm)	d1 (mm)	DN (mm)	DN1 (mm)	Valve Size d (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)
20	20	15	15	20	10	57	<b>167 519 201</b>	1	0.312
25	20	20	15	25	10	89	<b>167 519 203</b>	1	0.386
25	25	20	20	25	10	118	<b>167 519 204</b>	1	0.388
32	20	25	15	25	10	80	<b>167 519 207</b>	1	0.414
32	25	25	20	25	10	105	<b>167 519 208</b>	1	0.415
32	32	25	25	32	10	231	<b>167 519 209</b>	1	0.960
40	20	32	15	32	10	85	<b>167 519 212</b>	1	0.988
40	40	40	32	40	10	187	<b>167 519 215</b>	1	1.014
50	20	40	15	25	10	86	<b>167 519 218</b>	1	0.474
50	25	40	20	32	10	160	<b>167 519 219</b>	1	1.034
50	32	40	25	32	10	206	<b>167 519 220</b>	1	1.036
63	20	50	15	25	10	84	<b>167 519 225</b>	1	0.513
63	25	50	20	32	10	150	<b>167 519 226</b>	1	1.077
63	32	50	25	32	10	184	<b>167 519 227</b>	1	1.080

d (mm)	d1 (mm)	PTFE/EPDM Code	SP	Weight (kg)
20	20	<b>167 519 701</b>	1	0.321
25	20	<b>167 519 703</b>	1	0.398
25	25	<b>167 519 704</b>	1	0.399
32	20	<b>167 519 707</b>	1	0.424
32	25	<b>167 519 708</b>	1	0.426
32	32	<b>167 519 709</b>	1	0.980
40	20	<b>167 519 712</b>	1	1.008
40	40	<b>167 519 715</b>	1	1.034
50	20	<b>167 519 718</b>	1	0.485
50	25	<b>167 519 719</b>	1	1.054
50	32	<b>167 519 720</b>	1	1.056
63	20	<b>167 519 725</b>	1	0.525
63	25	<b>167 519 726</b>	1	1.097
63	32	<b>167 519 727</b>	1	1.100

d (mm)	d1 (mm)	D (mm)	D2 (mm)	H (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	DN2 (mm)	e1 (mm)
20	20	65	65	75	117	96	162	12	1.9	7	15	1.9
25	20	80	65	80	133	108	162	16	2.3	10	20	1.9
25	25	80	65	80	133	108	162	16	2.3	10	20	2.3
32	20	80	65	84	142	120	162	19	2.9	10	20	1.9
32	25	80	65	84	142	120	162	19	2.9	10	20	2.3
32	32	88	87	107	145	120	160	19	2.9	13	25	2.9
40	20	88	87	115	149	128	180	23	3.7	13	25	1.9
40	40	88	87	115	174	153	180	23	3.7	13	25	3.7
50	20	80	65	97	160	134	180	27	4.6	10	20	1.9
50	25	88	87	120	160	134	180	28	4.6	13	25	2.3

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d (mm)	d1 (mm)	D (mm)	D2 (mm)	H (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	DN2 (mm)	e1 (mm)
50	32	88	87	120	160	134	180	28	4.6	13	25	2.9
63	20	80	65	104	177	144	180	33	5.8	10	20	1.9
63	25	88	87	127	177	144	180	35	5.8	13	25	2.3
63	32	88	87	127	177	144	180	35	5.8	13	25	2.9

# Diaphragm valves pneumatic DIASTAR Six



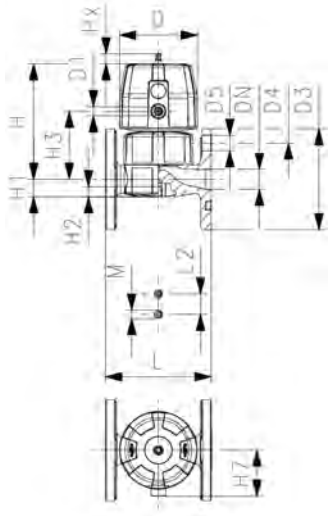
**PROGEF Plus oil free**  
**Diaphragm valve DIASTAR Six**  
**FC (Fail safe to close)**  
**With fixed flanges PP-H JIS**

**Model:**

- Material: PP-H/oil free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: JIS B2238/39 10K

**Option:**

- Individual configuration of the valve (see diagram)



Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)
¾	20	6	271	<b>167 617 923</b>	1	1.023
1	25	6	481	<b>167 617 924</b>	1	1.263
1 ¼	32	6	759	<b>167 617 925</b>	1	2.082
1 ½	40	6	960	<b>167 617 926</b>	1	2.570
2	50	6	1181	<b>167 617 927</b>	1	3.432

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)
¾	96	¾	100	75	15	132	18	12	73	57	120	25	M6	10
1	96	¾	125	90	19	143	22	12	84	69	130	25	M6	13
1 ¼	120	¾	135	100	19	173	26	15	99	69	180	45	M8	14
1 ½	120	¾	140	105	19	193	32	15	119	69	180	45	M8	16
2	120	¾	155	120	19	205	39	15	132	69	210	45	M8	16

# Diaphragm valves pneumatic DIASTAR Ten



**PROGEF Plus oil free**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**With fixed flanges PP-H JIS**

**Model:**

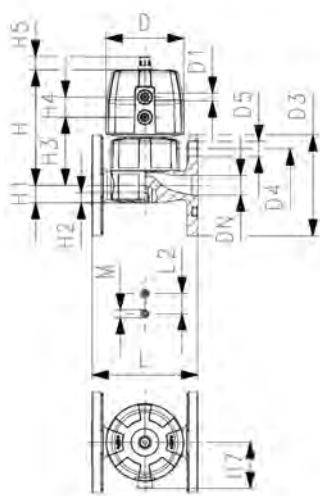
- Material: PP-H/oil free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: JIS B2238/39 10K

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



Size (inch)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)
½	15	10/10*	125	167 657 922	1	0.553	167 657 972	1	0.562
¾	20	10/10*	271	167 657 923	1	0.888	167 657 973	1	0.898
1	25	10/10*	481	167 657 924	1	1.125	167 657 974	1	1.144
1 ¼	32	10/10*	759	167 657 925	1	1.812	167 657 975	1	1.831
1 ½	40	10/10*	1263	167 657 926	1	2.868	167 657 976	1	2.897
2	50	10/10*	1728	167 657 927	1	3.513	167 657 977	1	3.540

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	68	⅝	95	70	15	101	14	12	60	24	16	57	110	25	M6
¾	96	⅝	100	75	15	132	18	12	73	25	16	57	120	25	M6
1	96	⅝	125	90	19	143	22	12	84	25	16	69	130	25	M6
1 ¼	120	⅝	135	100	19	173	26	15	99	26	26	88	180	45	M8
1 ½	150	¾	140	105	19	214	32	15	119	36	26	103	180	45	M8
2	150	¾	155	120	19	226	39	15	132	36	26	103	210	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23



**PROGEF Plus oil free  
Diaphragm valve DIASTAR Ten  
FO (Fail safe to open)  
With fixed flanges PP-H JIS**

**Model:**

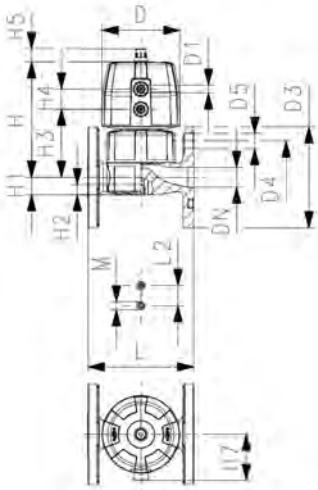
- Material: PP-H/oil free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: JIS B2238/39 10K

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



Size (inch)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE/EPDM Code	SP Weight (kg)
½	15	10/10*	125	<b>167 647 922</b>	1	0.569	<b>167 647 972</b>
¾	20	10/10*	271	<b>167 647 923</b>	1	0.924	<b>167 647 973</b>
1	25	10/10*	481	<b>167 647 924</b>	1	1.155	<b>167 647 974</b>
1 ¼	32	10/10*	759	<b>167 647 925</b>	1	1.872	<b>167 647 975</b>
1 ½	40	10/10*	1263	<b>167 647 926</b>	1	3.618	<b>167 647 976</b>
2	50	10/10*	1728	<b>167 647 927</b>	1	4.263	<b>167 647 977</b>

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	68	¾	95	70	15	101	14	12	60	24	16	57	110	25	M6
¾	96	¾	100	75	15	132	18	12	73	25	16	57	120	25	M6
1	96	¾	125	90	19	143	22	12	84	25	16	69	130	25	M6
1 ¼	120	¾	135	100	19	173	26	15	99	26	26	88	180	45	M8
1 ½	150	¾	140	105	19	214	32	15	119	36	26	103	180	45	M8
2	150	¾	155	120	19	226	39	15	132	36	26	103	210	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23

# Diaphragm valves pneumatic DIASTAR TenPlus



**PROGEF Plus oil free**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close) low pressure**  
**With fixed flanges PP-H JIS**

**Model:**

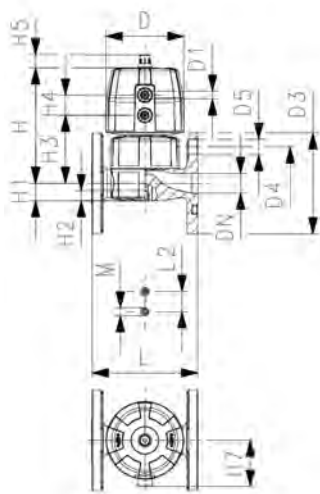
- Material: PP-H/oil free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Connecting dimension: JIS B2238/39 10K

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **both sides**



Size (inch)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)
½	15	10/8*	125	<b>167 687 922</b>	1	1.020	<b>167 687 972</b>	1	1.028
¾	20	10/8*	271	<b>167 687 923</b>	1	1.098	<b>167 687 973</b>	1	1.108
1	25	10/8*	481	<b>167 687 924</b>	1	1.929	<b>167 687 974</b>	1	1.948
1 ¼	32	10/8*	759	<b>167 687 925</b>	1	3.302	<b>167 687 975</b>	1	3.321
1 ½	40	10/8*	1263	<b>167 687 926</b>	1	5.116	<b>167 687 976</b>	1	5.145
2	50	10/6*	1728	<b>167 687 927</b>	1	5.760	<b>167 687 977</b>	1	5.787

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	96	⅜	95	70	15	127	14	12	68	25	16	57	110	25	M6
¾	96	⅜	100	75	15	132	18	12	73	25	16	57	120	25	M6
1	120	⅜	125	90	19	167	22	12	93	26	26	69	130	25	M6
1 ¼	150	¼	135	100	19	196	26	15	101	36	26	88	180	45	M8
1 ½	180	¼	140	105	19	239	32	15	124	37	26	103	180	45	M8
2	180	¼	155	120	19	251	39	15	137	37	26	103	210	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23

# Cone check valves

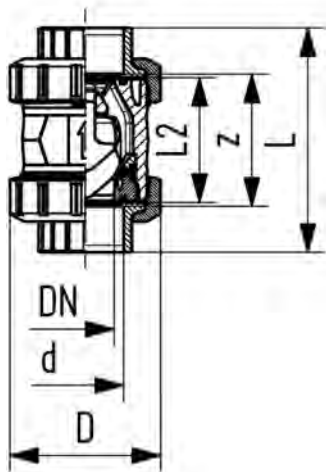
## Type 561



**PROGEF Plus silicone free  
Check valve type 561  
With fusion sockets metric**

**Model:**

- Material: PP-H / silicone free cleaned
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
16	10	10	190	<b>167 561 201</b>	1	0.080	<b>167 561 211</b>
20	15	10	180	<b>167 561 202</b>	1	0.080	<b>167 561 212</b>
25	20	10	380	<b>167 561 203</b>	1	0.170	<b>167 561 213</b>
32	25	10	460	<b>167 561 204</b>	1	0.190	<b>167 561 214</b>
40	32	10	850	<b>167 561 205</b>	1	0.330	<b>167 561 215</b>
50	40	10	1080	<b>167 561 206</b>	1	0.480	<b>167 561 216</b>
63	50	10	1670	<b>167 561 207</b>	1	0.880	<b>167 561 217</b>
75	65	10	2950	<b>167 561 208</b>	1	2.300	<b>167 561 218</b>
90	80	10	3600	<b>167 561 209</b>	1	3.560	<b>167 561 219</b>
110	100	10	4150	<b>167 561 210</b>	1	5.900	<b>167 561 220</b>

d (mm)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	50	93	56	67	3/8
20	50	95	56	66	1/2
25	58	109	65	77	3/4
32	68	119	71	83	1
40	84	135	85	99	1 1/4
50	97	147	89	105	1 1/2
63	124	168	101	117	2
75	166	233	136	167	2 1/2
90	200	254	141	180	3
110	238	301	164	215	4

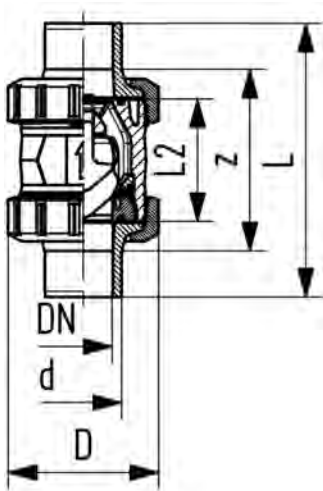




**PROGEF Plus silicone free  
Check valve type 561  
With socket fusion spigots metric**

**Model:**

- Material: PP-H / silicone free cleaned
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	10	190	<b>167 561 221</b>	1	0.080	<b>167 561 231</b>	1	0.080
20	15	10	180	<b>167 561 222</b>	1	0.090	<b>167 561 232</b>	1	0.090
25	20	10	380	<b>167 561 223</b>	1	0.170	<b>167 561 233</b>	1	0.190
32	25	10	460	<b>167 561 224</b>	1	0.200	<b>167 561 234</b>	1	0.200
40	32	10	850	<b>167 561 225</b>	1	0.340	<b>167 561 235</b>	1	0.350
50	40	10	1080	<b>167 561 226</b>	1	0.510	<b>167 561 236</b>	1	0.510
63	50	10	1670	<b>167 561 227</b>	1	0.940	<b>167 561 237</b>	1	0.950
75	65	10	2950	<b>167 561 228</b>	1	2.360	<b>167 561 238</b>	1	2.370
90	80	10	3600	<b>167 561 229</b>	1	3.730	<b>167 561 239</b>	1	3.750
110	100	10	4150	<b>167 561 230</b>	1	5.960	<b>167 561 240</b>	1	5.980

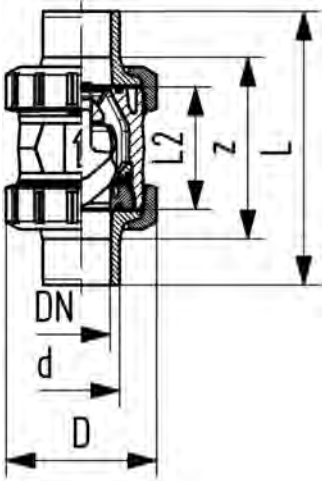
d (mm)	D (mm)	L (mm)	L2 (mm)	L3 (mm)	closest inch (inch)
16	50	110	56		$\frac{3}{8}$
20	50	120	56	130	$\frac{1}{2}$
25	58	139	65	150	$\frac{3}{4}$
32	68	150	71	160	1
40	84	170	85	180	$1 \frac{1}{4}$
50	97	190	89	200	$1 \frac{1}{2}$
63	124	220	101	230	2
75	166	280	136	290	$2 \frac{1}{2}$
90	200	296	141	310	3
110	238	336	164	350	4



**PROGEF Plus silicone free  
Check valve type 561  
With butt fusion spigots IR-Plus  
SDR11 metric**

**Model:**

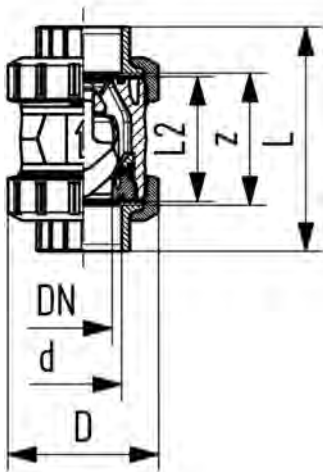
- Material: PP-H / silicone free cleaned
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
20	15	10	180	<b>167 561 242</b>	1	0.080	<b>167 561 252</b>
25	20	10	380	<b>167 561 243</b>	1	0.170	<b>167 561 253</b>
32	25	10	460	<b>167 561 244</b>	1	0.190	<b>167 561 254</b>
40	32	10	850	<b>167 561 245</b>	1	0.340	<b>167 561 255</b>
50	40	10	1080	<b>167 561 246</b>	1	0.490	<b>167 561 256</b>
63	50	10	1670	<b>167 561 247</b>	1	0.930	<b>167 561 257</b>
75	65	10	2950	<b>167 561 248</b>	1	2.350	<b>167 561 258</b>
90	80	10	3600	<b>167 561 249</b>	1	3.660	<b>167 561 259</b>
110	100	10	4150	<b>167 561 250</b>	1	5.810	<b>167 561 260</b>

d (mm)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	50	130	56	1.9	½
25	58	143	65	2.3	¾
32	68	150	71	2.9	1
40	84	171	85	3.7	1 ¼
50	97	191	89	4.6	1 ½
63	124	220	101	5.8	2
75	166	266	136	6.8	2 ½
90	200	264	141	8.2	3
110	238	301	164	10.0	4

# Type 562



**PROGEF Plus silicone free  
Check valve type 562  
With fusion sockets metric**

**Model:**

- Material: PP-H / silicone free cleaned
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
16	10	10	190	167 562 201	0.080	167 562 211	0.080
20	15	10	180	167 562 202	0.080	167 562 212	0.080
25	20	10	380	167 562 203	0.170	167 562 213	0.180
32	25	10	460	167 562 204	0.190	167 562 214	0.190
40	32	10	850	167 562 205	0.330	167 562 215	0.340
50	40	10	1080	167 562 206	0.480	167 562 216	0.480
63	50	10	1670	167 562 207	0.880	167 562 217	0.880
75	65	10	2950	167 562 208	2.300	167 562 218	2.310
90	80	10	3600	167 562 209	3.560	167 562 219	3.580
110	100	10	4150	167 562 210	5.900	167 562 220	5.930

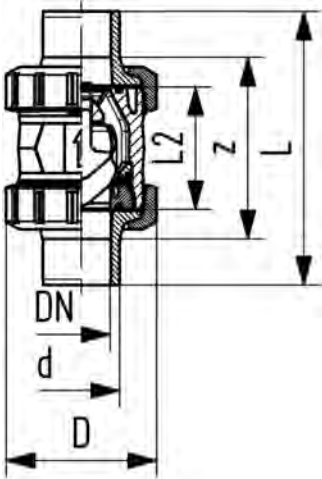
d (mm)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	50	93	56	67	$\frac{3}{8}$
20	50	95	56	66	$\frac{1}{2}$
25	58	109	65	77	$\frac{3}{4}$
32	68	119	71	83	1
40	84	135	85	99	1 $\frac{1}{4}$
50	97	147	89	105	1 $\frac{1}{2}$
63	124	168	101	117	2
75	166	233	136	167	2 $\frac{1}{2}$
90	200	254	141	180	3
110	238	301	164	215	4



**PROGEF Plus silicone free  
Check valve type 562  
With socket fusion spigots metric**

**Model:**

- Material: PP-H / silicone free cleaned
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	FKM Code	SP Weight (kg)
16	10	10	190	167 562 221	1	0.080	167 562 231
20	15	10	180	167 562 222	1	0.090	167 562 232
25	20	10	380	167 562 223	1	0.170	167 562 233
32	25	10	460	167 562 224	1	0.200	167 562 234
40	32	10	850	167 562 225	1	0.340	167 562 235
50	40	10	1080	167 562 226	1	0.510	167 562 236
63	50	10	1670	167 562 227	1	0.940	167 562 237
75	65	10	2950	167 562 228	1	2.360	167 562 238
90	80	10	3600	167 562 229	1	3.730	167 562 239
110	100	10	4150	167 562 230	1	5.960	167 562 240

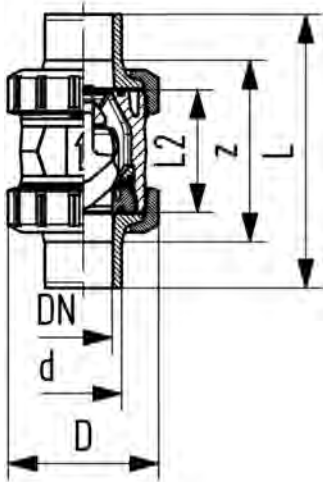
d (mm)	D (mm)	L (mm)	L2 (mm)	closest inch (inch)
16	50	110	56	3/8
20	50	120	56	1/2
25	58	139	65	3/4
32	68	150	71	1
40	84	170	85	1 1/4
50	97	190	89	1 1/2
63	124	220	101	2
75	166	280	136	2 1/2
90	200	296	141	3
110	238	336	164	4



**PROGEF Plus silicone free  
Check valve type 562  
With butt fusion spigots IR-Plus  
SDR11 metric**

**Model:**

- Material: PP-H / silicone free cleaned
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN65-DN100













d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	10	180	<b>167 562 242</b>	1	0.080	<b>167 562 252</b>	1	0.080
25	20	10	380	<b>167 562 243</b>	1	0.170	<b>167 562 253</b>	1	0.180
32	25	10	460	<b>167 562 244</b>	1	0.190	<b>167 562 254</b>	1	0.190
40	32	10	850	<b>167 562 245</b>	1	0.340	<b>167 562 255</b>	1	0.340
50	40	10	1080	<b>167 562 246</b>	1	0.490	<b>167 562 256</b>	1	0.490
63	50	10	1670	<b>167 562 247</b>	1	0.930	<b>167 562 257</b>	1	0.930
75	65	10	2950	<b>167 562 248</b>	1	2.350	<b>167 562 258</b>	1	2.360
90	80	10	3600	<b>167 562 249</b>	1	3.660	<b>167 562 259</b>	1	3.680
110	100	10	4150	<b>167 562 250</b>	1	5.810	<b>167 562 260</b>	1	5.830

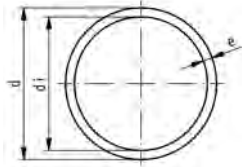
d (mm)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	50	130	56	1.9	½
25	58	143	65	2.3	¾
32	68	150	71	2.9	1
40	84	171	85	3.7	1 ¼
50	97	191	89	4.6	1 ½
63	124	220	101	5.8	2
75	166	266	136	6.8	2 ½
90	200	264	141	8.2	3
110	238	301	164	10.0	4

# PROGEF Natural



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# Pipes

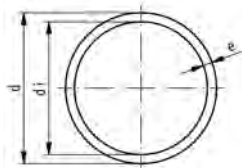


## PROGEF Natural SDR11/PN10/S5

### Model:

- Material: PP-R
- Dimension: acc. to EN 15494
- Colour: natural
- Pipe length: 5000mm, with plain ends
- both ends closed with caps, single bagged in foil

d (mm)	PN (bar)	Code	Weight (kg/m)	e (mm)
20	10	<b>168 480 151</b>	0.107	1.9
25	10	<b>168 480 152</b>	0.164	2.3
32	10	<b>168 480 153</b>	0.261	2.9
40	10	<b>168 480 154</b>	0.412	3.7
50	10	<b>168 480 155</b>	0.638	4.6
63	10	<b>168 480 156</b>	1.010	5.8
90	10	<b>168 480 158</b>	2.030	8.2



## PROGEF Natural SDR17,6/PN6/S8,3

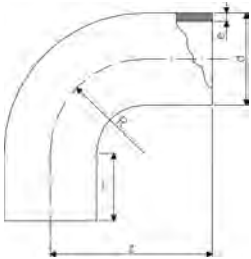
### Model:

- Material: PP-R
- Dimension: acc. to EN 15494
- Colour: natural
- Pipe length: 5000mm, with plain ends
- both ends closed with caps, single bagged in foil

d (mm)	Code	Weight (kg/m)	e (mm)
75	<b>168 480 282</b>	0.935	4.3
90	<b>168 480 283</b>	1.330	5.1
110	<b>168 480 284</b>	1.990	6.3



# Butt fusion fittings

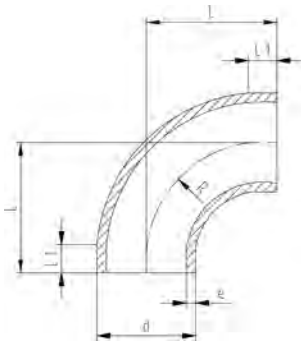


## PROGEF Natural bend 90° S5/SDR11 - 0.75d (PN10)

### Model:

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207

d (mm)	FM	Code	Weight (kg)	L (mm)	e (mm)	z (mm)	R (mm)
20	BCF, IR	<b>728 018 606</b>	0.007	23	1.9	38	15
25	BCF, IR	<b>728 018 607</b>	0.012	23	2.3	42	19
32	BCF, IR	<b>728 018 608</b>	0.026	22	2.9	46	24
40	BCF, IR	<b>728 018 609</b>	0.038	21	3.7	51	30
50	BCF, IR	<b>728 018 610</b>	0.065	21	4.6	58	37
63	BCF, IR	<b>728 018 611</b>	0.115	21	5.8	66	45



## PROGEF Natural bend 90° SDR17.6 (PN6)

### Model:

- Material: PP-R unpigmented
- Colour: natural
- Bead and crevice free weldable with the new BCF fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207

d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	R (mm)	e (mm)
75	BCF, IR	<b>728 018 612</b>	0.126	75	21	71.25	4.5
90	BCF, IR	<b>728 018 613</b>	0.218	90	22	85.50	5.4
110	BCF, IR	<b>728 018 614</b>	0.380	110	25	104.50	6.6



### PROGEF Natural elbow 45° S5/SDR11 (PN10)

**Model:**

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207



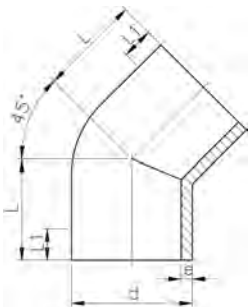
d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	e (mm)
20	BCF, IR	<b>728 158 506</b>	0.007	32	24	1.9
25	BCF, IR	<b>728 158 507</b>	0.002	34	25	2.3
32	BCF, IR	<b>728 158 508</b>	0.019	36	25	2.9
40	BCF, IR	<b>728 158 509</b>	0.037	39	25	3.7
50	BCF, IR	<b>728 158 510</b>	0.054	42	26	4.6
63	BCF, IR	<b>728 158 511</b>	0.097	47	29	5.8



### PROGEF Natural elbow 45° SDR17.6 (PN6)

**Model:**

- Material: PP-R unpigmented
- Colour: natural
- Bead and crevice free weldable with the new BCF fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207



d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	e (mm)
75	BCF, IR	<b>728 158 412</b>	0.099	49	21	4.3
90	BCF, IR	<b>728 158 413</b>	0.164	57	21	5.1
110	BCF, IR	<b>728 158 414</b>	0.293	70	38	6.3



### PROGEF Natural tee 90° equal S5/SDR11 (PN10)

**Model:**

- Material: PP-R unpigmented
- Colour: natural
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207



d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	e (mm)
20	BCF, IR	<b>728 208 506</b>	0.011	38	24	1.9
25	BCF, IR	<b>728 208 507</b>	0.018	42	26	2.3
32	BCF, IR	<b>728 208 508</b>	0.032	46	26	2.9
40	BCF, IR	<b>728 208 509</b>	0.059	51	23	3.7
50	BCF, IR	<b>728 208 510</b>	0.101	58	22	4.6
63	BCF, IR	<b>728 208 511</b>	0.182	66	20	5.8



### PROGEF Natural tee 90° equal SDR17.6 (PN6)

**Model:**

- Material: PP-R unpigmented
- Colour: natural
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207



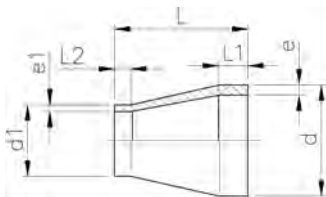
d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	e (mm)
75	BCF, IR	<b>728 208 412</b>	0.230	75	20	4.3
90	BCF, IR	<b>728 208 413</b>	0.401	90	20	5.1
110	BCF, IR	<b>728 208 414</b>	0.723	110	20	6.3



### PROGEF Natural reducer S5/SDR11 (PN10)

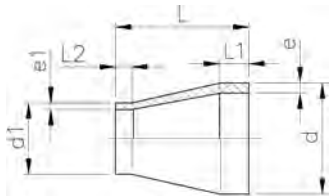
**Model:**

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207



d (mm)	d1 (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	e1 (mm)
25	20	BCF, IR	<b>728 908 537</b>	0.007	50	20	20	2.3	1.9
32	20	BCF, IR	<b>728 908 542</b>	0.010	50	20	20	3.0	1.9
32	25	BCF, IR	<b>728 908 541</b>	0.011	50	20	20	3.0	2.3
40	20	BCF, IR	<b>728 908 548</b>	0.015	58	20	23	3.7	1.9
40	25	BCF, IR	<b>728 908 547</b>	0.016	55	20	20	3.7	2.3
40	32	BCF, IR	<b>728 908 546</b>	0.019	55	20	20	3.7	2.9
50	25	BCF, IR	<b>728 908 554</b>	0.025	60	20	20	4.6	2.3
50	32	BCF, IR	<b>728 908 553</b>	0.027	60	20	20	4.6	2.9

table continued on the next page



d (mm)	d1 (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	e1 (mm)
50	40	BCF, IR	<b>728 908 552</b>	0.030	60	20	20	4.6	3.7
63	32	BCF, IR	<b>728 908 560</b>	0.043	65	20	20	5.8	2.9
63	40	BCF, IR	<b>728 908 559</b>	0.047	65	20	20	5.8	3.7
63	50	BCF, IR	<b>728 908 558</b>	0.052	65	20	20	5.8	4.6

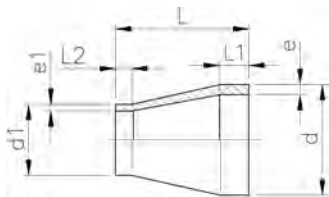


### PROGEF Natural reducer SDR17.6 (PN6)

#### Model:

- Material: PP-R unpigmented
- Colour: natural
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207

\* SDR17,6 - SDR11



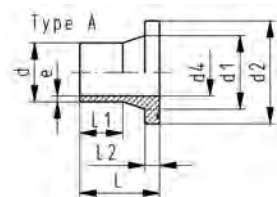
	d (mm)	d1 (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	e1 (mm)
*	75	40	BCF, IR	<b>728 908 466</b>	0.048	68	20	23	4.3	3.7
*	75	50	BCF, IR	<b>728 908 465</b>	0.051	65	20	20	4.3	4.6
*	75	63	BCF, IR	<b>728 908 464</b>	0.060	65	20	20	4.3	5.8
*	90	63	BCF, IR	<b>728 908 471</b>	0.087	75	22	19	5.1	5.8
	90	75	BCF, IR	<b>728 908 470</b>	0.086	75	21	19	5.1	4.3
*	110	63	BCF, IR	<b>728 908 472</b>	0.145	90	28	28	6.3	5.8
	110	75	BCF, IR	<b>728 908 477</b>	0.135	90	26	20	6.3	4.3
	110	90	BCF, IR	<b>728 908 476</b>	0.154	90	25	22	6.3	5.1



### PROGEF Natural flange adaptor S5/SDR11 (PN10) Combined jointing face: flat and serrated

#### Model:

- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Gasket: profile flange gasket EPDM No. 48 44 07, FKM No. 49 44 07



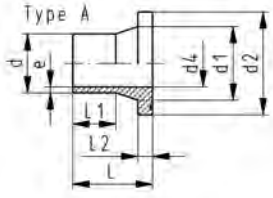
DN (mm)	d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	d1 (mm)	d2 (mm)	d4 (mm)
15	20	BCF/IR	<b>728 798 706</b>	1	0.015	50	29	7	1.9	27	45	16
20	25	BCF/IR	<b>728 798 707</b>	1	0.028	52	27	9	2.3	33	58	20
25	32	BCF/IR	<b>728 798 708</b>	5	0.042	54	28	10	3.0	40	68	26
32	40	BCF/IR	<b>728 798 709</b>	1	0.064	56	25	11	3.7	50	78	32
40	50	BCF/IR	<b>728 798 710</b>	5	0.092	62	32	12	4.6	61	88	40
50	63	BCF/IR	<b>728 798 711</b>	5	0.139	68	38	14	5.8	75	102	51



**PROGEF Natural flange adaptor SDR 17.6 (PN6)**  
**Combined jointing face: flat and serrated**

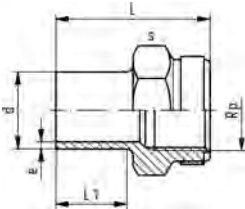
**Model:**

- Material: PP-R unpigmented
- Colour: natural
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207



d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	d1 (mm)	d2 (mm)	d4 (mm)
75	BCF, IR	<b>728 798 787</b>	0.202	80	43	16	4.8	89	121	65
90	BCF, IR	<b>728 798 788</b>	0.271	80	41	17	5.7	105	138	78
110	BCF, IR	<b>728 798 789</b>	0.354	80	40	18	6.9	125	158	96

# Adaptor fittings for butt fusion

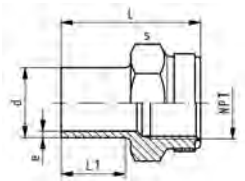


## PROGEF Natural adaptor socket metric Rp (PN10)

### Model:

- With butt fusion spigot **SDR11** and BSP parallel female thread Rp, reinforced
- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Material: PP-R unpigmented
- Do not use thread sealing pastes that are harmful to PP

d (mm)	Rp (inch)	FM	Code	SP Weight (kg)	L (mm)	L1 (mm)	s (mm)	e (mm)	
20	¾	BCF, IR	<b>728 918 056</b>	5	0.014	49	28	1.9	32
25	¾	BCF, IR	<b>728 918 057</b>	5	0.022	51	28	2.3	36
32	1	BCF, IR	<b>728 918 058</b>	5	0.039	54	28	2.9	46
40	1 ¼	BCF, IR	<b>728 918 059</b>	5	0.057	56	28	3.7	55
50	1 ½	BCF, IR	<b>728 918 060</b>	5	0.085	60	28	4.6	64
63	2	BCF, IR	<b>728 918 061</b>	5	0.140	62	28	5.8	80

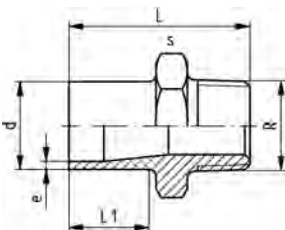


## PROGEF Natural adaptor socket metric NPT (PN10)

### Model:

- Material: PP-R unpigmented
- With butt fusion spigot **SDR11** and NPT tapered female thread, reinforced
- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d (mm)	NPT (inch)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	s (mm)	e (mm)
20	½	BCF, IR	<b>728 914 056</b>	0.016	49	28	32	1.9
25	¾	BCF, IR	<b>728 914 057</b>	0.019	51	28	36	2.3
32	1	BCF, IR	<b>728 914 058</b>	0.039	54	28	46	2.9
40	1 ¼	BCF, IR	<b>728 914 059</b>	0.052	56	28	55	3.7
50	1 ½	BCF, IR	<b>728 914 060</b>	0.085	60	28	64	4.6
63	2	BCF, IR	<b>728 914 061</b>	0.140	62	28	80	5.8

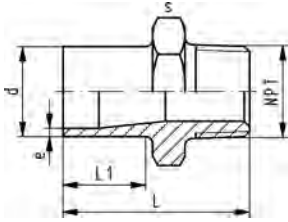


## PROGEF Natural adaptor nipple metric R (PN10)

### Model:

- Material: PP-R unpigmented
- With butt fusion spigot **SDR11** and tapered male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d (mm)	R (inch)	FM	Code	SP Weight (kg)	L (mm)	L1 (mm)	s (mm)	e (mm)	
20	½	BCF, IR	<b>728 918 106</b>	5	0.013	51	28	32	1.9
25	¾	BCF, IR	<b>728 918 107</b>	5	0.017	52	28	36	2.3
32	1	BCF, IR	<b>728 918 108</b>	5	0.027	55	28	46	2.9
40	1 ¼	BCF, IR	<b>728 918 109</b>	5	0.037	58	28	55	3.7
50	1 ½	BCF, IR	<b>728 918 110</b>	5	0.052	60	28	65	4.6
63	2	BCF, IR	<b>728 918 111</b>	5	0.092	67	28	80	5.8

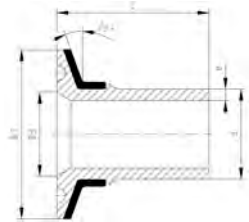


### PROGEF Natural adaptor nipple metric NPT (PN10)

**Model:**

- Material: PP-R unpigmented
- With butt fusion spigot **SDR11** and NPT tapered male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d	NPT	FM	Code	Weight	L	L1	s	e
(mm)	(inch)			(kg)	(mm)	(mm)	(mm)	(mm)
20	½	BCF, IR	<b>728 914 106</b>	0.013	51	28	32	1.9
25	¾	BCF, IR	<b>728 914 107</b>	0.017	52	28	36	2.3
32	1	BCF, IR	<b>728 914 108</b>	0.027	55	28	46	2.9
40	1 ¼	BCF, IR	<b>728 914 109</b>	0.039	58	28	55	3.7
50	1 ½	BCF, IR	<b>728 914 110</b>	0.054	60	28	65	4.6
63	2	BCF, IR	<b>728 914 111</b>	0.093	67	28	80	5.8

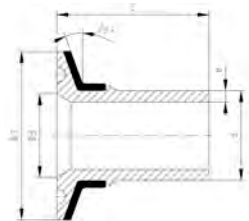


### PROGEF Natural sanitary adaptor (PN10) Connection to ISO 1127

**Model:**

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Stainlesssteel reinforcement ring
- Conventional butt-welding according to DVS 2207
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)

d	DN	FM	Code	SP	Weight	L	D1	D3	e
(mm)	(mm)				(kg)	(mm)	(mm)	(mm)	(mm)
20	15	BCF, IR	<b>728 598 006</b>	1	0.031	49	50	18	1.9
25	20	BCF, IR	<b>728 598 008</b>	1	0.029	50	50	23	2.3
25	25	BCF, IR	<b>728 598 009</b>	1	0.029	50	50	29	2.3
32	25	BCF, IR	<b>728 598 010</b>	1	0.030	53	50	29	2.9
40	32	BCF, IR	<b>728 598 014</b>	1	0.054	54	64	38	3.7
50	40	BCF, IR	<b>728 598 016</b>	1	0.064	61	64	44	4.6
63	50	BCF, IR	<b>728 598 018</b>	1	0.097	67	77	56	5.8

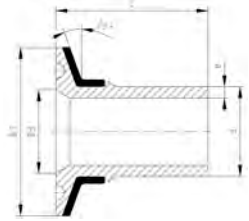


### PROGEF Natural sanitary adaptor (PN10) Connection to membrane manometer

**Model:**

- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Stainlesssteel reinforcement ring
- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207

d	DN	FM	PN	Code	SP	Weight	L	D1	D3	e
(mm)	(mm)		(bar)			(kg)	(mm)	(mm)	(mm)	(mm)
20	15	BCF, IR	10	<b>728 598 516</b>	1	0.029	49	50	34	1.9
25	20	BCF, IR	10	<b>728 598 518</b>	1	0.027	50	50	34	2.3
32	25	BCF, IR	10	<b>728 598 520</b>	1	0.032	53	50	34	2.9

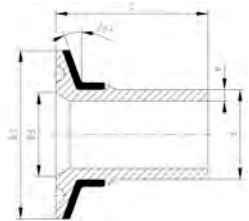


**PROGEF Natural sanitary adaptor (PN10)**  
**Connection to 3A standard**

**Model:**

- Stainlesssteel reinforcement ring
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207
- \* Without stainless steel reinforcement ring

	d (mm)	Inch (inch)	FM	Code	SP	Weight (kg)	L (mm)	D1 (mm)	D3 (mm)	e (mm)
*	20	3/4	BCF, IR	<b>728 598 207</b>	1	0.006	49	25	16	1.9
	25	1	BCF, IR	<b>728 598 209</b>	1	0.031	50	50	22	2.3
	32	1 1/2	BCF, IR	<b>728 598 213</b>	1	0.032	53	50	35	2.9
	40	1 1/2	BCF, IR	<b>728 598 215</b>	1	0.033	54	50	35	3.7
	50	2	BCF, IR	<b>728 598 217</b>	1	0.062	61	64	48	4.6
	63	2 1/2	BCF, IR	<b>728 598 219</b>	1	0.093	67	78	60	5.8

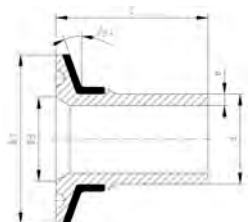


**PROGEF Natural sanitary adaptor (PN10)**  
**Connection to JIS G3447**

**Model:**

- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Stainlesssteel reinforcement ring

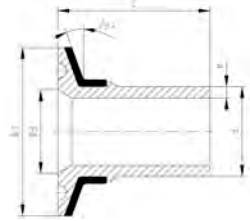
	DN	FM	d (mm)	Code	SP	Weight (kg)	L (mm)	D1 (mm)	D3 (mm)	e (mm)
	15 A	BCF, IR	20	<b>728 598 406</b>	1	0.014	49	34	18	1.9
	1 S	BCF, IR	25	<b>728 598 408</b>	1	0.032	50	50	23	2.3
	1 1/4 S	BCF, IR	32	<b>728 598 410</b>	1	0.033	53	50	30	2.9
	1 1/2 S	BCF, IR	40	<b>728 598 414</b>	1	0.033	54	50	35	3.7
	2 S	BCF, IR	50	<b>728 598 416</b>	1	0.061	61	64	48	4.6
	2 1/2 S	BCF, IR	63	<b>728 598 418</b>	1	0.093	67	78	60	5.8



**PROGEF Natural sanitary adaptor (PN10)**  
**Connection to ASME BPE**

	d (mm)	Size (inch)	FM	Code	Weight (lb)	L (mm)	D1 (mm)	D3 (mm)	e (mm)
*	20	3/4	BCF, IR	<b>728 598 357</b>	0.011	49	25	16	1.9
	25	1	BCF, IR	<b>728 598 359</b>	0.064	50	51	22	2.3
	32	1 1/2	BCF, IR	<b>728 598 362</b>	0.066	53	51	35	2.9
	40	1 1/2	BCF, IR	<b>728 598 365</b>	0.082	54	51	35	3.7
	50	2	BCF, IR	<b>728 598 367</b>	0.139	61	64	48	4.6
	63	2 1/2	BCF, IR	<b>728 598 369</b>	0.212	67	78	60	5.8



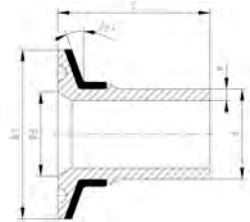


**PROGEF Natural sanitary adaptor (PN10)**  
**Connection to ISO 2852**

**Model:**

- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Stainlesssteel reinforcement ring

d (mm)	DN (mm)	FM	Code	SP	Weight (kg)	L (mm)	D1 (mm)	D3 (mm)	e (mm)
25	25	BCF, IR	<b>728 598 309</b>	1	0.027	50	51	22	2.3
32	32	BCF, IR	<b>728 598 312</b>	1	0.031	53	51	32	2.9
40	40	BCF, IR	<b>728 598 315</b>	1	0.033	54	51	35	3.7
50	50	BCF, IR	<b>728 598 317</b>	1	0.061	61	64	49	4.6
63	65	BCF, IR	<b>728 598 319</b>	1	0.093	67	78	60	5.8



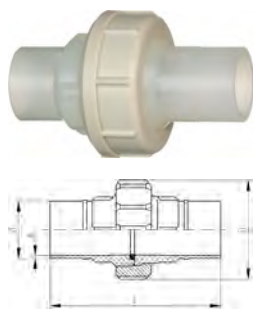
**PROGEF Natural sanitary adaptor (PN10)**  
**Connection to DIN 32676**

**Model:**

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Stainlesssteel reinforcement ring
- Conventional butt-welding according to DVS 2207
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)

d (mm)	DN (mm)	FM	Code	SP	Weight (kg)	L (mm)	D1 (mm)	D3 (mm)	e (mm)
20	15	BCF, IR	<b>728 598 056</b>	1	0.013	49	34	16	1.9
20	20	BCF, IR	<b>728 598 057</b>	1	0.013	49	34	20	1.9
25	25	BCF, IR	<b>728 598 059</b>	1	0.032	50	50	26	2.3
32	32	BCF, IR	<b>728 598 062</b>	1	0.031	53	50	32	2.9
40	40	BCF, IR	<b>728 598 065</b>	1	0.036	54	50	38	3.7
50	50	BCF, IR	<b>728 598 067</b>	1	0.060	61	64	50	4.6

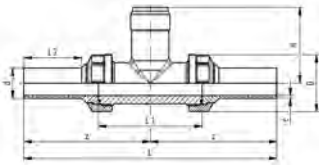
# Unions



**PROGEF Natural sanitary union S5/SDR11 (PN10)**

<b>d</b> (mm)	<b>FM</b>	<b>EPDM</b> <b>Code</b>	<b>FKM</b> <b>Code</b>	<b>Weight</b> (lb)	<b>L</b> (mm)	<b>L1</b> (mm)	<b>L2</b> (mm)	<b>D</b> (mm)	<b>e</b> (mm)
20	BCF, IR	<b>728 518 526</b>	<b>728 528 526</b>	0.106	107	53	25	48	1.9
25	BCF, IR	<b>728 518 527</b>	<b>728 528 527</b>	0.168	113	56	25	58	2.3
32	BCF, IR	<b>728 518 528</b>	<b>728 528 528</b>	0.234	119	59	25	65	2.9
40	BCF, IR	<b>728 518 529</b>	<b>728 528 529</b>	0.324	126	63	25	79	3.7
50	BCF, IR	<b>728 518 530</b>	<b>728 528 530</b>	0.428	131	65	25	91	4.6
63	BCF, IR	<b>728 518 531</b>	<b>728 528 531</b>	0.756	137	68	25	111	5.8

# Installation fittings



## PROGEF Natural installation fitting type 318 (PN10) For butt fusion systems metric

### Model:

- Body and union nut PP-H
- Threaded outlet 1 ¼" NPSM
- Union end with butt fusion spigot PP-R

### Range of use:

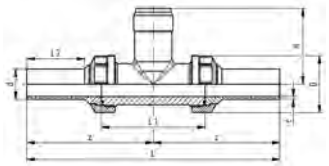
- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- Compatible Signet pH/ORP sensors: type 2724, 2725, 2726, 2734, 2736, 2735

### Attention:

- sensor length depends on installation fitting

d (mm)	DN (mm)	FM	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	BCF, IR	<b>728 318 106</b>	1	0.250	<b>728 318 136</b>	1	0.250
25	20	BCF, IR	<b>728 318 107</b>	1	0.190	<b>728 318 137</b>	1	0.190
32	25	BCF, IR	<b>728 318 108</b>	1	0.250	<b>728 318 138</b>	1	0.250
40	32	BCF, IR	<b>728 318 109</b>	1	0.356	<b>728 318 139</b>	1	0.356
50	40	BCF, IR	<b>728 318 110</b>	1	0.510	<b>728 318 140</b>	1	0.510
63	50	BCF, IR	<b>728 318 111</b>	1	0.800	<b>728 318 141</b>	1	0.800

d (mm)	L (mm)	L1 (mm)	L2 (mm)	D (mm)	H (mm)	z (mm)	e (mm)	Sensor Type
20	198	90	38	45	76	99	2	flow X0, pH XX
25	214	100	42	55	78	107	2	flow X0, pH XX
32	230	110	41	62	81	115	3	flow X0, pH XX
40	236	110	42	75	85	118	4	flow X0, pH XX
50	252	120	44	84	89	126	5	flow X0, pH XX
63	268	130	45	101	95	134	6	flow X0, pH XX



**PROGEF Natural installation fitting type 318 (PN10)**  
**For butt fusion systems metric**

**Model:**

- Body and union nut PVDF
- Threaded outlet 1 ¼" NPSM
- Union end with butt fusion spigot PP-R

**Range of use:**

- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- Compatible Signet pH/ORP sensors: type 2724, 2725, 2726, 2734, 2736, 2735

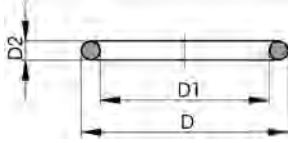
**Attention:**

- sensor length depends on installation fitting

d (mm)	DN (mm)	FM	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
20	15	BCF, IR	<b>728 318 006</b>	1	0.250	<b>728 318 036</b>	1	0.250
25	20	BCF, IR	<b>728 318 007</b>	1	0.355	<b>728 318 037</b>	1	0.355
32	25	BCF, IR	<b>728 318 008</b>	1	0.427	<b>728 318 038</b>	1	0.427
40	32	BCF, IR	<b>728 318 009</b>	1	0.700	<b>728 318 039</b>	1	0.700
50	40	BCF, IR	<b>728 318 010</b>	1	0.850	<b>728 318 040</b>	1	0.850
63	50	BCF, IR	<b>728 318 011</b>	1	1.182	<b>728 318 041</b>	1	1.182

d (mm)	L (mm)	L1 (mm)	L2 (mm)	D (mm)	H (mm)	z (mm)	e (mm)	Sensor Type
20	198	90	38	45	76	99	2	flow X0, pH XX
25	214	100	42	55	78	107	2	flow X0, pH XX
32	230	110	41	62	81	115	3	flow X0, pH XX
40	236	110	42	75	85	118	4	flow X0, pH XX
50	252	120	44	84	89	126	5	flow X0, pH XX
63	268	130	45	101	95	134	6	flow X0, pH XX

# Seals



## O-ring

### Model:

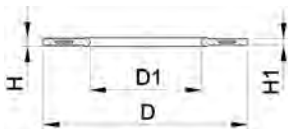
- Hardness approx. 65° Shore
- Suitable for union PP-N 28 51 85

d (mm)	Size (inch)	EPDM Code	FKM Code	D (mm)	D1 (mm)	D2 (mm)
20	¾	748 410 140	749 410 140	20.32	15.08	2.62
25	¾	748 410 006	749 410 006	27.28	20.22	3.53
32	1	748 410 025	749 410 025	32.05	24.99	3.53
40	1 ¼	748 410 152	749 410 152	41.78	31.12	5.34
50	1 ½	748 410 009	749 410 009	51.33	40.65	5.34
63	2	748 410 171	749 410 171	60.84	50.16	5.34

## Flange gasket for flange adaptor (PN16)

### Model:

- Hardness: 70° Shore EPDM, 75° Shore FKM
- suitable for flange adaptors



d (mm)	DN (mm)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	di FA (mm)
20	15	748 440 706	0.009	749 440 706	0.013	51	20	4	3	10 - 20
25	20	748 440 707	0.015	749 440 707	0.014	61	22	4	3	12 - 22
32	25	748 440 708	0.013	749 440 708	0.019	71	28	4	3	18 - 28
40	32	748 440 709	0.019	749 440 709	0.026	82	40	4	3	30 - 40
50	40	748 440 710	0.029	749 440 710	0.039	92	46	4	3	36 - 46
63	50	748 440 711	0.041	749 440 711	0.050	107	58	5	4	48 - 58
75	65	748 440 712	0.053	749 440 712	0.082	127	69	5	4	59 - 69
90	80	748 440 713	0.064	749 440 713	0.083	142	84	5	4	73 - 84
110	100	748 440 714	0.100	749 440 714	0.127	162	104	6	5	94 - 104

# Diaphragm valves type 515



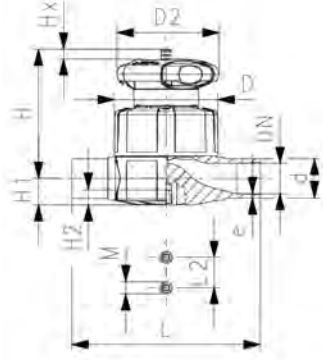
**PROGEF Natural**  
**Diaphragm valve type 515**  
**With butt fusion spigots SDR11 metric**

**Model:**

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

**Option:**

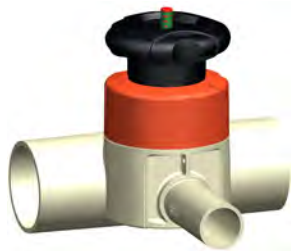
- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches
- \*PN: PTFE



d (mm)	DN (mm)	PN* (bar)	EPDM Code	PTFE/EPDM Code	Weight (kg)
20	15	10/6*	168 515 112	168 515 132	0.308
25	20	10/6*	168 515 113	168 515 133	0.393
32	25	10/6*	168 515 114	168 515 134	0.969
40	32	10/6*	168 515 115	168 515 135	1.125
50	40	10/6*	168 515 116	168 515 136	2.083
63	50	10/6*	168 515 117	168 515 137	2.630

d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	65	65	73	14	12	124	25	M6	7	½
25	80	65	81	18	12	144	25	M6	10	¾
32	88	87	107	22	12	155	25	M6	13	1
40	101	87	115	26	15	176	45	M8	15	1 ¼
50	117	135	148	32	15	193	45	M8	19	1 ½
63	144	135	166	39	15	223	45	M8	25	2

# Diaphragm valves type 519



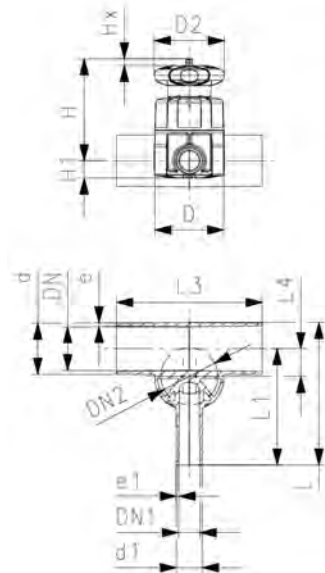
## PROGEF Natural Diaphragm valve type 519 With butt fusion spigots SDR11 metric

### Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Smallest possible dead space

### Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d (mm)	d1 (mm)	DN (mm)	DN1 (mm)	Valve Size d (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	PTFE/EPDM Code	Weight (kg)
20	20	15	15	20	10	57	<b>168 519 101</b>	<b>168 519 301</b>	0.322
25	20	20	15	25	10	89	<b>168 519 103</b>	<b>168 519 303</b>	0.398
25	25	20	20	25	10	118	<b>168 519 104</b>	<b>168 519 304</b>	0.399
32	20	25	15	25	10	80	<b>168 519 107</b>	<b>168 519 307</b>	0.425
32	25	25	20	25	10	105	<b>168 519 108</b>	<b>168 519 308</b>	0.427
32	32	25	25	32	10	231	<b>168 519 109</b>	<b>168 519 309</b>	0.981
40	20	32	15	32	10	85	<b>168 519 112</b>	<b>168 519 312</b>	1.008
40	40	32	32	40	10	187	<b>168 519 115</b>	<b>168 519 315</b>	1.034
50	20	40	15	25	10	86	<b>168 519 118</b>	<b>168 519 318</b>	0.485
50	25	40	20	32	10	160	<b>168 519 119</b>	<b>168 519 319</b>	1.054
50	32	40	25	32	10	206	<b>168 519 120</b>	<b>168 519 320</b>	1.056
63	20	50	15	25	10	84	<b>168 519 125</b>	<b>168 519 325</b>	0.524
63	25	50	20	32	10	150	<b>168 519 126</b>	<b>168 519 326</b>	1.097
63	32	50	25	32	10	184	<b>168 519 127</b>	<b>168 519 327</b>	1.100

d (mm)	D (mm)	D2 (mm)	H (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	DN2 (mm)	closest inch (inch)	e1 (mm)
20	65	65	75	117	96	162	12	1.9	7	15	½	1.9
25	80	65	80	133	108	162	16	2.3	10	20	¾	1.9
25	80	65	80	133	108	162	16	2.3	10	20	¾	2.3
32	80	65	84	142	120	162	19	2.9	10	20	1	1.9
32	80	65	84	142	120	162	19	2.9	10	20	1	2.3
32	88	87	107	145	120	160	19	2.9	13	25	1	2.9
40	88	87	115	149	128	180	23	3.7	13	25	1 ¼	1.9
40	88	87	115	174	153	180	23	3.7	13	25	1 ¼	3.7
50	80	65	97	160	134	180	27	4.6	10	20	1 ½	1.9
50	88	87	120	160	134	180	28	4.6	13	25	1 ½	2.3
50	88	87	120	160	134	180	28	4.6	13	25	1 ½	2.9
63	80	65	104	177	144	180	33	5.8	10	20	2	1.9
63	88	87	127	177	144	180	35	5.8	13	25	2	2.3
63	88	87	127	177	144	180	35	5.8	13	25	2	2.9

# Diaphragm valves pneumatic DIASTAR Six



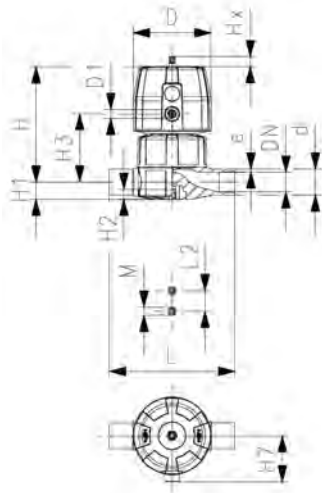
**PROGEF Natural**  
**Diaphragm valve DIASTAR Six**  
**FC (Fail safe to close)**  
**With butt fusion spigots SDR11 metric**

**Model:**

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP	Weight (kg)
25	20	6	271	<b>168 615 113</b>	1	0.901
32	25	6	481	<b>168 615 114</b>	1	1.063
40	32	6	759	<b>168 615 115</b>	1	1.744
50	40	6	960	<b>168 615 116</b>	1	2.203
63	50	6	1181	<b>168 615 117</b>	1	2.979

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
25	96	1/8	132	18	12	73	57	144	25	M6	2.3	10	3/4
32	96	1/8	143	22	12	84	57	154	25	M6	2.9	13	1
40	120	1/8	173	26	15	99	69	174	45	M8	3.7	14	1 1/4
50	120	1/8	193	32	15	119	69	194	45	M8	4.6	16	1 1/2
63	120	1/8	205	39	15	132	69	224	45	M8	5.8	16	2



# Diaphragm valves pneumatic DIASTAR Ten



**PROGEF Natural**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**With butt fusion spigots SDR11 metric**

**Model:**

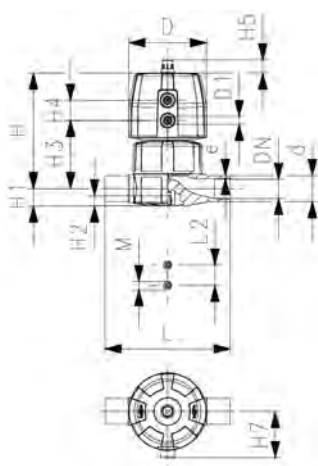
- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE Code	SP Weight (kg)
20	15	10/6*	125	<b>168 655 112</b>	1	0.426	<b>168 655 132</b>
25	20	10/6*	271	<b>168 655 113</b>	1	0.765	<b>168 655 133</b>
32	25	10/6*	481	<b>168 655 114</b>	1	0.924	<b>168 655 134</b>
40	32	10/6*	759	<b>168 655 115</b>	1	1.474	<b>168 655 135</b>
50	40	10/6*	1263	<b>168 655 116</b>	1	2.501	<b>168 655 136</b>
63	50	10/5*	1728	<b>168 655 117</b>	1	3.060	<b>168 655 137</b>

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	2	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	2	10
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	3	13
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	4	15
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	5	19
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	6	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**PROGEF Natural**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**With butt fusion spigots SDR11 metric**

**Model:**

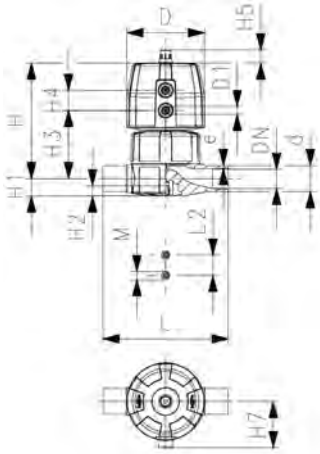
- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	EPDM Code	SP Weight (kg)	PTFE Code	SP Weight (kg)
20	15	10/6*	125	<b>168 645 112</b>	1	0.442	<b>168 645 132</b>
25	20	10/6*	271	<b>168 645 113</b>	1	0.802	<b>168 645 133</b>
32	25	10/6*	481	<b>168 645 114</b>	1	0.955	<b>168 645 134</b>
40	32	10/6*	759	<b>168 645 115</b>	1	1.534	<b>168 645 135</b>
50	40	10/6*	1263	<b>168 645 116</b>	1	3.251	<b>168 645 136</b>
63	50	10/5*	1728	<b>168 645 117</b>	1	3.810	<b>168 645 137</b>

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	2	7
25	96	3/8	132	18	12	73	25	16	57	144	25	M6	2	10
32	96	1/2	143	22	12	84	25	16	57	154	25	M6	3	13
40	120	3/4	173	26	15	99	26	26	69	174	45	M8	4	15
50	150	1	214	32	15	119	36	26	88	194	45	M8	5	19
63	150	1 1/4	226	39	15	132	36	26	88	224	45	M8	6	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**PROGEF Natural**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**With butt fusion spigots SDR11 metric**

**Model:**

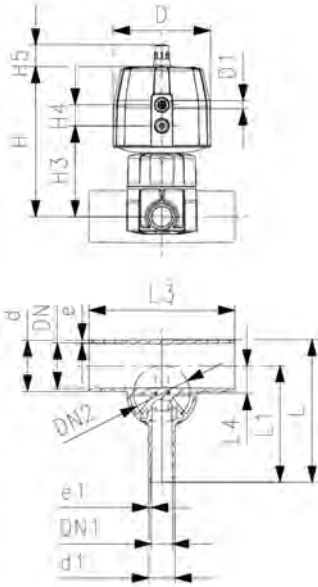
- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**

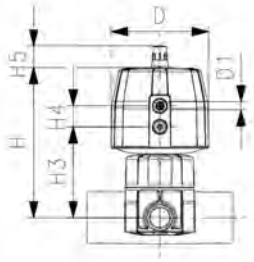


d (mm)	d1 (mm)	DN (mm)	DN1 (mm)	Valve Size d (mm)	PN* (bar)	kv-value (Δp=1 bar) (l/min)	EPDM Code	SP	Weight (kg)
20	20	15	15	20	10/6*	57	<b>168 629 101</b>	1	0.506
25	20	20	15	25	10/6*	89	<b>168 629 103</b>	1	0.981
25	25	20	20	25	10/6*	118	<b>168 629 104</b>	1	0.982
32	20	25	15	25	10/6*	80	<b>168 629 107</b>	1	1.008
32	25	25	20	25	10/6*	105	<b>168 629 108</b>	1	1.010
32	32	25	25	32	10/6*	231	<b>168 629 109</b>	1	1.147
40	20	32	15	32	10/6*	85	<b>168 629 112</b>	1	1.174
50	20	40	15	25	10/6*	86	<b>168 629 118</b>	1	1.068
50	25	40	20	32	10/6*	160	<b>168 629 119</b>	1	1.220
50	32	40	25	32	10/6*	206	<b>168 629 120</b>	1	1.222
63	20	50	15	25	10/6*	84	<b>168 629 125</b>	1	1.107
63	25	50	20	32	10/6*	150	<b>168 629 126</b>	1	1.263
63	32	50	25	32	10/6*	184	<b>168 629 127</b>	1	1.266

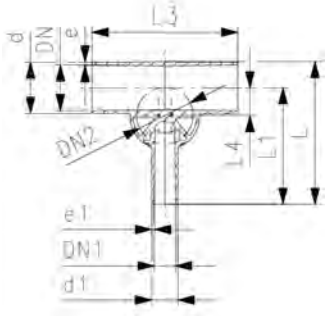
d (mm)	PTFE/EPDM Code	SP	Weight (kg)
20	<b>168 629 301</b>	1	0.515
25	<b>168 629 303</b>	1	0.992
25	<b>168 629 304</b>	1	0.993
32	<b>168 629 307</b>	1	1.019
32	<b>168 629 308</b>	1	1.021
32	<b>168 629 309</b>	1	1.167
40	<b>168 629 312</b>	1	1.194
50	<b>168 629 318</b>	1	1.079
50	<b>168 629 319</b>	1	1.240
50	<b>168 629 320</b>	1	1.242
63	<b>168 629 325</b>	1	1.119
63	<b>168 629 326</b>	1	1.283
63	<b>168 629 327</b>	1	1.286

d (mm)	D (mm)	D1 (inch)	H (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	e1 (mm)	DN2 (mm)	Lift = Hx (mm)
20	68	1/8	104	71	25	16	117	96	162	12	1.9	1.9	15	7
25	96	1/8	131	72	25	16	133	108	162	16	2.3	1.9	20	10
25	96	1/8	131	72	25	16	133	108	162	16	2.3	2.3	20	10
32	96	1/8	135	76	25	16	142	120	162	19	2.9	1.9	20	10
32	96	1/8	135	76	25	16	142	120	162	19	2.9	2.3	20	10
32	96	1/8	143	93	25	16	145	120	160	19	2.9	2.9	25	13
40	96	1/8	151	101	25	16	149	128	180	23	3.7	1.9	25	13
50	96	1/8	148	90	25	16	160	134	180	27	4.6	1.9	20	10
50	96	1/8	156	106	25	16	160	134	180	28	4.6	2.3	25	13

table continued on the next page



<b>d</b> (mm)	<b>D</b> (mm)	<b>D1</b> (inch)	<b>H</b> (mm)	<b>H3</b> (mm)	<b>H4</b> (mm)	<b>H5</b> (mm)	<b>L</b> (mm)	<b>L1</b> (mm)	<b>L3</b> (mm)	<b>L4</b> (mm)	<b>e</b> (mm)	<b>e1</b> (mm)	<b>DN2</b> (mm)	<b>Lift = Hx</b> (mm)
50	96	3/8	156	106	25	16	160	134	180	28	4.6	2.9	25	13
63	96	3/8	155	96	25	16	177	144	180	33	5.8	1.9	20	10
63	96	3/8	163	113	25	16	177	144	180	35	5.8	2.3	25	13
63	96	3/8	163	113	25	16	177	144	180	35	5.8	2.9	25	13





**PROGEF Natural**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**With butt fusion spigots SDR11 metric**

**Model:**

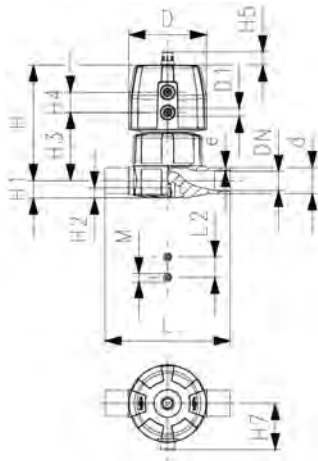
- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EPDM Code	SP Weight (kg)	PTFE Code	SP Weight (kg)
20	15	10/6*	125	<b>168 625 112</b>	1	0.492	<b>168 625 132</b>
25	20	10/6*	271	<b>168 625 113</b>	1	0.976	<b>168 625 133</b>
32	25	10/6*	481	<b>168 625 114</b>	1	1.135	<b>168 625 134</b>
40	32	10/6*	759	<b>168 625 115</b>	1	1.894	<b>168 625 135</b>
50	40	10/6*	1263	<b>168 625 116</b>	1	3.341	<b>168 625 136</b>
63	50	10/5*	1728	<b>168 625 117</b>	1	3.900	<b>168 625 137</b>

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	⅜	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	2.3	10
32	96	⅜	143	22	12	84	25	16	57	154	25	M6	2.9	13
40	120	⅜	173	26	15	99	26	26	69	174	45	M8	3.7	15
50	150	⅜	214	32	15	119	36	26	88	194	45	M8	4.6	19
63	150	⅜	226	39	15	132	36	26	88	224	45	M8	5.8	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2

# Electric & pneumatic actuators





Electric actuators

423



Pneumatic rotary actuators PA

425



Accessories for pneumatic rotary actuators

430



Pneumatic stroke actuators

431

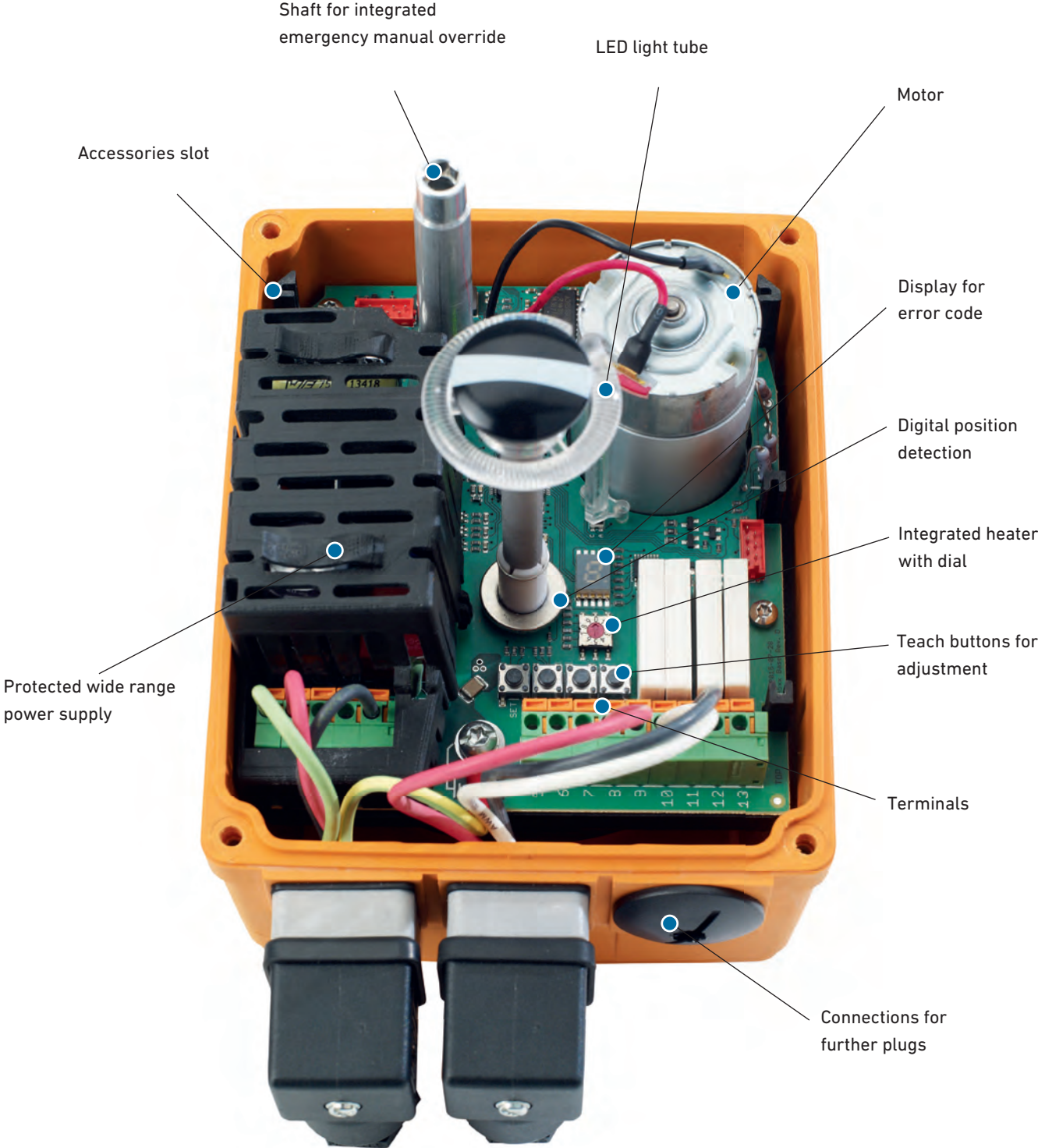


Accessories for pneumatic stroke actuators

435

# Small & Light

## Electric actuators type EA15-250





# Smart functions for easy operation

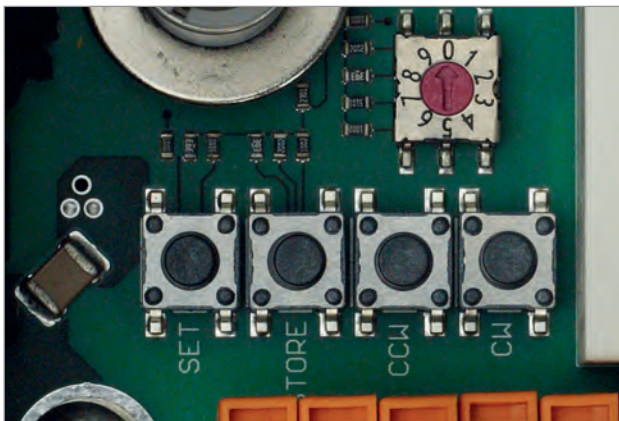
The new series of electric actuators from GF Piping Systems provides the highest reliability and ease of use. With smart additional functions, these actuators are ahead of their time.

## + Features & benefits



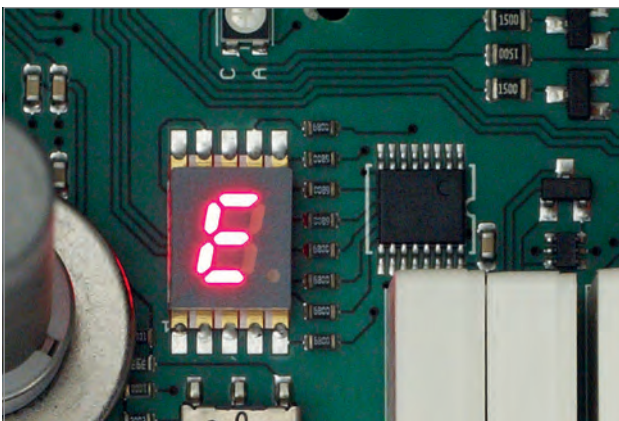
### Clear display

In addition to the standard display, there is colour LED feedback. This enables easy and fast detection of the operating status at a glance – whether in low light conditions or from a distance. The different colours show the respective position of the actuator. The integrated relays allow feedback from up to three different actuating positions.



### Easy set-up

Digital 360° position detection is used to clearly identify the actuating position. Ex factory, the actuator is adjusted to 0° and 90°. Readjustment by the user is possible at any time on site via four buttons. The buttons are easy to operate without any additional tools.



### Intelligent feedback

The 7-segment error display ensures the highest level of security in case of a problem. Through various error codes, the cause of a problem can be clearly identified. A time and labour-intensive search is no longer necessary. Whether it's undervoltage, a position error or use of the emergency manual override – the display facilitates the identification of disruptions. The 'ready-to-operate' signal gives feedback on the process control system. The signal will drop in case of failure.

# Technical details

## EA15, EA25, EA45, EA120, EA250

<b>Nominal voltage</b>	AC: 100 – 230 V, 50/60 Hz AC/DC: 24 V, 50/60 Hz
<b>Nominal voltage tolerance</b>	± 15%
<b>Protection class</b>	IP 65 according to EN 60529
<b>Pollution degree</b>	2 according to EN 61010-1
<b>Overload protection</b>	Current/time dependent, resetting
<b>Overvoltage category</b>	II
<b>Ambient temperature</b>	-10 ° to +50 °C
<b>Allowable humidity</b>	Max. 90 % relative humidity, non condensing
<b>Housing material</b>	PP-GF for very good chemical resistance

	EA15	EA25	EA45	EA120	EA250
<b>Nominal power</b>	AC: 30 VA at 100–230 V AC/DC: 35 VA at 24 V	AC: 35 VA at 100–230 V AC/DC: 40 VA at 24 V	AC: 55 VA at 100–230 V AC/DC: 60 VA at 24 V	AC: 50 VA at 100–230 V AC/DC: 55 VA at 24 V	AC: 60 VA at 100–230 V AC/DC: 65 VA at 24 V
<b>Nominal power</b>	0.3A at 100V 0.13A at 230V 1.5A at 24V	0.35A at 100V 0.15A at 230V 1.7A at 24V	0.55A at 100V 0.24A at 230V 2.5A at 24V	0.5A at 100V 0.22A at 230V 2.3A at 24V	0.55A at 100V 0.26A at 230V 2.7A at 24V
<b>Nominal torque Mdn (peak)</b>	10 (20) Nm	10 (25) Nm	20 (45) Nm	60 (120) Nm	100 (250) Nm
<b>Duty cycle</b>	40% @ 25°C/15min	100%	50%	50%	35%
<b>Cycle time s/90° at Mdn.</b>	5 s	5 s	6 s	15 s	20 s
<b>Flange fitting</b>	F05	F05	F05	F07	F07
<b>Tested cycles (at 20 °C and Mdn)</b>	150 000	250 000	100 000	100 000	75 000
<b>Weight</b>	1.85 kg	2,1 kg	2,2 kg	3,6 kg	5,0 kg
<b>Actuating angle</b>	Max. 355°, set to 90°				



# Electric actuators



## Electric actuator type EA04

Type of actuator	Voltage	Code	SP	Weight (kg)
10Nm	100-230V	<b>198 151 480</b>	1	0.900
10Nm	24V	<b>198 151 481</b>	1	0.900
20Nm	24-240V	<b>198 151 492</b>	1	1.500
20Nm	24-240V	<b>198 151 492</b>	1	1.500



## Electric actuator type EA15/25/45/120/250

### Model:

- Heating element, position feedback (Open/Close/ Middle)
- All: adjustable heater 7-segment error LED
- EA15: control and position feedback open/close
- EA25 - 250: control open/close/middle; position feedback open/close/middle ready to operate

### Option:

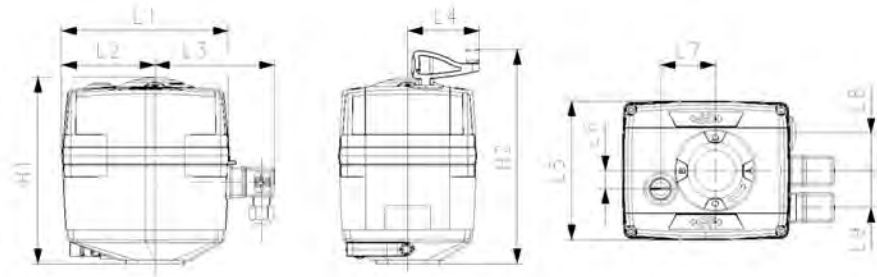
- All: fail-safe return unit; EA25 - 250: monitoring board, positioner, profibus DP board
- \*with adapter 198 000 587 F05 / WS 11, 198 204 057 F05 / WS 14

Type of actuator	Voltage	Torque nominal	Torque maximal	Interfaces	Code
EA15	100 -230V AC	10 Nm	20 Nm	F05* (WS 11/14)	<b>198 153 180</b>
EA15	24V AC/DC	10 Nm	20 Nm	F05* (WS 11/14)	<b>198 153 181</b>
EA25	100 -230V AC	10 Nm	25 Nm	F05* (WS 11/14)	<b>198 153 182</b>
EA25	24V AC/DC	10 Nm	25 Nm	F05* (WS 11/14)	<b>198 153 183</b>
EA45	100 -230V AC	20 Nm	45 Nm	F05* (WS 11/14)	<b>198 153 184</b>
EA45	24V AC/DC	20 Nm	45 Nm	F05* (WS 11/14)	<b>198 153 185</b>
EA120	100 -230V AC	60 Nm	120 Nm	F07 (WS17)	<b>198 153 186</b>
EA120	24V AC/DC	60 Nm	120 Nm	F07 (WS17)	<b>198 153 187</b>
EA250	100 -230V AC	100 Nm	250 Nm	F07 (WS17)	<b>198 153 188</b>
EA250	24V AC/DC	100 Nm	250 Nm	F07 (WS17)	<b>198 153 189</b>

Type of actuator	H1 (mm)	H2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	L9 (mm)
EA15	137	158	122	83.0	77	64.3	122	16	49		33
EA15	137	158	122	83.0	77	64.3	122	16	49		33
EA25	167	188	150	82.5	107	64.3	122	16	49	33	33
EA25	167	188	150	82.5	107	64.3	122	16	49	33	33
EA45	167	188	150	82.5	107	64.3	122	16	49	33	33
EA45	167	188	150	82.5	107	64.3	122	16	49	33	33

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Type of actuator	H1 (mm)	H2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	L9 (mm)
EA120	190	212	150	82.5	107	64.3	122	16	49	33	33
EA120	190	212	150	82.5	107	64.3	122	16	49	33	33
EA250	200	221	150	82.5	107	64.3	122	16	49	33	33
EA250	200	221	150	82.5	107	64.3	122	16	49	33	33



### Accessory for electric actuators type 15/25/45/120/250

#### Model:

- All accessory can be retrofitted to installed actuators of the same generation
- Accessory works with 100-230V and 24V version

Material	Description	EA25-250 Code	EA15 Code	EA15-250 Code
Fail-safe return unit integrated	Moves actuator in pre-defined safe position upon power loss, integrated battery pack	199 190 601	199 190 610	
Fail-safe return unit external	Moves actuator in pre-defined safe position upon power loss, voltage supply implemented externally	199 190 604	199 190 611	
Positioner	Continuous actuator control. 4-20mA or 0-10 V Input and 4-20 mA Feedback	199 190 603		
Monitoring	Parameter monitoring. Generates alarm upon reaching its set limitations. Prevents water hammers or indicates maintenance need for valve	199 190 602		
Profibus DP	Enables the actuator to be connected to a Profibus DP-V0 network	199 190 605		
Diagnostic Tool	Enables to read from the actuator main board and check configurations			199 190 600
EA Demobox	Demo Box for electric actuators type EA15/25/45/120/250 as well as for types EA11/21/31/42 Suitable for 24V & 100-230V Control Open/ Close/ Middle; Display for feedback end positions and ready to operate			199 190 607

# Pneumatic rotary actuators PA

## Type PA11 / PA21



**Pneumatic actuator type PA11/PA21**  
Fail safe to close (FC)

Inch (inch)	Type	DN-DN (mm)	Code	SP	Weight (kg)
3/8 - 1	PA 11 FC	10 - 25	<b>198 150 127</b>	2	0.769
1 1/4 - 2	PA 21 FC	32 - 50	<b>198 150 130</b>	2	1.445



**Pneumatic actuator type PA11/PA21**  
Fail safe to open (FO)

Inch (inch)	Type	DN-DN (mm)	Code	SP	Weight (kg)
3/8 - 1	PA 11 FO	10 - 25	<b>198 150 128</b>	1	0.775
1 1/4 - 2	PA 21 FO	32 - 50	<b>198 150 131</b>	1	1.419



**Pneumatic actuator type PA11/PA21**  
Double action (DA)

Inch (inch)	Type	DN-DN (mm)	Code	SP	Weight (kg)
3/8 - 1	PA 11 DA	10 - 25	<b>198 150 129</b>	1	0.542
1 1/4 - 2	PA 21 DA	32 - 50	<b>198 150 132</b>	1	0.995



**Pneumatic actuator type PA11/PA21**  
Fail safe to close (FC) with stroke limiter

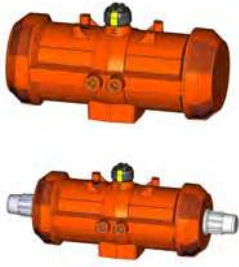
Inch (inch)	Type	DN-DN (mm)	Code	SP	Weight (kg)
3/8 - 1	PA 11 FC	10 - 25	<b>198 150 144</b>	1	0.854
1 1/4 - 2	PA 21 FC	32 - 50	<b>198 150 147</b>	1	1.609



**Pneumatic actuator type PA11/PA21**  
Fail safe to open (FO) with stroke limiter

Inch (inch)	Type	DN-DN (mm)	Code	SP	Weight (kg)
3/8 - 1	PA 11 FO	10 - 25	<b>198 150 145</b>	1	0.837
1 1/4 - 2	PA 21 FO	32 - 50	<b>198 150 148</b>	1	1.609





**Pneumatic actuator type PA11/PA21  
Double action (DA) with stroke limiter**

Type	Inch (inch)	DN-DN (mm)	Code	SP	Weight (kg)
PA 11 DA	3/8 - 1	10 - 25	<b>198 150 146</b>	1	0.647
PA 21 DA	1 1/4 - 2	32 - 50	<b>198 150 149</b>	1	1.185

**Type PA30 / PA90**



**Pneumatic actuator type PA30 - PA90  
Fail safe to close/fail safe to open (FC/FO)**

\* Only valid for butterfly valve type 240, 241, 242 and ball valve type 230 - 235

Type	hard anodized Code	SP	Weight (kg)	nickel plated Code	SP	Weight (kg)
PA 30 FC/FO	<b>198 800 757</b>	1	2.022	<b>198 800 034</b>	0	2.400
* PA 30 FO	<b>198 811 025</b>	0	2.020			
PA 35 FC/FO	<b>198 800 037</b>	1	2.673	<b>198 800 052</b>	0	2.400
* PA 35 FO	<b>198 811 026</b>	0	2.675			
PA 40 FC/FO	<b>198 800 728</b>	1	3.602	<b>198 800 004</b>	1	3.598
* PA 40 FO	<b>198 811 027</b>	0	3.623			
PA 45 FC/FO	<b>198 800 039</b>	1	4.962	<b>198 800 054</b>	0	4.600
* PA45 FO	<b>198 811 028</b>	0	4.944			
PA 50 FC/FO	<b>198 800 729</b>	1	6.921	<b>198 800 005</b>	0	6.921
* PA50 FO	<b>198 811 029</b>	0	6.819			
PA 55 FC/FO	<b>198 800 041</b>	0	9.354	<b>198 800 056</b>	0	9.400
* PA 55 FO	<b>198 811 030</b>	0	9.203			
PA 60 FC/FO	<b>198 800 730</b>	1	11.371	<b>198 800 006</b>	0	12.895
PA 65 FC/FO	<b>198 800 043</b>	0	15.900	<b>198 800 058</b>	0	15.900
PA 70 FC/FO	<b>198 800 731</b>	0	18.758	<b>198 800 007</b>	0	19.496
* PA 70 FO	<b>198 811 198</b>	1	18.750			
PA 75 FC/FO	<b>198 800 045</b>	0	26.700	<b>198 800 060</b>	0	26.700
PA 80 FC/FO	<b>198 800 047</b>	0	34.400	<b>198 800 062</b>	0	34.400

Type	hard anodized with stroke limiter Code	Weight (kg)	epoxy coated Code	SP	Weight (kg)
PA 30 FC/FO			<b>198 811 194</b>	0	2.400
* PA 30 FO					
PA 35 FC/FO			<b>198 800 029</b>	1	2.400
* PA 35 FO					
PA 40 FC/FO	<b>198 800 017</b>	3.598	<b>198 800 025</b>	1	3.598
* PA 40 FO					
PA 45 FC/FO					
* PA45 FO					
PA 50 FC/FO	<b>198 800 018</b>	6.921	<b>198 800 026</b>	1	6.921
* PA50 FO					
PA 55 FC/FO			<b>198 811 190</b>	0	9.424
* PA 55 FO					
PA 60 FC/FO	<b>198 800 019</b>	12.895			
PA 65 FC/FO					
PA 70 FC/FO	<b>198 800 020</b>	19.496	<b>198 800 028</b>	1	19.496
* PA 70 FO					
PA 75 FC/FO					
PA 80 FC/FO					

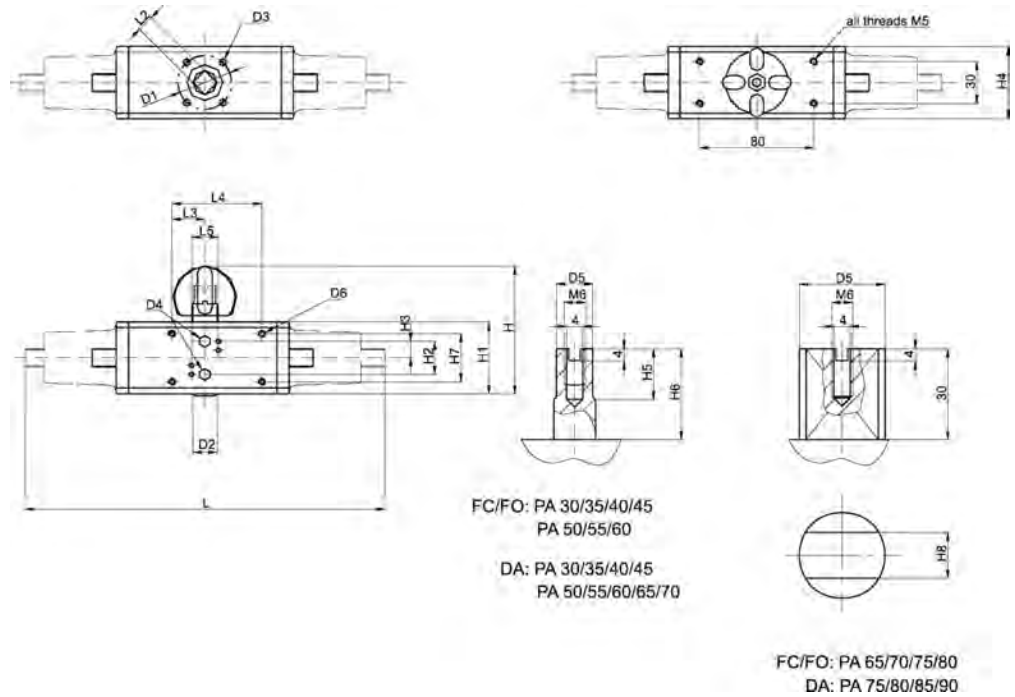
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Type		D1	D2	D3[M]	D4	D5	L	L2	L3	L4	L5	H
		(mm)	(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
	PA 30 FC/FO	F04	42	30	M5x9	10	272	11	35	70	32	102
*	PA 30 FO	F04	42	30	M5x9	1/8	10	272	11	35	70	102
	PA 35 FC/FO	F05	50	35	M6x11	12	336	14	35	70	32	111
*	PA 35 FO	F05	50	35	M6x11	1/8	12	336	14	35	70	111
	PA 40 FC/FO	F05	50	35	M6x11	12	364	14	35	70	32	129
*	PA 40 FO	F05	50	35	M6x11	1/8	12	364	14	35	70	129
	PA 45 FC/FO	F07	70	55	M8x15	1/8	15	403	17	35	70	139
*	PA45 FO	F07	70	55	M8x15	1/8	15	403	17	35	70	139
	PA 50 FC/FO	F07	70	55	M8x15	15	418	17	35	70	32	149
*	PA50 FO	F07	70	55	M8x15	1/8	15	418	17	35	70	149
	PA 55 FC/FO	F10	102	70	M10x17	19	478	22	35	70	32	161
*	PA 55 FO	F10	102	70	M10x17	1/8	19	478	22	35	70	161
	PA 60 FC/FO	F10	102	70	M10x17	1/8	19	497	22	35	70	173
	PA 65 FC/FO	F12	125	85	M12x21	1/4	617	27			32	191
	PA 70 FC/FO	F12	125	85	M12x21	652	27				32	196
*	PA 70 FO	F12	125	85	M12x21	1/4	652	27			32	196
	PA 75 FC/FO	F14	140	100	M16x25	1/4	756	36			32	229
	PA 80 FC/FO	F14	140	100	M16x25	1/4	803	36			32	241

Type	H1	H2	H3	H4	H5	H6	H7	H8
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
	PA 30 FC/FO	70	21	18	65	13	20	36
*	PA 30 FO	70	21	18	65	13	20	36
	PA 35 FC/FO	78	21	18	72	13	20	36
*	PA 35 FO	78	21	18	72	13	20	36
	PA 40 FC/FO	86	25	21	80	13	30	36
*	PA 40 FO	86	25	21	80	13	30	36
	PA 45 FC/FO	96	25	21	90	16	30	36
*	PA45 FO	96	25	21	90	16	30	36
	PA 50 FC/FO	106	25	26	100	17	30	36
*	PA50 FO	106	25	26	100	17	30	36
	PA 55 FC/FO	118	25	25	112	19	30	36
*	PA 55 FO	118	25	25	112	19	30	36
	PA 60 FC/FO	130	25	32	124	19	30	36
	PA 65 FC/FO	148	24	34	137			22

table continued on the next page

Type	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H8 (mm)
PA 70 FC/FO	153	24	38	145				24
* PA 70 FO	153	24	38	145				24
PA 75 FC/FO	186	24	43	166				27
PA 80 FC/FO	198	24	44	180				32



### Pneumatic actuator type PA30 - PA90 Double acting (DA)

Type	hard anodized Code	SP	Weight (kg)
PA 30 DA	<b>198 800 737</b>	0	1.004
PA 35 DA	<b>198 800 758</b>	1	1.346
PA 40 DA	<b>198 800 759</b>	0	1.731
PA 45 DA	<b>198 800 040</b>	0	2.155
PA 50 DA	<b>198 800 733</b>	0	2.981
PA 55 DA	<b>198 800 042</b>	1	3.892
PA 60 DA	<b>198 800 734</b>	0	5.647
PA 65 DA	<b>198 800 044</b>	1	7.293
PA 70 DA	<b>198 800 735</b>	1	9.008
PA 75 DA	<b>198 800 046</b>	0	12.000
PA 80 DA	<b>198 800 048</b>	0	14.000
PA 85 DA	<b>198 800 050</b>	0	21.527
PA 90 DA	<b>198 800 051</b>	0	25.400

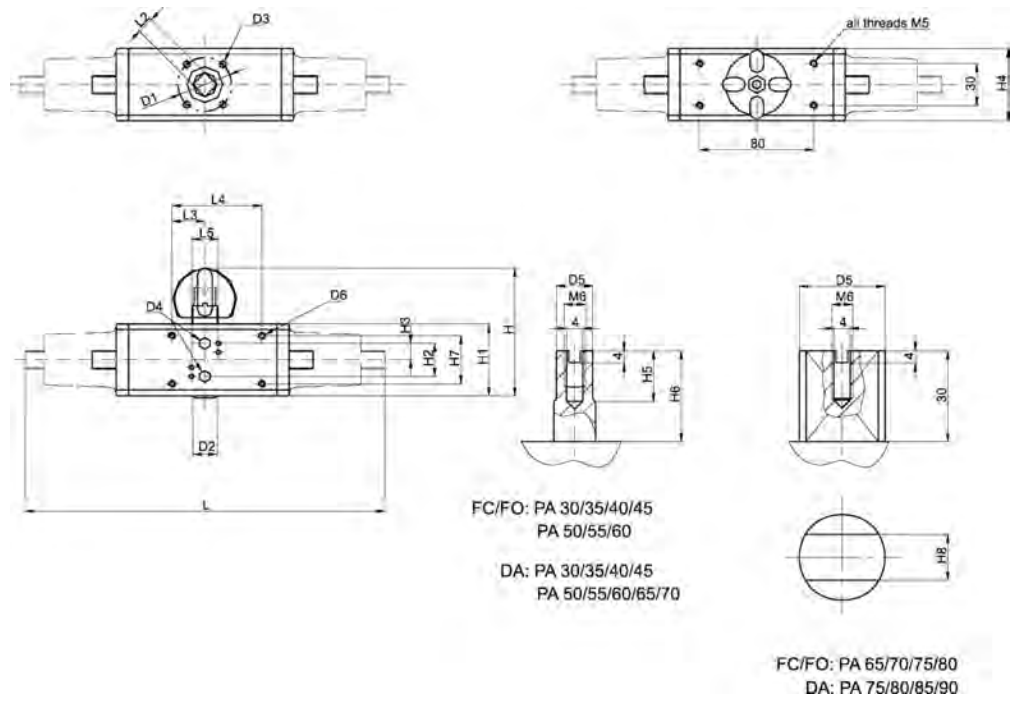
H7 (mm)	D5 (mm)	H6 (mm)	L4 (mm)	L3 (mm)	H5 (mm)	D3[M] (mm)	D1 (mm)	D2 (mm)	D4 (inch)	L1 (mm)	L2 (mm)	L5 (mm)	H (mm)	H1 (mm)
36	9	20	70	35	10	M5x9	F03	36	25	1/8	169	9	92	60
36	10	20	70	35	13	M5x9	F03	42	30	1/8	183	11	98	66
36	10	20	70	35	13	M5x9	F05	42	30	1/8	190	11	102	70
36	12	20	70	35	13	M6x11	F05	50	35	1/8	225	14	111	78
36	12	30	70	35	13	M6x11	F05	50	35	1/8	240	14	129	86
36	15	30	70	35	16	M8x15	F07	70	55	1/8	269	17	139	96
36	15	30	70	35	17	M8x15	F07	70	55	1/8	314	17	149	106
36	19	30	70	35	19	M10x17	F10	102	70	1/8	336	22	161	118
36	19	30	70	35	19	M10x17	F10	102	70	1/8	365	22	173	130

table continued on the next page



H7	D5	H6	L4	L3	H5	D3[M]	D1	D2	D4	L1	L2	L5	H	H1	
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	
						M12x21	F12	125	85	¼	402	27	32	191	148
						M12x21	F12	125	85	¼	445	27	32	197	153
						M16x25	F14	140	100	¼	529	36	32	229	186
						M16x25	F14	140	100	¼	581	36	32	241	198

H2	H3	H4	H8
(mm)	(mm)	(mm)	(mm)
25	12	55	
25	13	60	
21	18	65	
21	18	72	
25	21	80	
25	21	90	
25	26	100	
25	25	112	
25	32	124	
24	34	137	22
24	38	145	24
24	43	166	27
24	44	180	32



# Accessories for pneumatic rotary actuators



For pneumatic actuators type PA11 - PA90  
Namur mounting flange

No	Code	SP	Weight (kg)
3	199 190 281	1	0.240



For pneumatic actuators type PA30-PA55 and PA11/21  
Namur connecting plate

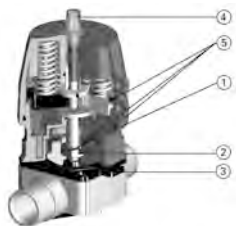
- PA30 - PA55 FC/FO, PA30 - PA65 DA



DN (mm)	Series PA11/21 Code	SP	Weight (kg)	Series PA30-55 Code	SP	Weight (kg)
15	199 190 378	1	0.054	199 190 275	1	0.114
20	199 190 378	1	0.054	199 190 275	1	0.114
25	199 190 378	1	0.054	199 190 275	1	0.114
32	199 190 378	1	0.054	199 190 275	1	0.114
40	199 190 378	1	0.054	199 190 275	1	0.114
50	199 190 378	1	0.054	199 190 275	1	0.114



# Pneumatic stroke actuators



## Accessories and spare parts for DIASTAR Seal set complete

DN (mm)	Pos	Serie 028 FC Serie 025 FO/DA Code	SP	Weight (kg)	Serie 025 FC Code	SP	Weight (kg)
15	5	198 000 332	1	0.005	198 000 333	1	0.006
20	5	198 000 333	1	0.006	198 000 333	1	0.006
25	5	198 000 333	1	0.006	198 000 334	1	0.005
32	5	198 000 334	1	0.005	198 000 335	1	0.023
40	5	198 000 335	1	0.023	198 000 336	1	0.027
50	5	198 000 335	1	0.023	198 000 336	1	0.027



## Accessories and spare parts for DIASTAR Diaphragms for DIASTAR

### Note:

\*Diaphragm in HP quality

DN (mm)	d (mm)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
15	20	161 481 022	0	0.013	161 481 092	0	0.022
20	25	161 481 023	0	0.020	161 481 093	0	0.037
25	32	161 481 024	0	0.039	161 481 094	0	0.064
32	40	161 481 025	0	0.058	161 481 095	0	0.096
40	50	161 481 026	0	0.071	161 481 096	0	0.121
50	63	161 481 027	80	0.116	161 481 097	0	0.186
65	75	161 481 028	0	0.182	161 481 098	0	0.236
80	90	161 481 029	0	0.258	161 481 099	0	0.328
100	110	161 481 030	0	0.431	161 481 100	1	0.560
150	160	161 482 754	0	1.100	161 481 102	1	1.430

NBR Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
161 311 710	0	0.015	161 311 698	0	0.022	161 481 926	0	0.032
161 311 711	0	0.030	161 311 699	0	0.033	161 481 927	0	0.055
161 311 712	0	0.040	161 311 700	0	0.053	161 481 928	0	0.079
161 311 713	0	0.050	161 311 701	0	0.053	161 481 929	0	0.091
161 311 714	0	0.070	161 311 702	0	0.104	161 481 930	0	0.145
161 311 715	0	0.130	161 311 703	0	0.155	161 481 931	0	0.220
161 480 231	0	0.200	161 480 240	0	0.252	161 481 932	1	0.354
161 480 232	0	0.290	161 480 241	1	0.394	161 481 933	1	0.370
161 480 233	0	0.450	161 480 242	0	0.637	161 481 934	1	0.877
161 482 751	0	2.500	*161482760	1	1.421			

PTFE/EPDM HP Code	SP	Weight (kg)
161 484 452	1	0.025
161 484 453	1	0.047
161 484 454	1	0.060
161 484 455	1	0.083
161 484 456	1	0.106
161 484 457	1	0.150

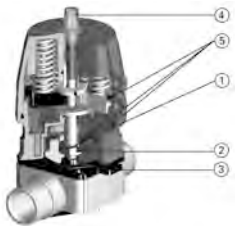
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PTFE/EPDM HP Code	SP	Weight (kg)
<b>161 484 458</b>	1	0.280
<b>161 484 459</b>	1	0.390
<b>161 484 460</b>	1	0.630
<b>*161482760</b>	1	1.421



**Accessories and spare parts for DIASTAR**  
**Compression set complete**  
 Consisting of compressor and diaphragm holder

DN (mm)	Size (inch)	d (mm)	EPDM Code	SP	Weight (kg)	PTFE/EPDM Code	SP	Weight (kg)
15	½	20	<b>198 000 320</b>	1	0.039	<b>198 000 326</b>	1	0.021
20	¾	25	<b>198 000 321</b>	1	0.042	<b>198 000 327</b>	1	0.048
25	1	32	<b>198 000 322</b>	1	0.068	<b>198 000 328</b>	1	0.063
32	1 ¼	40	<b>198 000 323</b>	1	0.091	<b>198 000 329</b>	1	0.055
40	1 ½	50	<b>198 000 324</b>	1	0.079	<b>198 000 330</b>	1	0.088
50	2	63	<b>198 000 325</b>	1	0.071	<b>198 000 331</b>	1	0.132
65	2 ½	75	<b>198 000 268</b>	1	0.135	<b>198 000 269</b>	1	0.135
80	3	90	<b>198 000 270</b>	1	0.444	<b>198 000 271</b>	1	0.350
100	4	110	<b>198 000 272</b>	1	0.493	<b>198 000 273</b>	1	0.489
150	6	160	<b>198 000 274</b>	1	1.466	<b>198 000 275</b>	1	1.466



**Accessories and spare parts for DIASTAR**  
**Indicator cap for DIASTAR**

d (mm)	DN (mm)	Pos	Serie 025 FC Code	Weight (kg)	Serie 025 FO Code	Weight (kg)	Serie 025 DA Code	Weight (kg)
75	65	4	<b>198 806 376</b>	0.022	<b>198 806 376</b>	0.022	<b>198 806 376</b>	0.022
90	80	4	<b>198 806 376</b>	0.022	<b>198 806 376</b>	0.022	<b>198 806 376</b>	0.022
110	100	4	<b>198 806 376</b>	0.022	<b>198 806 376</b>	0.022	<b>198 806 376</b>	0.022
160	150	4	<b>198 806 376</b>	0.022	<b>198 806 376</b>	0.022	<b>198 806 376</b>	0.022



**Pneumatic actuator DIASTAR**  
**Series 028 FC**

Size (inch)	DN (mm)	d (mm)	Size	for EPDM Code	SP	Weight (kg)	for PTFE/ EPDM Code	SP	Weight (kg)
½	15	20	1	<b>198 150 091</b>	1	0.270	<b>198 150 097</b>	1	0.295
¾	20	25	2	<b>198 150 126</b>	0	0.705	<b>198 150 126</b>	0	0.705
1	25	32	2	<b>198 150 093</b>	1	0.656	<b>198 150 098</b>	0	1.000
1 ¼	32	40	3	<b>198 150 094</b>	1	1.380	<b>198 150 124</b>	0	1.380
1 ½	40	50	4	<b>198 150 095</b>	1	2.172	<b>198 150 099</b>	1	2.100
2	50	63	4	<b>198 150 125</b>	1	3.000	<b>198 150 125</b>	1	3.000



**Pneumatic actuator DIASTAR  
Series 025 FC**

Size (inch)	DN (mm)	Size (mm)	d (mm)	for EPDM Code	SP Weight (kg)	for PTFE/ EPDM Code	SP Weight (kg)
2 ½	65		75	<b>198 150 736</b>	1	<b>198 150 736</b>	1 3.700
3	80		90	<b>198 150 737</b>	1	<b>198 150 737</b>	1 13.144
4	100		110	<b>198 150 738</b>	1	<b>198 150 738</b>	1 14.295
6	150		160	<b>198 150 739</b>	1		



**Pneumatic actuator DIASTAR  
Series 025 FO**

Size (mm)	DN (mm)	Size (inch)	d (mm)	for PTFE/ EPDM and EPDM Code	SP Weight (kg)
	65	2 ½	75	<b>198 150 746</b>	1 3.700
	80	3	90	<b>198 150 747</b>	1 9.500
	100	4	110	<b>198 150 748</b>	1 3.700
	150	6	160	<b>198 150 749</b>	1 3.700



**Pneumatic actuator DIASTAR  
Series 025 DA**

DN (mm)	Size (inch)	d (mm)	Size (mm)	for EPDM Code	SP Weight (kg)	for PTFE/ EPDM Code	SP Weight (kg)
65	2 ½	75		<b>198 150 756</b>	1 10.440	<b>198 150 756</b>	1 10.440
80	3	90		<b>198 150 757</b>	1 3.700	<b>198 150 757</b>	1 3.700
100	4	110		<b>198 150 758</b>	1 3.700	<b>198 150 758</b>	1 3.700
150	6	160		<b>198 150 759</b>	1 3.700	<b>198 150 759</b>	1 3.700



**Diaseptic DIASTAR  
Type 025 full plastic actuator PPS GF40**

DN (mm)	FC Code	SP Weight (kg)	FO Code	SP Weight (kg)	DA Code	SP Weight (kg)
15	<b>198 151 126</b>	1 0.785	<b>198 151 136</b>	1 0.311	<b>198 151 142</b>	1 0.286
20	<b>198 151 127</b>	1 0.800	<b>198 151 137</b>	1 0.623	<b>198 151 143</b>	0 0.590
25	<b>198 151 128</b>	1 1.611	<b>198 151 138</b>	1 0.680		
32	<b>198 151 129</b>	1 2.873	<b>198 151 139</b>	1 1.256		
40	<b>198 151 130</b>	1 4.208	<b>198 151 140</b>	1 2.253		
50	<b>198 151 131</b>	1 4.819	<b>198 151 141</b>	1 2.399		



**Diaseptic DIASTAR**  
**Type 025 with stainless steel intermediate part**

DN (mm)	FC size 1 Code	SP	Weight (kg)	FO Code	SP	Weight (kg)	DA Code	SP	Weight (kg)
8	198 151 148	1	0.540	198 151 156	0	0.502	198 151 163	1	0.484
15	198 151 149	1	0.611	198 151 157	1	0.563	198 151 164	1	0.545
20	198 151 151	1	1.358	198 151 158	1	1.178	198 151 165	1	1.148
25	198 151 152	1	2.262	198 151 159	1	2.223	198 151 166	1	2.138
40	198 151 154	1	5.813	198 151 161	1	5.817	198 151 168	1	5.560
50	198 151 155	1	6.087	198 151 162	1	6.610	198 151 169	1	6.353



**Diaseptic DIASTAR**  
**Diaseptic type 028 plastic actuator PPS GF40**

DN (mm)	FC Code	SP	Weight (kg)
15	198 151 120	1	0.352
20	198 151 121	1	0.730
25	198 151 122	1	0.837
32	198 151 123	1	1.580
40	198 151 124	1	2.663
50	198 151 125	1	2.959

# Accessories for pneumatic stroke actuators



For diaphragm valve type **DIASTAR**  
Min./max. stroke limiter/manual override

\* only max. Lift limiter

DN-DN (mm)	Ten/028 FC Code	Ten Plus/ Sixteen/025 FC Code	Ten/025 FO/DA Code	Weight (kg)
-- 15	<b>199 190 381</b>	<b>199 190 382</b>	<b>199 190 381</b>	0.057
-- 20	<b>199 190 382</b>	<b>199 190 382</b>	<b>199 190 382</b>	0.068
-- 25	<b>199 190 382</b>	<b>199 190 383</b>	<b>199 190 382</b>	0.068
-- 32	<b>199 190 383</b>	<b>199 190 384</b>	<b>199 190 383</b>	0.120
-- 40	<b>199 190 384</b>	<b>199 190 385</b>	<b>199 190 384</b>	0.143
-- 50	<b>199 190 384</b>	<b>199 190 385</b>	<b>199 190 384</b>	0.143
65 - 80		<b>199 190 318</b>	<b>199 190 318</b>	0.500
100 - 150		<b>199 190 319</b>	<b>199 190 319</b>	0.500



**NAMUR connector plate for DIASTAR DN15-50**

DN (mm)	Pos	Ten/028 FC Code	SP	Weight (kg)	Sixteen/025 FC Code	SP	Weight (kg)
15	2	<b>199 190 378</b>	1	0.054	<b>199 190 378</b>	1	0.054
20	2	<b>199 190 378</b>	1	0.054	<b>199 190 378</b>	1	0.054
25	2	<b>199 190 378</b>	1	0.054	<b>199 190 378</b>	1	0.054
32	2	<b>199 190 378</b>	1	0.054	<b>199 190 379</b>	1	0.354
40	2	<b>199 190 379</b>	1	0.354	<b>199 190 379</b>	1	0.354
50	2	<b>199 190 379</b>	1	0.354	<b>199 190 379</b>	1	0.354

Ten/025 FO/DA Code	SP	Weight (kg)
<b>199 190 378</b>	1	0.054
<b>199 190 378</b>	1	0.054
<b>199 190 378</b>	1	0.054
<b>199 190 378</b>	1	0.054
<b>199 190 379</b>	1	0.354
<b>199 190 379</b>	1	0.354





# Fusion jointing machines

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# Fusion jointing machines

## IR and BCF fusion machines



### IR-110 A Automated Fusion Machine

#### Model:

- Fully equipped automated infrared fusion machine with integrated working table for use under clean room conditions
- Welding of PVDF SYGEF (Standard/Plus), PP grey PROGEF (Standard/Plus), PP-n PROGEF Natural, PE100 ecoFIT
- Dimensions d20-110 mm
- User friendly touch-screen interface 12.1" with various languages
- 4 USB interfaces, LAN Ethernet interface, 230 V Output
- Automated facer, clamping slide and heater
- Integrated video camera and temperature sensors
- Movable clamping units
- Clamping inserts d20-90 mm (8 pcs. per dimension)
- End caps PE d20-110 mm (4 pcs. per dimension)
- Shavings collection tray
- Transport box with integrated pallet
- 1-phase AC (50/60 Hz) 230V L/N/PE
- Power supply cable 230V EU Standard
- Torx key for facing blades (KW3)
- Cleaning brush
- Label printer
- Instruction manual

d-d (mm)	Code	SP	Weight (kg)
20 - 110	<b>790 164 001</b>	1	250.000



### IR-315 A Automated Fusion Machine

#### Model:

- Fully equipped automated infrared fusion machine and working table designed for industrial applications and clean room conditions
- Welding of PVDF SYGEF (Standard/Plus), PP PROGEF (Standard/Plus), PE100 ecoFIT (d≤d225 mm)
- Dimensions d110-315 mm
- Automated facer, clamping slide and heater
- Integrated cooling system
- User friendly touch-screen interface 12.1" with various languages
- 4 USB interfaces, LAN Ethernet interface, 230 V Output
- Integrated video camera and temperature sensors
- Clamping inserts d110-280 mm (8 pcs. per dimension)
- End caps PE d110-315 mm (4 pcs. per dimension)
- Transport cases with integrated Euro-pallet (fusion machine and working table)
- 3-phase AC (50/60 Hz) 400 V L1/L2/L3/N/PE
- Set of facing knives (2 pcs.)
- Torx key (T25) for facing knife
- Hexagon keys (10 mm + 8 mm)
- Fork key (36 mm)
- Cleaning brush
- Label printer (incl. ribbon 24 mm)
- Instruction manual

d-d (mm)	Code	Weight (kg)
110 - 315	<b>790 165 001</b>	1049.000



### IR-63 Plus Fusion Machine

**Model:**

- Fully-equipped manually operated infrared fusion machine with integrated remote welding unit
- Welding of PVDF SYGEF (Standard/Plus), PP-H PROGEF (Standard/Plus), PP-n PROGEF Natural, PE100 ecoFIT, PFA
- Dimensions d20-63 mm
- Monochrome display with icons and various languages
- 2 USB interfaces
- Heating and facing element
- Clamping slide with movable clamping units
- Clamping inserts d20-63 mm (8 pcs. per dimension)
- End caps PE d20-63 mm (4 pcs. per dimension)
- Pipe stop
- Clean-room compatible accessory tray with tools
- Transport box
- 1-phase AC (50/60 Hz) 230V L/N/PE
- Power supply cable 230 V
- Extension cable for clamping slide, heater and facing tool for remote welding (5m each)
- Label printer
- Instruction manual

**Note:**

Clamping inserts PFA (inch) on request

d-d (mm)	Code	SP	Weight (kg)
20 - 63	790 131 005	1	50.000



### IR-110 Plus Fusion Machine

**Model:**

- Fully-equipped manually operated infrared fusion machine for use under clean room conditions
- Welding of PVDF SYGEF (Standard/Plus), PP-H PROGEF (Standard/Plus), PP-n PROGEF Natural, PE100 ecoFIT, PFA and ECTFE
- Dimensions d20-110 mm
- Monochrome display with icons and various languages
- 2 USB interfaces
- Heating and facing element
- Clamping slide with movable clamping units
- Clamping inserts d20-90 mm (8 pcs. per dimension)
- End caps PE d20-110 mm (4 pcs. per dimension)
- Pipe stop
- Clean-room compatible accessory tray with tools
- Transport box with integrated pallet
- 1-phase AC (50/60 Hz) 230V L/N/PE
- Power supply cable 230V
- Label printer
- Instruction manual

**Note:**

Clamping inserts PFA (inch) on request

d-d (mm)	Code	Weight (kg)
20 - 110	790 132 001	75.000



### IR-225 Plus Fusion Machine

**Model:**

- Fully-equipped manually operated infrared fusion machine with integrated working table for use under clean room conditions
- Welding of PVDF SYGEF (Standard/Plus), PP-H PROGEF (Standard/Plus), PP-n PROGEF Natural, PE100 ecoFIT
- Dimensions d63-225 mm
- Monochrome display with icons and various languages
- 2 USB interfaces
- Heating and facing element
- Clamping slide with movable clamping units
- Cooling fan
- Clamping inserts d63-225 mm (8 pcs. per dimension)
- End caps PE d63-225 mm (4 pcs. per dimension)
- Pipe stop
- Transport box with integrated pallet (stainless steel)
- 1-phase AC (50/60 Hz) 230V L/N/PE or 3-phase AC (50/60 Hz) 400V/230VL1/L2/L3/N/PE
- Connecting cable 400V - 230V
- Additional tools
- Label printer
- Instruction manual

d-d (mm)	Code	Weight (kg)
63 - 225	<b>790 133 009</b>	453.000



### BCF-63 Plus Fusion Machine

**Model:**

- Fully-equipped manually operated fusion machine with integrated remote welding unit for bead and crevice free jointing for use under clean room conditions
- Welding of PVDF SYGEF (Standard/Plus), PP-n PROGEF Natural
- Dimensions d20-63 mm
- Monochrome display with icons and various languages
- 2 USB interfaces
- Heating stations d20-63 mm (6 pcs.)
- Facing tool incl. facing inserts d20-63 mm (6 pcs.)
- Facing tool support
- Movable clamping units
- Cooling fan
- Clamping units (2 pcs.) with clamping inserts d20-63 mm (4 pcs. per dimension)
- Supporting tools d20-63 mm (2 pcs.)
- Transport box with integrated pallet
- 1-phase AC (50/60 Hz) 115 / 230 V L/N/PE
- Extension cable for remote welding (8m)
- Bladder Remove Tool (BReT)
- Hose box incl. air hose (16m)
- Hose cutter
- Label printer
- Instruction manual

**Note:**

Bladders to be ordered separately.

d-d (mm)	Code	Weight (kg)
20 - 63	<b>790 121 002</b>	153.000



## BCF-110 Plus Fusion Machine

### Model:

- Fully-equipped manually operated fusion machine with integrated remote welding unit for bead and crevice free jointing for use under clean room conditions
- Welding of PVDF SYGEF (Standard/Plus), PP-n PROGEF Natural
- Dimensions d20-110 mm
- Monochrome display with icons and various languages
- 2 USB interfaces
- Heating stations d20-110 mm (9 pcs.)
- Facing tool with facing inserts d20-63 mm (6 pcs.)
- Facing tool with facing inserts d75-110 mm (3 pcs.)
- Facing tool support
- Movable clamping units
- Cooling fan
- Clamping units (2 pcs.) with clamping inserts d20-63 mm (4 pcs. per dimension)
- Clamping units (2 pcs.) with clamping inserts d75-110 mm (4 pcs. per dimension)
- Adapter for clamping unit d75-110 mm (2 pcs.)
- Supporting tools d20-63 mm (2 pcs.)
- Supporting tools d75-110 mm (2 pcs.)
- Transport box with integrated pallet
- 1-phase AC (50/60 Hz) 115 / 230 V L/N/PE
- Extension cable for remote welding (8m)
- Bladder Remove Tool (BReT)
- Hose box incl. air hose (16m)
- Hose cutter
- Label printer
- Instruction manual

### Note:

Bladders to be ordered separately.

d-d (mm)	Code	SP	Weight (kg)
20 - 110	<b>790 121 001</b>	1	188.000



## BCF Plus Bladder for PROGEF Natural PP-n

- d20-63: Only suitable for welding PROGEF Natural PP-n. **Blue bladder head!**
- d75-110: Suitable for welding PROGEF Natural PP-n and SYGEF PVDF. **Silver bladder head!**

d (mm)	Code	SP	Weight (kg)	Pieces
20	<b>790 122 091</b>	1	0.038	1
25	<b>790 122 092</b>	1	0.021	1
32	<b>790 122 093</b>	1	0.040	1
40	<b>790 122 094</b>	1	0.050	1
50	<b>790 122 095</b>	1	0.105	1
63	<b>790 122 096</b>	1	0.138	1
75	<b>790 121 047</b>	1	0.203	1
90	<b>790 121 048</b>	1	0.265	1
110	<b>790 121 049</b>	1	0.552	1

# Butt and socket fusion machines



## SG 125 Socket fusion machine

- Portable heating element - socket fusion machine for use in the workshop and on job sites.
- For fusion jointing of PP, PE, PB and PVDF pipes and fittings; dimension 20 - 125 mm
- **BASE MACHINE**
- Compact, sturdy design, distortion-free machine bed
- Handwheel with torque locking mechanism for the slide movement
- Fast selection of insertion depth according to the pipe dimension
- **HEATER**
- With electronic temperature control
- High temperature accuracy over the entire heating surface
- **ADDITIONAL STANDARD EQUIPMENT**
- Universal, left and right prismatic clamping devices, complete, for clamping pipe and fittings. Additional set of prismatic clamping devices for outer clamping of pipes available as an option.
- V-shaped pipe support d 20 - 125 mm
- Back stop
- Machine specific tool set
- Timer to clock fusion times
- Including transport packaging, without accessories

	<b>d-d</b> (mm)	<b>Performance</b>	<b>Code</b>	<b>Weight</b> (kg)
	20 - 125	230 V/1500 W	<b>790 310 034</b>	65.000
	20 - 125	115 V/1500 W	<b>790 310 036</b>	65.000



## Heating spigots and bushes

- For socket fusion systems in PP, PE
- Always delivered in pairs (also usable for SG 110, SG 125, not for SG 160)
- Type B according to DVS 2208-1 (mechanical calibrated pipe ends)

<b>d</b> (mm)	<b>Code</b>	<b>Weight</b> (kg)
20	<b>799 300 156</b>	0.090
25	<b>799 300 157</b>	0.154
32	<b>799 300 158</b>	0.211
40	<b>799 300 159</b>	0.309
50	<b>799 300 160</b>	0.434
63	<b>799 300 161</b>	0.594
75	<b>799 300 162</b>	0.981
90	<b>799 300 163</b>	1.452
110	<b>799 300 164</b>	2.008
125	<b>799 300 165</b>	2.200



## Set heating spigots and bushes Type B

- For socket fusion systems in PP, PE
- Always delivered in pairs (also usable for SG 110, SG 125, not for SG 160)
- Type B according to DVS 2208-1 (mechanical calibrated pipe ends)

<b>d-d</b> (mm)	<b>Code</b>	<b>Weight</b> (kg)
20 - 125	<b>790 310 023</b>	8.600



### Manual pipe peeling and chamfering tools

d (mm)	Code	SP	Weight (kg)
20	<b>799 300 260</b>	0	0.087
25	<b>799 300 270</b>	0	0.080
32	<b>799 300 280</b>	0	0.099
40	<b>799 300 290</b>	0	0.240
50	<b>799 300 300</b>	0	0.244
63	<b>799 300 310</b>	0	0.507
75	<b>799 300 320</b>	0	0.680
90	<b>799 300 330</b>	0	1.006
110	<b>799 300 340</b>	0	1.355



### Universal prismatic clamping device, complete

- For correct clamping of long pipes, fittings
- 1 set = 2 pieces (1 back and 1 front prismatic clamping device) for mounting on left or right side, as well as for inner and outer mounting

d-d (mm)	Code	SP	Weight (kg)
20 - 125	<b>790 310 040</b>	0	3.300



**SG 160**  
**Combined butt and socket fusion machine**  
**for industrial applications**

Mobile, very compact and universal plastic fusion machine for PP, PE and PVDF pipes and fittings for use in the workshop and on job sites.

Butt fusion d 32 - 160 mm, all pressure ratings up to PE/PP SDR 11; PVDF SDR 21.

Socket fusion d 16 - 110 mm

**Base machine**

- high precision, distortion-free and robust machine base
- handwheel for easy moving of machine carriage
- exact pressure adjustment via direct load transfer
- hardened, hard-chrome plated guide shafts for extreme loads
- handle for safe transport of machine
- All clamping possibilities for base clamping plates, pipe supports, back stop and prismatic clamping devices.

**Planer**

- planing device made of light cast aluminium
- optimised cutting geometry for even and chatter-free planing
- powerful parallel planer, swivels in and out for single or double-sided facing of pipe ends 620 W
- integrated pick up for easy mounting of calibration tools for machining of pipe ends in socket fusion

**Heater**

- high-performance and precision heater with electronic temperature control 1500 W
- high accuracy of +/- 4C over the entire heating surface
- heater temperature can be set exactly with digital LCD
- high quality, non-stick, easy to change PTFE fabric

**Additional standard equipment on the basic model**

- V-shaped pipe supports d 16 - 160 mm for fittings
- timer to clock fusion times
- tool set specified to machine
- Including transport packaging, without accessories

<b>d-d</b> (mm)	<b>Performance</b>	<b>Code</b>	<b>Weight</b> (kg)
16 - 160	230 V/2200 W	<b>790 103 004</b>	223.000





### MSE 63/MSE 110 Socket fusion tool

- For fusion jointing of PP and PE pipes and fittings. For PVDF special spigots and bushes are needed.
- Choice of electronic or thermostatic temperature control
- Support for heating bushes and spigots of d 16 to 63 mm (110 mm)
- Pick up for floor stand or table clamp
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- T = thermostatic temperature control / E = electronic temperature control

d-d (mm)	Type	Performance	Code	Weight (kg)
16 - 63	MSE 63 T	230 V/800 W	<b>790 105 081</b>	1.700
16 - 63	MSE 63 E	230 V/800 W	<b>790 105 082</b>	1.800
16 - 63	MSE 63 T	115 V/800 W	<b>790 105 096</b>	2.075
16 - 63	MSE 63 E	115 V/800 W	<b>790 105 097</b>	2.145
16 - 110	MSE 110 T	230 V/1500 W	<b>790 105 083</b>	3.200
16 - 110	MSE 110 E	230 V/1500 W	<b>790 105 084</b>	3.200
16 - 110	MSE 110 T	115 V/1500 W	<b>790 105 126</b>	3.200
16 - 110	MSE 110 E	115 V/1500 W	<b>790 105 127</b>	3.200



### MSE 63/MSE 110 Socket fusion toolset

- For fusion jointing of PP and PE pipes and fittings. For PVDF special spigots and bushes are needed.
- All devices equipped with on/off switch, mains and temperature control lamp
- Choice of electronic or thermostatic temperature control
- Support for heating bushes and spigots of d 16 to 63 mm (110 mm)
- Pick up for floor stand or table clamp
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- High-quality, non-stick PTFE-coating with long service life
- Heating bushes and spigots
- Available as a complete set in a practical metal case
- Table clamp
- Floor stand for MSE 63
- Allen screws and key
- T = thermostatic temperature control / E = electronic temperature control

d-d (mm)	Type	Performance	Code	Weight (kg)
16 - 63	MSE 63 T	230 V/800 W	<b>790 105 085</b>	8.700
16 - 63	MSE 63 E	230 V/800 W	<b>790 105 086</b>	8.700
16 - 63	MSE 63 T	115 V/800 W	<b>790 105 098</b>	8.600
16 - 63	MSE 63 E	115 V/800 W	<b>790 105 099</b>	9.979
16 - 110	MSE 110 T	230 V/1500 W	<b>790 105 087</b>	17.700
16 - 110	MSE 110 E	230 V/1500 W	<b>790 105 088</b>	16.523
16 - 110	MSE 110 T	115 V/1500 W	<b>790 105 128</b>	17.700
16 - 110	MSE 110 E	115 V/1500 W	<b>790 105 129</b>	18.000



## IM 160

### Butt fusion machine for industrial applications

- Butt fusion machine for PP, PE, PB and PVDF pipes and fittings for industrial applications with pressure piping systems.
- Compact and sturdy design for use in the workshop and on jobsites.
- Designed to provide the highest flexibility to adapt to different sizes or shapes of fittings.
- Dimensional range: d32 - 160 mm, from SDR 41 up to SDR 11 with PE, PP d160 mm.
- **BASE MACHINE**
  - High precision, distortion-free and robust machine base
  - Handwheel for easy moving of machine carriage
  - Exact pressure adjustment via direct spring load transfer
  - Fast-locking base clamping plates, right and left, d 160 mm
  - Weight (including planer and heater): 53 kg
- **PLANER**
  - Load transfer via robust chain drive
  - Optimized cutting geometry for even and chatter-free planing
  - Swivel mounted for ergonomic handling
  - Mechanical stop to provide single sided planing and defined facing depth
- **HEATER**
  - High performance, electronically controlled heating element
  - High accuracy of +/- 4°C over the entire heating surface
  - High quality, non-stick PTFE coating
  - Metal sheet cover to protect the heating plate in idle position
  - The heating element can be used as manual fusion tool
- **ADDITIONAL STANDARD EQUIPMENT**
  - Complete reduction clamping inserts set d 32 - 140 mm
  - V-shaped pipe support with inserts d 32 - 140 mm
  - Timer to clock fusion times
  - Machine specific tool set
  - Wooden transport crate, usable as working bench, also available as special version made of coated plywood with aluminium profiles, optimized design for pallet truck handling and storage drawer for reduction inserts and tools

d-d (mm)	Performance	Description	Code	Weight (kg)
32 - 160	230 V/1700 W	Standard transport crate	<b>790 141 001</b>	123.000
32 - 160	230 V/1700 W	Special transport crate	<b>790 141 003</b>	157.000
32 - 160	115 V/1700 W	Standard transport crate	<b>790 141 008</b>	123.000
32 - 160	115 V/1700 W	Special transport crate	<b>790 141 009</b>	157.000



**IM 315**  
**Butt fusion machine for industrial applications**

- Butt fusion machine for PP, PE, PB and PVDF pipes and fittings for industrial applications with pressure piping systems.
- Extremely sturdy design for use in the workshop and on job sites.
- Designed to provide the highest flexibility to adapt to different sizes or shapes of fittings.
- Angular jointing provided up to 30° (2x15°) for prefabrication of segmented fittings.
- Dimensional range: d90-315 mm, from SDR 41 up to SDR 11 with PE,PP d315 mm
- 115 V on request!
- **BASE MACHINE**
- High precision, distortion-free and robust machine base
- Integrated swivel tables for angular jointing up to 30° (2x15°)
- Handwheel for easy moving of machine carriage
- Exact pressure adjustment via direct spring load transfer
- Fusion pressure is maintained with a user friendly fast-locking handle
- Inner left and right clamping elements, for picking up reduction clamping inserts d 90-315 mm, with fast-locking handle
- Optional outer, horizontally removable clamping devices available
- Weight (including planer and heater): 169 kg
- **PLANER**
- Optimized cutting geometry for even and chatter-free planing
- Swivel mounted for ergonomic handling
- Mechanical stop to provide single sided planing and defined facing depth
- Integrated safety switch to prevent unintentional start-up
- Self-locking mechanism in working position
- **HEATER**
- High-performance and precision heater with electronic temperature control (2500W)
- High accuracy of +/- 4°C over the entire heating surface
- High quality, non-stick PTFE coating
- Pull-off mechanism to automatically detach the heating plate from pipe ends
- Metal sheet cover to protect the heating plate in idle position
- Integrated thermometer for fast visual check of plate temperature
- **ADDITIONAL STANDARD EQUIPMENT**
- Reduction clamping inserts set d 90-315 mm
- Pipe supports for picking up reduction supporting inserts d 90-315 mm
- Reduction pipe supporting inserts set d 90-315 mm
- Timer to clock fusion times
- Machine specific tool set

d-d (mm)	Performance	Description	Code	Weight (kg)
90 - 315	230 V / 3500 W	Without transport crate	<b>790 143 005</b>	229.000
90 - 315	230 V / 3500 W	With standard transport crate	<b>790 143 001</b>	269.000
90 - 315	230 V / 3500 W	With special transport crate	<b>790 143 003</b>	366.000



### IM 315 - D Butt fusion machine for industrial applications

- Butt fusion machine for PP, PE, PB and PVDF pipes and fittings for industrial applications with pressure piping systems.
- Equipped with a load cell and digital display for easy viewing and precise indication of the welding force.
- Extremely sturdy design for use in the workshop and on job sites.
- Designed to provide the highest flexibility to adapt to different sizes or shapes of fittings.
- Angular jointing provided up to 30° (2x15°) for prefabrication of segmented fittings.
- Dimensional range: d90-315 mm, from SDR 41 up to SDR 11 with PE,PP d315 mm
- 115 V on request!
- **BASE MACHINE**
- High precision, distortion-free and robust machine base
- Integrated swivel tables for angular jointing up to 30° (2x15°)
- Handwheel for easy moving of machine carriage
- Exact pressure adjustment via direct spring load transfer
- Digital display for force indication
- Fusion pressure is maintained with a user friendly fast-locking handle
- Inner left and right clamping elements, for picking up reduction clamping inserts d 90-315 mm, with fast-locking handle
- Optional outer, horizontally removable clamping devices available
- Weight (including planer and heater): 169 kg
- **PLANER**
- Optimized cutting geometry for even and chatter-free planing
- Swivel mounted for ergonomic handling
- Mechanical stop to provide single sided planing and defined facing depth
- Integrated safety switch to prevent unintentional start-up
- Self-locking mechanism in working position
- **HEATER**
- High-performance and precision heater with electronic temperature control (2500W)
- High accuracy of +/- 4°C over the entire heating surface
- High quality, non-stick PTFE coating
- Pull-off mechanism to automatically detach the heating plate from pipe ends
- Metal sheet cover to protect the heating plate in idle position
- Integrated thermometer for fast visual check of plate temperature
- **ADDITIONAL STANDARD EQUIPMENT**
- Reduction clamping inserts set d 90-315 mm
- Pipe supports for picking up reduction supporting inserts d 90-315 mm
- Reduction pipe supporting inserts set d 90-315 mm
- Timer to clock fusion times
- Machine specific tool set

d-d (mm)	Performance	Description	Code	Weight (kg)
90 - 315	230 V / 3500 W	With standard transport crate	<b>790 143 002</b>	269.000
90 - 315	230 V / 3500 W	With special transport crate	<b>790 143 004</b>	366.000



### Outer base clamping devices

d (mm)	Type	Code	Weight (kg)
315	L	<b>790 143 030</b>	15.867
315	R	<b>790 143 031</b>	15.867



### Back stop

- Prevents the components from slipping out of the clamping device during fusion.

Code	Weight (kg)
<b>790 142 061</b>	3.175



## GF 400 Butt fusion machine for construction site

Butt Fusion machine to joint PE, PP, PB pipes and fittings for pressure piping systems on building sites and in trenches.

Hydraulically operated with manual control unit.

Control box with integrated temperature controller and power outlets (type 400 V).

Separate remote temperature controller for the heating element (type 230 V).

Including transport packaging (wooden crate); reduction clamping inserts and other accessories to be ordered separately.

### • BASE MACHINE

- High precision design, distortion-free and sturdy machine frame
- Good accessibility thanks to 35° inclination
- The movable (sliding) 3rd clamp allows easy and time-saving fixation of bends or tees without need of additional tools
- Clamps are hinged on the top side and tilting. Whenever necessary, the four clamps can be quickly removed
- Double-sided heating element pull-off mechanism to optimise the change-over phase

• Weight: 95 kg

### • HYDRAULIC UNIT

- Compact and robust, with full closed metal housing and two handles for carrying
- Precise pressure setting and fine adjusting
- Joystick operation of machine carriage
- Clearly visible, vibration-free pressure gauge with precision scaling
- Accumulator for pressure equalization during the cooling phase
- Max operating pressure: 160 bar

• Weight: 41 kg

• Input power: 230 V / 1100 W

### • PLANER

- Powerful parallel planer for single or double-sided facing of pipe ends
- Self-locking mechanism in working position
- Safety microswitch to prevent undesired start-up

• Weight: 47 kg

• Input power: 230V/1100 W

### • HEATING ELEMENT

- High performance, electronically controlled heating element
- High-quality, non-stick PTFE-coating with long service life
- Temperature indicator integrated into the handle

• Weight: 16 kg

• Input power: 230V/3500W

### • CONTROL BOX

• Only with type 400 V

• Contains all safety and functional components such as static relay, FI protective switch, temperature control

• Compact unit in steel box with enamel-coated protective frame

• Integrated power outlets for all machine components, only 1 plug to the generator

• Weight: 15 kg

### • CASE

• For safe storage of planer and heating element

• Weight: 30 kg

Type	d-d (mm)	Performance	Code	Weight (kg)
GF 400, 400 V	125 - 400	400 V/5700 W	<b>790 127 010</b>	366.000
GF 400, 230 V	125 - 400	230 V/5700 W	<b>790 127 001</b>	355.000



**CNC 4.0 400**  
**Automatic butt fusion machine for construction site**

Butt Fusion machine to joint PE, PP, PB pipes and fittings for pressure piping systems on building sites and in trenches.

Hydraulically operated with automatic CNC control unit.

Including transport packaging (wooden crate); reduction clamping inserts and other accessories to be ordered separately.

• **BASE MACHINE**

- High precision design, distortion-free and sturdy machine frame
- Good accessibility thanks to 35° inclination
- The movable (sliding) 3rd clamp allows easy and time-saving fixation of bends or tees without need of additional tools
- Clamps are hinged on the top side and tilting. Whenever necessary, the four clamps can be quickly removed
- Double-sided heating element pull-off mechanism to optimise the change-over phase
- The distance control (potentiometer) mounted into the base machine grants control and safety throughout the complete working process

• Weight: 95 kg

• **HYDRAULIC UNIT**

- Compact aluminium case with innovative design
- Intuitive colour touch screen interface
- Operator guidance from preparation to the end of the jointing process by use of symbols and graphics
- Automatic calculation, regulation and control of the fusion parameters - pressure, time and temperature - according to country specific guidelines
- Integrated GPS receiver
- 10 freely programmable fusion cycles (e.g. for non standard pipe dimensions)
- Selection of language
- Operator ID (ISO 12176-3), job number and pipe codes (ISO 12176-4) could be input by means of the barcode scanner (to be ordered separately)
- On site check of the memorized fusion protocols status directly on the touchscreen
- Transfer of memorized fusion protocols to an external PC via USB memory stick (included)
- Fusion protocols compatible with Welding Book application
- Integrated power outlets for planer, heating element
- Accumulator for pressure equalization during the cooling phase
- Max operating pressure: 160 bar

• Weight: 37 kg

• **PLANER**

- Powerful parallel planer for single or double-sided facing of pipe ends
- Self-locking mechanism in working position
- Safety microswitch to prevent undesired start-up

• Weight: 47 kg

• **HEATING ELEMENT**

- High performance, electronically controlled heating element
- High-quality, non-stick PTFE-coating with long service life
- Temperature indicator integrated into the handle

• Weight: 16 kg

• Input power: 230V/3500W

• **CASE**

- For safe storage of planer and heating element

• Weight: 30 kg

Type	d-d (mm)	Performance	Code	Weight (kg)
CNC 4.0 400	125 - 400	400 V/5700 W	<b>790 153 001</b>	320.000



### Type 400 Reduction clamping inserts

- d 125-355 mm
  - Each code number represents 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
  - We recommend 4 wide and 4 narrow half shells.
  - Reductions in inch sizes or special diameters upon request
- In order to mount the inserts d 125/d 140/d 160/d 180/d 200/d 225/d 250/d 280, the reduction clamping insert d 315 mm, code 790 127 101, must also be used

d (mm)	narrow Code	Weight (kg)	wide Code	Weight (kg)
125	<b>790 112 100</b>	1.215	<b>790 112 090</b>	0.957
140	<b>790 112 101</b>	1.139	<b>790 112 091</b>	0.950
160	<b>790 112 102</b>	1.080	<b>790 112 092</b>	0.980
180	<b>790 112 103</b>	1.006	<b>790 112 093</b>	0.931
200	<b>790 112 104</b>	0.945	<b>790 112 094</b>	0.880
225	<b>790 112 105</b>	0.833	<b>790 112 095</b>	0.940
250	<b>790 112 106</b>	0.712	<b>790 112 096</b>	0.754
280	<b>790 112 107</b>	0.562	<b>790 112 097</b>	0.750
315	<b>790 127 111</b>	1.830	<b>790 127 101</b>	1.830
355	<b>790 127 112</b>	0.900	<b>790 127 102</b>	1.830



### Reduction clamping inserts-set

- 4 wide and 4 narrow clamping inserts of each dimension
- 8 wide clamping inserts d 315 mm
- Reductions in inch sizes or special diameters upon request

d-d (mm)	Code	Weight (kg)
125 - 355	<b>790 127 156</b>	95.000



**GF 500**  
Butt fusion machine for construction site

Butt Fusion machine to joint PE, PP, PB pipes and fittings for pressure piping systems on building sites and in trenches.

Hydraulically operated with manual control unit.

Control box with integrated temperature controller and power outlets.

Performance: PE up to d 500 mm SDR 11; PP up to d 500 mm SDR 26.

Special type **GF 500 PP** available with enhanced performance to work with PP pipes and fittings up to d 500 mm SDR 11.

Including transport packaging (wooden crate); reduction clamping inserts and other accessories to be ordered separately.

• **BASE MACHINE**

- High precision design, distortion-free and sturdy machine frame
- Good accessibility thanks to 35° inclination
- The movable (sliding) 3rd clamp allows easy and time-saving fixation of bends or tees without need of additional tools
- Clamps are hinged on the top side and tilting. Whenever necessary, the four clamps can be quickly removed
- Double-sided heating element pull-off mechanism to optimise the change-over phase

• Weight: 169 kg

• **HYDRAULIC UNIT**

- Compact and robust, with full closed metal housing and two handles for carrying
- Precise pressure setting and fine adjusting
- Joystick operation of machine carriage
- Clearly visible, vibration-free pressure gauge with precision scaling
- Accumulator for pressure equalization during the cooling phase
- Max operating pressure: 160 bar
- Weight: 41 kg

• **PLANER**

- Powerful parallel planer for single or double-sided facing of pipe ends
- Self-locking mechanism in working position
- Safety microswitch to prevent undesired start-up
- Weight: 58 kg

• **HEATING ELEMENT**

- High performance, electronically controlled heating element
- High-quality, non-stick PTFE-coating with long service life
- Temperature indicator integrated into the handle
- Weight: 26 kg
- Input power: 400 V / 4000 W

• **CONTROL BOX**

- Contains all safety and functional components such as static relay, FI protective switch, temperature control
- Compact unit in steel box with enamel-coated protective frame
- Integrated power outlets for all machine components, only 1 plug to the generator
- Weight: 15 kg

• **CASE**

- For safe storage of planer and heating element
- Weight: 38 kg

Type	d-d (mm)	Performance	Description	Code	Weight (kg)
GF 500	200 - 500	400 V/6250 W	Standard	<b>790 116 040</b>	497.000
GF 500 PP	200 - 500	400 V/7000 W	Enhanced performance for PP applications	<b>790 154 006</b>	502.000





**CNC 4.0 500**  
**Automatic butt fusion machine for construction site**

Butt Fusion machine to joint PE, PP, PB pipes and fittings for pressure piping systems on building sites and in trenches.

Hydraulically operated with automatic CNC control unit.

Performance: PE up to d 500 mm SDR 11; PP up to d 500 mm SDR 26.

Special type **CNC 4.0 500 PP** available with enhanced performance to work with PP pipes and fittings up to d 500 mm SDR 11

Including transport packaging (wooden crate); reduction clamping inserts and other accessories to be ordered separately.

• **BASE MACHINE**

- High precision design, distortion-free and sturdy machine frame
- Good accessibility thanks to 35° inclination
- The movable (sliding) 3rd clamp allows easy and time-saving fixation of bends or tees without need of additional tools
- Clamps are hinged on the top side and tilting. Whenever necessary, the four clamps can be quickly removed
- Double-sided heating element pull-off mechanism to optimise the change-over phase
- The distance control (potentiometer) mounted into the base machine grants control and safety throughout the complete working process

• Weight: 169 kg

• **HYDRAULIC UNIT**

- Compact aluminium case with innovative design
- Intuitive colour touch screen interface
- Operator guidance from preparation to the end of the jointing process by use of symbols and graphics
- Automatic calculation, regulation and control of the fusion parameters - pressure, time and temperature - according to country specific guidelines
- Integrated GPS receiver
- 10 freely programmable fusion cycles (e.g. for non standard pipe dimensions)
- Selection of language
- Operator ID (ISO 12176-3), job number and pipe codes (ISO 12176-4) could be input by means of the barcode scanner (to be ordered separately)
- On site check of the memorized fusion protocols status directly on the touchscreen
- Transfer of memorized fusion protocols to an external PC via USB memory stick (included)
- Fusion protocols compatible with Welding Book application
- Integrated power outlets for planer, heating element
- Accumulator for pressure equalization during the cooling phase
- Max operating pressure: 160 bar

• Weight: 37 kg

• **PLANER**

- Powerful parallel planer for single or double-sided facing of pipe ends
- Self-locking mechanism in working position
- Safety microswitch to prevent undesired start-up

• Weight: 58 kg

• **HEATING ELEMENT**

- High performance, electronically controlled heating element
- High-quality, non-stick PTFE-coating with long service life
- Temperature indicator integrated into the handle

• Weight: 26 kg

• Input power: 400 V / 4000 W

• **CASE**

- For safe storage of planer and heating element

• Weight: 38 kg

Type	d-d (mm)	Performance	Description	Code	Weight (kg)
CNC 4.0 500	200 - 500	400 V/6300 W	Standard	<b>790 154 001</b>	455.000
CNC 4.0 500 PP	200 - 500	400 V/7000 W	Enhanced performance for PP applications	<b>790 154 007</b>	466.000



### Reduction clamping inserts

- Each code number represents 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.
- Reductions in inch sizes or special diameters upon request

d (mm)	narrow Code	Weight (kg)	wide Code	Weight (kg)
200	<b>790 116 016</b>	3.714	<b>790 116 008</b>	3.650
225	<b>790 116 017</b>	3.443	<b>790 116 009</b>	3.640
250	<b>790 116 018</b>	3.700	<b>790 116 010</b>	3.569
280	<b>790 116 019</b>	3.891	<b>790 116 011</b>	3.612
315	<b>790 116 020</b>	3.622	<b>790 116 012</b>	3.698
355	<b>790 116 021</b>	3.267	<b>790 116 013</b>	3.727
400	<b>790 116 022</b>	2.383	<b>790 116 014</b>	3.836
450	<b>790 116 023</b>	2.273	<b>790 116 015</b>	3.276



### Reduction clamping inserts-set

- 4 wide and 4 narrow clamping inserts of each dimension

d-d (mm)	Code	Weight (kg)
250 - 450	<b>790 116 156</b>	165.000
200 - 450	<b>790 116 157</b>	241.000



**GF 630**  
**Butt fusion machine for construction site**

Butt Fusion machine to joint PE, PP, PB pipes and fittings for pressure piping systems on building sites and in trenches.

Hydraulically operated with manual control unit.

Control box with integrated temperature controller and power outlets.

Performance PE up to d 630 mm SDR 9; PP up to d 630 mm SDR 17.6

For proper handling of the heating element and planer we recommend the assembling of the hoist unit (to be ordered separately).

Including transport packaging (wooden crate); reduction clamping inserts and other accessories to be ordered separately.

• **BASE MACHINE**

- High precision design, distortion-free and sturdy machine frame
- Good accessibility thanks to 45° inclination
- The movable (sliding) 3rd clamp allows easy and time-saving fixation of bends or tees without need of additional tools
- Double-sided heating element pull-off mechanism to optimise the change-over phase

• Weight: 222 kg

• **HYDRAULIC UNIT**

- Compact and robust, with full closed metal housing and two handles for carrying
- Precise pressure setting and fine adjusting
- Joystick operation of machine carriage
- Clearly visible, vibration-free pressure gauge with precision scaling
- Accumulator for pressure equalization during the cooling phase
- Max operating pressure: 200 bar

• Weight: 41 kg

• **PLANER**

- Powerful parallel planer for single or double-sided facing of pipe ends
- Planer with Stop mechanism for safety
- Safety microswitch to prevent undesired start-up

• Weight: 99 kg

• **HEATING ELEMENT**

- High performance, electronically controlled heating element
- High-quality, non-stick PTFE-coating with long service life
- Temperature indicator integrated into the handle

• Weight: 39 kg

• Input power: 400 V / 8000 W

• **CONTROL BOX**

- Contains all safety and functional components such as static relay, FI protective switch, temperature control

• Compact unit in steel box with enamel-coated protective frame

• Integrated power outlets for all machine components, only 1 plug to the generator

• Weight: 27 kg

• **CASE**

• For safe storage of planer and heating element

• Weight: 55 kg

d-d (mm)	Performance	Code	Weight (kg)
315 - 630	400 V/11000 W	<b>790 117 032</b>	627.000



**CNC 4.0 630**  
**Automatic butt fusion machine for construction site**

Butt Fusion machine to joint PE, PP, PB pipes and fittings for pressure piping systems on building sites and in trenches.

Hydraulically operated with automatic CNC control unit.

Performance: PE up to d 630 mm SDR 11; PP up to d 630 mm SDR 17.6

Including transport packaging (wooden crate); reduction clamping inserts and other accessories to be ordered separately.

• **BASE MACHINE**

- High precision design, distortion-free and sturdy machine frame
- Good accessibility thanks to 45° inclination
- The movable (sliding) 3rd clamp allows easy and time-saving fixation of bends or tees without need of additional tools
- Double-sided heating element pull-off mechanism to optimise the change-over phase
- The distance control (potentiometer) mounted into the base machine grants control and safety throughout the complete working process

• Weight: 222 kg

• **HYDRAULIC UNIT**

- Compact aluminium case with innovative design
- Intuitive colour touch screen interface
- Operator guidance from preparation to the end of the jointing process by use of symbols and graphics
- Automatic calculation, regulation and control of the fusion parameters - pressure, time and temperature - according to country specific guidelines
- Integrated GPS receiver
- 10 freely programmable fusion cycles (e.g. for non standard pipe dimensions)
- Selection of language
- Operator ID (ISO 12176-3), job number and pipe codes (ISO 12176-4) could be input by means of the barcode scanner (to be ordered separately)
- On site check of the memorized fusion protocols status directly on the touchscreen
- Transfer of memorized fusion protocols to an external PC via USB memory stick (included)
- Fusion protocols compatible with Welding Book application
- Integrated power outlets for planer, heating element
- Accumulator for pressure equalization during the cooling phase
- Max operating pressure: 160 bar
- Weight: 37 kg

• **PLANER**

- Powerful parallel planer for single or double-sided facing of pipe ends
- Planer with Stop mechanism for safety
- Safety microswitch to prevent undesired start-up
- Weight: 99 kg

• **HEATING ELEMENT**

- High performance, electronically controlled heating element
- High-quality, non-stick PTFE-coating with long service life
- Temperature indicator integrated into the handle
- Weight: 39 kg
- Input power: 400 V / 8000 W

• **CASE**

- For safe storage of planer and heating element
- Weight: 55 kg

d-d (mm)	Performance	Code	Weight (kg)
315 - 630	400 V/11000 W	<b>790 155 001</b>	595.000



### Reduction clamping inserts

- We recommend 4 wide and 4 narrow half shells.
  - Each code number represents 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
  - Reductions in inch sizes or special diameters upon request
- In order to mount the inserts d 315/d 355/d 400/d 450 to the base clamp d 630, the reduction clamping insert d 500 mm, code 790 117 012, must also be used

d (mm)	narrow Code	Weight (kg)	wide Code	Weight (kg)
315	<b>790 116 020</b>	3.622	<b>790 116 012</b>	3.698
355	<b>790 116 021</b>	3.267	<b>790 116 013</b>	3.727
400	<b>790 116 022</b>	2.383	<b>790 116 014</b>	3.836
450	<b>790 116 023</b>	2.273	<b>790 116 015</b>	3.276
500	<b>790 117 238</b>	3.700	<b>790 117 012</b>	4.500
560	<b>790 117 239</b>	3.800	<b>790 117 013</b>	4.900



### Reduction clamping inserts-set

- 4 wide and 4 narrow clamping inserts d 315, d 355, d 400, d 450
- 8 wide reduction inserts d 500, d 560

d-d (mm)	Code	Weight (kg)
315 - 560	<b>790 117 021</b>	201.000

# Accessories for fusion machines



## PPC Plastic pipe cutter

For cutting plastic pipes d10 - d160

d-d (mm)	Article	Code	SP	Weight (kg)	Closest inch (inch)
10 - 63	PPC 63, s max. = 7.2mm	<b>790 109 001</b>	1	0.865	1/8 - 2
50 - 110	PPC 110, s max. = 12.7mm	<b>790 109 002</b>	1	1.624	1 1/2 - 4
110 - 160	PPC 160, s max. = 19.0mm	<b>790 109 003</b>	1	2.212	4 - 6



## Rotary Pipe Cutter d63-200 mm

- Tool for simple right angle precision cutting of plastic pipe with a wall thickness up to 12 mm PVDF/PVC and up to 20 mm PP/PE --> blade for PP/PE must be ordered separately (Code 790109861)
- Including transport box

d-d (mm)	Code	Weight (kg)
63 - 200	<b>790 109 850</b>	7.000



## Rotary Pipe Cutter d90-315 mm

- Tool for simple right angle precision cutting of plastic pipe with a wall thickness up to 15 mm PVDF/PVC and up to 30 mm PP/PE --> blade for PP/PE must be ordered separately (Code 790109861)
- Including transport box

d-d (mm)	Code	Weight (kg)
90 - 315	<b>790 109 851</b>	5.000



## Tangit KS Cleaner

- Special cleaner for plastic fusion connections in the material of PP, PE, PVDF and PB
- Suitable for Tangit Rapid. Must not be used for solvent cementing
- DVGW approved
- DW 5290 BR 0464

Size	Code	Weight (kg)
1 liter	<b>799 298 023</b>	0.872



### Tangit KS Cleaner

- Special cleaner for plastic fusion connections in the material of PP, PE, PVDF and PB
- Suitable for Tangit Rapid. Must not be used for solvent cementing
- DVGW approved
- DW 5290 BR 0464

Size	Code	SP	Weight (kg)
1 liter	<b>799 298 023</b>	8	0.872



### Cleaning tissue K0-TON-R

Minimum order quantity 100 pieces

- This cleaning tissue is suitable for the cleaning of the welding zone of piping components, because it is lint free and clean room checked.

Code	Weight (kg)
<b>790 122 085</b>	0.005



### Marker

Type	Code	Weight (kg)
silver	<b>799 350 364</b>	0.010



### Tempil sticks

Temperature (°C)	Code	SP	Weight (kg)	Color
253	<b>761 066 796</b>	1	0.012	yellow
274	<b>761 066 797</b>	1	0.014	red



### Gloves

Code	SP	Weight (kg)
<b>761 066 799</b>	1	0.115

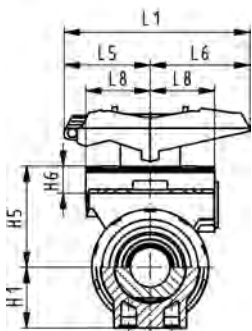
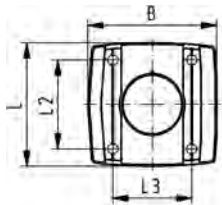
# Spare parts

## Connecting parts and subassembly type 546 and 543

### Multifunctional modules



DN10/15 - 50



#### Multifunctional module (I02) PP-GF Module empty

##### Model:

- Accessory to ball valve type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100
- The multifunctional module from d75 - d110 has a master gauge F07 according to EN ISO 5211.

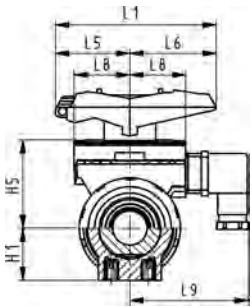
d-d (mm)	Inch (inch)	DN-DN (mm)	Code	SP	Weight (kg)
16 - 20	3/8 - 1/2	10 - 15	<b>167 482 680</b>	1	0.069
25 - 32	3/4 - 1	20 - 25	<b>167 482 681</b>	1	0.149
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 482 682</b>	1	0.168
63	2	50	<b>167 482 683</b>	1	0.209
75 - 90	2 1/2 - 3	65 - 80	<b>167 482 684</b>	1	0.379
110	4	100	<b>167 482 685</b>	1	0.607

d-d (mm)	B (mm)	H1 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L5 (mm)	L6 (mm)	L8 (mm)
16 - 20	67	27	50	17	72	87	54	40	42	45	34
25 - 32	75	30	53	16	72	108	52	46	50	58	38
40 - 50	81	44	72	16	80	140	60	50	66	75	41
63	91	64	94	19	93	165	68	65	78	87	46
75 - 90	90	85	157	23	85	270			64	206	
110	106	123	175	23	97	320			64	256	





DN10/15 - 50



### Multifunctional module (I03) PP-GF With mechanical limit switches AgNi

#### Model:

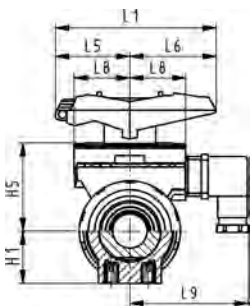
- Accessory to ball valve type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including plug 3P+E / protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100
- Switch type Crouzet 83 181

DN-DN (mm)	d-d (mm)	Inch (inch)	Code	SP	Weight (kg)
10 - 15	16 - 20	$\frac{3}{8} - \frac{1}{2}$	<b>167 482 626</b>	1	0.104
20 - 25	25 - 32	$\frac{3}{4} - 1$	<b>167 482 627</b>	1	0.118
32 - 40	40 - 50	$1 \frac{1}{4} - 1 \frac{1}{2}$	<b>167 482 628</b>	1	0.140
-- 50	-- 63	2	<b>167 482 629</b>	1	0.257
65 - 80	75 - 90	$2 \frac{1}{2} - 3$	<b>167 482 630</b>	1	0.478
-- 100	-- 110	4	<b>167 482 631</b>	1	0.480

H1 (mm)	H5 (mm)	L1 (mm)	L5 (mm)	L6 (mm)	L8 (mm)	L9 (mm)
27	50	87	42	45	34	73
30	53	108	50	58	38	77
44	72	140	66	75	41	80
64	94	165	78	87	46	85
85	157	270	64	206		
123	175	320	64	256		



DN10/15 - 50



### Multifunctional module (I04) PP-GF With mechanical limit switches Au

#### Model:

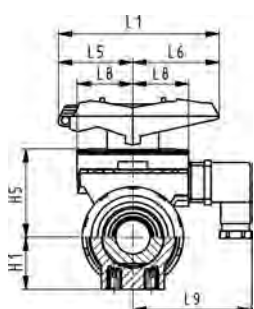
- Accessory to ball valve type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including plug 3P+E / protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100
- Switch type Crouzet 83 181

DN-DN (mm)	d-d (mm)	Inch (inch)	Code	SP	Weight (kg)
10 - 15	16 - 20	$\frac{3}{8} - \frac{1}{2}$	<b>167 482 635</b>	1	0.103
20 - 25	25 - 32	$\frac{3}{4} - 1$	<b>167 482 636</b>	1	0.120
32 - 40	40 - 50	$1 \frac{1}{4} - 1 \frac{1}{2}$	<b>167 482 637</b>	1	0.138
-- 50	-- 63	2	<b>167 482 638</b>	1	0.175
65 - 80	75 - 90	$2 \frac{1}{2} - 3$	<b>167 482 639</b>	1	0.460
-- 100	-- 110	4	<b>167 482 640</b>	1	0.480

H1 (mm)	H5 (mm)	L1 (mm)	L5 (mm)	L6 (mm)	L8 (mm)	L9 (mm)
27	50	87	42	45	34	73
30	53	108	50	58	38	77
44	72	140	66	75	41	80
64	94	165	78	87	46	85
85	157	270	64	206		
123	175	320	64	256		



DN10/15 - 50



### Multifunctional module (I05) PP-GF With inductive limit switches Namur

#### Model:

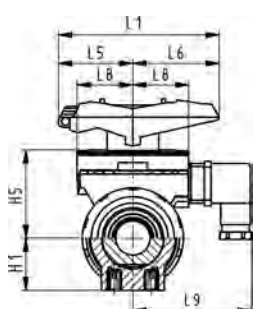
- Accessory to ball valve type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including plug 3P+E / protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100
- Switch type Pepperl+Fuchs NJ1.5-F-N

DN-DN (mm)	d-d (mm)	Inch (inch)	Code	SP	Weight (kg)
10 - 15	16 - 20	3/8 - 1/2	<b>167 482 671</b>	1	0.097
20 - 25	25 - 32	3/4 - 1	<b>167 482 672</b>	1	0.107
32 - 40	40 - 50	1 1/4 - 1 1/2	<b>167 482 673</b>	1	0.135
-- 50	-- 63	2	<b>167 482 674</b>	1	0.257
65 - 80	75 - 90	2 1/2 - 3	<b>167 482 675</b>	1	0.460
-- 100	-- 110	4	<b>167 482 676</b>	1	0.480

H1 (mm)	H5 (mm)	L1 (mm)	L5 (mm)	L6 (mm)	L8 (mm)	L9 (mm)
27	50	87	42	45	34	73
30	53	108	50	58	38	77
44	72	140	66	75	41	80
64	94	165	78	87	46	85
85	157	270	64	206		
123	175	320	64	256		



DN10/15 - 50



### Multifunctional module (I06) PP-GF With inductive limit switches PNP

#### Model:

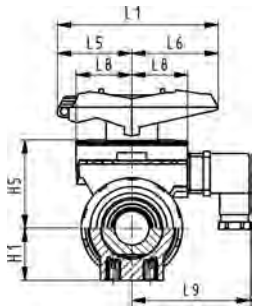
- Accessory to ball valve type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including plug 3P+E / protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100
- Switch type Pepperl+Fuchs NBB1.5-F79-E2

DN-DN (mm)	d-d (mm)	Inch (inch)	Code	SP	Weight (kg)
10 - 15	16 - 20	3/8 - 1/2	<b>167 482 662</b>	1	0.182
20 - 25	25 - 32	3/4 - 1	<b>167 482 663</b>	1	0.197
32 - 40	40 - 50	1 1/4 - 1 1/2	<b>167 482 664</b>	1	0.215
-- 50	-- 63	2	<b>167 482 665</b>	1	0.175
65 - 80	75 - 90	2 1/2 - 3	<b>167 482 666</b>	1	0.460
-- 100	-- 110	4	<b>167 482 667</b>	1	0.480

H1 (mm)	H5 (mm)	L1 (mm)	L5 (mm)	L6 (mm)	L8 (mm)	L9 (mm)
27	50	87	42	45	34	73
30	53	108	50	58	38	77
44	72	140	66	75	41	80
64	94	165	78	87	46	85
85	157	270	64	206		
123	175	320	64	256		



DN10/15 - 50



### Multifunctional module (I07) PP-GF With inductive limit switches NPN

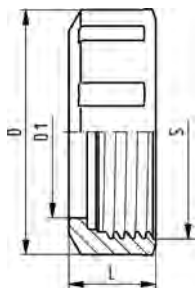
**Model:**

- Accessory to ball valve type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including plug 3P+E / protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100
- Switch type Pepperl+Fuchs NBB1.5-F79-E1

DN-DN (mm)	d-d (mm)	Inch (inch)	Code	SP	Weight (kg)
10 - 15	16 - 20	3/8 - 1/2	<b>167 482 653</b>	1	0.110
20 - 25	25 - 32	3/4 - 1	<b>167 482 654</b>	1	0.120
32 - 40	40 - 50	1 1/4 - 1 1/2	<b>167 482 655</b>	1	0.135
-- 50	-- 63	2	<b>167 482 656</b>	1	0.175
65 - 80	75 - 90	2 1/2 - 3	<b>167 482 657</b>	1	0.460
-- 100	-- 110	4	<b>167 482 658</b>	1	0.480

H1 (mm)	H5 (mm)	L1 (mm)	L5 (mm)	L6 (mm)	L8 (mm)	L9 (mm)
27	50	87	42	45	34	73
30	53	108	50	58	38	77
44	72	140	66	75	41	80
64	94	165	78	87	46	85
85	157	270	64	206		
123	175	320	64	256		

## Union nuts

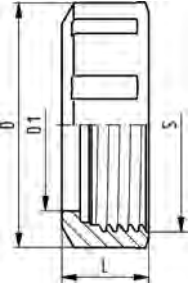


### PROGEF Standard Union nut 546 and 543

**Model:**

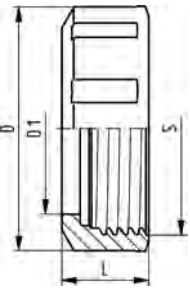
- Material: PP-H

d (mm)	DN (mm)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	S (mm)
16 - 20	10 - 15	<b>167 482 712</b>	1	0.014	50	34	19	42
25	20	<b>167 482 713</b>	1	0.018	58	39	20	48
32	25	<b>167 482 714</b>	1	0.030	68	47	24	58
40	32	<b>167 482 715</b>	1	0.054	84	57	27	71
50	40	<b>167 482 716</b>	1	0.076	97	65	30	84
63	50	<b>167 482 717</b>	1	0.151	124	79	36	106
75	65	<b>167 482 718</b>	1	0.463	166	94	48	135
90	80	<b>167 482 719</b>	1	0.728	200	113	54	135
110	100	<b>167 482 720</b>	1	1.117	238	137	60	198



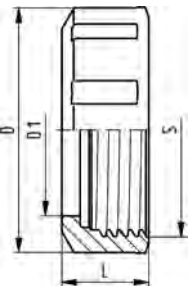
### Union nut 546 and 543 PVC-U

d (mm)	DN (mm)	Code	Weight (kg)	D (mm)	D1 (mm)	L (mm)	S (mm)	Closest inch (inch)
16 - 20	10 - 15	<b>161 490 538</b>	0.019	50	34	19	42	3/8 - 1/2
25	20	<b>161 490 539</b>	0.023	58	39	20	48	1/4
32	25	<b>161 490 540</b>	0.041	68	47	24	58	1
40	32	<b>161 490 541</b>	0.066	84	57	27	71	1 1/4
50	40	<b>161 490 542</b>	0.092	97	65	30	84	1 1/2
63	50	<b>161 490 543</b>	0.189	124	79	36	106	2
75	65	<b>161 490 544</b>	0.562	166	94	48	135	2 1/2
90	80	<b>161 490 545</b>	0.882	200	113	54	135	3
110	100	<b>161 490 546</b>	1.355	238	137	60	198	4



### Union nut 546 and 543 ABS

d (mm)	DN (mm)	Code	Weight (kg)	D (mm)	D1 (mm)	L (mm)	S (mm)
16 - 20	10 - 15	<b>169 480 713</b>	0.014	50	34	19	42
25	20	<b>169 480 714</b>	0.021	58	39	20	48
32	25	<b>169 480 715</b>	0.030	68	47	24	58
40	32	<b>169 480 716</b>	0.047	84	57	27	71
50	40	<b>169 480 717</b>	0.067	97	65	30	84
63	50	<b>169 480 718</b>	0.139	124	79	36	106
75	65	<b>169 480 719</b>	0.435	166	94	48	135
90	80	<b>169 480 720</b>	0.683	200	113	54	135
110	100	<b>169 480 721</b>	1.048	238	137	60	198



### SYGEF Standard Union nut 546 and 543

**Model:**

- Material: PVDF

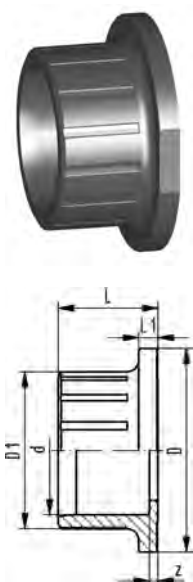
d (mm)	DN (mm)	Code	Weight (kg)	D (mm)	L (mm)	D1 (mm)	S (mm)
16 - 20	10 - 15	<b>175 482 937</b>	0.022	50	19	34	42
25	20	<b>175 482 938</b>	0.033	58	20	39	48
32	25	<b>175 482 939</b>	0.053	68	24	47	58
40	32	<b>175 482 940</b>	0.099	84	27	57	71
50	40	<b>175 482 941</b>	0.095	94	30	65	84
63	50	<b>175 482 942</b>	0.200	120	36	79	106
75	65	<b>175 482 943</b>	0.463	124	36	79	106
90	80	<b>175 482 944</b>	0.728	166	48	94	135
110	100	<b>175 482 945</b>	1.117	238	60	137	198



### Union nut 546 and 543 PVC-C

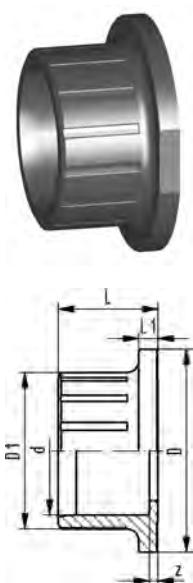
d (mm)	DN (mm)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	S (mm)	Closest inch (inch)
16 - 20	10 - 15	163 481 226	1	0.020	50	34	19	42	3/8 - 1/2
25	20	163 481 227	1	0.019	58	39	20	48	3/4
32	25	163 481 228	1	0.041	68	47	24	58	1
40	32	163 481 229	1	0.054	84	57	27	71	1 1/4
50	40	163 481 230	1	0.099	97	65	30	84	1 1/2
63	50	163 481 231	1	0.199	124	79	36	106	2
75	65	163 481 232	1	0.619	166	94	48	135	2 1/2
90	80	163 481 233	1	0.973	200	113	54	135	3
110	100	163 481 234	1	1.493	238	137	60	198	4

## Valve ends ball valve type 546 and 543



### Valve end 546 and 543 PVC-U (G01) With solvent cement socket metric

d (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
16	16	161 490 666	1	0.011	38	23	18	4	4
20	16	161 490 667	1	0.009	38	27	20	4	4
25	16	161 490 668	1	0.012	44	33	23	5	4
32	16	161 490 669	1	0.024	53	41	26	5	4
40	16	161 490 670	1	0.042	65	51	31	5	5
50	16	161 490 671	1	0.065	77	62	34	6	3
63	16	161 490 672	1	0.118	99	77	41	7	3
75	16	161 490 673	1	0.224	125	92	49	9	4
90	16	161 490 674	1	0.377	150	110	57	10	5
110	16	161 490 675	1	0.639	180	134	69	11	5

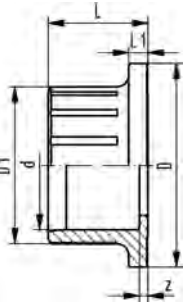


### Valve end 546 PVC-U With solvent cement socket metric

#### Model:

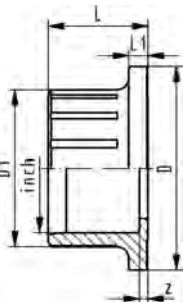
- Valve end 546 PVC-U to retrofit the ball valve 546 according the same z-dimension as for type 370 with nuts

d (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
75	16	161 490 673	1	0.224	125	92	49	9	4
90	16	161 491 084	1	0.399	150	110	64	10	12
110	16	161 491 085	0	0.695	180	134	80	11	16



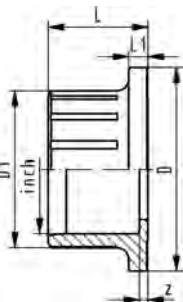
**Valve end 546 PVC-U (G02)**  
**With solvent cement socket JIS**

Size (inch)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
½	16	161 490 745	1	0.009	38	27	20	4	4
¾	16	161 490 746	1	0.015	44	33	23	5	4
1	16	161 490 747	1	0.026	53	41	26	5	4
1 ¼	16	161 490 748	1	0.048	65	51	31	5	5
1 ½	16	161 490 749	1	0.072	77	62	34	6	3
2	16	161 490 750	1	0.137	99	77	41	7	3
2 ½	16	161 490 751	1	0.222	125	92	49	9	4
3	16	161 490 752	1	0.390	150	110	57	10	5
4	16	161 490 753	1	0.586	180	134	69	11	5



**Valve end 546 and 543 PVC-U (G03)**  
**With solvent cement socket Inch ASTM**

Size (inch)	d (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
¾	16	16	161 490 712	1	0.012	38	24	25	4	6
½	20	16	161 490 713	1	0.014	38	30	25	4	2
¾	25	16	161 490 714	1	0.020	44	35	28	5	3
1	32	16	161 490 715	1	0.031	53	43	31	5	3
1 ¼	40	16	161 490 716	1	0.046	65	53	34	5	3
1 ½	50	16	161 490 717	1	0.066	77	60	38	6	3
2	63	16	161 490 718	1	0.112	99	73	41	7	3
2 ½	75	16	161 490 719	1	0.241	125	92	49	9	4
3	90	16	161 490 720	1	0.394	150	110	57	10	9
4	110	16	161 490 721	1	0.582	180	134	69	11	11



**Valve end 546 and 543 PVC-U (G04)**  
**With solvent cement socket Inch BS**

Size (inch)	d (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
¾	16	16	161 490 734	1	0.009	38	23	18	4	2
½	20	16	161 490 735	1	0.010	38	27	20	4	2
¾	25	16	161 490 736	1	0.013	44	33	23	5	2
1	32	16	161 490 737	1	0.021	53	41	26	5	2
1 ¼	40	16	161 490 738	1	0.036	65	51	31	5	2
1 ½	50	16	161 490 739	1	0.071	77	62	34	6	4
2	63	16	161 490 740	1	0.135	99	77	41	7	5
	75	16	161 490 673	1	0.224	125	92	49	9	4
3	90	16	161 490 742	1	0.393	150	110	57	10	6
4	110	16	161 490 743	1	0.577	180	134	69	11	5



**Valve end 546 and 543 PVC-U (G05)**  
With solvent cement spigot metric

d (mm)	PN (bar)	Code	SP	Weight (kg)	D	D1	D2	L	L1	z
16	16	161 490 701	1	0.011	38	10	16	29	4	15
20	16	161 490 702	1	0.015	38	14	16	34	4	18
25	16	161 490 703	1	0.021	44	19	20	39	5	20
32	16	161 490 704	1	0.031	53	24	26	42	5	20
40	16	161 490 705	1	0.050	65	31	33	45	5	19
50	16	161 490 706	1	0.082	77	39	41	53	6	22
63	16	161 490 707	1	0.161	99	49	51	62	7	24
75	16	161 490 708	1	0.302	125	58	65	74	9	30
90	16	161 490 709	1	0.467	150	70	90	80	10	28
110	16	161 490 710	1	0.747	180	86	100	88	11	27



**Valve end 546 and 543 PVC-U (G06)**  
With threaded socket Rp

**Model:**

- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U

Rp (inch)	PN (bar)	Code	SP	Weight (kg)	z	D1	D	L	L1
3/8	10	161 490 690	1	0.011	7	24	38	20	4
1/2	10	161 490 691	1	0.013	6	28	38	22	4
3/4	10	161 490 692	1	0.019	7	34	44	25	5
1	10	161 490 693	1	0.031	7	42	53	28	5
1 1/4	10	161 490 694	1	0.047	7	52	65	30	5
1 1/2	10	161 490 695	1	0.074	9	63	77	32	6
2	10	161 490 696	1	0.129	10	78	99	38	7
2 1/2	10	161 490 697	1	0.255	18	92	125	49	9
3	10	161 490 698	1	0.436	23	110	150	57	10
4	10	161 490 699	1	0.645	29	134	180	69	11



**Valve end 546 and 543 PVC-U (G07)**  
With threaded socket Rp reinforced

**Model:**

- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PVC-U

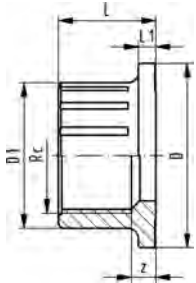
Rp (inch)	PN (bar)	Code	SP	Weight (kg)	D	D1	L	L1	z
3/8	16	161 490 825	1	0.013	38	24	20	4	7
1/2	16	161 490 826	1	0.016	38	28	22	4	6
3/4	16	161 490 827	1	0.023	44	34	25	5	7
1	16	161 490 828	1	0.036	53	42	28	5	7
1 1/4	16	161 490 829	0	0.058	65	52	30	5	7
1 1/2	16	161 490 830	1	0.084	77	63	32	6	9
2	16	161 490 831	0	0.166	99	78	38	7	10



### Valve end 546 and 543 PVC-U (G08) With threaded socket Rc

**Model:**

- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U



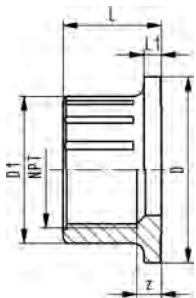
PN (bar)	Rc (inch)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
10	½	161 490 755	1	0.013	38	28	22	4	5
10	¾	161 490 756	1	0.019	44	34	25	5	7
10	1	161 490 757	1	0.041	53	42	28	5	7
10	1 ¼	161 490 758	1	0.047	65	52	30	5	6
10	1 ½	161 490 759	1	0.081	77	63	32	6	8
10	2	161 490 760	1	0.145	99	78	38	7	9
10	2 ½	161 490 761	1	0.261	125	58	49	9	18
10	3	161 490 762	1	0.444	150	110	57	10	23
10	4	161 490 763	1	0.682	180	134	69	11	29



### Valve end 546 and 543 PVC-U (G09) With threaded socket NPT

**Model:**

- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U



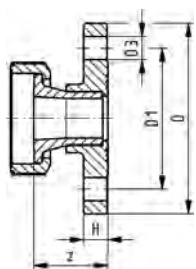
NPT (inch)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
¾	10	161 490 723	1	0.014	38	26	21	4	7
½	10	161 490 724	1	0.017	38	33	21	4	4
¾	10	161 490 725	1	0.020	44	39	23	5	5
1	10	161 490 726	1	0.038	53	47	28	5	6
1 ¼	10	161 490 727	1	0.064	65	57	31	5	7
1 ½	10	161 490 728	1	0.087	77	65	34	6	11
2	10	161 490 729	1	0.146	99	77	41	7	17
2 ½	10	161 490 730	1	0.287	125	58	49	9	15
3	10	161 490 731	1	0.451	150	110	57	10	21
4	10	161 490 732	1	0.692	180	134	69	11	31



### Valve end 546 PVC-U (G60) Assembly with fixed flange PVC-U metric

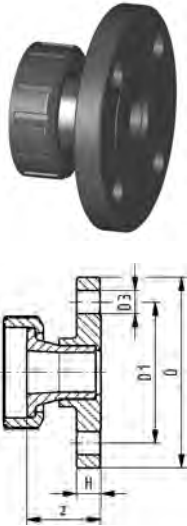
**Model:**

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- Combined jointing face: flat and serrated



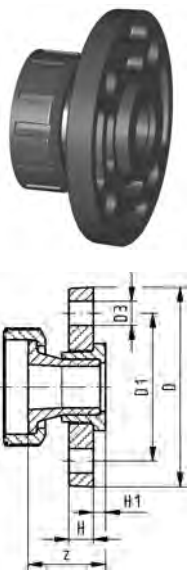
d (mm)	DN (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	z (mm)
20	15	16	161 486 360	0	0.131	95	65	14	12	37
25	20	16	161 486 361	0	0.175	105	75	14	13	42
32	25	16	161 486 362	1	0.254	115	85	14	15	45
40	32	16	161 486 363	0	0.417	140	100	18	17	48
50	40	16	161 486 364	1	0.548	150	110	18	18	56
63	50	16	161 486 365	1	0.862	165	125	18	20	65





**Valve end 546 PVC-U (G62)**  
**Assembly with fixed flange flat PVC-U Inch JIS**

Size (inch)	DN (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	z (mm)
½	15	16	161 486 350	1	0.160	95	60	14	11	37
¾	20	16	161 486 351	1	0.190	105	70	14	12	42
1	25	16	161 486 352	1	0.300	115	79	14	14	45
1 ¼	32	16	161 486 353	1	0.440	140	89	18	15	48
1 ½	40	16	161 486 354	1	0.550	140	105	18	18	62
2	50	16	161 486 355	1	0.830	165	121	18	18	65

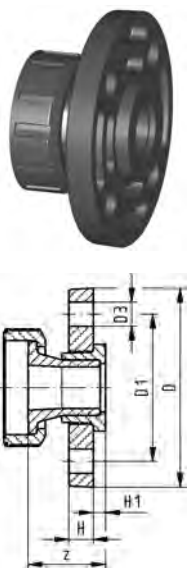


**Valve end 546 PVC-U (G70)**  
**Assembly with backing flange PVC-U metric**

**Model:**

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

d (mm)	DN (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	z (mm)
20	15	16	161 486 265	0	0.110	95	65	14	11	6	37
25	20	16	161 486 266	0	0.155	105	75	14	12	7	42
32	25	16	161 486 267	0	0.230	115	85	14	14	7	45
40	32	16	161 486 268	0	0.360	140	100	18	15	8	48
50	40	16	161 486 269	0	0.500	150	110	18	16	8	56
63	50	16	161 486 270	0	0.770	165	125	18	18	9	65
75	65	10	161 486 271	1	1.429	185	145	18	19	10	77
90	80	10	161 486 272	1	2.109	200	160	18	20	11	85
110	100	10	161 486 273	1	3.067	220	180	18	22	12	93

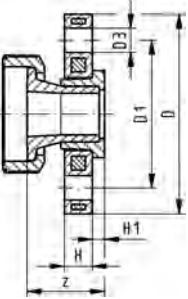


**Valve end 546 PVC-U (G71)**  
**Assembly with backing flange PVC-U  
 Inch ANSI**

**Model:**

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimensions: ANSI/ASME B 16.5, ASTM D 4024, BS 1560 (bolt circle 150 lbs)

Size (inch)	d (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	z (mm)
½	20	16	161 486 275	0	0.110	95	60	14	11	6	37
¾	25	16	161 486 276	0	0.150	105	70	14	12	7	42
1	32	16	161 486 277	1	0.220	115	79	14	14	7	45
1 ¼	40	16	161 486 278	0	0.375	140	89	18	15	8	48
1 ½	50	16	161 486 279	0	0.495	150	98	18	16	8	56
2	63	16	161 486 280	0	0.760	165	121	18	18	9	65
2 ½	75	10	161 486 281	1	1.429	185	140	19	19	10	77
3	90	10	161 486 282	1	3.136	200	152	19	20	11	85
4	110	10	161 486 283	1	4.214	220	190	19	22	12	93

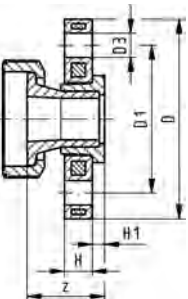


**Valve end 546 PVC-U (G72)**  
**Assembly with backing flange PP-st metric**

**Model:**

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

d	DN	PN	Code	SP	Weight	D	D1	D3	H	H1	z
(mm)	(mm)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	15	16	161 486 285	1	0.259	95	65	14	12	6	37
25	20	16	161 486 286	0	0.325	105	75	14	12	7	42
32	25	16	161 486 287	0	0.530	115	85	14	16	7	45
40	32	16	161 486 288	1	0.786	140	100	18	16	8	48
50	40	16	161 486 289	0	1.070	150	110	18	18	8	56
63	50	16	161 486 290	1	1.529	165	125	18	18	9	65
75	65	16	161 486 291	1	2.319	185	145	18	18	10	77
90	80	16	161 486 292	1	2.905	200	160	18	20	11	85
110	100	16	161 486 293	1	4.079	220	180	18	20	12	93

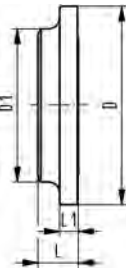


**Valve end 546 PVC-U (G73)**  
**Assembly with backing flange PP-st inch**

**Model:**

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimensions: ANSI/ASME B 16.5, ASTM D 4024, BS 1560 (bolt circle 150 lbs)

Size	DN	PN	Code	SP	Weight	D	D1	D3	H	H1	z
(inch)	(mm)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
½	15	16	161 486 425	0	0.250	95	60	16	12	6	37
¾	20	16	161 486 426	0	0.310	105	70	16	12	7	42
1	25	16	161 486 427	0	0.520	115	79	16	16	7	45
1 ¼	32	16	161 486 428	0	0.835	140	89	16	16	8	48
1 ½	40	16	161 486 429	0	1.110	150	98	16	18	8	56
2	50	16	161 486 430	0	1.385	165	121	19	18	9	65
2 ½	65	16	161 486 431	1	2.319	185	140	19	18	10	77
3	80	16	161 486 432	1	2.905	200	152	19	20	11	85
4	100	16	161 486 433	1	4.079	229	190	19	20	12	93



**Valve end blank 546 and 543 PVC-U (G80)**

**Model:**

- Flat sealing faces

d	DN	Size	PN	Code	SP	Weight	D	D1	L	L1
(mm)	(mm)	(inch)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)
20	15	½	16	161 490 837	1	0.009	38	23	8	4
25	20	¾	16	161 490 838	1	0.014	44	33	10	5
32	25	1	16	161 490 839	1	0.021	53	41	11	5
40	32	1 ¼	16	161 490 840	1	0.034	65	51	11	5
50	40	1 ½	16	161 490 841	1	0.057	77	62	14	6
63	50	2	16	161 490 842	1	0.113	99	77	17	7

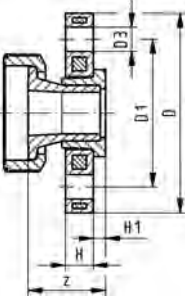


**Valve end 546 PVC-U (G78)**  
**Assembly with backing flange PVC-U JIS**

**Model:**

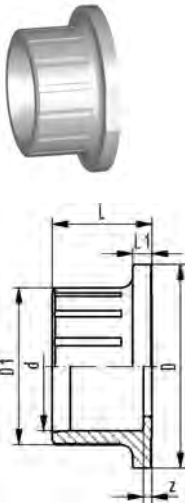
- Overall length according to EN 558
- Connecting dimensions: JIS B 2220, 10K

Size (inch)	DN (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	z (mm)
2 ½	65	10	<b>161 486 201</b>	1	1.354	185	140	19	21	2	63
3	80	10	<b>161 486 202</b>	1	2.109	185	150	19	31	1	82
4	100	10	<b>161 486 203</b>	1	3.067	210	175	19	34	1	105



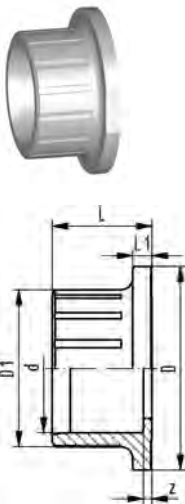
**Valve end 546 and 543 PVC-C (G11)**  
**With solvent cement socket metric**

d (mm)	PN (bar)	Code	SP	Weight (kg)	z (mm)	D (mm)	L (mm)	D1 (mm)	L1 (mm)
16	16	<b>163 481 275</b>	1	0.009	4	38	18	23	4
20	16	<b>163 481 276</b>	1	0.011	4	38	20	27	4
25	16	<b>163 481 277</b>	1	0.016	4	44	23	33	5
32	16	<b>163 481 278</b>	1	0.025	4	53	26	41	5
40	16	<b>163 481 279</b>	1	0.043	5	65	31	51	5
50	16	<b>163 481 280</b>	1	0.072	3	77	34	62	6
63	16	<b>163 481 281</b>	1	0.128	3	99	41	77	7
75	16	<b>163 481 282</b>	1	0.249	4	125	49	92	9
90	16	<b>163 481 283</b>	1	0.416	5	150	57	110	10
110	16	<b>163 481 284</b>	1	0.705	5	180	69	134	11



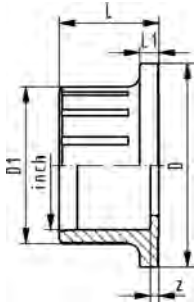
**Valve end 546 PVC-C (G12)**  
**With solvent cement socket JIS**

PN (bar)	Size (inch)	DN (mm)	Code	SP	Weight (kg)	z (mm)	D1 (mm)	D2 (mm)	L1 (mm)	D (mm)	L (mm)
16	½	15	<b>163 481 333</b>	1	0.009	4	27	16	4	38	20
16	¾	20	<b>163 481 334</b>	1	0.015	4	33	20	4	44	23
16	1	25	<b>163 481 335</b>	1	0.026	4	41	26	5	53	26
16	1 ¼	32	<b>163 481 336</b>	1	0.048	4	51	33	4	65	30
16	1 ½	40	<b>163 481 337</b>	1	0.072	3	62	41	6	77	34
16	2	50	<b>163 481 338</b>	1	0.137	3	77	51	6	99	41
16	2 ½	65	<b>163 481 339</b>	1	0.245	4	92	65	9	125	49
16	3	80	<b>163 481 340</b>	1	0.430	5	110	82	10	150	57
16	4	100	<b>163 481 341</b>	1	0.645	5	134	100	11	180	69





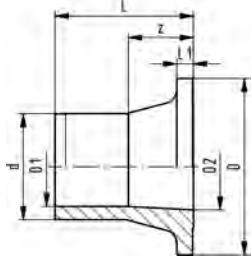
**Valve end 546 and 543 PVC-C (G13)**  
**With solvent cement socket Inch ASTM**



d (mm)	PN (bar)	Size (inch)	Code	SP Weight (kg)	D	D1	L	L1	z	
16	16	3/8	163 481 311	1	0.012	38	24	25	4	6
20	16	1/2	163 481 312	1	0.014	38	30	25	4	2
25	16	3/4	163 481 313	1	0.020	44	35	28	5	3
32	16	1	163 481 314	1	0.034	53	43	31	5	3
40	16	1 1/4	163 481 315	1	0.050	65	53	34	5	3
50	16	1 1/2	163 481 316	1	0.072	77	60	38	6	3
63	16	2	163 481 317	1	0.122	99	73	41	7	3
75	16	2 1/2	163 481 318	1	0.266	125	92	49	9	4
90	16	3	163 481 319	1	0.394	150	110	57	10	8
110	16	4	163 481 320	1	0.651	180	134	69	11	11



**Valve end 546 and 543 PVC-C (G14)**  
**With solvent cement spigot metric**



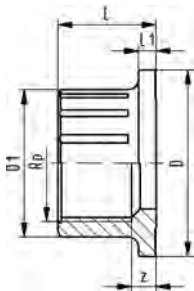
d (mm)	PN (bar)	Code	SP Weight (kg)	D	D1	D2	L	L1	z	
16	16	163 481 300	1	0.012	38	10	16	29	4	15
20	16	163 481 301	1	0.015	38	14	16	34	4	18
25	16	163 481 302	1	0.023	44	19	20	39	5	20
32	16	163 481 303	1	0.035	53	24	26	42	5	20
40	16	163 481 304	1	0.054	65	31	33	45	5	19
50	16	163 481 305	1	0.091	77	39	41	53	6	22
63	16	163 481 306	1	0.172	99	49	51	62	7	24
75	16	163 481 307	1	0.333	125	58	65	74	9	30
90	16	163 481 308	1	0.515	150	70	90	80	10	28
110	16	163 481 309	1	0.822	180	86	100	88	11	27



**Valve end 546 and 543 PVC-C (G15)**  
**With threaded socket Rp**

**Model:**

- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-C



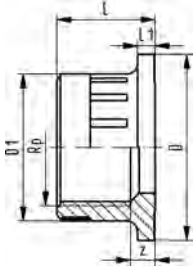
Rp (inch)	PN (bar)	Code	SP Weight (kg)	D	D1	L	L1	z	
3/8	10	163 481 286	1	0.011	38	24	20	4	7
1/2	10	163 481 287	1	0.013	38	28	22	4	6
3/4	10	163 481 288	1	0.019	44	34	25	5	7
1	10	163 481 289	1	0.031	53	42	28	5	7
1 1/4	10	163 481 290	1	0.047	65	52	30	5	7
1 1/2	10	163 481 291	1	0.081	77	63	32	6	9
2	10	163 481 292	1	0.150	99	78	38	7	10
2 1/2	10	163 481 293	1	0.282	125	58	49	9	19
3	10	163 481 294	1	0.481	150	110	57	10	23
4	10	163 481 295	1	0.735	180	134	69	11	29



### Valve end 546 and 543 PVC-C (G16) With threaded socket Rp reinforced

**Model:**

- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PVC-C



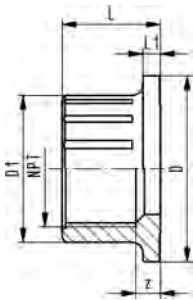
PN (bar)	Rp (inch)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
16	3/8	163 481 400	0	0.014	38	24	20	4	7
16	1/2	163 481 401	0	0.018	38	28	22	4	6
16	3/4	163 481 402	0	0.025	44	34	25	5	7
16	1	163 481 403	0	0.044	53	42	28	5	7
16	1 1/4	163 481 404	0	0.064	65	52	30	5	7
16	1 1/2	163 481 405	0	0.106	77	63	32	6	9
16	2	163 481 406	0	0.182	99	78	38	7	10



### Valve end 546 and 543 PVC-C (G17) With threaded socket NPT

**Model:**

- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-C



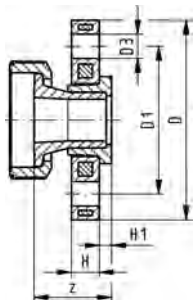
NPT (inch)	PN (bar)	Code	SP	Weight (kg)	z (mm)	D1 (mm)	L1 (mm)	D (mm)	L (mm)
3/8	10	163 481 322	1	0.014	7	26	4	38	21
1/2	10	163 481 323	1	0.019	4	33	4	38	21
3/4	10	163 481 324	1	0.026	5	39	5	44	23
1	10	163 481 325	1	0.043	6	47	5	53	28
1 1/4	10	163 481 326	1	0.064	7	57	5	65	31
1 1/2	10	163 481 327	1	0.093	11	65	6	77	34
2	10	163 481 328	1	0.157	17	77	7	99	41
2 1/2	10	163 481 329	1	0.317	15	58	9	125	49
3	10	163 481 330	1	0.497	21	110	10	150	57
4	10	163 481 331	1	0.763	31	134	11	180	69



### Valve end 546 PVC-C (G72) Assembly with backing flange PP-St metric

**Model:**

- Joint made with special adhesive Tangit for PVC-C
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504



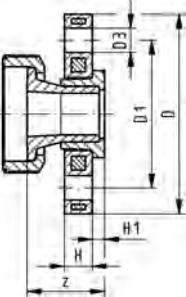
PN (bar)	DN (mm)	d (mm)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	z (mm)
16	15	20	163 481 412	0	0.265	95	65	14	12	6	37
16	20	25	163 481 413	0	0.330	105	75	14	12	7	42
16	25	32	163 481 414	0	0.540	115	85	14	16	7	45
16	32	40	163 481 415	0	0.820	140	100	18	16	8	48
16	40	50	163 481 416	0	1.075	150	110	18	18	8	56
16	50	63	163 481 417	0	1.435	165	125	18	18	9	65
16	65	75	163 481 418	0	2.419	185	145	18	18	10	77
16	80	90	163 481 419	0	3.159	200	160	18	20	11	85
16	100	110	163 481 420	0	4.307	220	180	18	20	12	93



**Valve end 546 PVC-C (G73)  
Assembly with backing flange PP-St Inch ANSI**

**Model:**

- Joint made with special adhesive Tangit for PVC-C
- Connecting dimensions: ANSI/ASME B 16.5, ASTM D 4024, BS 1560 (bolt circle 150 lbs)



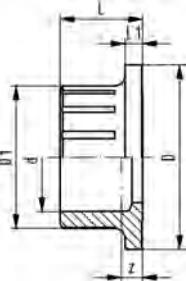
Size (inch)	PN (bar)	DN (mm)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	z (mm)
½	16	15	163 481 425	0	0.255	95	60	16	12	6	37
¾	16	20	163 481 426	0	0.316	105	70	16	12	7	42
1	16	25	163 481 427	0	0.530	115	79	16	16	7	45
1 ¼	16	32	163 481 428	0	0.823	140	89	16	16	8	47
1 ½	16	40	163 481 429	0	1.135	150	98	16	18	8	56
2	16	50	163 481 430	0	1.435	165	121	19	18	9	65
2 ½	16	65	163 481 431	1	2.459	185	140	19	18	10	77
3	16	80	163 481 432	1	3.309	200	152	19	20	11	85
4	16	100	163 481 433	1	4.557	229	190	19	20	12	93



**PROGEF Standard  
Valve end 546 and 543 (G30)  
With fusion socket metric**

**Model:**

- Material: PP-H



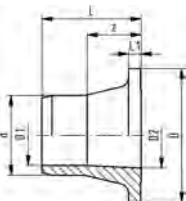
d (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
16	10	167 482 900	0	0.006	38	23	19	4	5
20	10	167 482 901	1	0.007	38	27	20	4	5
25	10	167 482 902	1	0.011	44	33	22	5	6
32	10	167 482 903	1	0.011	53	41	24	5	6
40	10	167 482 904	1	0.025	65	51	26	5	7
50	10	167 482 905	0	0.040	77	62	29	6	8
63	10	167 482 906	0	0.070	99	77	34	7	6
75	10	167 482 907	1	0.168	125	92	49	9	20
90	10	167 482 908	1	0.272	150	110	57	10	24
110	10	167 482 909	1	0.467	180	134	69	11	30



**PROGEF Standard  
Valve end 546 and 543 (G32)  
With socket fusion spigot metric**

**Model:**

- Material: PP-H



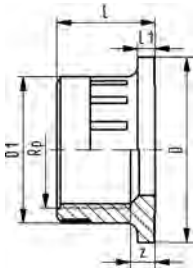
d (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	L (mm)	L1 (mm)	L2 (mm)	z (mm)
16	10	167 482 922	0	0.007	38	10	16	27	4	13	14
20	10	167 482 923	0	0.009	38	14	16	32	4	14	18
25	10	167 482 924	0	0.013	44	19	20	37	5	16	21
32	10	167 482 925	0	0.020	53	24	26	40	5	18	22
40	10	167 482 926	0	0.032	65	31	33	43	5	20	23
50	10	167 482 927	0	0.055	77	39	41	51	6	23	28
63	10	167 482 928	0	0.103	99	49	51	60	7	27	33
75	10	167 482 929	1	0.195	125	58	65	72	9	48	24
90	10	167 482 930	1	0.307	150	70	90	78	10	48	29
110	10	167 482 931	1	0.495	180	86	100	86	11	54	32



**PROGEF Standard**  
**Valve end 546 and 543 (G33)**  
**With threaded socket Rp reinforced**

**Model:**

- Material: PP-H
- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PP



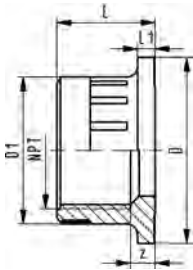
PN (bar)	Rp (inch)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
16	¾	<b>167 482 911</b>	0	0.013	38	24	20	4	7
16	½	<b>167 482 912</b>	0	0.009	38	28	21	4	6
16	¾	<b>167 482 913</b>	0	0.016	44	34	23	5	7
16	1	<b>167 482 914</b>	0	0.024	53	42	28	5	7
16	1 ¼	<b>167 482 915</b>	0	0.037	65	52	31	5	7
16	1 ½	<b>167 482 916</b>	0	0.052	77	63	34	6	9
16	2	<b>167 482 917</b>	0	0.118	99	78	41	7	10



**PROGEF Standard**  
**Valve end 546 and 543 (G34)**  
**With threaded socket NPT reinforced**

**Model:**

- Material: PP-H
- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PP



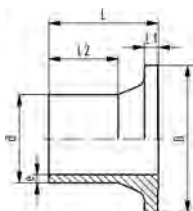
NPT (inch)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
¾	16	<b>167 482 966</b>	0	0.008	38	26	20	4	7
½	16	<b>167 482 967</b>	0	0.012	38	33	21	4	4
¾	16	<b>167 482 968</b>	0	0.016	44	39	23	5	5
1	16	<b>167 482 969</b>	0	0.027	53	47	28	5	6
1 ¼	16	<b>167 482 970</b>	0	0.037	65	57	31	5	7
1 ½	16	<b>167 482 971</b>	0	0.052	77	65	34	6	11
2	16	<b>167 482 972</b>	0	0.091	99	77	41	7	17



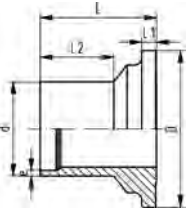
**PROGEF Standard**  
**Valve end 546 and 543 (G35)**  
**With butt fusion spigot IR-Plus® SDR11 metric**

**Model:**

- Material: PP-H



d (mm)	PN (bar)	FM	Code	SP	Weight (kg)	L2 (mm)	e (mm)	L1 (mm)	D (mm)	L (mm)
20	10	IR	<b>167 482 945</b>	0	0.007	25	1.9	4	38	37
25	10	IR	<b>167 482 946</b>	0	0.011	25	2.3	5	44	39
32	10	IR	<b>167 482 947</b>	0	0.020	25	2.9	5	53	40
40	10	IR	<b>167 482 948</b>	0	0.041	25	3.7	5	65	43
50	10	IR	<b>167 482 949</b>	0	0.052	25	4.6	6	77	51
63	10	IR	<b>167 482 950</b>	0	0.099	28	5.8	7	99	60
75	10	IR	<b>167 482 951</b>	1	0.193	41	6.8	9	125	65
90	10	IR	<b>167 482 952</b>	1	0.270	33	8.2	10	150	62
110	10	IR	<b>167 482 953</b>	1	0.421	37	10.0	11	180	69

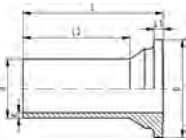


**PROGEF Standard**  
**Valve end 546 and 543 (G36)**  
**With butt fusion spigot IR-Plus® SDR17.6 metric**

**Model:**

- Material: PP-H

d (mm)	PN (bar)	FM	Code	Weight (kg)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	e (mm)
40	6	IR	<b>167 482 937</b>	0.032	65	43	5	25	2.3
50	6	IR	<b>167 482 938</b>	0.050	77	51	6	25	2.9
63	6	IR	<b>167 482 939</b>	0.099	99	60	7	28	3.6
75	6	IR	<b>167 482 940</b>	0.189	125	65	9	41	4.3
90	6	IR	<b>167 482 941</b>	0.265	150	62	10	33	5.1
110	6	IR	<b>167 482 942</b>	0.418	180	69	11	37	6.3

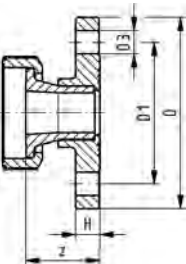


**PROGEF Standard**  
**Valve end 546 and 543 (G37)**  
**With butt fusion spigot long SDR11 metric**

**Model:**

- Material: PP-H

d (mm)	PN (bar)	Code	SP	Weight (kg)	e (mm)	L1 (mm)	D (mm)	L (mm)	L2 (mm)
20	10	<b>167 482 956</b>	1	0.012	2.3	4	38	69	53
25	10	<b>167 482 957</b>	1	0.020	2.3	5	44	76	58
32	10	<b>167 482 958</b>	1	0.029	2.9	5	53	76	58
40	10	<b>167 482 959</b>	1	0.048	3.7	5	65	82	61
50	10	<b>167 482 960</b>	1	0.082	4.6	6	77	91	63
63	10	<b>167 482 961</b>	1	0.154	5.8	7	99	110	77



**PROGEF Standard**  
**Valve end 546 (G63)**  
**With fixed flange PP-H metric**

**Model:**

- Material: PP-H
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Combined jointing face: flat and serrated

d (mm)	DN (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	z (mm)
20	15	10	<b>167 484 160</b>	0	0.090	94	65	14	12	37
25	20	10	<b>167 484 161</b>	0	0.115	103	75	14	13	42
32	25	10	<b>167 484 162</b>	0	0.170	115	85	14	14	45
40	32	10	<b>167 484 163</b>	0	0.275	138	100	18	15	48
50	40	10	<b>167 484 164</b>	0	0.355	148	110	18	16	56
63	50	10	<b>167 484 165</b>	0	0.159	163	125	18	18	65

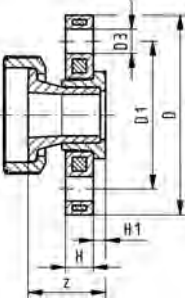




**PROGEF Standard  
Valve end 546 (G72)  
Assembly with backing flange PP-St metric**

**Model:**

- Material: PP-H
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501



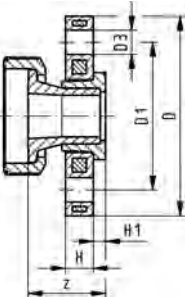
DN (mm)	PN (bar)	d (mm)	Code	SP	Weight (kg)	H1 (mm)	D1 (mm)	H (mm)	z (mm)	D (mm)	D3 (mm)
65	10	75	<b>167 484 418</b>	0	1.834	16	145	18	77	185	18
80	10	90	<b>167 484 419</b>	0	2.592	17	160	20	85	200	18
100	10	110	<b>167 484 420</b>	0	3.272	18	180	20	93	220	18



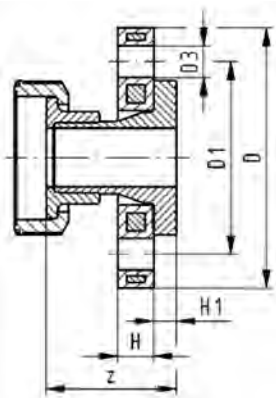
**PROGEF Standard  
Valve end 546 (G73)  
With backing flange PP-St inch ANSI**

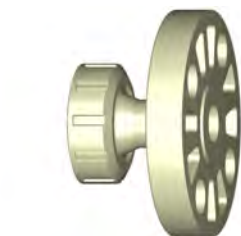
**Model:**

- Material: PP-H
- DN15-50 overall length **NOT** according to EN 558
- DN 65-100 overall length according to EN 558
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10



Size (inch)	DN (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	z (mm)
½	15	10	<b>167 484 065</b>	0	0.224	95	60	16	12	7	54
¾	20	10	<b>167 484 066</b>	1	0.307	105	70	16	12	9	55
1	25	10	<b>167 484 067</b>	1	0.506	115	79	16	16	10	58
1 ¼	32	10	<b>167 484 068</b>	1	0.813	140	89	16	16	11	60
1 ½	40	10	<b>167 484 069</b>	0	1.160	150	98	19	18	12	66
2	50	10	<b>167 484 070</b>	0	1.290	165	121	19	18	14	68
2 ½	65	10	<b>167 484 071</b>	0	2.161	185	140	19	18	16	77
3	80	10	<b>167 484 072</b>	0	2.818	200	152	19	20	17	85
4	100	10	<b>167 484 073</b>	0	3.741	229	190	19	20	18	93





**PROGEF Standard**  
**Valve end 546 (G77)**  
**Assembly with backing flange PP JIS**

**Model:**

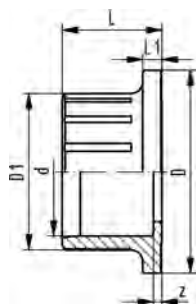
- Material: PP-H
- Overall length according to EN 558
- Connecting dimensions: JIS B 2220, 10K



Size	DN	Code	Weight	D	D1	D3	H	H1	z
(inch)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
½	15	<b>167 484 019</b>	0.114	95	70	15	16	1	44
¾	20	<b>167 484 020</b>	0.141	100	75	15	18	1	53
1	25	<b>167 484 021</b>	0.231	125	90	19	20	1	58
1 ¼	32	<b>167 484 022</b>	0.306	135	100	19	21	1	53
1 ½	40	<b>167 484 023</b>	0.358	140	105	19	21	1	62
2	50	<b>167 484 024</b>	0.533	155	120	19	21	1	67
2 ½	65	<b>167 484 481</b>	1.211	175	140	19	29	1	77
3	80	<b>167 484 482</b>	1.688	185	150	19	30	1	85
4	100	<b>167 484 483</b>	2.471	210	175	19	34	1	93



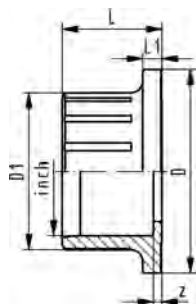
**Valve end 546 and 543 ABS (G20)**  
**With solvent cement socket metric**



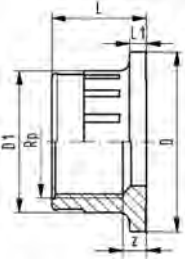
d	PN	Code	Weight	D1	z	L	D	L1
(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
16	10	<b>169 480 775</b>	0.006	23	4	18	38	4
20	10	<b>169 480 776</b>	0.008	27	4	20	38	4
25	10	<b>169 480 777</b>	0.012	33	4	22	44	5
32	10	<b>169 480 778</b>	0.019	41	4	26	53	5
40	10	<b>169 480 779</b>	0.031	51	5	31	65	5
50	10	<b>169 480 780</b>	0.047	62	3	34	77	6
63	10	<b>169 480 781</b>	0.086	77	3	41	99	7
75	10	<b>169 480 782</b>	0.175	92	4	49	125	9
90	10	<b>169 480 783</b>	0.292	110	5	57	150	10
110	10	<b>169 480 784</b>	0.495	134	5	69	180	11



**Valve end 546 and 543 ABS (G21)**  
**With solvent cement socket Inch BS**



d	Size	PN	Code	Weight	D	D1	L	L1	z
(mm)	(inch)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
16	¾	10	<b>169 480 800</b>	0.007	38	23	18	4	2
20	½	10	<b>169 480 801</b>	0.007	38	27	20	4	2
25	¾	10	<b>169 480 802</b>	0.011	44	33	23	5	2
32	1	10	<b>169 480 803</b>	0.017	53	41	26	5	2
40	1 ¼	10	<b>169 480 804</b>	0.026	65	51	31	5	2
50	1 ½	10	<b>169 480 805</b>	0.052	77	62	34	6	4
63	2	10	<b>169 480 806</b>	0.100	99	77	41	7	5
75	2 ½	10	<b>169 480 782</b>	0.175	125	92	49	9	4
90	3	10	<b>169 480 808</b>	0.300	150	110	57	10	6
110	4	10	<b>169 480 809</b>	0.446	180	134	69	11	5

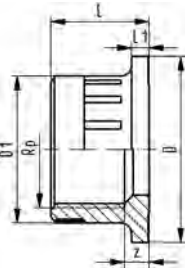


### Valve end 546 and 543 ABS (G22) With threaded socket Rp

**Model:**

- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to ABS

Rp (inch)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
3/8	10	<b>169 480 786</b>	0	0.008	38	24	20	4	7
1/2	10	<b>169 480 787</b>	0	0.009	38	28	22	4	6
3/4	10	<b>169 480 788</b>	0	0.014	44	34	25	5	7
1	10	<b>169 480 789</b>	0	0.023	53	42	28	5	7
1 1/4	10	<b>169 480 790</b>	0	0.034	65	52	30	5	7
1 1/2	10	<b>169 480 791</b>	0	0.059	77	63	32	6	9
2	10	<b>169 480 792</b>	0	0.109	99	78	38	7	10

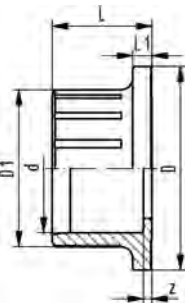


### Valve end 546 and 543 ABS (G23) With threaded socket Rp reinforced

**Model:**

- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to ABS

Rp (inch)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
3/8	16	<b>169 480 925</b>	0	0.008	38	24	20	4	7
1/2	16	<b>169 480 926</b>	0	0.010	38	28	22	4	6
3/4	16	<b>169 480 927</b>	0	0.014	44	34	25	5	7
1	16	<b>169 480 928</b>	0	0.023	53	42	28	5	7
1 1/4	16	<b>169 480 929</b>	0	0.035	65	52	30	5	7
1 1/2	16	<b>169 480 930</b>	0	0.077	77	63	32	6	9
2	16	<b>169 480 931</b>	0	0.130	99	78	38	7	10

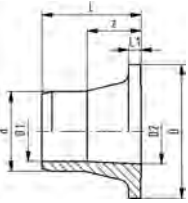


### SYGEF Standard Valve end 546 and 543 (G50) With fusion socket metric

**Model:**

- Material: PVDF

d (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
16	16	<b>175 483 025</b>	0	0.013	38	23	19	4	5
20	16	<b>175 483 026</b>	0	0.013	38	27	20	4	5
25	16	<b>175 483 027</b>	0	0.014	44	33	22	5	6
32	16	<b>175 483 028</b>	0	0.032	53	41	24	5	6
40	16	<b>175 483 029</b>	0	0.052	65	51	26	5	7
50	16	<b>175 483 030</b>	0	0.094	77	62	29	6	8
63	16	<b>175 483 031</b>	0	0.180	99	77	34	7	8
75	16	<b>175 483 032</b>	1	0.324	125	92	49	9	20
90	16	<b>175 483 033</b>	1	0.527	150	110	57	10	24
110	16	<b>175 483 034</b>	1	0.909	180	134	69	11	30

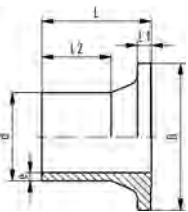


**SYGEF Standard**  
**Valve end 546 and 543 (G51)**  
**With socket fusion spigot metric**

**Model:**

- Material: PVDF

PN (bar)	d (mm)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	L (mm)	L1 (mm)	L2 (mm)	z (mm)
16	16	<b>175 483 036</b>	0	0.014	38	10	16	27	4	13	14
16	20	<b>175 483 037</b>	0	0.018	38	14	16	32	4	14	18
16	25	<b>175 483 038</b>	0	0.025	44	19	20	37	5	16	21
16	32	<b>175 483 039</b>	0	0.047	53	24	26	40	5	18	22
16	40	<b>175 483 040</b>	0	0.065	65	31	33	43	5	20	23
16	50	<b>175 483 041</b>	0	0.112	77	39	41	51	6	23	28
16	63	<b>175 483 042</b>	0	0.210	99	49	51	60	7	27	33

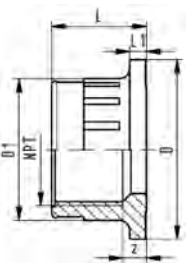


**SYGEF Standard**  
**Valve end 546 and 543 (G52)**  
**With butt fusion spigot IR-Plus® metric**

**Model:**

- Material: PVDF

d (mm)	PN (bar)	FM	Code	Weight (kg)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	e (mm)
20	16	IR	<b>175 483 048</b>	0.016	38	37	4	25	1.9
25	16	IR	<b>175 483 049</b>	0.021	44	39	5	25	1.9
32	16	IR	<b>175 483 050</b>	0.035	53	40	5	25	2.4
40	16	IR	<b>175 483 051</b>	0.058	65	43	5	25	2.4
50	16	IR	<b>175 483 052</b>	0.101	77	51	6	25	3.0
63	16	IR	<b>175 483 053</b>	0.187	99	60	7	28	3.0
75	16	IR	<b>175 483 054</b>	0.348	125	65	9	41	3.6
90	16	IR	<b>175 483 055</b>	0.507	150	62	10	33	4.3
110	16	IR	<b>175 483 056</b>	0.820	180	69	11	37	5.3



**SYGEF Standard**  
**Valve end 546 and 543 (G53)**  
**With threaded socket NPT**

**Model:**

- Material: PVDF
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF

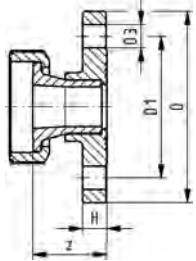
PN (bar)	NPT (inch)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	L (mm)	L1 (mm)	z (mm)
10	3/8	<b>175 483 058</b>	0	0.010	38	26	14	20	4	6
10	1/2	<b>175 483 059</b>	0	0.017	38	33	16	21	4	4
10	3/4	<b>175 483 060</b>	0	0.022	44	39	20	23	5	5
10	1	<b>175 483 061</b>	0	0.040	53	47	26	28	5	6
10	1 1/4	<b>175 483 062</b>	0	0.070	65	55	33	31	5	8
10	1 1/2	<b>175 483 063</b>	0	0.100	77	65	41	34	6	11
10	2	<b>175 483 064</b>	1	0.180	99	77	51	41	7	17



**SYGEF Standard  
Valve end 546 (G64)  
With fixed flange PVDF metric**

**Model:**

- Material: PVDF
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Combined jointing face: flat and serrated



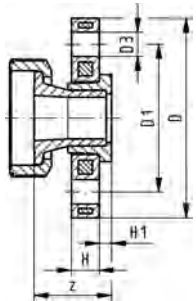
d (mm)	PN (bar)	DN (mm)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	z (mm)
20	16	15	<b>175 483 285</b>	0	0.170	93	65	14	12	37
25	16	20	<b>175 483 286</b>	0	0.230	103	75	14	13	42
32	16	25	<b>175 483 287</b>	0	0.330	115	85	14	14	45
40	16	32	<b>175 483 288</b>	0	0.540	137	100	18	15	48
50	16	40	<b>175 483 289</b>	0	0.710	147	110	18	16	56
63	16	50	<b>175 483 290</b>	0	1.120	162	125	18	18	65



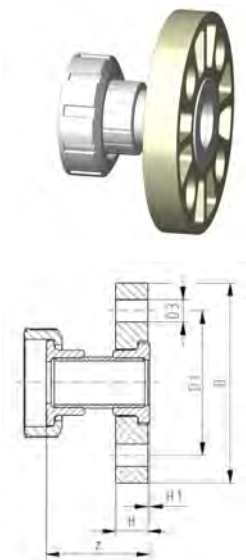
**SYGEF Standard  
Valve end 546 (G72)  
Assembly with backing flange PP-St metric**

**Model:**

- Material: PVDF
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501



PN (bar)	DN (mm)	d (mm)	Code	SP	Weight (kg)	D3 (mm)	H1 (mm)	D1 (mm)	H (mm)	z (mm)	D (mm)
16	65	75	<b>175 483 294</b>	1	3.588	18	16	145	18	77	185
16	80	90	<b>175 483 295</b>	1	5.071	18	17	160	20	85	200
16	100	110	<b>175 483 296</b>	1	6.401	18	18	180	20	93	220

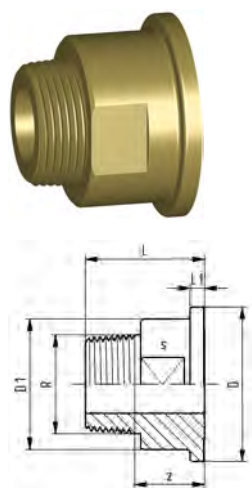


**SYGEF Standard  
Valve end 546 (G76)  
Assembly with backing flange PP JIS**

**Model:**

- Material: PVDF

DN (mm)	Size (inch)	Code	Weight (kg)	D (mm)	H (mm)	z (mm)	H1 (mm)	D1 (mm)	D3 (mm)
15	½	175 483 124	0.134	95	16	52	1	70	15
20	¾	175 483 125	0.181	100	18	57	1	75	15
25	1	175 483 126	0.295	125	20	65	1	90	19
32	1 ¼	175 483 127	0.410	135	21	68	1	100	19
40	1 ½	175 483 128	0.546	140	21	81	1	105	19
50	2	175 483 129	0.858	155	21	85	1	120	19



**Valve end 546 and 543 brass  
With threaded spigot R**

**Model:**

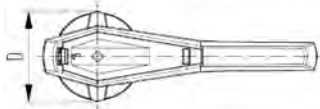
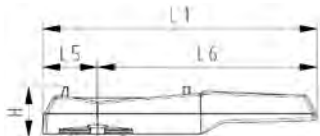
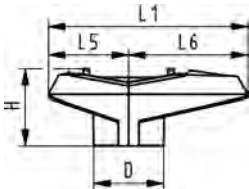
- Connection to metal threads

Size (inch)	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	L1 (mm)	L (mm)	z (mm)	s (mm)
½	161 486 640	1	0.144	38	32	13	4	36	23	30
¾	161 486 641	1	0.201	44	38	16	5	36	22	36
1	161 486 642	1	0.326	53	45	20	5	41	24	41

# Handle and handle extensions



DN10/15 - 50

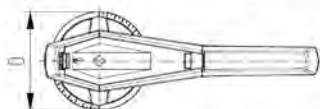
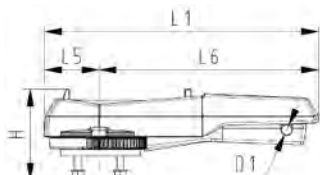
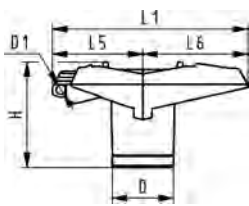


## Standard handle 546

DN (mm)	d (mm)	red (K01) Code	black (K02) Code	Weight (kg)	H (mm)	L5 (mm)	L1 (mm)	D (mm)	L6 (mm)
10 - 15	16 - 20	<b>167 484 088</b>	<b>167 484 076</b>	0.012	31	32	77	26	45
20	25	<b>167 484 089</b>	<b>167 484 077</b>	0.022	37	39	97	34	58
25	32	<b>167 484 090</b>	<b>167 484 078</b>	0.022	37	39	97	34	58
32	40	<b>167 484 091</b>	<b>167 484 079</b>	0.042	46	54	128	40	74
40	50	<b>167 484 092</b>	<b>167 484 080</b>	0.042	46	54	128	40	74
50	63	<b>167 484 093</b>	<b>167 484 081</b>	0.059	54	66	152	44	87
65	75	<b>167 484 094</b>	<b>167 484 082</b>	0.250	58	64	270	106	206
80	90	<b>167 484 095</b>	<b>167 484 083</b>	0.250	58	64	270	106	206
100	110	<b>167 484 096</b>	<b>167 484 084</b>	0.298	60	64	320	106	256



DN10/15 - 50



## Multifunctional handle 546 red (K11) With ratchet settings lockable

### Note:

To retrofit the ball valve 546 with the multifunctional handle a multifunction module is necessary in the dimensions DN65-100  
Code 161 486 690 is compatible with the Butterfly Valve Type 567/568, dimension d63 DN50 - d90 DN80  
Code 161 486 691 is compatible with the Butterfly Valve Type 567/568, dimension d110 DN100 - d140 DN125

d-d (mm)	DN-DN (mm)	Code	Weight (kg)	D (mm)	D1 (mm)	H (mm)	L1 (mm)	L5 (mm)	L6 (mm)
16 - 20	10 - 15	<b>167 484 100</b>	0.026	26	5	53	87	42	45
-- 25	-- 20	<b>167 484 101</b>	0.045	34	5	59	108	50	58
-- 32	-- 25	<b>167 484 102</b>	0.047	34	5	59	108	50	58
-- 40	-- 32	<b>167 484 103</b>	0.091	40	5	69	140	66	75
-- 50	-- 40	<b>167 484 104</b>	0.080	40	5	69	140	66	75
-- 63	-- 50	<b>167 484 105</b>	0.124	44	5	80	165	78	87
-- 75	-- 65	<b>161 486 689</b>	0.468	115	12	105	270	64	206
-- 90	-- 80	<b>161 486 690</b>	0.467	115	12	105	270	64	206
110 - 140	100 - 125	<b>161 486 691</b>	0.543	115	12	107	320	64	256

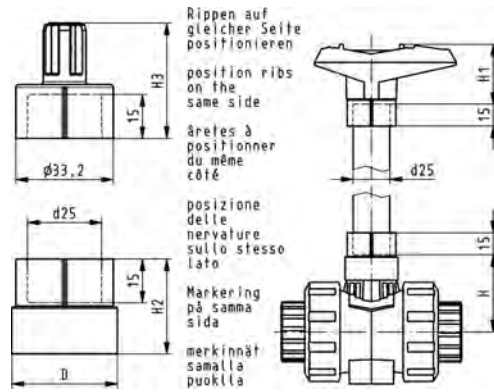


## Handle extension 546 and 543 PVC-U metric

### Model:

- For ball valve type 546 and 543
- Composed of adapter sockets for handle connection and stem connection
- PVC-U pipe in suitable length has to be obtained on site

DN-DN (mm)	d-d (mm)	Code	SP	Weight (kg)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	D (mm)
10 - 15	16 - 20	<b>161 486 435</b>	0	0.030	41	52	29	36	26
20 - 25	25 - 32	<b>161 486 436</b>	0	0.029	50	62	32	39	36
32 - 40	40 - 50	<b>161 486 437</b>	0	0.045	65	76	34	44	40
-- 50	-- 63	<b>161 486 438</b>	0	0.059	84	87	37	48	44





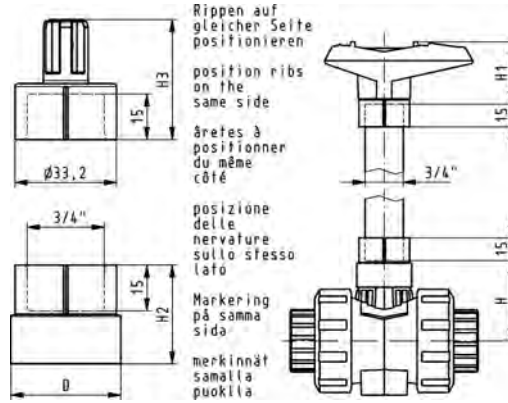
## Handle extension 546 PVC-U inch BS/ASTM

### Model:

- For ball valve type 546

Includes upper and lower extension adapter, does not include 3/4" pipe

DN-DN (mm)	Inch (inch)	Code	SP	Weight (kg)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	D (mm)
10 - 15	3/8-1/2	<b>161 486 443</b>	0	0.032	41	52	29	36	26
20 - 25	3/4-1	<b>161 486 444</b>	0	0.030	50	62	32	39	36
32 - 40	1 1/4-1 1/2	<b>161 486 445</b>	1	0.047	65	76	34	44	40
50	2	<b>161 486 446</b>	0	0.058	84	87	37	48	44



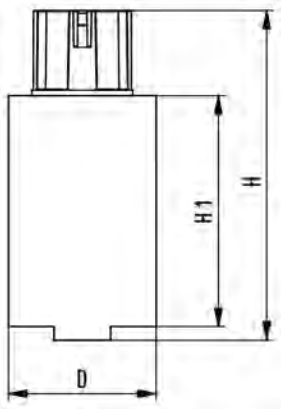


**Handle extension for ball valve type 546 PVC-U  
DN65 - DN100**

**Model:**

- Height variable
- Multiple use in succession possible

d-d (mm)	DN-DN (mm)	Code	SP	Weight (kg)	H (mm)	D (mm)	H1 (mm)
75 - 90	65 - 80	<b>161 490 920</b>	1	0.323	143	58	100
-- 110	-- 100	<b>161 490 921</b>	1	0.413	143	64	100



**Mounting plates**

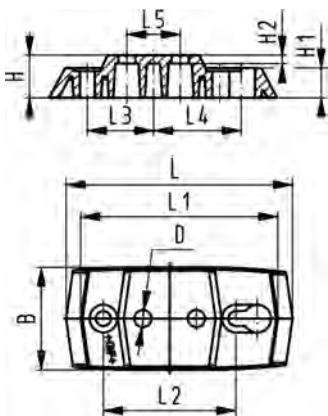


**Mounting plate 546 and 543 PP-GF (L02)**

- 2 mounting screws inclusive

d-d (mm)	Inch (inch)	DN-DN (mm)	Code	SP	Weight (kg)
16 - 32	3/8 - 1	10 - 25	<b>167 484 110</b>	0	0.054
40 - 63	1 1/4 - 2	32 - 50	<b>167 484 111</b>	0	0.066

d-d (mm)	Inch (inch)	B (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)
16 - 32	3/8 - 1	48	8	20	14	4	106	92	62	31	41	25
40 - 63	1 1/4 - 2	54	9	20	14	4	149	134	104	52	62	45



# Mounting inserts

## Mounting insert

### Model:

- \* 1 bag with 10 piece
- Material: A2
- to retrofit the fixing: ball valve type 546

	d-d (mm)	Code	SP	Weight (kg)	A (mm)	E (mm)	L (mm)
	16 - 32	<b>161 486 014</b>	0	0.002	6	10	12
*	16 - 32	<b>161 486 538</b>	1	0.020	6	10	12
	40 - 90	<b>161 481 448</b>	0	0.005	8	12	15
*	40 - 90	<b>161 486 539</b>	1	0.020	8	12	15
*	-- 110	<b>161 486 540</b>	1	0.118			

# Face seals



## Face seal

d (mm)	DN (mm)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)
16	10 - 15	<b>748 410 059</b>	0.002	<b>749 410 059</b>	0.002
25	20	<b>748 410 106</b>	0.002	<b>749 410 106</b>	0.002
32	25	<b>748 410 151</b>	0.070	<b>749 410 151</b>	0.002
40	32	<b>748 410 062</b>	0.002	<b>749 410 062</b>	0.002
50	40	<b>748 410 003</b>	0.004	<b>749 410 003</b>	0.002
63	50	<b>748 410 231</b>	0.005	<b>749 410 231</b>	0.008

# Spare parts unions

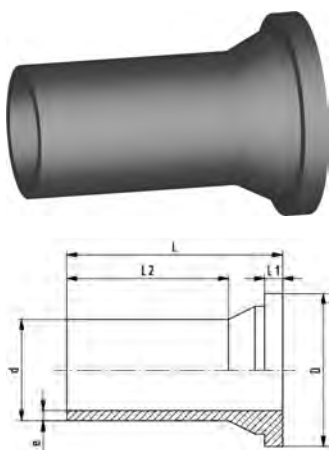
## Connecting parts and subassembly type 375

### Valve ends ball valve type 375



**Valve end 375 PVC-U**  
**Solvent cement socket metric**

d	DN	PN	Code	Weight	D	D1	L	L1	z
(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
16	10	16	<b>161 375 901</b>	0.012	35	26	18	5	4
20	15	16	<b>161 375 902</b>	0.009	35	29	18	5	2
25	20	16	<b>161 375 903</b>	0.015	43	35	21	5	2
32	25	16	<b>161 375 904</b>	0.025	51	43	24	6	2
40	32	16	<b>161 375 905</b>	0.042	60	52	29	6	3
50	40	16	<b>161 375 906</b>	0.059	72	62	34	7	3
63	50	16	<b>161 375 907</b>	0.100	89	76	41	7	3
75	65	10	<b>161 375 908</b>	0.176	115	90	47	8	3
90	80	10	<b>161 375 909</b>	0.280	133	106	56	10	5
110	100	10	<b>161 375 910</b>	0.510	166	130	66	12	5



**Valve end 375 PVC-U**  
**Butt fusion spigot long**  
**PE100 SDR11 metric**

d	PN	Code	Weight	D	L	L1	L2	e
(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
20	16	<b>161 375 932</b>	0.020	36	67	6	45	1.9
25	16	<b>161 375 933</b>	0.025	44	74	6	50	2.3
32	16	<b>161 375 934</b>	0.040	52	97	7	72	2.9
40	16	<b>161 375 935</b>	0.055	61	86	7	63	3.7
50	16	<b>161 375 936</b>	0.092	73	97	8	72	4.6
63	16	<b>161 375 937</b>	0.142	90	96	9	75	5.8
75	16	<b>161 375 938</b>	0.278	116	119	10	88	6.8
90	16	<b>161 375 939</b>	0.351	134	112	12	82	8.2
110	16	<b>161 375 940</b>	0.711	168	131	15	96	10.0



**Valve end 375 PVC-U**  
**Threaded socket NPT**

**Model:**

- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U

NPT	PN	Code	Weight	D	D1	L	L1	z
(inch)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
3/8	10	<b>161 375 437</b>	0.011	35	26	18	5	5
1/2	10	<b>161 375 438</b>	0.012	35	30	24	5	6
3/4	10	<b>161 375 439</b>	0.019	43	36	21	5	5
1	10	<b>161 375 440</b>	0.027	51	44	24	6	5
1 1/4	10	<b>161 375 441</b>	0.039	60	53	27	6	6
1 1/2	10	<b>161 375 442</b>	0.062	72	64	27	7	6
2	10	<b>161 375 443</b>	0.100	89	77	31	7	5

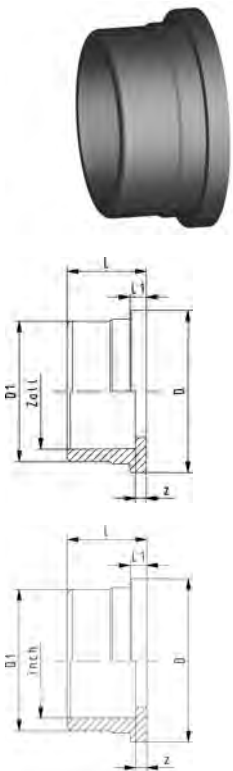


### Valve end 375 PVC-U Threaded socket Rp

#### Model:

- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U

Rp (inch)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
3/8	10	<b>161 375 921</b>	0.012	35	26	18	5	7
1/2	10	<b>161 375 922</b>	0.011	33	30	18	5	3
3/4	10	<b>161 375 923</b>	0.017	43	36	21	5	5
1	10	<b>161 375 924</b>	0.027	51	44	24	6	5
1 1/4	10	<b>161 375 925</b>	0.039	60	53	27	6	6
1 1/2	10	<b>161 375 926</b>	0.059	72	63	27	7	6
2	10	<b>161 375 927</b>	0.102	89	77	31	7	5
2 1/2	10	<b>161 375 928</b>	0.158	115	90	36	8	6
3	10	<b>161 375 929</b>	0.244	133	106	41	10	8
4	10	<b>161 375 930</b>	0.389	166	130	47	12	8



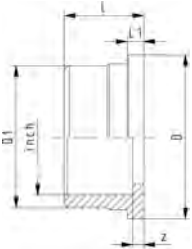
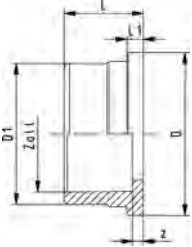
### Valve end 375 PVC-U Solvent cement socket ASTM

Size (inch)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
3/8	16	<b>161 375 427</b>	0.013	35	26	23	5	4
1/2	16	<b>161 375 428</b>	0.013	35	29	25	5	2
3/4	16	<b>161 375 429</b>	0.020	43	35	28	5	2
1	16	<b>161 375 430</b>	0.029	51	43	31	6	2
1 1/4	16	<b>161 375 431</b>	0.042	60	53	34	6	2
1 1/2	16	<b>161 375 432</b>	0.071	72	62	38	7	3
2	16	<b>161 375 433</b>	0.117	89	76	41	7	3
2 1/2	10	<b>161 375 434</b>	0.194	114	90	48	8	3
3	10	<b>161 375 435</b>	0.288	133	106	57	10	8
4	10	<b>161 375 436</b>	0.456	165	130	66	12	5



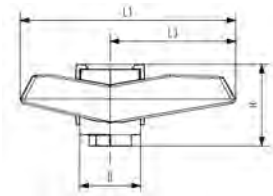
### Valve end 375 PVC-U Solvent cement socket BS

Size (inch)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
¾	16	<b>161 375 911</b>	0.012	35	26	18	5	4
½	16	<b>161 375 912</b>	0.011	35	29	18	5	2
¾	16	<b>161 375 913</b>	0.016	43	35	21	5	2
1	16	<b>161 375 914</b>	0.024	51	43	24	6	2
1 ¼	16	<b>161 375 915</b>	0.038	60	52	29	6	2
1 ½	16	<b>161 375 916</b>	0.066	72	62	34	7	3
2	16	<b>161 375 917</b>	0.113	89	76	41	7	3
2 ½	10	<b>161 375 908</b>	0.176	115	90	47	8	3
3	10	<b>161 375 919</b>	0.286	133	106	56	10	5
4	10	<b>161 375 920</b>	0.438	166	131	66	12	5



## Handle

### Handle to type 375 PVC-U Standard handle orange



DN-DN (mm)	d-d (mm)	Code	SP	Weight (kg)	L1 (mm)	L3 (mm)	H (mm)	D (mm)
10 - 15	16 - 20	<b>161 491 950</b>	200	0.013	67	40	27	19
-- 20	-- 25	<b>161 491 951</b>	200	0.020	77	45	28	22
-- 25	-- 32	<b>161 491 952</b>	120	0.029	87	51	32	25
-- 32	-- 40	<b>161 491 953</b>	80	0.042	102	59	36	28
-- 40	-- 50	<b>161 491 954</b>	40	0.064	119	70	40	32
-- 50	-- 63	<b>161 491 955</b>	30	0.100	146	84	45	37
-- 65	-- 75	<b>161 491 956</b>	20	0.145	179	103	52	41
-- 80	-- 90	<b>161 491 957</b>	16	0.204	209	120	57	44
-- 100	-- 110	<b>161 491 958</b>	9	0.309	250	141	61	48

## Seal set

### Seal set 375 PVC-U

#### Model:

- Consisting of ball seals PTFE and o-rings

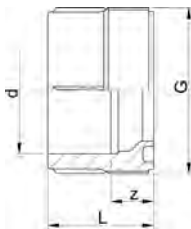


d (mm)	DN (mm)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
16	10	<b>161 375 402</b>	1	0.006	<b>161 375 417</b>	1	0.018
20	15	<b>161 375 403</b>	1	0.002	<b>161 375 418</b>	1	0.002
25	20	<b>161 375 404</b>	1	0.016	<b>161 375 419</b>	1	0.020
32	25	<b>161 375 405</b>	1	0.003	<b>161 375 420</b>	1	0.018
40	32	<b>161 375 406</b>	1	0.028	<b>161 375 421</b>	1	0.005
50	40	<b>161 375 407</b>	1	0.037	<b>161 375 422</b>	1	0.012

table continued on the next page

d (mm)	DN (mm)	EPDM Code	SP	Weight (kg)	FKM Code	SP	Weight (kg)
63	50	<b>161 375 408</b>	1	0.055	<b>161 375 423</b>	1	0.069
63	65	<b>161 375 409</b>	1	0.086	<b>161 375 424</b>	1	0.018
90	80	<b>161 375 410</b>	1	0.092	<b>161 375 425</b>	1	0.121
110	100	<b>161 375 411</b>	1	0.166	<b>161 375 426</b>	1	0.198

## Union bushes

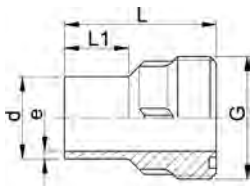


### PROGEF Standard union bush (PN10)

#### Model:

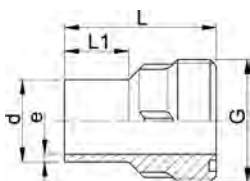
- Material: PP-H
- Fusion socket metric
- **For the dimensions d75-110 please see instructions for the installation**

d (mm)	Code	SP	Weight (kg)	L (mm)	z (mm)	G (R/Rp BS draad) (inch)
16	<b>727 840 155</b>	10	0.006	24	11	3/4
20	<b>727 840 156</b>	10	0.011	26	12	1
25	<b>727 840 157</b>	10	0.012	28	12	1 1/4
32	<b>727 840 158</b>	10	0.021	30	12	1 1/2
40	<b>727 840 159</b>	10	0.033	34	14	2
50	<b>727 840 160</b>	10	0.039	39	16	2 1/4
63	<b>727 840 161</b>	10	0.076	47	20	2 3/4
75	<b>727 840 172</b>	20	0.080	51	18	S107,5x3,6
90	<b>727 840 173</b>	18	0.220	55	18	S127,5x3,6
110	<b>727 840 174</b>	10	0.289	54	22	S152,5x3,6



### PROGEF Standard union bush SDR11(PN10)

d (mm)	FM	Code	Weight (lb)	L (mm)	L1 (mm)	G (inch)	e (mm)
20	IR	<b>727 848 506</b>	0.026	54	26	1	1.9
25	IR	<b>727 848 507</b>	0.044	57	26	1 1/4	2.3
32	IR	<b>727 848 508</b>	0.064	60	25	1 1/2	2.6
40	IR	<b>727 848 509</b>	0.104	63	25	2	3.7
50	IR	<b>727 848 510</b>	0.137	66	25	2 1/4	4.6
63	IR	<b>727 848 511</b>	0.236	69	25	2 3/4	5.8
75	IR	<b>727 848 512</b>	0.379	66	24	S107.5x3.6	6.8
90	IR	<b>727 848 513</b>	0.401	66	24	S107.5x3.6	8.2
110	IR	<b>727 848 514</b>	0.569	66	25	S127.5x3.6	10.0



### PROGEF Standard union bush S8.3/SDR17.6 (PN6)

#### Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Gasket: O-ring EPDM
- **For the dimensions d75-110 please see instructions for the installation**

d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	G (inch)	e (mm)
75	IR	<b>727 648 412</b>	1500	0.150	66	24	S107.5x3.6	4.3
90	IR	<b>727 648 413</b>	1500	0.147	66	24	S107.2x3.6	5.1
110	IR	<b>727 648 414</b>	1500	0.200	66	24	S127.2x3.6	6.3

# Union nuts



## Union nut malleable iron galvanized (PN16)

### Model:

- Malleable iron galvanized

<b>G</b> (inch)	<b>d</b> (mm)	<b>Code</b>	<b>SP</b>	<b>Weight</b> (kg)	<b>L</b> (mm)	<b>s</b> (mm)
1	20	<b>724 690 006</b>	0	0.082	18	39
1 ¼	25	<b>724 690 007</b>	0	0.098	20	48
1 ½	32	<b>724 690 008</b>	0	0.134	22	55
2	40	<b>724 690 009</b>	0	0.221	24	67
2 ¼	50	<b>724 690 010</b>	0	0.245	25	74
2 ¾	63	<b>724 690 011</b>	0	0.375	27	90
3 ½	75	<b>724 690 012</b>	1	0.502	30	111
4	90	<b>724 690 013</b>	1	0.695	31	131



# Spare parts for unions

## Spare parts for unions PP-N



### PROGEF Natural union bush S5/SDR11 (PN10)

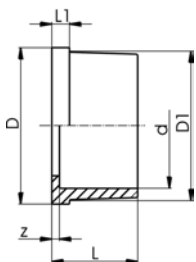
**Model:**

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207

d (mm)	G (R/Rp BS draad) (inch)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	e (mm)
20	1	BCF, IR	<b>728 648 526</b>	0.012	54	26	1.9
25	1 1/4	BCF, IR	<b>728 648 527</b>	0.020	57	26	2.3
32	1 1/2	BCF, IR	<b>728 648 528</b>	0.029	60	25	2.9
40	2	BCF, IR	<b>728 648 529</b>	0.047	63	25	3.7
50	2 1/4	BCF, IR	<b>728 648 530</b>	0.072	66	25	4.6
63	2 3/4	BCF, IR	<b>728 648 531</b>	0.104	69	25	5.8

# Spare parts unions and hand-operated valves

## Union ends

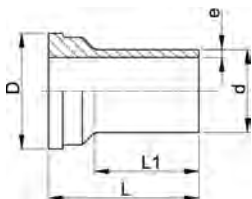


### PROGEF Standard union end (PN10)

#### Model:

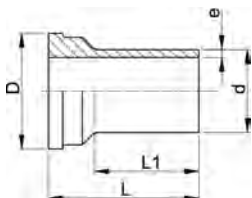
- Material: PP-H
- Fusion socket metric

d (mm)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	D (mm)	D1 (mm)	z (mm)
16	727 500 105	10	0.003	18	4	24	22	3
20	727 500 106	10	0.006	19	5	30	28	3
25	727 500 107	10	0.011	21	5	39	36	3
32	727 500 108	10	0.014	23	6	45	42	3
40	727 500 109	10	0.025	25	6	57	53	3
50	727 500 110	10	0.025	28	7	63	59	3
63	727 500 111	10	0.043	32	8	79	74	3
75	727 500 112	20	0.082	36	10	101	91	3
90	727 500 113	20	0.130	42	11	121	108	5
110	727 500 114	10	0.220	49	12	146	131	6



### PROGEF Standard union end IR plus SDR11 (PN10)

d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	D (mm)	e (mm)
20	IR	727 508 506	10	0.009	54	38	30	1.9
25	IR	727 508 507	10	0.017	57	42	39	2.3
32	IR	727 508 508	10	0.026	60	41	45	2.9
40	IR	727 508 509	10	0.043	63	42	57	3.7
50	IR	727 508 510	10	0.058	66	44	63	4.6
63	IR	727 508 511	10	0.095	69	45	78	5.8
75	IR	727 508 512	20	0.146	66	34	101	6.8
90	IR	727 508 513	20	0.158	66	45	101	8.2
110	IR	727 508 514	18	0.233	66	40	121	10.0

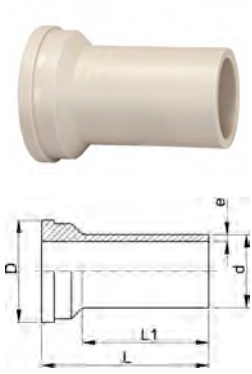


### PROGEF Standard union end IR plus SDR17.6 (PN6)

#### Model:

- For the dimensions d75-110 please see instructions for the installation
- Conventional butt-welding according to DVS 2207
- Material: PP-H
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H

d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	D (mm)	e (mm)
75	IR	727 608 412	0	0.121	66	34	101	4.3
90	IR	727 608 413	20	0.113	66	45	101	5.1
110	IR	727 608 414	0	0.163	66	40	121	6.3



### PROGEF Standard union end long SDR11 (PN10)

**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207
- IR = Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-H
- Suitable for unions, diaphragm valves type 314 and vortex sensors

d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	D (mm)	e (mm)
20	IR	<b>727 608 516</b>	1	0.011	67	52	30	1.9
25	IR	<b>727 608 517</b>	1	0.018	71	53	39	2.3
32	IR	<b>727 608 518</b>	1	0.024	73	55	45	2.9
40	IR	<b>727 608 519</b>	1	0.041	81	60	57	3.7
50	IR	<b>727 608 520</b>	1	0.054	87	66	63	4.6
63	IR	<b>727 608 521</b>	1	0.122	93	70	78	5.8

## Union Nuts



### PROGEF Standard union nut (PN10)

**Model:**

- Material: PP glass-fibre reinforced

Butt Fusion d (mm)	G (R/Rp BS draad) (inch)	Socket Fu- sion d (mm)	Code	SP	Weight (kg)	L (mm)	D (mm)
16	3/4	16	<b>727 890 405</b>	10	0.007	21	35
20	1	20	<b>727 890 406</b>	10	0.023	21	47
25	1 1/4	25	<b>727 890 407</b>	10	0.035	23	56
32	1 1/2	32	<b>727 890 408</b>	10	0.044	24	63
40	2	40	<b>727 890 409</b>	10	0.044	27	77
50	2 1/4	50	<b>727 890 410</b>	10	0.062	30	84
63	2 3/4	63	<b>727 890 411</b>	10	0.119	39	111
75 - 90	S107,5x3,6	75	<b>727 890 422</b>	20	0.205	40	135
110	S127,5x3,6	90	<b>727 890 423</b>	10	0.730	43	158
-	S152,5x3,6	110	<b>727 890 424</b>	10	0.499	48	188

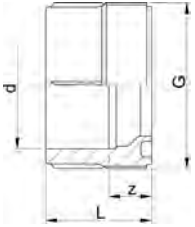


### PROGEF Standard union nut

**Model:**

- **For the dimensions d75-110 please see instructions for the installation**
- PP glass-fibre reinforced
- 727 690 422 for d75/727 690 422 for d90 (union nut fits for d75 and d90) 727 690 423 for d110

Code	Weight (kg)
<b>727 890 422</b>	0.205
<b>727 890 423</b>	0.730



## PROGEF Standard union bush PE100

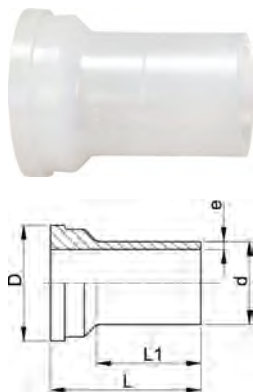
### Model:

- With fusion socket metric
- Jointing face: with O-ring groove
- Gasket: O-ring EPDM

d (mm)	Code	SP	Weight (kg)	L (mm)	L1 (mm)	G (inch)	e (mm)
16	<b>753 640 156</b>	0	0.010	54	26	1	1.9
20	<b>753 640 157</b>	0	0.018	54	26	1 1/4	2.3
25	<b>753 640 158</b>	0	0.024	60	25	1 1/2	2.9
32	<b>753 640 159</b>	0	0.037	63	25	2	3.7
40	<b>753 640 160</b>	0	0.050	66	25	2 1/4	4.6
50	<b>753 640 161</b>	0	0.085	69	25	2 3/4	5.8

# Spare parts for hand-operated valves

## Union ends



### PROGEF Natural union end IR S5/SDR11 (PN10)

#### Model:

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207

d (mm)	FM	Code	Weight (kg)	L (mm)	L1 (mm)	D (mm)	e (mm)
20	BCF, IR	<b>728 608 506</b>	0.004	53	35	30	1.9
25	BCF, IR	<b>728 608 507</b>	0.013	56	36	39	2.6
32	BCF, IR	<b>728 608 508</b>	0.024	59	38	45	3.0
40	BCF, IR	<b>728 608 509</b>	0.042	63	39	57	3.7
50	BCF, IR	<b>728 608 510</b>	0.055	65	41	63	4.6
63	BCF, IR	<b>728 608 511</b>	0.092	69	43	78	5.8

## Valve ends



### PROGEF Natural valve end 546 SDR11 (PN10)

#### Model:

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207

d (mm)	FM	Code	SP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	D (mm)	e (mm)
20	BCF, IR	<b>168 480 260</b>	0	0.007	37	4	25	38	1.9
25	BCF, IR	<b>168 480 261</b>	0	0.011	39	5	25	44	2.3
32	BCF, IR	<b>168 480 262</b>	0	0.018	40	5	25	53	2.9
40	BCF, IR	<b>168 480 263</b>	0	0.029	43	5	25	65	3.7
50	BCF, IR	<b>168 480 264</b>	0	0.053	51	6	25	77	4.6
63	BCF, IR	<b>168 480 265</b>	0	0.093	60	7	28	99	5.8

# Spare parts and accessories

## Accessories for valves

### Ball valves



#### Transparent lever clip for ball valve labelling

##### Option:

- Component for ball valve Type 546, 543, 523, 547
- Material: SAN
- UV-, weather- and chemical resistant
- Allows valve marking in conjunction with perforated printing sheets
- Perforated printing sheets are not included (depending on dimension see 198 807 231 - 198 807 234)

Inch (inch)	d-d (mm)	DN-DN (mm)	Code	Quantity
3/8 - 1/2	16 - 20	10 - 15	<b>198 807 221</b>	10 pc's
3/4 - 1	25 - 32	20 - 25	<b>198 807 222</b>	10 pc's
1 1/4 - 1 1/2	40 - 50	32 - 40	<b>198 807 223</b>	5 pc's
2	63	50	<b>198 807 224</b>	5 pc's

#### Printing sheets for ball valve labelling



##### Option:

- Component for ball valve Type 546, 543, 523, 547
- Material: DIN A4 Polymer-sheet
- UV-, weather- and chemical resistant
- Allows valve marking in conjunction with transparent lever clip
- Can be labelled with laser printers or by hand
- Transparent lever clip is not included (depending on dimension see 198 807 221 - 198 807 224)

Inch (inch)	d-d (mm)	DN-DN (mm)	Code	Quantity
3/8 - 1/2	16 - 20	10 - 15	<b>198 807 231</b>	25 Sheets with each 48 Labels
3/4 - 1	25 - 32	20 - 25	<b>198 807 232</b>	25 Sheets with each 24 Labels
1 1/4 - 1 1/2	40 - 50	32 - 40	<b>198 807 233</b>	25 Sheets with each 18 Labels
2	63	50	<b>198 807 234</b>	25 Sheets with each 11 Labels
3/8 - 1/2	16 - 20	10 - 15	<b>198 807 241</b>	100 Sheets with each 48 Labels
3/4 - 1	25 - 32	20 - 25	<b>198 807 242</b>	100 Sheets with each 24 Labels
1 1/4 - 1 1/2	40 - 50	32 - 40	<b>198 807 243</b>	100 Sheets with each 18 Labels
2	63	50	<b>198 807 244</b>	100 Sheets with each 11 Labels

## Ball valves and check valves

#### Adapter ring for valves



- Suitable for ball valve type 546/543/523/547 and check valves type 561/591
- Transition adapter enables standard union ends for use with Ball Valves and Check Valves
- Material: PP-GF (30% glass-fibre reinforced)

d (mm)	DN (mm)	Code	SP	Weight (kg)
20	15	<b>167 481 182</b>	1	0.003
25	20	<b>167 481 183</b>	1	0.003
32	25	<b>167 481 184</b>	1	0.004
40	32	<b>167 481 185</b>	1	0.008
50	40	<b>167 481 186</b>	1	0.014
63	50	<b>167 481 187</b>	1	0.026

## Diaphragm valves new generation



### Electrical feedback module I40/I41 With limit switches Ag Ni or AU

#### Model:

- No height increase
- Easy, fast and safe installation
- Accessory to hand operated diaphragm valve 514 - 519
- Self adjusting mechanism
- Including plug 3P+E / protection: IP65

Size	d-d (mm)	DN-DN (mm)	Ag Ni Code	SP	Weight (kg)	AU Code	SP	Weight (kg)
1	10 - 25	10 - 20	<b>198 151 335</b>	1	0.095	<b>198 151 336</b>	1	0.120
2	32 - 40	25 - 32	<b>198 151 337</b>	1	0.101	<b>198 151 338</b>	1	0.101
3	50 - 63	40 - 50	<b>198 151 339</b>	1	0.154	<b>198 151 340</b>	1	0.120

## Spare parts

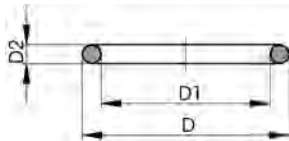
### Spare parts Industry



#### O-Ring Gasket

#### Model:

- Suitable for union PP-N 28 51 85
- Hardness approx. 65° Shore



d (mm)	Size (inch)	DN (mm)	EPDM Code	Weight (kg)	FKM Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)
20	¾	15	<b>748 410 140</b>	0.023	<b>749 410 140</b>	0.020	20.32	15.08	2.62
25	¾	20	<b>748 410 006</b>	0.002	<b>749 410 006</b>	0.002	27.28	20.22	3.53
32	1	25	<b>748 410 025</b>	0.010	<b>749 410 025</b>	0.002	32.05	24.99	3.53
40	1 ¼	32	<b>748 410 152</b>	0.005	<b>749 410 152</b>	0.003	41.78	31.12	5.34
50	1 ½	40	<b>748 410 009</b>	0.003	<b>749 410 009</b>	0.007	51.33	40.65	5.34
63	2	50	<b>748 410 171</b>	0.005	<b>749 410 171</b>	0.007	60.84	50.16	5.34

## Spare parts Industry valves

### Connecting parts for Ball valves 546/543/523 Check valves 561/562 Ventilating & bleed valves 591/595



#### Solvent cement socket

d (mm)	Size (inch)	DN (mm)
16	¾	10
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50
75	2 ½	65
90	3	80
110	4	100

table continued on the next page

d (mm)	PVC-U metric (G01) Code	PVC-U BS (G04) Code	PVC-U ASTM (G03) Code	PVC-C metric (G11) Code	PVC-C ASTM (G13) Code	ABS metric (G20) Code
16	161 490 666	161 490 734	161 490 712	163 481 275	163 481 311	169 480 775
20	161 490 667	161 490 735	161 490 713	163 481 276	163 481 312	169 480 776
25	161 490 668	161 490 736	161 490 714	163 481 277	163 481 313	169 480 777
32	161 490 669	161 490 737	161 490 715	163 481 278	163 481 314	169 480 778
40	161 490 670	161 490 738	161 490 716	163 481 279	163 481 315	169 480 779
50	161 490 671	161 490 739	161 490 717	163 481 280	163 481 316	169 480 780
63	161 490 672	161 490 740	161 490 718	163 481 281	163 481 317	169 480 781
75	161 490 673	161 490 673	161 490 719	163 481 282	163 481 318	169 480 782
90	161 490 674	161 490 742	161 490 720	163 481 283	163 481 319	169 480 783
110	161 490 675	161 490 743	161 490 721	163 481 284	163 481 320	169 480 784

d (mm)	ABS BS (G21) Code
16	169 480 800
20	169 480 801
25	169 480 802
32	169 480 803
40	169 480 804
50	169 480 805
63	169 480 806
75	169 480 782
90	169 480 808
110	169 480 809



#### Solvent cement spigot

d (mm)	DN (mm)	PVC-U metric (G05) Code	PVC-C metric (G14) Code
16	10	161 490 701	163 481 300
20	15	161 490 702	163 481 301
25	20	161 490 703	163 481 302
32	25	161 490 704	163 481 303
40	32	161 490 705	163 481 304
50	40	161 490 706	163 481 305
63	50	161 490 707	163 481 306
75	65	161 490 708	163 481 307
90	80	161 490 709	163 481 308
110	100	161 490 710	163 481 309



#### Threaded socket

Size (inch)	DN (mm)
3/8	10
1/2	15
3/4	20
1	25
1 1/4	32
1 1/2	40
2	50
2 1/2	65
3	80
4	100

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Size (inch)	PVC-U Rp (G06) Code	PVC-U Rp reinforced (G07) Code	PVC-U NPT (G09) Code	PVC-C Rp (G15) Code	PVC-C Rp reinforced (G16) Code	PVC-C NPT (G17) Code
3/8	161 490 690	161 490 825	161 490 723	163 481 286	163 481 400	163 481 322
1/2	161 490 691	161 490 826	161 490 724	163 481 287	163 481 401	163 481 323
3/4	161 490 692	161 490 827	161 490 725	163 481 288	163 481 402	163 481 324
1	161 490 693	161 490 828	161 490 726	163 481 289	163 481 403	163 481 325
1 1/4	161 490 694	161 490 829	161 490 727	163 481 290	163 481 404	163 481 326
1 1/2	161 490 695	161 490 830	161 490 728	163 481 291	163 481 405	163 481 327
2	161 490 696	161 490 831	161 490 729	163 481 292	163 481 406	163 481 328
2 1/2	161 490 697		161 490 730	163 481 293		163 481 329
3	161 490 698		161 490 731	163 481 294		163 481 330
4	161 490 699		161 490 732	163 481 295		163 481 331

Size (inch)	ABS Rp (G22) Code	ABS Rp reinforced (G23) Code	PP-H Rp reinforced (G33) Code	PP-H NPT reinforced (G34) Code	PVDF NPT (G53) Code
3/8	169 480 786	169 480 925	167 482 911	167 482 966	175 483 058
1/2	169 480 787	169 480 926	167 482 912	167 482 967	175 483 059
3/4	169 480 788	169 480 927	167 482 913	167 482 968	175 483 060
1	169 480 789	169 480 928	167 482 914	167 482 969	175 483 061
1 1/4	169 480 790	169 480 929	167 482 915	167 482 970	175 483 062
1 1/2	169 480 791	169 480 930	167 482 916	167 482 971	175 483 063
2	169 480 792	169 480 931	167 482 917	167 482 972	175 483 064
2 1/2					
3					
4					



#### Fusion socket

d (mm)	DN (mm)	PP-H metric (G30) Code	PVDF metric (G50) Code
16	10	167 482 900	175 483 025
20	15	167 482 901	175 483 026
25	20	167 482 902	175 483 027
32	25	167 482 903	175 483 028
40	32	167 482 904	175 483 029
50	40	167 482 905	175 483 030
63	50	167 482 906	175 483 031
75	65	167 482 907	175 483 032
90	80	167 482 908	175 483 033
110	100	167 482 909	175 483 034



#### Socket fusion spigot IR-Plus®

d (mm)	DN (mm)	PP-H metric (G32) Code	PVDF metric (G51) Code
16	10	167 482 922	175 483 036
20	15	167 482 923	175 483 037
25	20	167 482 924	175 483 038
32	25	167 482 925	175 483 039
40	32	167 482 926	175 483 040
50	40	167 482 927	175 483 041
63	50	167 482 928	175 483 042
75	65	167 482 929	
90	80	167 482 930	
110	100	167 482 931	



### Butt fusion spigot IR-Plus®

d (mm)	DN (mm)	PP-H metric SDR11 (G35) Code	PP-H metric long SDR11 (G37) Code	PP-N metric SDR11 Code	PVDF metric (G52) Code
20	15	167 482 945	167 482 956	168 480 260	175 483 048
25	20	167 482 946	167 482 957	168 480 261	175 483 049
32	25	167 482 947	167 482 958	168 480 262	175 483 050
40	32	167 482 948	167 482 959	168 480 263	175 483 051
50	40	167 482 949	167 482 960	168 480 264	175 483 052
63	50	167 482 950	167 482 961	168 480 265	175 483 053
75	65	167 482 951			175 483 054
90	80	167 482 952			175 483 055
110	100	167 482 953			175 483 056



### Butt fusion spigot PE100 IR-Plus®

d (mm)	DN (mm)	metric SDR11 (G41) Code	metric long SDR11 (G43) Code
20	15	193 480 102	193 480 152
25	20	193 480 103	193 480 153
32	25	193 480 104	193 480 154
40	32	193 480 105	193 480 155
50	40	193 480 106	193 480 156
63	50	193 480 107	193 480 157
75	65		193 480 158
90	80		193 480 159
110	100		193 480 160



### Fixed flange

d (mm)	DN (mm)	PVC-U metric (G60) Code	PP-H metric (G63) Code	PVDF metric (G64) Code
20	15	161 486 360	167 484 160	175 483 285
25	20	161 486 361	167 484 161	175 483 286
32	25	161 486 362	167 484 162	175 483 287
40	32	161 486 363	167 484 163	175 483 288
50	40	161 486 364	167 484 164	175 483 289
63	50	161 486 365	167 484 165	175 483 290



### Backing flange

d (mm)	Size (inch)	DN (mm)
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50
75	2 ½	65
90	3	80
110	4	100

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d (mm)	PVC-U metric (G70) Code	PVC-U ANSI (G71) Code	PVC-U PP- St metric (G72) Code	PVC-U PP- St ANSI (G73) Code	PVC-C PP- St metric (G72) Code	PVC-C PP- St ANSI (G73) Code
20	161 486 265	161 486 275	161 486 285	161 486 425	163 481 412	163 481 425
25	161 486 266	161 486 276	161 486 286	161 486 426	163 481 413	163 481 426
32	161 486 267	161 486 277	161 486 287	161 486 427	163 481 414	163 481 427
40	161 486 268	161 486 278	161 486 288	161 486 428	163 481 415	163 481 428
50	161 486 269	161 486 279	161 486 289	161 486 429	163 481 416	163 481 429
63	161 486 270	161 486 280	161 486 290	161 486 430	163 481 417	163 481 430
75	161 486 271	161 486 281	161 486 291	161 486 431	163 481 418	163 481 431
90	161 486 272	161 486 282	161 486 292	161 486 432	163 481 419	163 481 432
110	161 486 273	161 486 283	161 486 293	161 486 433	163 481 420	163 481 433

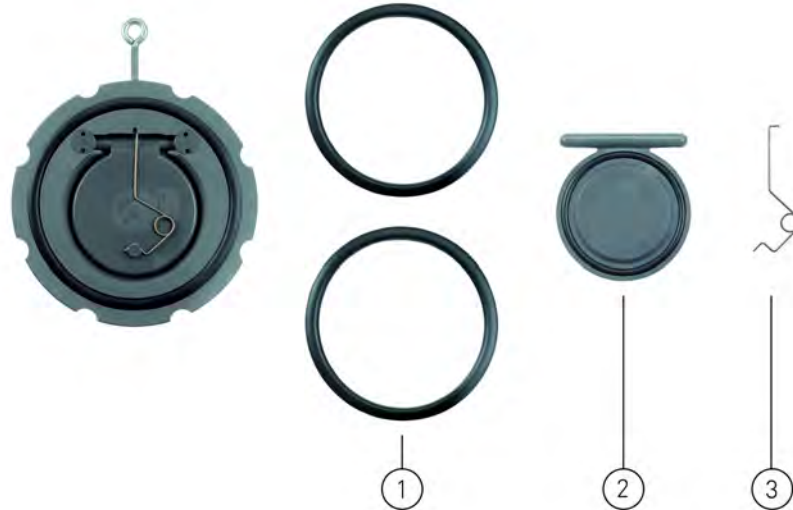
d (mm)	PP-H PP-St ANSI (G73) Code
20	167 484 065
25	167 484 066
32	167 484 067
40	167 484 068
50	167 484 069
63	167 484 070
75	167 484 071
90	167 484 072
110	167 484 073



#### Union nut

d (mm)	DN (mm)	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
16	10	161 490 538	163 481 226	169 480 713	167 482 712	175 482 937
20	15	161 490 538	163 481 226	169 480 713	167 482 712	175 482 937
25	20	161 490 539	163 481 227	169 480 714	167 482 713	175 482 938
32	25	161 490 540	163 481 228	169 480 715	167 482 714	175 482 939
40	32	161 490 541	163 481 229	169 480 716	167 482 715	175 482 940
50	40	161 490 542	163 481 230	169 480 717	167 482 716	175 482 941
63	50	161 490 543	163 481 231	169 480 718	167 482 717	175 482 942
75	65	161 490 544	163 481 232	169 480 719	167 482 718	175 482 943
90	80	161 490 545	163 481 233	169 480 720	167 482 719	175 482 944
110	100	161 490 546	163 481 234	169 480 721	167 482 720	175 482 945

## Spare parts wafer check valve type 369



### Seal set (1)



d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
40	1 ¼	32		161 484 887
50	1 ½	40	161 484 876	161 484 888
63	2	50	161 484 877	161 484 889
75	2 ½	65	161 484 878	161 484 890
90	3	80	161 484 879	161 484 891
110	4	100	161 484 880	161 484 892
140	5	125	161 484 881	161 484 893
160	6	150	161 484 882	161 484 894
225	8	200	161 484 883	161 484 895
280	10	250	161 484 884	161 484 896
315	12	300	161 484 885	161 484 897

### Disc set (2)



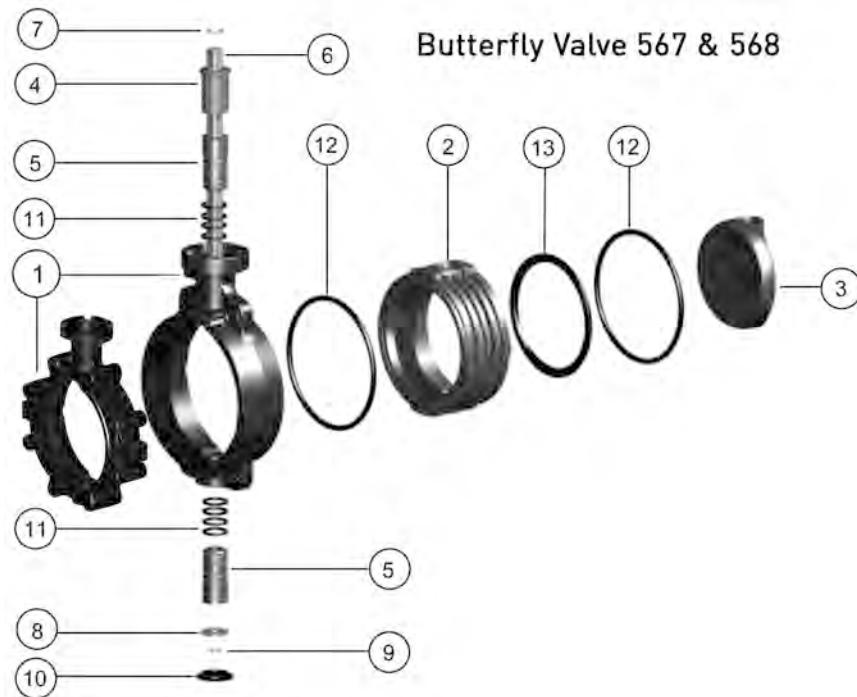
d (mm)	Size (inch)	DN (mm)	PVC-U EPDM Code	PVC-U FKM Code	PP-H EPDM Code	PP-H FKM Code	PVDF FKM Code
40	1 ¼	32	161 369 122	161 369 142	167 369 122	167 369 142	175 369 142
50	1 ½	40	161 369 123	161 369 143	167 369 123	167 369 143	175 369 143
63	2	50	161 369 124	161 369 144	167 369 124	167 369 144	175 369 144
75	2 ½	65	161 369 125	161 369 145	167 369 125	167 369 145	175 369 145
90	3	80	161 369 126	161 369 146	167 369 126	167 369 146	175 369 146
110	4	100	161 369 127	161 369 147	167 369 127	167 369 147	175 369 147
140	5	125	161 369 128	161 369 148	167 369 128	167 369 148	175 369 148
160	6	150	161 369 129	161 369 149	167 369 129	167 369 149	175 369 149
225	8	200	161 369 130	161 369 150	167 369 130	167 369 150	175 369 150
280	10	250	161 369 131	161 369 151	167 369 131	167 369 151	175 369 151
315	12	300	161 369 132	161 369 152	167 369 132	167 369 152	175 369 152



### Spring (3)

d (mm)	Size (inch)	DN (mm)	V4A Code	Hastelloy C Code
40	1 ¼	32	161 484 900	161 484 912
50	1 ½	40	161 484 901	161 484 913
63	2	50	161 484 902	161 484 914
75	2 ½	65	161 484 903	161 484 915
90	3	80	161 484 904	161 484 916
110	4	100	161 484 905	161 484 917
140	5	125	161 484 905	161 484 917
160	6	150	161 484 907	161 484 919
225	8	200	161 484 908	161 484 920
280	10	250	161 484 909	161 484 921
315	12	300	161 484 910	161 484 922

## Spare parts butterfly valve type 567/578



Butterfly Valve 567 & 568



### Inner body

#### Model:

- Inner body consisting of: inner body (2) and profile seal (13)

d (mm)	Size (inch)	DN (mm)
63	2	50
75	2 ½	65
90	3	80
110	4	100
140	5	125
160	6	150
225	8	200
280	10	250
315	12	300

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d (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code	PP-H EPDM Code
63	161 486 861	161 486 873	163 481 591	163 481 603	169 481 067	167 484 271
75	161 486 862	161 486 874	163 481 592	163 481 604	169 481 068	167 484 272
90	161 486 863	161 486 875	163 481 593	163 481 605	169 481 069	167 484 273
110	161 486 864	161 486 876	163 481 594	163 481 606	169 481 070	167 484 274
140	161 486 865	161 486 877	163 481 595	163 481 607	169 481 071	167 484 275
160	161 486 866	161 486 878	163 481 596	163 481 608	169 481 072	167 484 276
225	161 486 867	161 486 879	163 481 597	163 481 609	169 481 073	167 484 277
280	161 486 868	161 486 880	163 481 598	163 481 610		167 484 278
315	161 486 869	161 486 881	163 481 599	163 481 611		167 484 279

d (mm)	PP-H FKM Code	PVDF FKM Code	PVDF PTFE Code
63	167 484 286	175 483 413	175 483 752
75	167 484 287	175 483 414	175 483 753
90	167 484 288	175 483 415	175 483 754
110	167 484 289	175 483 416	175 483 755
140	167 484 290	175 483 417	175 483 756
160	167 484 291	175 483 418	175 483 757
225	167 484 292	175 483 419	175 483 758
280	167 484 293	175 483 420	175 483 759
315	167 484 294	175 483 421	175 483 760



### Disc (3)

d (mm)	Size (inch)	DN (mm)	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
63	2	50	161 490 889	163 481 451	169 480 951	167 483 226	175 483 251
75	2 ½	65	161 490 890	163 481 452	169 480 952	167 483 227	175 483 252
90	3	80	161 490 891	163 481 453	169 480 953	167 483 228	175 483 253
110	4	100	161 490 892	163 481 454	169 480 954	167 483 229	175 483 254
140	5	125	161 490 893	163 481 455	169 480 955	167 483 230	175 483 255
160	6	150	161 490 894	163 481 456	169 480 956	167 483 231	175 483 256
225	8	200	161 490 895	163 481 457	169 480 957	167 483 232	175 483 257
280	10	250	161 490 896		169 480 958	167 483 233	175 483 258
315	12	300	161 490 897		169 480 959	167 483 234	175 483 259
355	14	350				167 483 235	
400	16	400				167 483 236	
450	18	450				167 483 237	
500	20	500				167 483 238	
630	24	600				167 483 239	



### Bearing bush (5, 11)

#### Model:

- Included in delivery 2 pcs.
- With o-ring
- Bearing bushes in PP-H are used in PP-H and ABS butterfly valves

d (mm)	Size (inch)	DN (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code
63, 75, 90	2, 2½, 3	50, 65, 80	161 486 886	161 486 892	163 481 576	163 481 582
110, 140	4, 5	100, 125	161 486 887	161 486 893	163 481 577	163 481 583
160, 225	6, 8	150, 200	161 486 888	161 486 894	163 481 578	163 481 584
280, 315	10, 12	250, 300	161 486 889	161 486 895	163 481 579	163 481 585
355	14	350				
400	16	400				
450	18	450				
500	20	500				
630	24	600				

d (mm)	Size (inch)	DN (mm)	PP-H EPDM Code	PP-H FKM Code	PVDF FKM Code
63, 75, 90	2, 2½, 3	50, 65, 80	167 484 259	167 484 265	175 483 426
110, 140	4, 5	100, 125	167 484 260	167 484 266	175 483 427
160, 225	6, 8	150, 200	167 484 261	167 484 267	175 483 428
280, 315	10, 12	250, 300	167 484 262	167 484 268	175 483 429
355	14	350	167 484 263	167 484 269	
400	16	400	167 484 264	167 484 270	
450	18	450	167 484 280	167 484 283	
500	20	500	167 484 281	167 484 284	
630	24	600	167 484 282	167 484 285	



### Shaft set

#### Model:

- Shaft set consisting of: shaft chrom steel 1.4301 AISI 304 (6), retention ring (7, 9) and washer (8)

d (mm)	Size (inch)	DN (mm)	Code
63	2	50	161 486 899
75	2½	65	161 486 900
90	3	80	161 486 901
110	4	100	161 486 902
140	5	125	161 486 903
160	6	150	161 486 904
225	8	200	161 486 905
280	10	250	161 486 906
315	12	300	161 486 907
355	14	350	161 486 908
400	16	400	161 486 909
450	18	450	161 486 926
500	20	500	161 486 927
630	24	600	161 486 928



### Hand lever

d (mm)	Size (inch)	DN (mm)	with index plate Code	with fine adjustment Code
63	2	50	161 486 690	161 486 325
75	2½	65	161 486 690	161 486 325
90	3	80	161 486 690	161 486 325

table continued on the next page

d (mm)	Size (inch)	DN (mm)	with index plate Code	with fine adjustment Code
110	4	100	161 486 691	161 486 326
140	5	125	161 486 691	161 486 326
160	6	150	161 486 694	161 486 327
225	8	200	161 486 695	161 486 328
280	10	250	161 486 697	
315	12	300	161 486 697	



#### Reduction gear with handwheel

d (mm)	DN (mm)	Inch (inch)	Code
63 - 225	50 - 200	2 - 8	161 483 471
280 - 315	250 - 300	10 - 12	161 483 472

#### Snap ring DN350-600

- For fixation of profile seal in body

d (mm)	Size (inch)	DN (mm)	PP-H Code
355	14	350	167 484 295
400	16	400	167 484 296
450	18	450	167 484 297
500	20	500	167 484 298
630	24	600	167 484 299

#### Profile seal (13) DN350-600

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
355	14	350	748 440 018	749 440 028
400	16	400	748 440 019	749 440 029
450	18	450	748 440 020	749 440 030
500	20	500	748 440 021	749 440 031
630	24	600	748 440 022	749 440 032

#### Intermediate element Gear operated with handwheel 567/568

d (mm)	DN (mm)	Code
63	50	198 000 621
75	65	198 000 621
90	80	198 000 621
110	100	198 000 622
140	125	198 000 622
160	150	198 000 599
225	200	198 000 599
280	250	198 000 880
315	300	198 000 880



## Spare parts laboratory ball valve type 322



### Ball set

#### Model:

- Ball seals standard in PTFE
- Ball set consisting of: ball (4), stem (6), ball- and stem seal (7-8)

d (mm)	Inch (inch)	DN (mm)	PVC-U EPDM Code	PVC-U FKM Code
10	3/8	6	161 482 978	161 482 980
12	1/2	8	161 482 978	161 482 980



### Lever

d (mm)	Inch (inch)	DN (mm)	PVC-U Code
10	3/8	6	161 322 205
12	1/2	8	161 322 205



### Seal set

#### Model:

- Seal set consisting of: stem- and body seal (8-9)

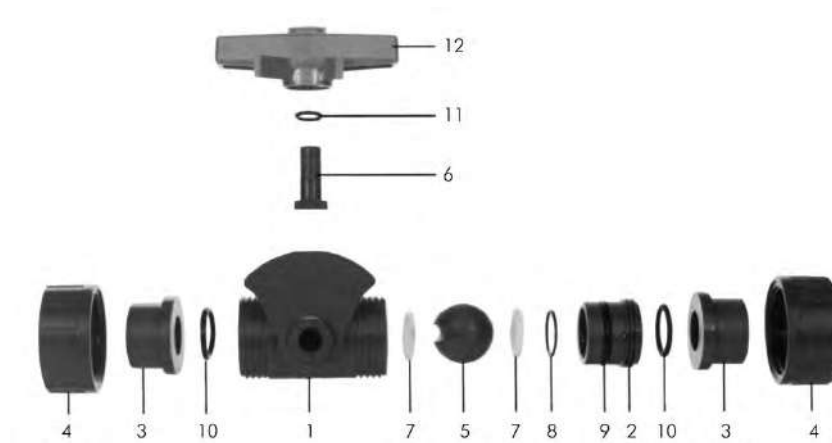
d (mm)	Inch (inch)	DN (mm)	EPDM Code
10	3/8	6	161 482 982
12	1/2	8	161 482 982



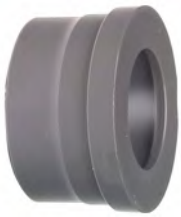
### Valve end with socket metric

d (mm)	Inch (inch)	DN (mm)	PVC-U Code
10	3/8	6	161 322 152
12	1/2	8	161 322 202

## Spare parts metering ball valve type 323



### Threaded bush Rc/NPT



Size (inch)	DN (mm)	PVC-U NPT Code	PVDF NPT Code
3/8	10	161 482 389	175 480 727
1/2	15	161 482 390	175 480 728

### Threaded bush Rp



DN (mm)	Rp (inch)	PVC-U Code	PVC-C Code	ABS Code	PP-H Code
10	3/8	161 480 550	163 480 832	169 480 120	167 480 166
15	1/2	161 480 551	163 480 833	169 480 121	167 480 167

## Spare parts ball valve type 355



### Lever PP

Size (inch)	DN (mm)	blue Code
1/2	15	167 481 090
3/4	20	167 481 091
1	25	167 481 091
1 1/4	32	167 481 092
1 1/2	40	167 481 092
2	50	167 481 093

## Spare parts ball valve type 354



### Valve end

d (mm)	Size (inch)	DN (mm)	PVC-U socket metric Code	PVC-U Rp Code	PVC-U NPT Code	PVC-U blank Code
20	½	15	721 600 106	721 600 656	721 602 656	721 600 006
25	¾	20	721 600 107	721 600 657	721 602 657	721 600 007
32	1	25	721 600 108	721 600 658	721 602 658	721 600 008
40	1 ¼	32	721 600 109	721 600 659	721 602 659	721 600 009
50	1 ½	40	721 600 110	721 600 660	721 602 660	721 600 010
63	2	50	721 600 111	721 600 661	721 602 661	721 600 011



### Union nut

d (mm)	Size (inch)	DN (mm)	PVC-U Code
20	½	15	721 690 006
25	¾	20	721 690 007
32	1	25	721 690 008
40	1 ¼	32	721 690 009
50	1 ½	40	721 690 010
63	2	50	721 690 011



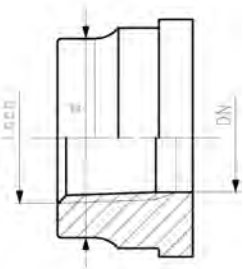
### Face seal

d (mm)	Size (inch)	DN (mm)	EPDM Code
20	½	15	748 410 042
25	¾	20	748 410 116
32	1	25	748 410 103
40	1 ¼	32	748 410 027
50	1 ½	40	748 410 010
63	2	50	748 410 011

## Spare parts ball valve type 355

### Central part

d (mm)	Size (inch)	DN (mm)	EPDM Code
20	½	15	161 483 837
25	¾	20	161 483 838
32	1	25	161 483 839
40	1 ¼	32	161 483 840
50	1 ½	40	161 483 841
63	2	50	161 483 842



### Valve end

d (mm)	Size (inch)	DN (mm)
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50

d (mm)	PVC-U socket metric Code	PVC-U Rp Code	PVC-U Rc Code	PVC NPT Code	PVC-U socket JIS Code	PVC-U socket BS Code
20	721 600 106	721 600 656	721 605 606	721 602 656	721 605 106	721 601 106
25	721 600 107	721 600 657	721 605 607	721 602 657	721 605 107	721 601 107
32	721 600 108	721 600 658	721 605 608	721 602 658	721 605 108	721 601 108
40	721 600 109	721 600 659	721 605 609	721 602 659	721 605 109	721 601 109
50	721 600 110	721 600 660	721 605 610	721 602 660	721 605 110	721 601 110
63	721 600 111	721 600 661	721 605 611	721 602 661	721 605 111	721 601 111

d (mm)	PVC-U blank Code	PE socket metric Code
20	721 600 006	734 600 106
25	721 600 007	734 600 107
32	721 600 008	734 600 108
40	721 600 009	734 600 109
50	721 600 010	734 600 110
63	721 600 011	734 600 111

## Spare parts metering ball valve type 523



### Central part

#### Model:

- Every connecting pieces and union nuts are listed on product range industry valves
- Ball seals standard in PTFE
- Central part consisting of: body, union bush, ball, stem, ball-, backing-, body-, face- and stem seal, standard lever and threaded inserts stainless steel

d (mm)	Size (inch)	DN (mm)	PVC-U EPDM Code	PVC-U FKM Code	PP-H EPDM Code	PP-H FKM Code
16	¾	10	161 485 351	161 485 361	167 485 371	167 485 381
20	½	15	161 485 353	161 485 363	167 485 373	167 485 383

## Spare parts shipbuilding ball valve type 547



### Service housing kit

#### Model:

- With integrated check valve and filter

D (mm)	Size (inch)	DN (mm)	Code
16	¾	10	167 547 905



### Valve end fusion socket PB

d (mm)	Size (inch)	DN (mm)	Code
16	3/8	10	<b>167 547 441</b>
20	1/2	15	<b>167 547 442</b>



### Valve end iFIT

D (mm)	Size (inch)	DN (mm)	Code
20	1/2	15	<b>167 547 112</b>



### Service housing end connector kit With fusion socket PB

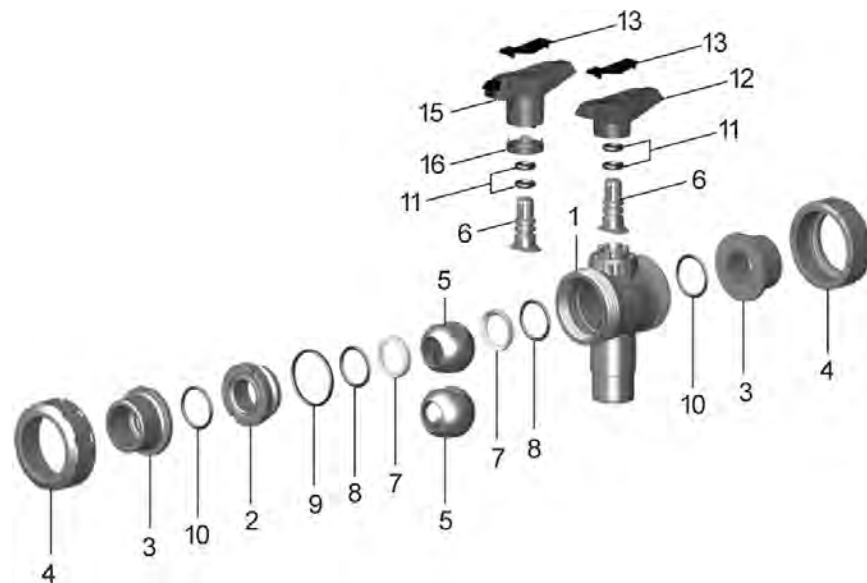
d (mm)	Size (inch)	DN (mm)	Code
16	3/8	10	<b>167 547 931</b>
20	1/2	15	<b>167 547 932</b>



### Service housing end connector kit with iFIT connector

d (mm)	Size (inch)	DN (mm)	Code
20	1/2	15	<b>167 547 902</b>

## Spare parts ball valve type 543 vertical





### Central part diverter ball

**Model:**

- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11) and standard lever (12)

d (mm)	Size (inch)	DN (mm)	PVC-U EPDM Code	PVC-U FKM Code	ABS EPDM Code
16	3/8	10	161 488 061	161 488 071	169 481 231
20	1/2	15	161 488 062	161 488 072	169 481 232
25	3/4	20	161 488 063	161 488 073	169 481 233
32	1	25	161 488 064	161 488 074	169 481 234
40	1 1/4	32	161 488 065	161 488 075	169 481 235
50	1 1/2	40	161 488 066	161 488 076	169 481 236
63	2	50	161 488 067	161 488 077	169 481 237



### Central part L-port

**Model:**

- Every connecting pieces and union nuts are listed on product range industry valves
- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11) and standard lever (12)

d (mm)	Size (inch)	DN (mm)	PVC-U EPDM Code	PVC-U FKM Code	ABS EPDM Code
16	3/8	10	161 488 041	161 488 051	169 481 221
20	3/8	15	161 488 042	161 488 052	169 481 222
25	3/4	20	161 488 043	161 488 053	169 481 223
32	1	25	161 488 044	161 488 054	169 481 224
40	1 1/4	32	161 488 045	161 488 055	169 481 225
50	1 1/2	40	161 488 046	161 488 056	169 481 226
63	2	50	161 488 047	161 488 057	169 481 227



### Assembly kit

**Model:**

- Intermediate element for ball valve type 543 vertical and electric or pneumatic actuators EA21; PA11/21
- Including screws

d (mm)	Inch (inch)	DN (mm)	Code
16 - 20	3/8 - 1/2	10 - 15	167 484 945
25 - 32	3/4 - 1	20 - 25	167 484 946
40 - 50	1 1/4 - 1 1/2	32 - 40	167 484 947
63	2	50	167 484 948



### Face seal

**Model:**

- Face seal no. 10

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
16	3/8	10	748 410 059	749 410 059
20	1/2	15	748 410 059	749 410 059
25	3/4	20	748 410 106	749 410 106

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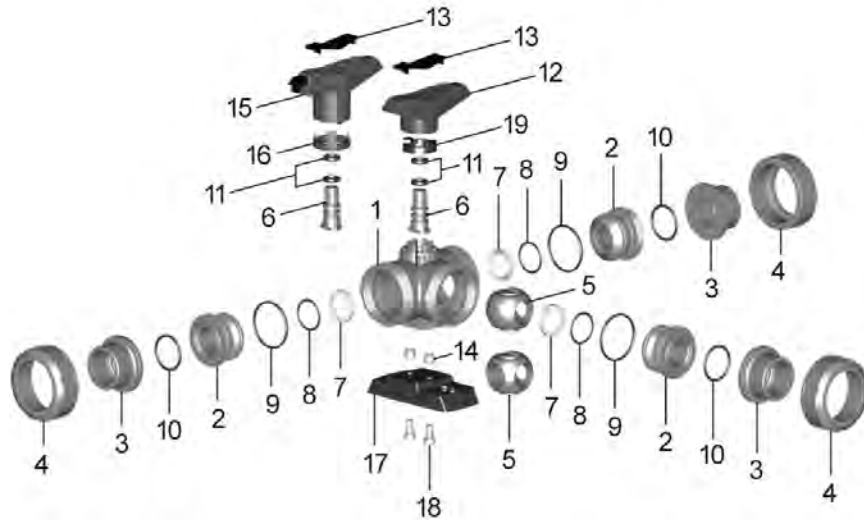
d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
32	1	25	748 410 151	749 410 151
40	1 ¼	32	748 410 062	749 410 062
50	1 ½	40	748 410 003	749 410 003
63	2	50	748 410 231	749 410 231



### Lever

d (mm)	Size (inch)	DN (mm)	Standard lever L-port red Code	Standard lever diverter ball red Code	Multifunctional-lever L-port red Code	Multifunctional-lever diverter ball red Code
16	¾	10	167 484 688	167 484 788	167 484 642	167 484 742
20	½	15	167 484 688	167 484 788	167 484 642	167 484 742
25	¾	20	167 484 689	167 484 789	167 484 643	167 484 743
32	1	25	167 484 690	167 484 790	167 484 644	167 484 744
40	1 ¼	32	167 484 691	167 484 791	167 484 645	167 484 745
50	1 ½	40	167 484 692	167 484 792	167 484 646	167 484 746
63	2	50	167 484 693	167 484 793	167 484 647	167 484 747

## Spare parts ball valve type 543 horizontal



### Central part L-port

#### Model:

- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11), standard lever (12) and threaded inserts stainless steel (14)
- Every connecting pieces and union nuts are listed on product range industry valves

d (mm)	Size (inch)	DN (mm)
16	¾	10
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50

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d (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code	PP-H EPDM Code
16	161 488 002	161 488 012	163 481 902	163 481 912	169 481 202	167 484 802
20	161 488 002	161 488 012	163 481 902	163 481 912	169 481 202	167 484 802
25	161 488 003	161 488 013	163 481 903	163 481 913	169 481 203	167 484 803
32	161 488 004	161 488 014	163 481 904	163 481 914	169 481 204	167 484 804
40	161 488 005	161 488 015	163 481 905	163 481 915	169 481 205	167 484 805
50	161 488 006	161 488 016	163 481 906	163 481 916	169 481 206	167 484 806
63	161 488 007	161 488 017	163 481 907	163 481 917	169 481 207	167 484 807

d (mm)	PP-H FKM Code	PVDF FKM Code
16	167 484 812	175 483 602
20	167 484 812	175 483 602
25	167 484 813	175 483 603
32	167 484 814	175 483 604
40	167 484 815	175 483 605
50	167 484 816	175 483 606
63	167 484 817	175 483 607



### Central part T-port

#### Model:

- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11), standard lever (12) and threaded inserts stainless steel (14)

d (mm)	Size (inch)	DN (mm)
16	¾	10
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50

d (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code	PP-H EPDM Code
16	161 488 022	161 488 032	163 481 922	163 481 932	169 481 212	167 484 822
20	161 488 022	161 488 032	163 481 922	163 481 932	169 481 212	167 484 822
25	161 488 023	161 488 033	163 481 923	163 481 933	169 481 213	167 484 823
32	161 488 024	161 488 034	163 481 924	163 481 934	169 481 214	167 484 824
40	161 488 025	161 488 035	163 481 925	163 481 935	169 481 215	167 484 825
50	161 488 026	161 488 036	163 481 926	163 481 936	169 481 216	167 484 826
63	161 488 027	161 488 037	163 481 927	163 481 937	169 481 217	167 484 827

d (mm)	PP-H FKM Code	PVDF FKM Code
16	167 484 832	175 483 612
20	167 484 832	175 483 612
25	167 484 833	175 483 613
32	167 484 834	175 483 614
40	167 484 835	175 483 615
50	167 484 836	175 483 616
63	167 484 837	175 483 617





### Assembly kit

#### Model:

- Intermediate element for ball valve type 543 horizontal and electric or pneumatic actuators EA21; PA11/21
- Including screws and position indicator for actuators

d (mm)	Inch (inch)	DN (mm)	Code
16 - 20	¾ - ½	10 - 15	<b>167 484 941</b>
25 - 32	¾ - 1	20 - 25	<b>167 484 942</b>
40 - 50	1 ¼ - 1 ½	32 - 40	<b>167 484 943</b>
63	2	50	<b>167 484 944</b>



### Turn limiter 90°

d (mm)	Size (inch)	DN (mm)	Code
16	¾	10	<b>167 482 479</b>
20	½	15	<b>167 482 479</b>
25	¾	20	<b>167 482 480</b>
32	1	25	<b>167 482 480</b>
40	1 ¼	32	<b>167 482 481</b>
50	1 ½	40	<b>167 482 481</b>
63	2	50	<b>167 482 482</b>



### Face seal

#### Model:

- Face seal no. 10

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
16	¾	10	<b>748 410 059</b>	<b>749 410 059</b>
20	½	15	<b>748 410 059</b>	<b>749 410 059</b>
25	¾	20	<b>748 410 106</b>	<b>749 410 106</b>
32	1	25	<b>748 410 151</b>	<b>749 410 151</b>
40	1 ¼	32	<b>748 410 062</b>	<b>749 410 062</b>
50	1 ½	40	<b>748 410 003</b>	<b>749 410 003</b>
63	2	50	<b>748 410 231</b>	<b>749 410 231</b>
75	2 ½	65	<b>748 410 119</b>	<b>749 410 119</b>
90	3	80	<b>748 410 023</b>	<b>749 410 023</b>
110	4	100	<b>748 410 254</b>	<b>749 410 254</b>



### Lever

d (mm)	Size (inch)	DN (mm)
16	¾	10
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50

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d (mm)	Standard lever L-port red Code	Standard lever L-port black Code	Standard lever T-port red Code	Standard lever T-port black Code	Multifunctional-lever L-port red Code
16	167 484 488	167 484 376	167 484 588	167 484 576	167 484 442
20	167 484 488	167 484 376	167 484 588	167 484 576	167 484 442
25	167 484 489	167 484 377	167 484 589	167 484 577	167 484 443
32	167 484 490	167 484 378	167 484 590	167 484 578	167 484 444
40	167 484 491	167 484 379	167 484 591	167 484 579	167 484 445
50	167 484 492	167 484 380	167 484 592	167 484 580	167 484 446
63	167 484 493	167 484 381	167 484 593	167 484 581	167 484 447

**d Multifunctional-lever  
(mm) T-port red  
Code**

16	167 484 542
20	167 484 542
25	167 484 543
32	167 484 544
40	167 484 545
50	167 484 546
63	167 484 547



**Ball set L-port**

**Model:**

- Ball set consisting of: lever (12), ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)
- Ball seals standard in PTFE

d (mm)	Size (inch)	DN (mm)
16	3/8	10
20	1/2	15
25	3/4	20
32	1	25
40	1 1/4	32
50	1 1/2	40
63	2	50

d (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code	PP-H EPDM Code
16	161 488 162	161 488 172	163 481 982	163 481 992	169 481 282	167 484 882
20	161 488 162	161 488 172	163 481 982	163 481 992	169 481 282	167 484 882
25	161 488 163	161 488 173	163 481 983	163 481 993	169 481 283	167 484 883
32	161 488 164	161 488 174	163 481 984	163 481 994	169 481 284	167 484 884
40	161 488 165	161 488 175	163 481 985	163 481 995	169 481 285	167 484 885
50	161 488 166	161 488 176	163 481 986	163 481 996	169 481 286	167 484 886
63	161 488 167	161 488 177	163 481 987	163 481 997	169 481 287	167 484 887

d (mm)	PP-H FKM Code	PVDF FKM Code
16	167 484 892	175 483 642
20	167 484 892	175 483 642
25	167 484 893	175 483 643
32	167 484 894	175 483 644
40	167 484 895	175 483 645
50	167 484 896	175 483 646
63	167 484 897	175 483 647

**Spare parts ball valve type 370**



### Lever

d-d (mm)	Inch (inch)	DN-DN (mm)	PVC-U orange Code	PVC-U black Code
-- 75	2 ½	-- 65	<b>161 480 763</b>	<b>161 481 260</b>
-- 90	3	-- 80	<b>161 480 764</b>	<b>161 481 261</b>
110 - 160	4 - 6	100 - 150	<b>161 480 420</b>	<b>161 481 262</b>



### Seal set

#### Model:

- Seal set consisting of: backing-, body- and stem seal (3-5)

d-d (mm)	Inch (inch)	DN-DN (mm)	EPDM Code	FKM Code
-- 75	2 ½	-- 65		<b>161 482 974</b>
-- 90	3	-- 80	<b>161 482 969</b>	<b>161 482 975</b>
110 - 160	4 - 6	100 - 150	<b>161 482 970</b>	<b>161 482 976</b>



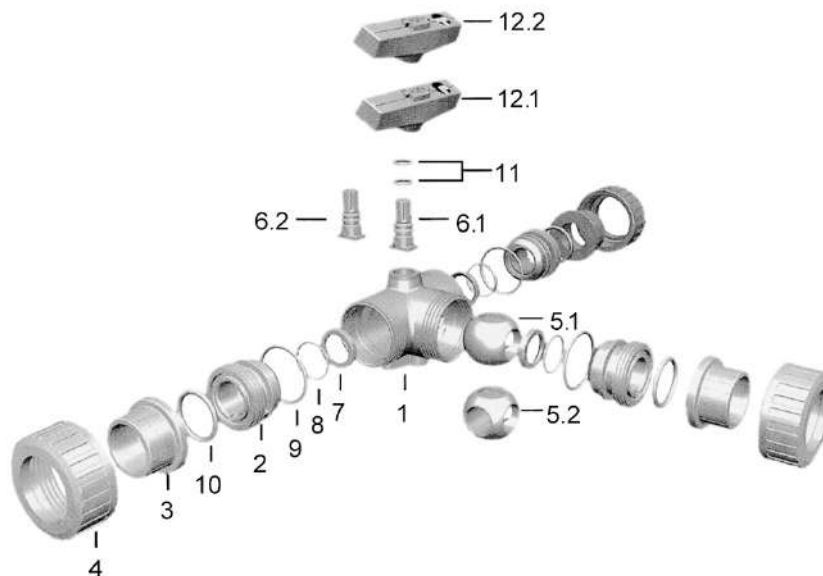
### Face seal

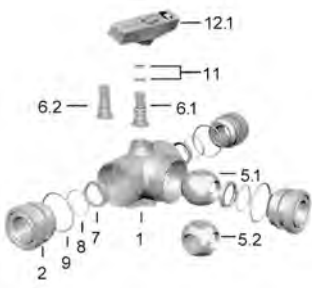
#### Model:

- Face seal no. 9

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
75	2 ½	65	<b>748 410 119</b>	<b>749 410 119</b>
90	3	80	<b>748 410 112</b>	<b>749 410 112</b>
110	4	100	<b>748 410 099</b>	<b>749 410 099</b>

## Spare parts ball valve type 343 horizontal





### Central part T-port

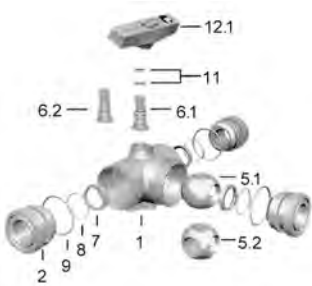
#### Model:

- Central part consisting of: lever (12.1), body (1), union bush (2), ball (5.2), stem (6.2), ball-, backing-, body- and stem seal (7-9,11)
- Ball seals standard in PTFE

d (mm)	Size (inch)	DN (mm)
16	¾	10
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50

d (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code	PP-H EPDM Code
16	161 490 461	161 490 472	163 480 935	163 480 946	169 480 490	167 482 159
20	161 490 461	161 490 472	163 480 935	163 480 946	169 480 490	167 482 159
25	161 490 462	161 490 473	163 480 936	163 480 947	169 480 491	167 482 160
32	161 490 463	161 490 474	163 480 937	163 480 948	169 480 492	167 482 161
40	161 490 464	161 490 475	163 480 938	163 480 949	169 480 493	167 482 162
50	161 490 465	161 490 476	163 480 939	163 480 950	169 480 494	167 482 163
63	161 490 466	161 490 477	163 480 940	163 480 951	169 480 495	167 482 164

d (mm)	PP-H FKM Code	PVDF FKM Code
16	167 482 170	175 482 620
20	167 482 170	175 482 620
25	167 482 171	175 482 621
32	167 482 172	175 482 622
40	167 482 173	175 482 623
50	167 482 174	175 482 624
63	167 482 175	175 482 625



### Central part L-port

#### Model:

- Ball seals standard in PTFE
- Central part consisting of: lever (12.1), body (1), union bush (2), ball (5.1), stem (6.1), ball-, backing-, body- and stem seal (7-9,11)

d (mm)	Size (inch)	DN (mm)
16	¾	10
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50

d (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code	PP-H EPDM Code
16	161 490 439	161 490 450	163 480 913	163 480 924	169 480 468	167 482 137
20	161 490 439	161 490 450	163 480 913	163 480 924	169 480 468	167 482 137
25	161 490 440	161 490 451	163 480 914	163 480 925	169 480 469	167 482 138

table continued on the next page

d (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code	PP-H EPDM Code
32	161 490 441	161 490 452	163 480 915	163 480 926	169 480 470	167 482 139
40	161 490 442	161 490 453	163 480 916	163 480 927	169 480 471	167 482 140
50	161 490 443	161 490 454	163 480 917	163 480 928	169 480 472	167 482 141
63	161 490 444	161 490 455	163 480 918	163 480 929	169 480 473	167 482 142

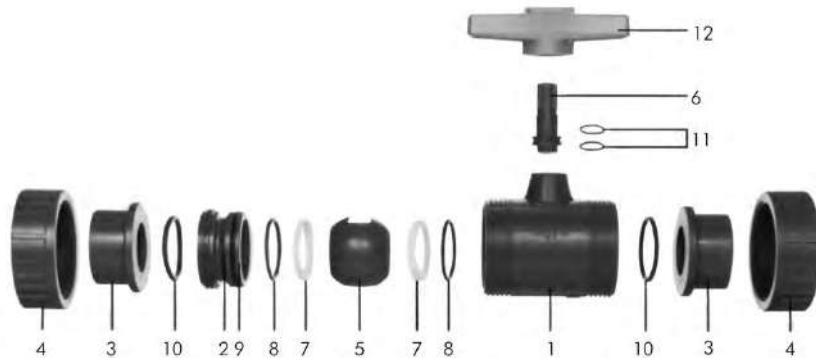
d (mm)	PP-H FKM Code	PVDF FKM Code
16	167 482 148	175 482 593
20	167 482 148	175 482 593
25	167 482 149	175 482 594
32	167 482 150	175 482 595
40	167 482 151	175 482 596
50	167 482 152	175 482 597
63	167 482 153	175 482 598



### Lever

d (mm)	Size (inch)	DN (mm)	L-port Code	T-port Code
16	3/8	10	161 482 151	161 486 175
20	1/2	15	161 482 151	161 486 175
25	3/4	20	161 482 152	161 486 176
32	1	25	161 482 153	161 486 177
40	1 1/4	32	161 482 154	161 486 178
50	1 1/2	40	161 482 155	161 486 179
63	2	50	161 482 156	161 486 180

## Spare parts ball valve type 346



### Central part

#### Model:

- Ball seals standard in PTFE
- Central part consisting of: lever red (12), body (1), union bush (2), ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)

d (mm)	Size (inch)	DN (mm)
16	3/8	10
20	1/2	15
25	3/4	20

table continued on the next page

d (mm)	Size (inch)	DN (mm)
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50

d (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code	PP-H EPDM Code
16	161 483 930	161 483 940	163 480 620	163 480 630	169 480 301	167 480 806
20	161 483 931	161 483 941	163 480 621	163 480 631	169 480 301	167 480 807
25	161 483 932	161 483 942	163 480 622	163 480 632	169 480 302	167 480 808
32	161 483 933	161 483 943	163 480 623	163 480 633	169 480 303	167 480 809
40	161 483 934	161 483 944	163 480 624	163 480 634	169 480 304	167 480 810
50	161 483 935	161 483 945	163 480 625	163 480 635	169 480 305	167 480 811
63	161 483 936	161 483 946	163 480 626	163 480 636	169 480 306	167 480 812

d (mm)	PP-H FKM Code	PVDF FKM Code
16	167 480 813	175 480 825
20	167 480 814	175 480 826
25	167 480 815	175 480 827
32	167 480 816	175 480 828
40	167 480 817	175 480 829
50	167 480 818	175 480 830
63	167 480 819	175 480 831



#### Lever

d (mm)	Size (inch)	DN (mm)	PVC-U orange Code	ASA black Code
16	⅜	10	161 480 725	160 480 115
20	½	15	161 480 725	160 480 115
25	¾	20	161 480 726	160 480 116
32	1	25	161 480 727	160 480 117
40	1 ¼	32	161 480 728	160 480 118
50	1 ½	40	161 480 729	160 480 119
63	2	50	161 480 730	160 480 120



#### Face seal

##### Model:

- Face seal no. 10

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
16	⅜	10	748 410 042	749 410 042
20	½	15	748 410 042	749 410 042
25	¾	20	748 410 116	749 410 116
32	1	25	748 410 103	749 410 103
40	1 ¼	32	748 410 027	749 410 027
50	1 ½	40	748 410 010	749 410 010
63	2	50	748 410 011	749 410 011

## Spare parts ball valve type 546



### Central part

#### Model:

- Every connecting pieces and union nuts are listed on product range industry valves
- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11), standard lever (12) and threaded inserts stainless steel (14)

d (mm)	Size (inch)	DN (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code
16	¾	10	161 486 151	161 486 163	163 481 251	163 481 263	169 480 751
20	½	15	161 486 151	161 486 163	163 481 251	163 481 263	169 480 751
25	¾	20	161 486 152	161 486 164	163 481 252	163 481 264	169 480 752
32	1	25	161 486 153	161 486 165	163 481 253	163 481 265	169 480 753
40	1 ¼	32	161 486 154	161 486 166	163 481 254	163 481 266	169 480 754
50	1 ½	40	161 486 155	161 486 167	163 481 255	163 481 267	169 480 755
63	2	50	161 486 156	161 486 168	163 481 256	163 481 268	169 480 756
75	2 ½	65	161 486 157	161 486 169	163 481 257	163 481 269	169 480 757
90	3	80	161 486 158	161 486 170	163 481 258	163 481 270	169 480 758
110	4	100	161 486 159	161 486 171	163 481 259	163 481 271	169 480 759

d (mm)	Size (inch)	DN (mm)	PP-H EPDM Code	PP-H FKM Code	PVDF FKM Code
16	¾	10	167 482 876	167 482 888	175 482 963
20	½	15	167 482 876	167 482 888	175 482 963
25	¾	20	167 482 877	167 482 889	175 482 964
32	1	25	167 482 878	167 482 890	175 482 965
40	1 ¼	32	167 482 879	167 482 891	175 482 966
50	1 ½	40	167 482 880	167 482 892	175 482 967
63	2	50	167 482 881	167 482 893	175 482 968
75	2 ½	65	167 482 882	167 482 894	175 482 969
90	3	80	167 482 883	167 482 895	175 482 970
110	4	100	167 482 884	167 482 896	175 482 971



DN10/15 - 50



DN10/15 - 50



### Lever

d (mm)	Size (inch)	DN (mm)	Standard lever red Code	Standard lever black Code	Multifunctional lever Code
16	3/8	10	167 484 088	167 484 076	167 484 100
20	1/2	15	167 484 088	167 484 076	167 484 100
25	3/4	20	167 484 089	167 484 077	167 484 101
32	1	25	167 484 090	167 484 078	167 484 102
40	1 1/4	32	167 484 091	167 484 079	167 484 103
50	1 1/2	40	167 484 092	167 484 080	167 484 104
63	2	50	167 484 093	167 484 081	167 484 105
75	2 1/2	65	167 484 094	167 484 082	161 486 689
90	3	80	167 484 095	167 484 083	161 486 690
110	4	100	167 484 096	167 484 084	161 486 691



### Face seal

#### Model:

- Face seal no. 10

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
16	3/8	10	748 410 059	749 410 059
20	1/2	15	748 410 059	749 410 059
25	3/4	20	748 410 106	749 410 106
32	1	25	748 410 151	749 410 151
40	1 1/4	32	748 410 062	749 410 062
50	1 1/2	40	748 410 003	749 410 003
63	2	50	748 410 231	749 410 231
75	2 1/2	65	748 410 119	749 410 119
90	3	80	748 410 023	749 410 023
110	4	100	748 410 254	749 410 254



### Seal set

#### Model:

- Seal set consisting of: backing-, body-, face- and stem seal (8-11)

d (mm)	Size (inch)	DN (mm)	DN (mm)	EPDM Code	FKM Code
16 - 20	1/2	15	10 - 15	161 486 400	161 486 410
25	3/4	20	20	161 486 401	161 486 411
32	1	25	25	161 486 402	161 486 412
40	1 1/4	32	32	161 486 403	161 486 413
50	1 1/2	40	40	161 486 404	161 486 414
63	2	50	50	161 486 405	161 486 415
75	2 1/2	65	65	161 486 406	161 486 416
90	3	80	80	161 486 407	161 486 417
110	4	100	100	161 486 408	161 486 418





### Ball set

#### Model:

- Ball seals standard in PTFE
- Ball set consisting of: ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)

d (mm)	Size (inch)	DN (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code
16	¾	10	161 486 375	161 486 385	163 481 375	163 481 385	169 480 900
20	½	15	161 486 375	161 486 385	163 481 375	163 481 385	169 480 900
25	¾	20	161 486 376	161 486 386	163 481 376	163 481 386	169 480 901
32	1	25	161 486 377	161 486 387	163 481 377	163 481 387	169 480 902
40	1 ¼	32	161 486 378	161 486 388	163 481 378	163 481 388	169 480 903
50	1 ½	40	161 486 379	161 486 389	163 481 379	163 481 389	169 480 904
63	2	50	161 486 380	161 486 390	163 481 380	163 481 390	169 480 905
75	2 ½	65	161 486 381	161 486 391	163 481 381	163 481 391	169 480 906
90	3	80	161 486 382	161 486 392	163 481 382	163 481 392	169 480 907
110	4	100	161 486 383	161 486 393	163 481 383	163 481 393	169 480 908

d (mm)	Size (inch)	DN (mm)	PP-H EPDM Code	PP-H FKM Code	PVDF FKM Code
16	¾	10	167 484 125	167 484 135	175 483 275
20	½	15	167 484 125	167 484 135	175 483 275
25	¾	20	167 484 126	167 484 136	175 483 276
32	1	25	167 484 127	167 484 137	175 483 277
40	1 ¼	32	167 484 128	167 484 138	175 483 278
50	1 ½	40	167 484 129	167 484 139	175 483 279
63	2	50	167 484 130	167 484 140	175 483 280
75	2 ½	65	167 484 131	167 484 141	175 483 281
90	3	80	167 484 132	167 484 142	175 483 282
110	4	100	167 484 133	167 484 143	175 483 283

## Spare parts for valve body type 519

### Valve body with butt fusion spigot



d (mm)	Size (inch)	PP-H Code	PP-Natur Code	PVDF HP Code	Weight (kg)
20 - 20	½	167 485 911	168 480 601	180 001 101	0.171
25 - 20	¾	167 485 912	168 480 602	180 001 102	0.236
25 - 25	¾	167 485 913	168 480 603	180 001 103	0.239
32 - 20	1	167 485 914	168 480 604	180 001 104	0.289
32 - 25	1	167 485 915	168 480 605	180 001 105	0.293
32 - 32	1	167 485 916	168 480 606	180 001 106	0.334
40 - 20	1 ¼	167 485 917	168 480 607	180 001 107	0.388
40 - 25	1 ¼			180 001 108	0.392
40 - 32	1 ¼			180 001 109	0.410
40 - 40	1 ¼			180 001 110	0.439
50 - 20	1 ½	167 485 922	168 480 611	180 001 111	0.408
50 - 25	1 ½	167 485 923	168 480 612	180 001 112	0.478
50 - 32	1 ½	167 485 924	168 480 613	180 001 113	0.483
50 - 40	1 ½			180 001 114	1.101
50 - 50	1 ½			180 001 115	1.111
63 - 20	2	167 485 927	168 480 616	180 001 116	0.485
63 - 25	2	167 485 928	168 480 617	180 001 117	0.563
63 - 32	2	167 485 929	168 480 618	180 001 118	0.569
63 - 40	2			180 001 119	1.278
63 - 50	2			180 001 120	1.343
63 - 63	2			180 001 121	1.356
90 - 25	3			180 001 126	0.855
90 - 32	3			180 001 127	0.871
90 - 50	3			180 001 128	1.796

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d (mm)	Size (inch)	PP-H Code	PP-Natur Code	PVDF HP Code	Weight (kg)
90 - 63	3			<b>180 001 129</b>	1.824
110 - 20	4			<b>180 001 130</b>	1.118
110 - 25	4			<b>180 001 131</b>	1.124
110 - 32	4			<b>180 001 132</b>	1.141
110 - 50	4			<b>180 001 133</b>	2.212
110 - 63	4			<b>180 001 134</b>	2.242

## Spare parts for valve body type 515

### Valve body with spigot ends



d (mm)	DN (mm)	Size (inch)	PVC-U solvent cement spigot Code	Weight (kg)
20	15	½	<b>161 492 072</b>	0.115
25	20	¾	<b>161 492 073</b>	0.183
32	25	1	<b>161 492 074</b>	0.246
40	32	1 ¼	<b>161 492 075</b>	0.379
50	40	1 ½	<b>161 492 076</b>	0.602
63	50	2	<b>161 492 077</b>	1.055



d (mm)	PVC-C solvent cement spigot Code	ABS solvent cement spigot Code	PP-H socket fusion spigot Code	PP-H butt fusion spigot IR Code	PP-N butt fusion spigot IR Code	PVDF socket fusion spigot Code
20	<b>163 482 062</b>	<b>169 481 862</b>	<b>167 483 342</b>	<b>167 483 882</b>	<b>168 480 462</b>	<b>175 483 692</b>
25	<b>163 482 063</b>	<b>169 481 863</b>	<b>167 483 343</b>	<b>167 483 883</b>	<b>168 480 463</b>	<b>175 483 693</b>
32	<b>163 482 064</b>	<b>169 481 864</b>	<b>167 483 344</b>	<b>167 483 884</b>	<b>168 480 464</b>	<b>175 483 694</b>
40	<b>163 482 065</b>	<b>169 481 865</b>	<b>167 483 345</b>	<b>167 483 885</b>	<b>168 480 465</b>	<b>175 483 695</b>
50	<b>163 482 066</b>	<b>169 481 866</b>	<b>167 483 346</b>	<b>167 483 886</b>	<b>168 480 466</b>	<b>175 483 696</b>
63	<b>163 482 067</b>	<b>169 481 867</b>	<b>167 483 347</b>	<b>167 483 887</b>	<b>168 480 467</b>	<b>175 483 697</b>



d (mm)	PVDF butt fusion spigot IR Code	PVDF HP butt fusion spigot IR Code
20	<b>175 483 742</b>	<b>180 001 012</b>
25	<b>175 483 743</b>	<b>180 001 013</b>
32	<b>175 483 744</b>	<b>180 001 014</b>
40	<b>175 483 745</b>	<b>180 001 015</b>
50	<b>175 483 746</b>	<b>180 001 016</b>
63	<b>175 483 747</b>	<b>180 001 017</b>



### Mounting Tool Type 604/605

#### Model:

- Hook wrench for easy opening & maintenance

Code	SP	Weight (kg)
<b>700 278 354</b>	1	0.41

## Spare parts for automatic valves

# Diastar Six/Ten/Sixteen



## Actuators



d (mm)	Size (inch)	DN (mm)	DIASTAR Six FC Code	DIASTAR Ten FC Code
20	1/2	15	198151762	198151772
25	3/4	20	198151763	198151773
32	1	25	198151764	198151774
40	1 1/4	32	198151765	198151775
50	1 1/2	40	198151766	198151776
63	2	50	198151767	198151777

d (mm)	Diastar Ten + FC Code	Diastar Sixteen FC Code	Diastar Ten FO Code	Diastar Ten DA Code
20	198 153 062	198 151 782	198 151 792	198 151 802
25	198 153 063	198 151 783	198 151 793	198 151 803
32	198 153 064	198 151 784	198 151 794	198 151 804
40	198 153 065	198 151 785	198 151 795	198 151 805
50	198 153 066	198 151 786	198 151 796	198 151 806
63	198 153 067	198 151 787	198 151 797	198 151 807

## Indicator cap



Size (mm)	Code
1-2	198 806 773
3-5	198 806 774



### Compressor set

**Model:**

- Incl. diaphragm holder

d (mm)	Inch (inch)	DN (mm)	Code
20	1/2	15	<b>198 000 872</b>
25	3/4	20	<b>198 000 873</b>
32	1	25	<b>198 000 874</b>
40	1 1/4	32	<b>198 000 875</b>
50	1 1/2	40	<b>198 000 876</b>
63	2	50	<b>198 000 877</b>



### Seal set

**Model:**

- Spindle seal and piston seal

Size (mm)	Diastar Six/ Ten/Sixteen Code	Only for Diastar Six DN40/DN50 Code
Gr. 1	<b>198 000 881</b>	
Gr. 2	<b>198 000 882</b>	
Gr. 3	<b>198 000 883</b>	<b>198 000 886</b>
Gr. 4	<b>198 000 884</b>	
Gr. 5	<b>198 000 885</b>	

## Spare parts for hand-operated valves Type 514/515/517/519





### Bonnet complete

d (mm)	Size (inch)	DN (mm)	Standard configuration PN10 Code	For pressure tight housing PN10 Code	Standard configuration PN16 Code	For pressure tight housing PN16 Code
20	¾	15	198 151 742	198 151 752	198 151 842	198 151 852
25	¾	20	198 151 743	198 151 753	198 151 843	198 151 853
32	1	25	198 151 744	198 151 754	198 151 844	198 151 854
40	1 ¼	32	198 151 745	198 151 755	198 151 845	198 151 855
50	1 ½	40	198 151 746	198 151 756	198 151 846	198 151 856
63	2	50	198 151 747	198 151 757	198 151 847	198 151 857



### Spindle assembly

**Model:**

- Incl. compressor
- Position indicator is not included

DN-DN (mm)	Code
15 - 20	198 204 327
25 - 32	198 204 328
40 - 50	198 204 329



### Position indicator

d (mm)	Size (inch)	DN (mm)	Code
20	¾	15	167 484 992
25	¾	20	167 484 993
32	1	25	167 484 994
40	1 ¼	32	167 484 995
50	1 ½	40	167 484 996
63	2	50	167 484 997



### Hand wheel

**Model:**

- Without position indicator

DN (mm)	Code
15 - 20	198 204 162
25 - 32	198 204 164
40 - 50	198 104 166

## Seal set



### Model:

- For manual valve - pressure tight housing
- Incl. position indicator

d (mm)	Size (inch)	DN (mm)	EPDM Code
20	½	15	198 000 892
25	¾	20	198 000 893
32	1	25	198 000 894
40	1 ¼	32	198 000 895
50	1 ½	40	198 000 896
63	2	50	198 000 897

## Spare parts for valve body type 514



### O-ring

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code	FKM for PVDF standard Code	FKM for PVDF-HP Code
20	½	15	748 410 006	749 410 006	749 410 005	749 411 005
25	¾	20	748 410 007	749 410 007	749 410 006	749 411 006
32	1	25	748 410 008	749 410 008	749 410 120	749 411 120
40	1 ¼	32	748 410 009	749 410 009	749 410 062	749 411 062
50	1 ½	40	748 410 010	749 410 010	749 410 172	749 411 172
63	2	50	748 410 011	749 410 011	749 410 054	749 411 054



### Union nut

d (mm)	Size (inch)	DN (mm)	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
20	½	15	721 890 006	723 690 006	729 890 406	727 890 406	735 690 406
25	¾	20	721 890 007	723 690 007	729 890 407	727 890 407	735 690 407
32	1	25	721 890 008	723 690 008	729 890 408	727 890 408	735 690 408
40	1 ¼	32	721 890 009	723 690 009	729 890 409	727 890 409	735 690 409
50	1 ½	40	721 890 010	723 690 010	729 890 410	727 890 410	735 690 410
63	2	50	721 890 011	723 690 011	729 890 411	727 890 411	735 690 411



### Valve end with spigot

	d (mm)	Size (inch)	DN (mm)	PVC-U Code	PP-H SDR11 Code	PVDF Code	PE100 SDR11 Code	PE100 long Code
*	20	½	15	721 500 406	727 508 506	735 608 606	753 508 606	753 508 616
*	25	¾	20	721 500 407	727 508 507	735 608 607	753 508 607	753 508 617
*	32	1	25	721 500 408	727 508 508	735 608 608	753 508 608	753 508 618
	40	1 ¼	32	721 500 409	727 508 509	735 608 609	753 508 609	753 508 619
	50	1 ½	40	721 500 410	727 508 510	735 608 610	753 508 610	753 508 620
	63	2	50	721 500 411	727 508 511	735 608 611	753 508 611	753 508 621



### Union end

d (mm)	Size (inch)	DN (mm)
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50

d (mm)	PVC-U metric Code	PVC-U JIS Code	PVC-U BS Code	PVC-U ASTM Code	ABS metric Code	PP-H metric Code
20	721 500 106	721 605 106	721 601 106	721 602 006	729 800 106	727 500 106
25	721 500 107	721 605 107	721 601 107	721 602 007	729 800 107	727 500 107
32	721 500 108	721 605 108	721 601 108	721 602 008	729 800 108	727 500 108
40	721 500 109	721 605 109	721 601 109	721 602 009	729 800 109	727 500 109
50	721 500 110	721 605 110	721 601 110	721 602 010	729 800 110	727 500 110
63	721 500 111	721 605 111	721 601 111	721 602 011	729 800 111	727 500 111

d (mm)	PVDF metric Code	PVC-C metric Code	PVC-C ANSI Code	ABS BS Code
20	735 600 106	723 800 106	723 602 006	729 601 106
25	735 600 107	723 800 107	723 602 007	729 601 107
32	735 600 108	723 800 108	723 602 008	729 601 108
40	735 600 109	723 800 109	723 602 009	729 601 109
50	735 600 110	723 800 110	723 602 010	729 601 110
63	735 600 111	723 800 111	723 602 011	729 601 111

### Valve body with true union



#### Model:

- Without connection parts

d (mm)	Size (inch)	DN (mm)	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
20	½	15	161 492 062	163 482 052	169 481 322	167 483 522	175 483 682
25	¾	20	161 492 063	163 482 053	169 481 323	167 483 523	175 483 683
32	1	25	161 492 064	163 482 054	169 481 334	167 483 524	175 483 684
40	1 ¼	32	161 492 065	163 482 055	169 481 325	167 483 525	175 483 685
50	1 ½	40	161 492 066	163 482 056	169 481 326	167 483 526	175 483 686
63	2	50	161 492 067	163 482 057	169 481 327	167 483 527	175 483 687

d (mm)	Size (inch)	DN (mm)	PVDF HP Code
20	½	15	180 001 002
25	¾	20	180 001 003
32	1	25	180 001 004
40	1 ¼	32	180 001 005
50	1 ½	40	180 001 006
63	2	50	180 001 007

### Special wrench for DV

d (mm)	DN (mm)	Code
20	15	198 154 012
25	20	198 154 013
32	25	198 154 014
40	32	198 154 015
50	40	198 154 016
63	50	198 154 017



### Spare parts diaphragm For 5 series

#### Model:

- For type 514, 515, 517, 519 and Diastar

d (mm)	Size (inch)	DN (mm)
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50

d (mm)	NBR Code	EPDM Code	FKM Code	PTFE/EPDM Code	PTFE/EPDM HP Code	PTFE/FKM Code
20	745 500 012	748 500 012	749 500 012	747 502 012	747 502 032	747 503 012
25	745 500 013	748 500 013	749 500 013	747 502 013	747 502 033	747 503 013
32	745 500 014	748 500 014	749 500 014	747 502 014	747 502 034	747 503 014
40	745 500 015	748 500 015	749 500 015	747 502 015	747 502 035	747 503 015
50	745 500 016	748 500 016	749 500 016	747 502 016	747 502 036	747 503 016
63	745 500 017	748 500 017	749 500 017	747 502 017	747 502 037	747 503 017



### Spare parts for valve body type 517 Flat gasket

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
20	½	15	748 400 006	749 400 006
25	¾	20	748 400 007	749 400 007
32	1	25	748 400 008	749 400 008
40	1 ¼	32	748 400 009	749 400 009
50	1 ½	40	748 400 010	749 400 010
63	2	50	748 400 011	749 400 011



## Spare parts diaphragm valve type 314



### Bonnet complete

#### Model:

- Without diaphragm (1, 3)



d (mm)	Size (inch)	DN (mm)	elastomer diaphragm Code	PTFE diaphragm Code
20	½	15	161 484 625	161 484 632
25	¾	20	161 484 626	161 484 633
32	1	25	161 484 627	161 484 634
40	1 ¼	32	161 484 628	161 484 635
50	1 ½	40	161 484 629	161 484 636
63	2	50	161 484 630	161 484 637



### Union end seal for PP-H and PVDF valves

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
20	½	15	748 410 006	749 410 006
25	¾	20	748 410 007	749 410 007
32	1	25	748 410 008	749 410 008
40	1 ¼	32	748 410 009	749 410 009
50	1 ½	40	748 410 010	749 410 010
63	2	50	748 410 011	749 410 011



### Union end seal for PVC-U valves

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
20	½	15	748 410 038	749 410 038
25	¾	20	748 410 044	749 410 044
32	1	25	748 410 195	749 410 195
40	1 ¼	32	748 410 052	749 410 052
50	1 ½	40	748 410 134	749 410 134
63	2	50	748 410 135	749 410 135



### Threaded bush

DN (mm)	Rp (inch)	PVC-U Rp Code	PVC-U NPT Code	PVC-U blind Code
15	½	721 600 656	721 602 656	721 600 006
20	¾	721 600 657	721 602 657	721 600 007
25	1	721 600 658	721 602 658	721 600 008
32	1 ¼	721 600 659	721 602 659	721 600 009
40	1 ½	721 600 660	721 602 660	721 600 010
50	2	721 600 661	721 602 661	721 600 011



### Valve end with spigot

	d (mm)	Size (inch)	DN (mm)	PVC-U Code	PP-H SDR11 Code	PVDF Code	PE100 SDR11 Code	PE100 long Code
*	20	½	15	721 500 406	727 508 506	735 608 606	753 508 606	753 508 616
*	25	¾	20	721 500 407	727 508 507	735 608 607	753 508 607	753 508 617
*	32	1	25	721 500 408	727 508 508	735 608 608	753 508 608	753 508 618
	40	1 ¼	32	721 500 409	727 508 509	735 608 609	753 508 609	753 508 619
	50	1 ½	40	721 500 410	727 508 510	735 608 610	753 508 610	753 508 620
	63	2	50	721 500 411	727 508 511	735 608 611	753 508 611	753 508 621



### Valve end

d (mm)	Size (inch)	DN (mm)
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50

d (mm)	PVC-U metric Code	PVC-U JIS Code	PVC-U BS Code	PVC-U ASTM Code	PP-H metric Code	PVDF metric Code
20	721 600 106	721 605 106	721 601 106	721 602 006	727 600 106	735 600 106
25	721 600 107	721 605 107	721 601 107	721 602 007	727 600 107	735 600 107
32	721 600 108	721 605 108	721 601 108	721 602 008	727 600 108	735 600 108
40	721 600 109	721 605 109	721 601 109	721 602 009	727 600 109	735 600 109
50	721 600 110	721 605 110	721 601 110	721 602 010	727 600 110	735 600 110
63	721 600 111	721 605 111	721 601 111	721 602 011	727 600 111	735 600 111

d (mm)	PE80 Code
20	734 600 106
25	734 600 107
32	734 600 108
40	734 600 109
50	734 600 110
63	734 600 111



### Union nut

d (mm)	Size (inch)	DN (mm)	PVC-U Code	PP-H Code	PVDF Code
20	½	15	721 690 006	727 890 406	735 690 406
25	¾	20	721 690 007	727 890 407	735 690 407
32	1	25	721 690 008	727 890 408	735 690 408
40	1 ¼	32	721 690 009	727 890 409	735 690 409
50	1 ½	40	721 690 010	727 890 410	735 690 410
63	2	50	721 690 011	727 890 411	735 690 411



### Fastening set (4)

#### Model:

- \* with support plate

d (mm)	Size (inch)	DN (mm)	for PVC-U PVC-C ABS Code	for PP PVDF Code *
20	½	15	161 484 704	198 000 650
25	¾	20	161 484 705	198 000 651
32	1	25	161 484 706	198 000 652
40	1 ¼	32	161 484 707	198 000 653
50	1 ½	40	161 484 708	198 000 654
63	2	50	161 484 709	198 000 655



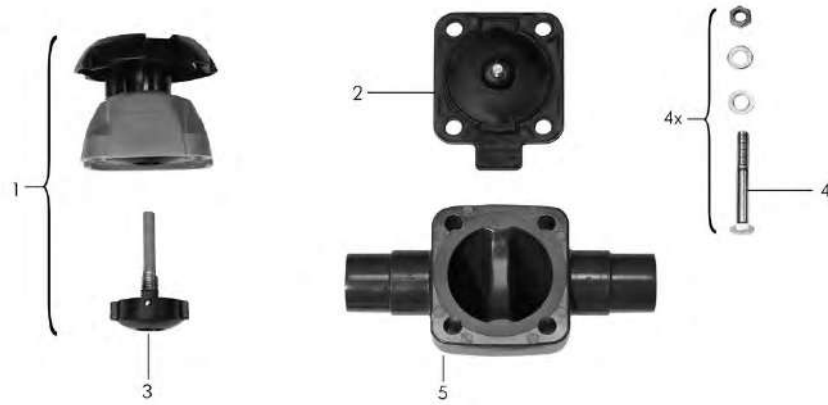
### Diaphragm (2)

d (mm)	Size (inch)	DN (mm)
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50

d (mm)	NBR Code	EPDM Code	FKM Code	PTFE/EPDM Code	PTFE/FKM Code	CSM Code
20	161 311 710	161 481 022	161 481 092	161 311 698	161 481 926	161 311 728
25	161 311 711	161 481 023	161 481 093	161 311 699	161 481 927	161 311 729
32	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
40	161 311 713	161 481 025	161 481 095	161 311 701	161 481 929	161 311 731
50	161 311 714	161 481 026	161 481 096	161 311 702	161 481 930	161 311 732
63	161 311 715	161 481 027	161 481 097	161 311 703	161 481 931	161 311 733

d (mm)	PTFE/EPDM SYGEF PLUS HP Code
20	161 484 452
25	161 484 453
32	161 484 454
40	161 484 455
50	161 484 456
63	161 484 457

## Spare parts diaphragm valve type 315



### Bonnet complete

#### Model:

- Without diaphragm (1, 3)

d (mm)	Size (inch)	DN (mm)	elastomer diaphragm Code	PTFE diaphragm Code
20	½	15	161 484 625	161 484 632
25	¾	20	161 484 626	161 484 633
32	1	25	161 484 627	161 484 634
40	1 ¼	32	161 484 628	161 484 635
50	1 ½	40	161 484 629	161 484 636
63	2	50	161 484 630	161 484 637



### Diaphragm (2)

d (mm)	Size (inch)	DN (mm)
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50



d (mm)	NBR Code	EPDM Code	FKM Code	PTFE/EPDM Code	PTFE/FKM Code	CSM Code
20	161 311 710	161 481 022	161 481 092	161 311 698	161 481 926	161 311 728
25	161 311 711	161 481 023	161 481 093	161 311 699	161 481 927	161 311 729
32	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
40	161 311 713	161 481 025	161 481 095	161 311 701	161 481 929	161 311 731
50	161 311 714	161 481 026	161 481 096	161 311 702	161 481 930	161 311 732
63	161 311 715	161 481 027	161 481 097	161 311 703	161 481 931	161 311 733

#### d PTFE/EPDM (mm) SYGEF PLUS HP Code

20	161 484 452
25	161 484 453
32	161 484 454
40	161 484 455
50	161 484 456
63	161 484 457



### Fastening set (4)

**Model:**

- \* with support plate

d (mm)	Size (inch)	DN (mm)	for PVC-U PVC-C ABS Code	for PP PVDF * Code
20	½	15	161 484 704	198 000 650
25	¾	20	161 484 705	198 000 651
32	1	25	161 484 706	198 000 652
40	1 ¼	32	161 484 707	198 000 653
50	1 ½	40	161 484 708	198 000 654
63	2	50	161 484 709	198 000 655

## Spare parts diaphragm valve type 317



### Bonnet complete

**Model:**

- Without diaphragm (1, 3)

d (mm)	Size (inch)	DN (mm)	elastomer diaphragm Code	PTFE diaphragm Code
20	½	15	161 484 625	161 484 632
25	¾	20	161 484 626	161 484 633
32	1	25	161 484 627	161 484 634
40	1 ¼	32	161 484 628	161 484 635
50	1 ½	40	161 484 629	161 484 636
63	2	50	161 484 630	161 484 637
75	2 ½	65	161 484 631	161 484 638
90	3	80	161 482 514	161 482 516
110	4	100	161 482 515	161 482 517
160	6	150	161 482 901	161 482 906



### Diaphragm (2)

d (mm)	Size (inch)	DN (mm)
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50
75	2 ½	65
90	3	80
110	4	100
160	6	150



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d (mm)	NBR Code	EPDM Code	FKM Code	PTFE/EPDM Code	PTFE/FKM Code	PTFE/EPDM HP Code
20	161 311 710	161 481 022	161 481 092	161 311 698	161 481 926	161 484 452
25	161 311 711	161 481 023	161 481 093	161 311 699	161 481 927	161 484 453
32	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 484 454
40	161 311 713	161 481 025	161 481 095	161 311 701	161 481 929	161 484 455
50	161 311 714	161 481 026	161 481 096	161 311 702	161 481 930	161 484 456
63	161 311 715	161 481 027	161 481 097	161 311 703	161 481 931	161 484 457
75	161 480 231	161 481 028	161 481 098	161 480 240	161 481 932	161 484 458
90	161 480 232	161 481 029	161 481 099	161 480 241		161 484 459
110	161 480 233	161 481 030	161 481 100	161 480 242		161 484 460
160	161 482 751	161 482 754	161 481 102	161 482 760		161 482 760

d (mm)	CSM Code
20	161 311 728
25	161 311 729
32	161 311 730
40	161 311 731
50	161 311 732
63	161 311 733
75	161 480 237
90	161 480 238
110	161 480 239
160	161 482 757



#### Fastening set (4)

##### Model:

- \* with support plate

d (mm)	Size (inch)	DN (mm)	for PVC-U PVC-C ABS Code	for PP PVDF * Code
20	½	15	161 484 704	198 000 650
25	¾	20	161 484 705	198 000 651
32	1	25	161 484 706	198 000 652
40	1 ¼	32	161 484 707	198 000 653
50	1 ½	40	161 484 708	198 000 654
63	2	50	161 484 709	198 000 655
75	2 ½	65	161 483 032	161 483 032
90	3	80	161 483 033	161 483 033
110	4	100	161 483 034	161 483 034
160	6	150	161 483 037	161 483 037



#### O-ring seal (6)

d (mm)	Size (inch)	DN (mm)	EPDM Code	NBR Code
90	3	80		745 410 107
110	4	100		745 410 107
160	6	150	748 410 212	

## Indicator cap (7)

d (mm)	Size (inch)	DN (mm)	PVC-U SAN Code
90	3	80	161 481 759
110	4	100	161 481 760
160	6	150	161 482 744

## Spare parts diaphragm valve type 319



### Bonnet complete

#### Model:

- Without diaphragm (1, 3)

d (mm)	Size (inch)	elastomer diaphragm Code	PTFE diaphragm Code
20-20	½	161 484 625	161 484 632
25-20	¾	161 484 626	161 484 633
25-25	¾	161 484 626	161 484 633
32-20	1	161 484 627	161 484 634
32-25	1	161 484 627	161 484 634
32-32	1	161 484 627	161 484 634
40-20	1 ¼	161 484 627	161 484 634
40-25	1 ¼	161 484 627	175 481 860
40-32	1 ¼	161 484 627	175 481 860
40-40	1 ¼	161 484 628	175 481 861
50-20	1 ½	161 484 627	161 484 634
50-25	1 ½	161 484 627	161 484 634
50-32	1 ½	161 484 627	161 484 634
50-40	1 ½	161 484 629	175 481 862
50-50	1 ½	161 484 629	175 481 862
63-20	2	161 484 627	161 484 634
63-25	2	161 484 627	161 484 634
63-32	2	161 484 627	161 484 634
63-40	2	161 484 630	175 481 863
63-50	2	161 484 630	175 481 863
63-63	2	161 484 630	175 481 863
75-40	2 ½	161 484 628	175 481 861
75-50	2 ½	161 484 630	175 481 863

table continued on the next page

d (mm)	Size (inch)	elastomer diaphragm Code	PTFE diaphragm Code
75-63	2 ½	161 484 630	175 481 863
90-20	3	161 484 627	161 484 634
90-25	3	161 484 627	161 484 634
90-32	3	161 484 627	161 484 634
90-50	3	161 484 630	161 484 636
90-63	3	161 484 630	161 484 636
110-20	4	161 484 627	161 484 634
110-25	4	161 484 627	161 484 634
110-32	4	161 484 627	161 484 634
110-50	4	161 484 630	161 484 636
110-63	4	161 484 630	161 484 636



### Diaphragm (2)

d (mm)	NBR Code	EPDM Code	FKM Code	PTFE/EPDM Code	PTFE/FKM Code	CSM Code
20-20	161 311 710	161 481 022	161 481 092	161 311 698	161 481 926	161 311 728
25-20	161 311 711	161 481 023	161 481 093	161 311 699	161 481 927	161 311 729
25-25	161 311 711	161 481 023	161 481 093	161 311 699	161 481 927	161 311 729
32-20	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
32-25	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
32-32	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
40-20	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
40-25	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
40-32	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
40-40	161 311 713	161 481 025	161 481 095	161 311 701	161 481 929	161 311 731
50-20	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
50-25	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
50-32	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
50-40	161 311 714	161 481 026	161 481 096	161 311 702	161 481 930	161 311 732
50-50	161 311 714	161 481 026	161 481 096	161 311 702	161 481 930	161 311 732
63-20	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
63-25	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
63-32	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
63-40	161 311 715	161 481 027	161 481 097	161 311 703	161 481 931	161 311 733
63-50	161 311 715	161 481 027	161 481 097	161 311 703	161 481 931	161 311 733
63-63	161 311 715	161 481 027	161 481 097	161 311 703	161 481 931	161 311 733
75-40	161 311 715	161 481 025	161 481 095	161 311 701	161 481 929	161 311 731
75-50	161 311 715	161 481 027	161 481 095	161 311 703	161 481 931	161 311 733
75-63	161 311 715	161 481 027	161 481 097	161 311 703	161 481 931	161 311 733
90-20	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
90-25	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
90-32	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
90-50	161 311 715	161 481 027	161 481 097	161 311 703	161 481 931	161 311 733
90-63	161 311 715	161 481 027	161 481 097	161 311 703	161 481 931	161 311 733
110-20	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
110-25	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
110-32	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928	161 311 730
110-50	161 311 715	161 481 027	161 481 097	161 311 703	161 481 931	161 311 733
110-63	161 311 715	161 481 027	161 481 097	161 311 703	161 481 931	161 311 733

d (mm)	PTFE/EPDM SYGEF PLUS Code
20-20	161 484 452
25-20	161 484 453
25-25	161 484 453
32-20	161 484 454
32-25	161 484 454
32-32	161 484 454

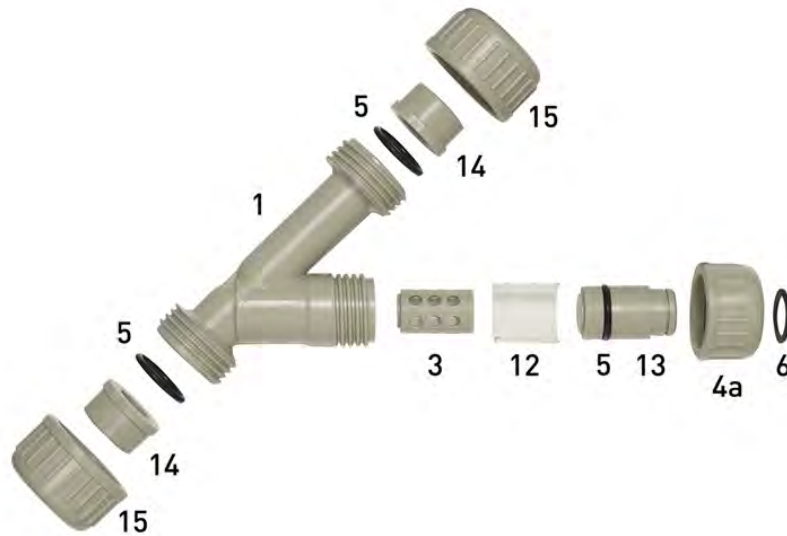
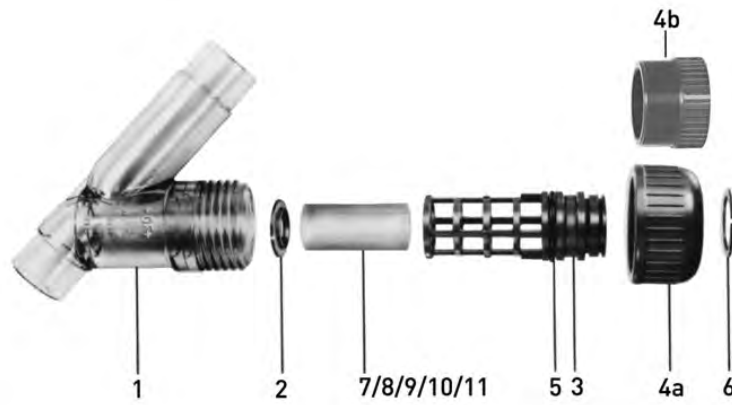
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**d** PTFE/EPDM  
(mm) SYGEF  
PLUS  
Code

40-20	161 484 454
40-25	161 484 454
40-32	161 484 454
40-40	161 484 455
50-20	161 484 454
50-25	161 484 454
50-32	161 484 454
50-40	161 484 456
50-50	161 484 456
63-20	161 484 454
63-25	161 484 454
63-32	161 484 454
63-40	161 484 457
63-50	161 484 457
63-63	161 484 457
75-40	161 484 455
75-50	161 484 457
75-63	161 484 457
90-20	161 484 454
90-25	161 484 454
90-32	161 484 454
90-50	161 484 457
90-63	161 484 457
110-20	161 484 454
110-25	161 484 454
110-32	161 484 454
110-50	161 484 457
110-63	161 484 457

## Spare parts line strainer type 305/306



### Body (1)

d (mm)	Size (inch)	DN (mm)
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50
75	2 ½	65
90	3	80

d (mm)	PVC-U transparent Code	PVC-U transparent ASTM Code	PVC-C Code	ABS Code	PP-H Code	PVC-U Code
20	192 300 301	192 480 001	163 481 075	169 480 600	167 305 010	161 300 301
25	192 300 351	192 480 002	163 481 076	169 480 601	167 305 011	161 300 351
32	192 300 401	192 301 401	163 481 077	169 480 602	167 305 012	161 300 401
40	192 300 451	192 301 451	163 481 078	169 480 603	167 305 013	161 300 451
50	192 300 501	192 301 501	163 481 079	169 480 604	167 305 014	161 300 501
63	192 300 551	192 301 551	163 481 080	169 480 605	167 305 015	161 300 551
75	192 300 601					161 300 601
90	192 300 651					161 300 651



### Screen set

#### Model:

- Screen set PVC-U and PVC-C DN15-DN50 consisting of: screen (3), screen support ring (2) and circlip (6), without o-ring. PVC-U DN65-DN80: screen (3) and screen support ring (2), without o-ring. PP-H DN15-DN50: screen cage (3), circlip (6), screen perforation (12) and screen cage bracket incl. o-ring (13).

d (mm)	Size (inch)	DN (mm)	PVC-U Code	PP-H EPDM Code	PP-H FKM Code	PVC-C Code
20	½	15	161 483 126	167 305 280	167 305 290	163 305 330
25	¾	20	161 483 127	167 305 281	167 305 291	163 305 331
32	1	25	161 483 128	167 305 282	167 305 292	163 305 332
40	1 ¼	32	161 483 129	167 305 283	167 305 293	163 305 333
50	1 ½	40	161 483 130	167 305 284	167 305 294	163 305 334
63	2	50	161 483 131	167 305 285	167 305 295	163 305 335
75	2 ½	65	161 483 132			
90	3	80	161 483 133			



### Screen perforation (7-11)

d (mm)	Size (inch)	DN (mm)
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50
75	2 ½	65
90	3	80

d (mm)	PVC-U 0.5mm (7) Code	PVC-U 0.8mm (8) Code	PVC-U 1.4mm (9) Code	PVC-U 2.2mm (10) Code	PP-H (12) Code	stainless steel 0.5mm AISI 316 (11) Code
20	161 305 339	161 305 338	161 305 337	161 305 336	167 305 030	161 486 100
25	161 305 389	161 305 388	161 305 387	161 305 386	167 305 031	161 486 101
32	161 305 439	161 305 438	161 305 437	161 305 436	167 305 032	161 486 102
40	161 305 489	161 305 488	161 305 487	161 305 486	167 305 033	161 486 103
50	161 305 539	161 305 538	161 305 537	161 305 536	167 305 034	161 486 104
63	161 305 589	161 305 588	161 305 587	161 305 586	167 305 035	161 486 105
75	161 305 639	161 305 638	161 305 637	161 305 636		161 486 106
90	161 305 689	161 305 688	161 305 687	161 305 686		161 486 107



### Screen cage bracket (13)

#### Model:

- Only available for PP-H version
- With o-ring (5)

d (mm)	Size (inch)	DN (mm)	PP-H EPDM Code	PP-H FKM Code
20	½	15	167 305 260	167 305 270
25	¾	20	167 305 261	167 305 271
32	1	25	167 305 262	167 305 272
40	1 ¼	32	167 305 263	167 305 273
50	1 ½	40	167 305 264	167 305 274
63	2	50	167 305 265	167 305 275



### Screen cage (3)

**Model:**

- Screen cage in PVC-U, PVC-C and PP-H

d (mm)	Size (inch)	DN (mm)	PVC-U Code	PVC-C Code	PP-H Code
20	½	15	161 305 303	163 481 102	167 305 020
25	¾	20	161 305 353	163 481 103	167 305 021
32	1	25	161 305 403	163 481 104	167 305 022
40	1 ¼	32	161 305 453	163 481 105	167 305 023
50	1 ½	40	161 305 503	163 481 106	167 305 024
63	2	50	161 305 553	163 481 107	167 305 025
75	2 ½	65	161 305 603		
90	3	80	161 305 653		



### Circlip (6)

d (mm)	Size (inch)	DN (mm)	PP-H Code	PVC-U Code
20	½	15	161 482 017	161 482 076
25	¾	20	161 482 018	161 482 017
32	1	25	161 482 019	161 482 018
40	1 ¼	32	161 482 020	161 482 019
50	1 ½	40	161 482 021	161 482 021
63	2	50	161 482 022	161 482 022



### Plug (4b)

**Model:**

- Only for PVC-U DN65-DN80

d (mm)	Size (inch)	DN (mm)	PVC-U Code
75	2 ½	65	161 305 604
90	3	80	161 305 654



### Body seal (5)

**Model:**

- Body seal vor PVC-U and PP-H

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
20	½	15	748 410 006	749 410 006
25	¾	20	748 410 001	749 410 001
32	1	25	748 410 007	749 410 007
40	1 ¼	32	748 410 002	749 410 002
50	1 ½	40	748 410 003	749 410 003
63	2	50	748 410 012	749 410 012
75	2 ½	65	748 410 013	749 410 013
90	3	80	748 410 014	749 410 014



### Valve nut (4a/15)

**Model:**

- Union nut PVC-U DN15-DN50, PP-H

d (mm)	Size (inch)	DN (mm)	PVC-U (4a) Code	PVC-C (4a) Code	ABS (4a) Code	PP-H (4a) Code	PP-H (15) Code
20	½	15	161 300 308	163 481 084	169 480 609	167 305 060	167 305 070
25	¾	20	161 300 358	163 481 085	169 480 610	167 305 061	167 305 071
32	1	25	161 300 408	163 481 086	169 480 611	167 305 062	167 305 072
40	1 ¼	32	161 300 458	163 481 087	169 480 612	167 305 063	167 305 073
50	1 ½	40	161 300 508	163 481 088	169 480 613	167 305 064	167 305 074
63	2	50	161 300 558	163 481 089	169 480 614	167 305 065	167 305 075



### Valve end metric (14)

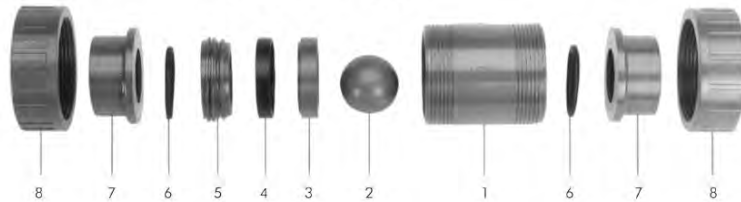
**Model:**

- Only available for PP-H version

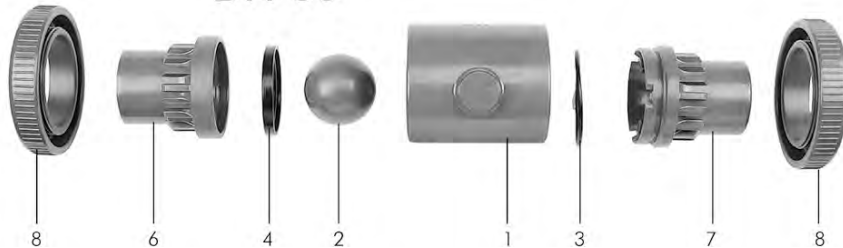
d (mm)	Size (inch)	DN (mm)	fusion socket PP-H Code	butt fusion spigot IR PP-H SDR11 Code
20	½	15	727 500 106	727 508 506
25	¾	20	727 500 107	727 508 507
32	1	25	727 500 108	727 508 508
40	1 ¼	32	727 500 109	727 508 509
50	1 ½	40	727 500 110	727 508 510
63	2	50	727 500 111	727 508 511

## Spare parts ball check valves type 360

### DN 10-50



### DN 80



### Central part

**Model:**

- Central part consisting of: body (1), ball (2), support ring (3), sealing ring (4) and union bush (5)

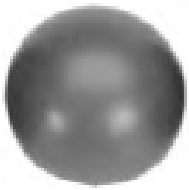
d (mm)	Size (inch)	DN (mm)
16	¾	10
20	½	15
25	¾	20

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<b>d</b>	<b>Size</b>	<b>DN</b>
(mm)	(inch)	(mm)
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50

<b>d</b>	<b>PVC-U EPDM Code</b>	<b>PVC-U FKM Code</b>	<b>PVC-C EPDM Code</b>	<b>PVC-C FKM Code</b>	<b>ABS EPDM Code</b>	<b>PP-H EPDM Code</b>
(mm)						
16	161 483 851	161 483 861	163 480 645	163 480 655	169 480 250	167 481 125
20	161 483 852	161 483 862	163 480 646	163 480 656	169 480 251	167 481 126
25	161 483 853	161 483 863	163 480 647	163 480 657	169 480 252	167 481 127
32	161 483 854	161 483 864	163 480 648	163 480 658	169 480 253	167 481 128
40	161 483 855	161 483 865	163 480 649	163 480 659	169 480 254	167 481 129
50	161 483 856	161 483 866	163 480 650	163 480 660	169 480 255	167 481 130
63	161 483 857	161 483 867	163 480 651	163 480 661	169 480 256	167 481 131

<b>d</b>	<b>PP-H FKM Code</b>
(mm)	
16	167 481 135
20	167 481 136
25	167 481 137
32	167 481 138
40	167 481 139
50	167 481 140
63	167 481 141



#### Ball (2)

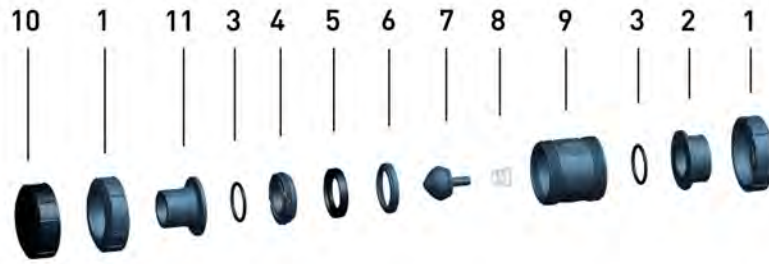
<b>d</b>	<b>Size</b>	<b>DN</b>	<b>PVC-U Code</b>	<b>PP-H with talc density 1.24 Code</b>	<b>PP-H 100% Code</b>	<b>PVDF Code</b>
(mm)	(inch)	(mm)				
16	¾	10	161 330 304	167 481 165	167 480 024	175 480 153
20	½	15	161 330 304	167 481 165	167 480 024	175 480 153
25	¾	20	161 330 354	167 481 166	167 480 025	175 480 154
32	1	25	161 330 404	167 481 167	167 480 026	175 480 155
40	1 ¼	32	161 330 454	167 481 168	167 480 027	175 480 156
50	1 ½	40	161 330 504	167 481 169	167 480 028	175 480 157
63	2	50	161 330 554	167 481 170	167 480 029	175 480 158
90	3	80	161 330 654			



#### Seal set (4, 6)

<b>d</b>	<b>Size</b>	<b>DN</b>	<b>EPDM Code</b>	<b>FKM Code</b>
(mm)	(inch)	(mm)		
16	¾	10	161 482 910	161 482 920
20	½	15	161 482 910	161 482 920
25	¾	20	161 482 911	161 482 921
32	1	25	161 482 912	161 482 922
40	1 ¼	32	161 482 913	161 482 923
50	1 ½	40	161 482 914	161 482 924
63	2	50	161 482 915	161 482 925

## Spare parts ventilating- and bleed valve type 591/595



### Central part with spring

#### Model:

- Central body consisting of: housing (9), union bush (4), support ring (6), float (7), spring Ni-monic 90 Halar coated (8), profile seal ring (5) and face seal (3)

d (mm)	Size (inch)	DN (mm)
16	¾	10
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50
75	2 ½	65
90	3	80
110	4	100

d (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code	PP-H EPDM Code
16	161 485 281	161 485 291	163 485 281	163 485 291	169 485 281	167 485 281
20	161 485 281	161 485 291	163 485 281	163 485 291	169 485 281	167 485 281
25	161 485 282	161 485 292	163 485 282	163 485 292	169 485 282	167 485 282
32	161 485 283	161 485 293	163 485 283	163 485 293	169 485 283	167 485 283
40	161 485 284	161 485 294	163 485 284	163 485 294	169 485 284	167 485 284
50	161 485 285	161 485 295	163 485 285	163 485 295	169 485 285	167 485 285
63	161 485 286	161 485 296	163 485 286	163 485 296	169 485 286	167 485 286
75	161 485 287	161 485 297	163 485 287	163 485 297	169 485 287	167 485 287
90	161 485 288	161 485 298	163 485 288	163 485 298	169 485 288	167 485 288
110	161 485 289	161 485 299	163 485 289	163 485 299	169 485 289	167 485 289

d (mm)	PP-H FKM Code	PVDF FKM Code
16	167 485 291	175 485 291
20	167 485 291	175 485 291
25	167 485 292	175 485 292
32	167 485 293	175 485 293
40	167 485 294	175 485 294
50	167 485 295	175 485 295
63	167 485 296	175 485 296
75	167 485 297	175 485 297
90	167 485 298	175 485 298
110	167 485 299	175 485 299



### Central part without spring

#### Model:

- Central body consisting of: housing (9), union bush (4), support ring (6), floater PP-H/PVDF (7), profile seal ring (5) and face seal (3)

d (mm)	Size (inch)	DN (mm)
16	3/8	10
20	1/2	15
25	3/4	20
32	1	25
40	1 1/4	32
50	1 1/2	40
63	2	50
75	2 1/2	65
90	3	80
110	4	100

d (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code	PP-H EPDM Code
16	161 485 261	161 485 271	163 485 261	163 485 271	169 485 261	167 485 261
20	161 485 261	161 485 271	163 485 261	163 485 271	169 485 261	167 485 261
25	161 485 262	161 485 272	163 485 262	163 485 272	169 485 262	167 485 262
32	161 485 263	161 485 273	163 485 263	163 485 273	169 485 263	167 485 263
40	161 485 264	161 485 274	163 485 264	163 485 274	169 485 264	167 485 264
50	161 485 265	161 485 275	163 485 265	163 485 275	169 485 265	167 485 265
63	161 485 266	161 485 276	163 485 266	163 485 276	169 485 266	167 485 266
75	161 485 267	161 485 277	163 485 267	163 485 277	169 485 267	167 485 267
90	161 485 268	161 485 278	163 485 268	163 485 278	169 485 268	167 485 268
110	161 485 269	161 485 279	163 485 269	163 485 279	169 485 269	167 485 269

d (mm)	PP-H FKM Code	PVDF FKM Code
16	167 485 271	175 485 271
20	167 485 271	175 485 271
25	167 485 272	175 485 272
32	167 485 273	175 485 273
40	167 485 274	175 485 274
50	167 485 275	175 485 275
63	167 485 276	175 485 276
75	167 485 277	175 485 277
90	167 485 278	175 485 278
110	167 485 279	175 485 279



### Cone (7)

#### Model:

- For type 595

d (mm)	Size (inch)	DN (mm)	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
16	3/8	10	161 491 151	163 482 151	169 482 151	167 485 151	175 484 151
25	3/4	20	161 491 152	163 482 152	169 482 152	167 485 152	175 484 152
32	1	25	161 491 153	163 482 153	169 482 153	167 485 153	175 484 153
40	1 1/4	32	161 491 154	163 482 154	169 482 154	167 485 154	175 484 154
50	1 1/2	40	161 491 155	163 482 155	169 482 155	167 485 155	175 484 155
63	2	50	161 491 156	163 482 156	169 482 156	167 485 156	175 484 156
75	2 1/2	65	161 491 157	163 482 157	169 482 157	167 485 157	175 484 157
90	3	80	161 491 158	163 482 158	169 482 158	167 485 158	175 484 158
110	4	100	161 491 159	163 482 159	169 482 159	167 485 159	175 484 159





### Floater (7)

**Model:**

- For type 591

d (mm)	Size (inch)	DN (mm)	PP-H Code	PVDF Code
16	¾	10	167 485 151	175 484 161
20	½	15	167 485 151	175 484 161
25	¾	20	167 485 152	175 484 162
32	1	25	167 485 153	175 484 163
40	1 ¼	32	167 485 154	175 484 164
50	1 ½	40	167 485 155	175 484 165
63	2	50	167 485 156	175 484 166
75	2 ½	65	167 485 157	175 484 167
90	3	80	167 485 158	175 484 168
110	4	100	167 485 159	175 484 169



### Protective cap (10)

**Model:**

- Protects the piping system from dirt particles out of the ambient air  
Can also be used as tool for opening and closing the valve union bushing

d (mm)	Size (inch)	DN (mm)	PP-GF Code
16	¾	10	167 485 361
20	½	15	167 485 361
25	¾	20	167 485 362
32	1	25	167 485 363
40	1 ¼	32	167 485 364
50	1 ½	40	167 485 365
63	2	50	167 485 366
75	2 ½	65	167 485 367
90	3	80	167 485 368
110	4	100	167 485 369



### Seal set

**Model:**

- Seal set consisting of: profile seal ring (5) and face seal (3)

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
16	¾	10	161 485 241	161 485 251
20	½	15	161 485 241	161 485 251
25	¾	20	161 485 242	161 485 252
32	1	25	161 485 243	161 485 253
40	1 ¼	32	161 485 244	161 485 254
50	1 ½	40	161 485 245	161 485 255
63	2	50	161 485 246	161 485 256
75	2 ½	65	161 485 247	161 485 257
90	3	80	161 485 248	161 485 258
110	4	100	161 485 249	161 485 259



### Spring (8)

**Model:**

- Material: V2A, code: 1.4310, HALAR® coated

d (mm)	Size (inch)	DN (mm)	V2A, HALAR coated Code
16	3/8	10	161 485 112
20	1/2	15	161 485 112
25	3/4	20	161 485 112
32	1	25	161 485 113
40	1 1/4	32	161 485 114
50	1 1/2	40	161 485 115
63	2	50	161 485 116
75	2 1/2	65	161 485 117
90	3	80	161 485 118
110	4	100	161 485 119



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### Handle for dismantling

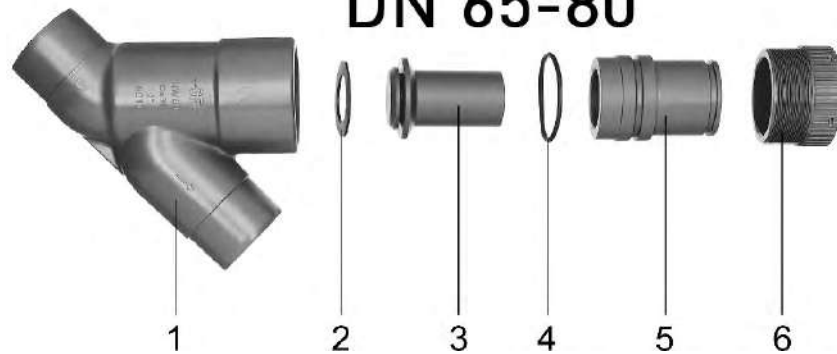
d (mm)	Size (inch)	DN (mm)	red Code	black Code
16	3/8	10	167 484 088	167 484 076
20	1/2	15	167 484 088	167 484 076
25	3/4	20	167 484 089	167 484 077
32	1	25	167 484 090	167 484 078
40	1 1/4	32	167 484 091	167 484 079
50	1 1/2	40	167 484 092	167 484 080
63	2	50	167 484 093	167 484 081
75	2 1/2	65	167 484 094	167 484 082
90	3	80	167 484 095	167 484 083
110	4	100	167 484 096	167 484 084

## Spare parts angle seat valve type 303/304

### DN 10-50



### DN 65-80



#### Body (1)

d (mm)	Size (inch)	DN (mm)	PVC-U Code	PVC-U transparent Code
16	¾	10	161 480 699	
20	½	15	161 480 700	192 480 001
25	¾	20	161 480 701	192 480 002
32	1	25	161 300 401	192 301 401
40	1 ¼	32	161 300 451	192 301 451
50	1 ½	40	161 300 501	192 301 501
63	2	50	161 300 551	192 301 551
75	2 ½	65	161 300 601	
90	3	80	161 300 651	192 301 651



#### Closure plug (5)

d (mm)	Size (inch)	DN (mm)	PVC-U Code
16	¾	10	161 480 648
20	½	15	161 480 649
25	¾	20	161 480 650
32	1	25	161 480 651
40	1 ¼	32	161 480 652
50	1 ½	40	161 480 653
63	2	50	161 480 654
75	2 ½	65	161 490 412
90	3	80	161 490 413



### Plug

#### Model:

- DN65-DN80 (6)

d (mm)	Size (inch)	DN (mm)	PVC-U Code
75	2 ½	65	161 305 604
90	3	80	161 305 654



### Flat gasket (2)

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
16	¾	10	161 480 664	161 480 673
20	½	15	161 480 665	161 480 674
25	¾	20	161 480 666	161 480 675
32	1	25	161 480 667	161 480 676
40	1 ¼	32	161 480 668	161 480 677
50	1 ½	40	161 480 669	161 480 678
63	2	50	161 480 670	161 480 679
75	2 ½	65	161 480 671	161 480 680
90	3	80	161 480 672	161 480 681



### Circlip (7)

d (mm)	Size (inch)	DN (mm)	PVC-U Code
16	¾	10	161 482 076
20	½	15	161 482 017
25	¾	20	161 482 018
32	1	25	161 482 019
40	1 ¼	32	161 482 020
50	1 ½	40	161 482 021
63	2	50	161 482 022



### Union nut

#### Model:

- DN10-DN50 (6)

d (mm)	Size (inch)	DN (mm)	PVC-U Code
16	¾	10	161 300 258
20	½	15	161 300 308
25	¾	20	161 300 358
32	1	25	161 300 408
40	1 ¼	32	161 300 458
50	1 ½	40	161 300 508
63	2	50	161 300 558



### O-ring (4)

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
16	¾	10	748 410 059	749 410 059
20	½	15	748 410 106	749 410 106
25	¾	20	748 410 001	749 410 001

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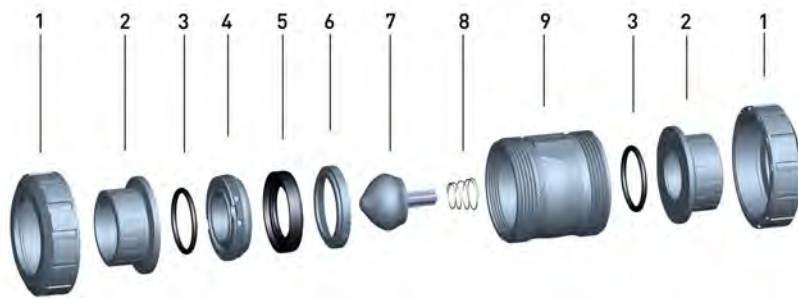
d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
32	1	25	748 410 007	749 410 007
40	1 ¼	32	748 410 002	749 410 002
50	1 ½	40	748 410 102	749 410 102
63	2	50	748 410 101	749 410 101
75	2 ½	65	748 410 119	749 410 119
90	3	80	748 410 014	749 410 014



### Piston (3)

d (mm)	Size (inch)	DN (mm)	PVC-U Code
16	¾	10	161 480 682
20	½	15	161 480 683
25	¾	20	161 480 684
32	1	25	161 480 685
40	1 ¼	32	161 480 686
50	1 ½	40	161 480 687
63	2	50	161 480 688
75	2 ½	65	161 480 689
90	3	80	161 480 690

## Spare parts cone check valve type 561/562



### Central part without spring

#### Model:

- Central body consisting of: housing (9), union bush (4), support ring (6), cone (7), profile seal ring (5) and face seal (3)

d (mm)	Size (inch)	DN (mm)
16	¾	10
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50
75	2 ½	65
90	3	80
110	4	100

table continued on the next page

d (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code	PP-H EPDM Code
16	161 485 201	161 485 211	163 485 201	163 485 211	169 485 201	167 485 201
20	161 485 201	161 485 211	163 485 201	163 485 211	169 485 201	167 485 201
25	161 485 202	161 485 212	163 485 202	163 485 212	169 485 202	167 485 202
32	161 485 203	161 485 213	163 485 203	163 485 213	169 485 203	167 485 203
40	161 485 204	161 485 214	163 485 204	163 485 214	169 485 204	167 485 204
50	161 485 205	161 485 215	163 485 205	163 485 215	169 485 205	167 485 205
63	161 485 206	161 485 216	163 485 206	163 485 216	169 485 206	167 485 206
75	161 485 207	161 485 217	163 485 207	163 485 217	169 485 207	167 485 207
90	161 485 208	161 485 218	163 485 208	163 485 218	169 485 208	167 485 208
110	161 485 209	161 485 219	163 485 209	163 485 219	169 485 209	167 485 209

d (mm)	PP-H FKM Code	PVDF FKM Code
16	167 485 211	175 485 211
20	167 485 211	175 485 211
25	167 485 212	175 485 212
32	167 485 213	175 485 213
40	167 485 214	175 485 214
50	167 485 215	175 485 215
63	167 485 216	175 485 216
75	167 485 217	175 485 217
90	167 485 218	175 485 218
110	167 485 219	175 485 219



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#### Handle for dismantling

d (mm)	Size (inch)	DN (mm)	red Code	black Code
16	3/8	10	167 484 088	167 484 076
20	1/2	15	167 484 088	167 484 076
25	3/4	20	167 484 089	167 484 077
32	1	25	167 484 090	167 484 078
40	1 1/4	32	167 484 091	167 484 079
50	1 1/2	40	167 484 092	167 484 080
63	2	50	167 484 093	167 484 081
75	2 1/2	65	167 484 094	167 484 082
90	3	80	167 484 095	167 484 083
110	4	100	167 484 096	167 484 084



#### Face seal (3)

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
16	3/8	10	748 410 059	749 410 059
20	1/2	15	748 410 059	749 410 059
25	3/4	20	748 410 106	749 410 106
32	1	25	748 410 151	749 410 151
40	1 1/4	32	748 410 062	749 410 062
50	1 1/2	40	748 410 003	749 410 003
63	2	50	748 410 231	749 410 231
75	2 1/2	65	748 410 119	749 410 119
90	3	80	748 410 023	749 410 023
110	4	100	748 410 254	749 410 254



### Seal set

#### Model:

- Seal set consisting of: profile seal ring (5) and face seal (3)

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
16	¾	10	161 485 241	161 485 251
20	½	15	161 485 241	161 485 251
25	¾	20	161 485 242	161 485 252
32	1	25	161 485 243	161 485 253
40	1 ¼	32	161 485 244	161 485 254
50	1 ½	40	161 485 245	161 485 255
63	2	50	161 485 246	161 485 256
75	2 ½	65	161 485 247	161 485 257
90	3	80	161 485 248	161 485 258
110	4	100	161 485 249	161 485 259



### Profile seal ring (5)

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
16	¾	10	748 436 001	749 436 001
20	½	15	748 436 001	749 436 001
25	¾	20	748 436 002	749 436 002
32	1	25	748 436 003	749 436 003
40	1 ¼	32	748 436 004	749 436 004
50	1 ½	40	748 436 005	749 436 005
63	2	50	748 436 006	749 436 006
75	2 ½	65	748 436 007	749 436 007
90	3	80	748 436 008	749 436 008
110	4	100	748 436 009	749 436 009



### Cone (7)

d (mm)	Size (inch)	DN (mm)
16	¾	10
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50
75	2 ½	65
90	3	80
110	4	100

d (mm)	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PP-Talkum 20% Code	PVDF Code
16	161 491 151	163 482 151	169 482 151	167 485 151	167 485 351	175 484 151
20	161 491 151	163 482 151	169 482 151	167 485 151	167 485 351	175 484 151
25	161 491 152	163 482 152	169 482 152	167 485 152	167 485 352	175 484 152
32	161 491 153	163 482 153	169 482 153	167 485 153	167 485 353	175 484 153
40	161 491 154	163 482 154	169 482 154	167 485 154	167 485 354	175 484 154
50	161 491 155	163 482 155	169 482 155	167 485 155	167 485 355	175 484 155
63	161 491 156	163 482 156	169 482 156	167 485 156	167 485 356	175 484 156
75	161 491 157	163 482 157	169 482 157	167 485 157	167 485 357	175 484 157
90	161 491 158	163 482 158	169 482 158	167 485 158	167 485 358	175 484 158
110	161 491 159	163 482 159	169 482 159	167 485 159	167 485 359	175 484 159



### Spring (8)

#### Model:

- Material: NIMONIC 90, code: 2.4632
- Material: V2A, code: 1.4310, HALAR® coated
- Material: V2A, code: 1.4310

d (mm)	Size (inch)	DN (mm)	Stainless steel V2A Code	V2A HALAR coated Code	NIMONIC 90 Code
16	⅜	10	161 485 132	161 485 142	161 485 152
20	½	15	161 485 132	161 485 142	161 485 152
25	¾	20	161 485 132	161 485 142	161 485 152
32	1	25	161 485 133	161 485 143	161 485 153
40	1 ¼	32	161 485 134	161 485 144	161 485 154
50	1 ½	40	161 485 135	161 485 145	161 485 155
63	2	50	161 485 136	161 485 146	161 485 156
75	2 ½	65	161 485 137	161 485 147	161 485 157
90	3	80	161 485 138	161 485 148	161 485 158
110	4	100	161 485 139	161 485 149	161 485 159



### Central part with spring

#### Model:

- Central body consisting of: housing (9), union bush (4), support ring (6), cone (7), spring V2A (8), profile seal ring (5) and face seal (3)

d (mm)	Size (inch)	DN (mm)
16	⅜	10
20	½	15
25	¾	20
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50
75	2 ½	65
90	3	80
110	4	100

d (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code	PP-H EPDM Code
16	161 485 221	161 485 231	163 485 221	163 485 231	169 485 221	167 485 231
20	161 485 221	161 485 231	163 485 221	163 485 231	169 485 221	167 485 231
25	161 485 222	161 485 232	163 485 222	163 485 232	169 485 222	167 485 232
32	161 485 223	161 485 233	163 485 223	163 485 233	169 485 223	167 485 233
40	161 485 224	161 485 234	163 485 224	163 485 234	169 485 224	167 485 234
50	161 485 225	161 485 235	163 485 225	163 485 235	169 485 225	167 485 235
63	161 485 226	161 485 236	163 485 226	163 485 236	169 485 226	167 485 236
75	161 485 227	161 485 237	163 485 227	163 485 237	169 485 227	167 485 237
90	161 485 228	161 485 238	163 485 228	163 485 238	169 485 228	167 485 238
110	161 485 229	161 485 239	163 485 229	163 485 239	169 485 229	167 485 239

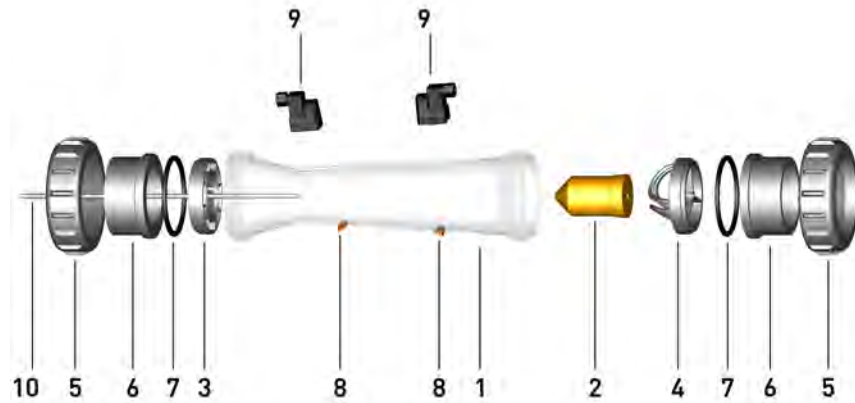
d (mm)	PP-H FKM Code	PVDF FKM Code
16	167 485 241	175 485 231
20	167 485 241	175 485 231
25	167 485 242	175 485 232
32	167 485 243	175 485 233
40	167 485 244	175 485 234
50	167 485 245	175 485 235

table continued on the next page



d (mm)	PP-H FKM Code	PVDF FKM Code
63	167 485 246	175 485 236
75	167 485 247	175 485 237
90	167 485 248	175 485 238
110	167 485 249	175 485 239

## Variable area flow meter type 350



### Taper tube with water scale (1)



d (mm)	Size (inch)	DN (mm)	Scale range (l/min)	PVC-U transparent Code	Polyamid Code	Polysulfon Code
32	1	25	50 - 500	198 350 055	198 350 070	198 350 085
32	1	25	100 - 1000	198 350 056	198 350 071	198 350 086
40	1 ¼	32	150 - 1500	198 350 057	198 350 072	198 350 087
40	1 ¼	32	250 - 2500	198 350 058	198 350 073	198 350 088
50	1 ½	40	200 - 2000	198 350 059	198 350 074	198 350 089
50	1 ½	40	300 - 3000	198 350 060	198 350 075	198 350 090
50	1 ½	40	600 - 6000	198 350 061	198 350 076	198 350 091
63	2	50	600 - 6000	198 350 062	198 350 077	198 350 092
63	2	50	1000 - 10000	198 350 063	198 350 078	198 350 093
63	2	50	1500 - 15000	198 350 064	198 350 079	198 350 094
75	2 ½	65	2000 - 20000	198 350 065	198 350 080	198 350 095
75	2 ½	65	3000 - 30000	198 350 066	198 350 081	198 350 096
75	2 ½	65	8000 - 60000	198 350 067	198 350 082	198 350 097

### Taper tube without scale (1)



d (mm)	Size (inch)	DN (mm)	Scale range (l/h)	PVC-U transparent Code	Polyamid Code	Polysulfon Code
32	1	25	50 - 500	198 350 255	198 350 270	198 350 285
32	1	25	100 - 1000	198 350 256	198 350 271	198 350 286
40	1 ¼	32	150 - 1500	198 350 257	198 350 272	198 350 287
40	1 ¼	32	250 - 2500	198 350 258	198 350 273	198 350 288
50	1 ½	40	200 - 2000	198 350 259	198 350 274	198 350 289
50	1 ½	40	300 - 3000	198 350 260	198 350 275	198 350 290
50	1 ½	40	600 - 6000	198 350 261	198 350 276	198 350 291
63	2	50	600 - 6000	198 350 262	198 350 277	198 350 292
63	2	50	1000 - 10000	198 350 263	198 350 278	198 350 293

table continued on the next page

d (mm)	Size (inch)	DN (mm)	Scale range (l/h)	PVC-U transparent Code	Polyamid Code	Polysulfon Code
63	2	50	1500 - 15000	198 350 264	198 350 279	198 350 294
75	2 ½	65	2000 - 20000	198 350 265	198 350 280	198 350 295
75	2 ½	65	3000 - 30000	198 350 266	198 350 281	198 350 296
75	2 ½	65	8000 - 60000	198 350 267	198 350 282	198 350 297



#### Insert PVDF (3,4)

d (mm)	Size (inch)	DN (mm)	Scale range (l/h)	top (4) Code	bottom (3) Code
32	1	25	50 - 500	198 335 970	198 335 977
32	1	25	100 - 1000	198 335 970	198 335 977
40	1 ¼	32	150 - 1500	198 335 971	198 335 978
40	1 ¼	32	250 - 2500	198 335 971	198 335 978
50	1 ½	40	200 - 2000	198 335 972	198 335 979
50	1 ½	40	300 - 3000	198 335 972	198 335 979
50	1 ½	40	600 - 6000	198 335 972	198 335 979
63	2	50	600 - 6000	198 335 973	198 335 980
63	2	50	1000 - 10000	198 335 973	198 335 980
63	2	50	1500 - 15000	198 335 974	
75	2 ½	65	2000 - 20000	198 335 975	
75	2 ½	65	3000 - 30000	198 335 975	
75	2 ½	65	8000 - 60000	198 335 975	



#### Float PVDF (2)

d (mm)	Size (inch)	DN (mm)	Scale range (l/h)	Without magnet Code	With magnet Code
32	1	25	50 - 500	198 335 455	198 335 470
32	1	25	100 - 1000	198 335 455	198 335 470
40	1 ¼	32	150 - 1500	198 335 455	198 335 470
40	1 ¼	32	250 - 2500	198 335 455	198 335 470
50	1 ½	40	200 - 2000	198 335 456	198 335 471
50	1 ½	40	300 - 3000	198 335 457	198 335 471
50	1 ½	40	600 - 6000	198 335 457	198 335 471
63	2	50	600-6000 / 1000-10000 / 1500-15000	198 335 458	198 335 472
75	2 ½	65	2000 - 20000	198 335 459	198 335 473
75	2 ½	65	3000 - 30000	198 335 459	198 335 473
75	2 ½	65	8000 - 60000	198 335 460	198 335 474
50	1 ½	40	600 - 6000	198 335 457	



#### Guiding rod (10)

##### Model:

- Only for DN50 (1'500 - 15'000 l/h) and DN65 (all metering ranges)

d (mm)	Size (inch)	DN (mm)	Scale range (l/h)	Peek Code	Stainless steel Code	PVDF Code
63	2	50	1500 - 15000	198 350 980	198 350 098	198 350 981
75	2 ½	65	2000 - 20000	198 350 980	198 350 098	198 350 981
75	2 ½	65	3000 - 30000	198 350 980	198 350 098	198 350 981
75	2 ½	65	8000 - 60000	198 350 980	198 350 098	198 350 981



### Insert guiding rod PVDF (for 10)

#### Model:

- Only for DN50 (1'500 - 15'000 l/h) and DN65 (all metering ranges)

d (mm)	Size (inch)	DN (mm)	Scale range (l/h)	for PEEK and stainless steel Code	for PVDF/ SS Code
63	2	50	1500 - 15000	198 335 986	198 335 953
75	2 ½	65	2000 - 20000	198 335 987	198 335 954
75	2 ½	65	3000 - 30000	198 335 987	198 335 954
75	2 ½	65	8000 - 60000	198 335 987	198 335 954



### O-rings (7)

d (mm)	Size (inch)	DN (mm)	EPDM Code	FKM Code
32	1	25	748 410 008	749 410 008
40	1 ¼	32	748 410 009	749 410 009
50	1 ½	40	748 410 010	749 410 010
63	2	50	748 410 011	749 410 011
75	2 ½	65	748 410 014	749 410 014



### Union nut (5)

Union nut not useable for the special version with taper tube in PVDF

d (mm)	Size (inch)	DN (mm)	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
32	1	25	721 890 008	723 690 008	729 890 408	727 890 408	735 690 408
40	1 ¼	32	721 890 009	723 690 009	729 890 409	727 890 409	735 690 409
50	1 ½	40	721 890 010	723 690 010	729 890 410	727 890 410	735 690 410
63	2	50	721 890 011	723 690 011	729 890 411	727 890 411	735 690 411
75	2 ½	65	198 806 429			198 806 421	198 806 422



### Union end / Socket (6)

For DN65 PVDF only spigot

d (mm)	Size (inch)	DN (mm)
32	1	25
40	1 ¼	32
50	1 ½	40
63	2	50
75	2 ½	65

d (mm)	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code	PE80 Code
32	721 500 108	723 800 108	729 800 108	727 500 108	735 600 108	734 600 108
40	721 500 109	723 800 109	729 800 109	727 500 109	735 600 109	734 600 109
50	721 500 110	723 800 110	729 800 110	727 500 110	735 600 110	734 600 110
63	721 500 111	723 800 111	729 800 111	727 500 111	735 600 111	734 600 111
75	721 600 112	700 253 867	700 246 112	700 253 866		700 246 419



### Union end / Spigot (6)

d (mm)	Size (inch)	DN (mm)	PP-H Code	PVDF Code	PE100 Code
32	1	25	727 508 508	735 608 608	753 508 608
40	1 ¼	32	727 508 509	735 608 609	753 508 609
50	1 ½	40	727 508 510	735 608 610	753 508 610
63	2	50	727 508 511	735 608 611	753 508 611
75	2 ½	65	700 256 401	175 483 013	700 246 420



### Exchange kit

#### Model:

- Exchange kit consisting of: guiding rod (PVDF/V4A), insert guiding rod and insert bottom
- Only for DN50 (1'500 - 15'000 l/h) and DN65 (all metering ranges)

d (mm)	Size (inch)	DN (mm)	Scale range (l/h)	Code
63	2	50	1500 - 15000	198 350 895
75	2 ½	65	2000 - 20000	198 350 896
75	2 ½	65	3000 - 30000	198 350 896
75	2 ½	65	8000 - 80000	198 350 896

## Variable area flow meter type 335



### Taper tube with water scale (1)

- PVC-U transparent

d (mm)	Size (inch)	DN (mm)	Scale range (l/h)	PVC-U transparent Code	Polyamid Code	Polysulfon Code
32	1	25	50 - 500	198 335 055	198 335 070	198 335 085
32	1	25	100 - 1000	198 335 056	198 335 071	198 335 086
40	1 ¼	32	150 - 1500	198 335 057	198 335 072	198 335 087
40	1 ¼	32	250 - 2500	198 335 058	198 335 073	198 335 088
50	1 ½	40	200 - 2000	198 335 059	198 335 074	198 335 089
50	1 ½	40	300 - 3000	198 335 060	198 335 075	198 335 090
50	1 ½	40	600 - 6000	198 335 061	198 335 076	198 335 091
63	2	50	600 - 6000	198 335 062	198 335 077	198 335 092
63	2	50	1000 - 10000	198 335 063	198 335 078	198 335 093



table continued on the next page

d (mm)	Size (inch)	DN (mm)	Scale range (l/h)	PVC-U transparent Code	Polyamid Code	Polysulfon Code
63	2	50	1500 - 15000	198 335 064	198 335 079	198 335 094
75	2 ½	65	2000 - 20000	198 335 065	198 335 080	198 335 095
75	2 ½	65	3000 - 30000	198 335 066	198 335 081	198 335 096
75	2 ½	65	8000 - 60000	198 335 067	198 335 082	198 335 097



#### Taper tube without scale (1)

Scale range (l/h)	d (mm)	Size (inch)	DN (mm)	PVC-U transparent Code	Polyamid Code	Polysulfon Code
50 - 500	32	1	25	198 335 255	198 335 270	198 335 285
100 - 1000	32	1	25	198 335 256	198 335 271	198 335 286
150 - 1500	40	1 ¼	32	198 335 257	198 335 272	198 335 287
250 - 2500	40	1 ¼	32	198 335 258	198 335 273	198 335 288
200 - 2000	50	1 ½	40	198 335 259	198 335 274	198 335 289
300 - 3000	50	1 ½	40	198 335 260	198 335 275	198 335 290
600 - 6000	50	1 ½	40	198 335 261	198 335 276	198 335 291
600 - 6000	63	2	50	198 335 262	198 335 277	198 335 292
1000 - 10000	63	2	50	198 335 263	198 335 278	198 335 293
1500 - 15000	63	2	50	198 335 264	198 335 279	198 335 294
2000 - 20000	75	2 ½	65	198 335 265	198 335 280	198 335 295
3000 - 30000	75	2 ½	65	198 335 266	198 335 281	198 335 296
8000 - 60000	75	2 ½	65	198 335 267	198 335 282	198 335 297

## Spare part for variable area flow meter SK50-SK73/SK500-SK730

#### Short version taper tube Polysulfone

d (mm)	DN (mm)	Type	Code
16	10	SK 50 / 500	198 801 341
16	10	SK 51 / 510	198 801 342
16	10	SK 52 / 520	198 801 343
20	15	SK 60 / 600	198 801 449
20	15	SK 61 / 610	198 801 450
20	15	SK 62 / 620	198 801 451
32	25	SK 70 / 700	198 801 445
32	25	SK 71 / 710	198 801 338
32	25	SK 72 / 720	198 801 339
32	25	SK 73 / 730	198 801 340

#### Short version taper tube PVC-U transparent

d (mm)	DN (mm)	Type	Code
16	10	SK 50 / 500	198 803 790
16	10	SK 51 / 510	198 803 791
16	10	SK 52 / 520	198 803 792
20	15	SK 60 / 600	198 803 793
20	15	SK 61 / 610	198 803 794
20	15	SK 62 / 620	198 803 795

table continued on the next page

d (mm)	DN (mm)	Type	Code
32	25	SK 70 / 700	<b>198 803 796</b>
32	25	SK 71 / 710	<b>198 803 797</b>
32	25	SK 72 / 720	<b>198 803 798</b>
32	25	SK 73 / 730	<b>198 803 799</b>

#### Short version float PVDF Without magnet

d (mm)	DN (mm)	Type	Code
16	10	SK 50 / 51 / 52	<b>198 806 219</b>
20	15	SK 60 / 61 / 62	<b>198 806 220</b>
32	25	SK 70 / 71 / 72 / 73	<b>198 806 221</b>

#### Short version float PVDF With magnet bistable

d (mm)	DN (mm)	Type	Code
16	10	SK 500 / 510 / 520	<b>198 806 222</b>
20	15	SK 600 / 610 / 620	<b>198 806 223</b>
32	25	SK 700 / 710 / 720 / 730	<b>198 806 224</b>

#### Short version float PTFE Without magnet

d (mm)	DN (mm)	Type	Code
32	25	SK 73	<b>198 807 166</b>

#### Short version top insert PVDF

d (mm)	DN (mm)	Type	Code
16	10	SK 50 / 500; 51 / 510; 52 / 520	<b>198 807 188</b>
20	15	SK 60 / 600; 61 / 610; 62 / 620	<b>198 807 187</b>
32	25	SK 70 / 700; 71 / 710; 72 / 720; 73 / 730	<b>198 807 182</b>

## Spare parts solenoid valve type 157

#### Wear part set

	EPDM Code	FKM Code
e.g. diaphragm	<b>198 808 012</b>	<b>198 808 013</b>

### Coil set

Voltage	Function	EPDM Code	FKM Code
24V DC	A	198 808 000	198 808 006
24V DC	B	198 808 001	198 808 007
24V UC	A	198 808 002	198 808 008
24V UC	B	198 808 003	198 808 009
230V AC	A	198 808 004	198 808 010
230V AC	B	198 808 005	198 808 011

## Spare parts solenoid valve type 160/161

### Wear part set

d (mm)	DN (mm)	EPDM Code	FKM Code
16	10	198 808 023	198 808 026
20	15	198 808 024	198 808 027
25	20	198 808 025	198 808 028

### Spare part kit

Function	UC Code	50Hz Code
A	198 808 017	198 808 021
B	198 808 018	
E	198 808 019	
F	198 808 020	198 808 022

### Coil set

24V UC Code	230 V UC Code	230 V/ 50Hz Code
198 808 014	198 808 015	198 808 016

## Spare parts solenoid valve type 166

### Wear part set

	EPDM Code	FKM Code
e.g. diaphragm	198 808 053	198 808 054

### Coil set

Function	Voltage	EPDM Code	FKM Code
A	24V DC	198 808 041	198 808 047
A	230V AC	198 808 042	198 808 048
C	24V DC	198 808 043	

table continued on the next page

Function	Voltage	EPDM Code	FKM Code
C	24V UC		198 808 049
C	230V AC	198 808 044	198 808 050
E	24V DC	198 808 045	198 808 051
E	230V AC	198 808 046	198 808 052

## Spare parts solenoid valve type 165

### Wear part set

d-d (mm)	DN-DN (mm)	EPDM Code	FKM Code
20 - 25	15 - 20	198 808 035	198 808 038
32 - 40	25 - 32	198 808 036	198 808 039
50 - 63	40 - 50	198 808 037	198 808 040

### Coil set

Voltage	EPDM Code	FKM Code
24V DC	198 808 029	198 808 032
230V AC	198 808 030	198 808 033
110V AC	198 808 031	198 808 034

## Pressure regulating valve type 582/586



### Cartridge type 582

DN (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	PP-H EPDM Code	PP-H FKM Code
10-15	161 489 131	161 489 231	163 489 131	163 489 231	167 489 131	167 489 231
20-25	161 489 133	161 489 233	163 489 133	163 489 233	167 489 133	167 489 233
32-50	161 489 136	161 489 236	163 489 136	163 489 236	167 489 136	167 489 236

DN (mm)	PVDF FKM Code	PVDF HP FKM Code
10-15	185 489 131	180 489 131
20-25	185 489 133	180 489 133
32-50	185 489 136	180 489 136





### Cartridge type 586

DN (mm)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	PP-H EPDM Code	PP-H FKM Code
10-15	161 489 161	161 489 261	163 489 161	163 489 261	167 489 161	167 489 261
20-25	161 489 163	161 489 263	163 489 163	163 489 263	167 489 163	167 489 263
32-50	161 489 166	161 489 266	163 489 166	163 489 266	167 489 166	167 489 266

DN (mm)	PVDF FKM Code
10-15	185 489 161
20-25	185 489 163
32-50	185 489 166

### Cover cap

DN (mm)	Type	Code
10-15	582/586	198 806 391
20-25	582/586	198 806 393
32-50	582/586	198 806 396



### Manometer adapter

#### Model:

- For mediaseparation from pressure gauge to process medium
- PTFE/EPDM Manometer diaphragm
- \*EPDM and FKM O-Ring included in Set

DN (mm)	EPDM/FKM Code	FKM white (HP) Code
10-50	198 806 650	198 806 654

### Manometer

#### Model:

- Display with double scale: 0-4 bar / 0-58 psi, size: ø 40mm
- Display with double scale: 0-10bar / 0-150psi, size: ø 40mm
- Connection G 1/4 center back mount

DN (mm)	Material	EPDM/FKM 0-10bar Code	FKM white (HP) 0-10bar Code	EPDM/FKM 0-4bar Code
10-50	Brass	198 806 651	198 806 655	198 806 963
10-50	Stainless Steel	198 806 652	198 806 656	198 806 962

### Manometer plug

- For maintenance

DN (mm)	Code
10-50	198 806 653

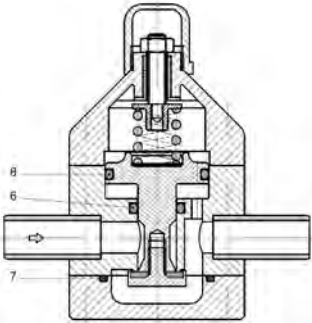
## Hook wrench

DN (mm)	Type	Code
10-15	582/586	198 806 451
20-25	582/586	198 806 452
32-50	582/586	198 806 453

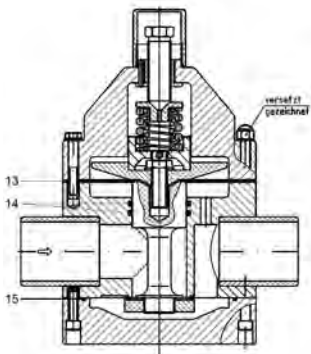
## Pressure reducing valve type V182/82

### Model:

- Spare part kit contains: diaphragm and o-rings



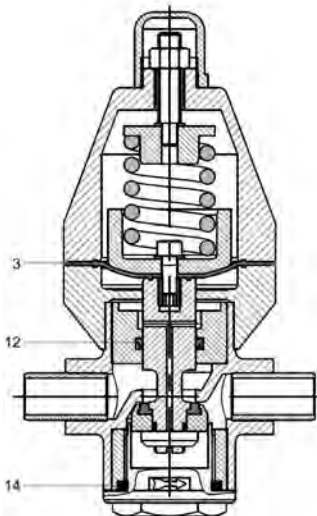
Type	DN-DN (mm)	EPDM Code	FKM Code	PTFE Code
V182	10 - 15	700 254 285	700 254 289	
V182	20 - 25	700 254 286	700 254 290	
V182	32 - 40	700 254 287	700 254 291	
V182	50	700 254 288	700 254 292	
V82	65	700 254 404		700 254 308
V82	80	700 254 405		700 254 309
V82	100	700 254 406		700 254 310



## Pressure reducing valve type V782

### Model:

- Spare part kit contains: diaphragm and o-rings



Type	DN-DN (mm)	EPDM Code	PTFE Code
V782	10 - 15	700 254 318	700 254 321
V782	20 - 25	700 254 319	700 254 322
V782	32 - 40	700 254 320	700 254 323

### Pressure relief valve type V185/85

**Model:**

- Spare part kit contains: diaphragm

Type	DN-DN (mm)	EPDM Code	PTFE Code
V185	10 - 20	700 254 333	700 254 339
V185	25 - 32	700 254 334	700 254 340
V185	40 - 50	700 254 335	700 254 341
V85	65	700 254 336	700 254 342
V85	80	700 254 337	700 254 343
V85	100	700 254 338	700 254 344

---

### Pressure retaining valve type V186/86

**Model:**

- Spare part kit contains: diaphragm

Type	DN-DN (mm)	EPDM Code	PTFE Code
V185/186	10 - 20	700 254 333	700 254 339
V185/186	25 - 32	700 254 334	700 254 340
V185/186	40 - 50	700 254 335	700 254 341
V86	65	700 254 376	700 254 379
V86	80	700 254 377	700 254 380
V86	100	700 254 378	700 254 381

---

### Pressure retaining valve type V786

**Model:**

- Spare part kit contains: diaphragm

Type	DN-DN (mm)	EPDM Code	PTFE Code
V786	10 - 15	700 254 389	700 254 392
V786	20 - 25	700 254 390	700 254 393
V786	32 - 40	700 254 391	700 254 394

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# General Condition of Supply of Georg Fischer Piping Systems Limited, Schaffhausen

## 1 General

- 1.1 These General Conditions shall apply to all Products supplied by Georg Fischer Piping Systems Limited («Georg Fischer») to the Purchaser.  
They shall also apply to all future business even when no express reference is made to them.
- 1.2 Any deviating or supplementary conditions especially Purchaser's general conditions of purchase and verbal agreements shall only be applicable if accepted in writing by Georg Fischer.
- 1.3 The written form shall be deemed to be fulfilled by all forms of transmission, evidenced in the form of text, such as telefax, e-mail, etc.

## 2 Tenders

Tenders shall only be binding if they contain a specifically stated period for acceptance.

## 3 Scope of Delivery

- 3.1 Georg Fischer's product range is subject to change.
- 3.2 The confirmation of order shall govern the scope and execution of the contract.

## 4 Data and Documents

- 4.1 Technical documents such as drawings, descriptions, illustrations and data on dimensions, performance and weight as well as the reference to standards are for information purposes only. They are not warranted characteristics and are subject to change.
- 4.2 All technical documents shall remain the exclusive property of Georg Fischer and may only be used for the agreed purposes or as Georg Fischer may consent.

## 5 Confidentiality, Protection of Personal Data

- 5.1 Each party shall keep in strict confidence all commercial or technical information relating to the business of the other party, of which it has gained knowledge in the course of its dealing with the other party. Such information shall neither be disclosed to third parties nor used for other purposes than those for which the information has been supplied.
- 5.2 In the context of the contractual relation with the Purchaser personal data may be processed. The Purchaser agrees to the disclosure of said data to third parties such as foreign subcontractors and suppliers etc.

## 6 Local Laws and Regulations, Export Controls

- 6.1 The Purchaser shall bring to the attention of Georg Fischer all local laws and regulations at the place of destination which bear connection with the execution of the contract and the adherence to relevant safety regulations and approval procedures.
- 6.2 In case of re-exports, Purchaser shall be responsible for compliance with pertinent export control regulations.

## 7 Price

- 7.1 Unless agreed otherwise, the prices shall be deemed quoted net ex works (according to Incoterms 2010 of the ICC, or latest version) including standard packing. All supplementary costs such as the cost of carriage, insurance, export-, transit- and import- licences etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties etc. connected with the contract.
- 7.2 If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or contract price or are referred to specifically in the tender or confirmation of order, Georg Fischer reserve the right to revise their prices accordingly should any change occur in the relevant tariffs.

## 8 Terms of Payment

- 8.1 The Purchaser shall make payment in the manner agreed by the parties without any deductions such as discounts, costs, taxes or dues.
- 8.2 The Purchaser may only withhold or off-set payments due against counter claims which are either expressly acknowledged by Georg Fischer or finally awarded to the Purchaser. In particular, payment shall still be made when unessential items are still outstanding provided that the Products already delivered are not rendered unusable as a result.

## 9 Retention of Title

- 9.1 The Products shall remain the property of Georg Fischer until the Purchaser shall have settled all claims, present and future, which Georg Fischer may have against him.
- 9.2 Should the Purchaser resell Products to which title is reserved, in the ordinary course of business, he shall hereby be deemed to have tacitly assigned to Georg Fischer the proceeds deriving from their sale together with all collateral rights, securities and reservations of title until all claims held by Georg Fischer shall have been settled. Until revoked by Georg Fischer, this assignment shall not preclude Purchaser's right to collect the assigned receivables.
- 9.3 To the extent the value of the Products to which title is reserved together with collateral securities exceeds Georg Fischer's claims against the Purchaser by more than 20%, Georg Fischer shall re-assign the above proceeds to Purchaser at his request.

## 10 Delivery

- 10.1 The term of delivery shall commence as soon as the contract has been entered into, all official formalities such as import and payment permits have been obtained and all essential technical issues have been settled. The term of delivery shall be deemed duly observed when, upon its expiry, the Products are ready for despatch.
- 10.2 Delivery is subject to the following conditions, i.e. the term of delivery shall be reasonably extended:
- a) if Georg Fischer are not supplied in time with the information necessary for the execution of the contract or if subsequent changes causing delays are made by the Purchaser.
- b) if Georg Fischer are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer's control which renders Georg Fischer's performance commercially impractical or impossible, such as delayed or defective supplies from sub contractors labour disputes, governmental orders or regulations, shortages in materials or energy, serious disturbances in Georg Fischer's works, such as the total or partial destruction of plant and equipment or the breakdown of essential facilities, serious disruptions in transport facilities, e.g. impassable roads.  
Should the effect of force majeure exceed a period of six (6) months, either party may cancel the contract forthwith.  
Georg Fischer shall not be liable for any damage or loss of any kind whatsoever resulting the reform, any suspension or cancellation being without prejudice to Georg Fischer's right to recover all sums due in respect of consignments delivered and costs incurred to date.
- c) if the Purchaser is in delay with the fulfilment of his obligations under the contract, in particular, if he does not adhere to the agreed conditions of payment or if he has failed to timely provide the agreed securities.
- 10.3 If for reasons attributable to Georg Fischer the agreed term of delivery or a reasonable extension thereof is exceeded, Georg Fischer shall not be deemed in default until the Purchaser has granted to Georg Fischer in writing a reasonable extension thereof of not less than one (1) month which equally is not met.  
The Purchaser shall then be entitled to the remedies provided at law, it being however understood that, subject to limitations of Art. 16, damage claims shall be limited to max. 10% of the price of the delayed delivery.
- 10.4 Part shipments shall be allowed and Georg Fischer shall be entitled to invoice for such partial deliveries.
- 10.5 If the Purchaser fails to take delivery within a reasonable time of Products notified as ready for despatch, Georg Fischer shall be entitled to store the Products at the Purchaser's expense and risk and to invoice them as delivered. If Purchaser fails to effect payment, Georg Fischer shall be entitled to dispose of the Products.
- 10.6 Should Purchaser cancel an order without justification and should Georg Fischer not insist on the performance of the contract, Georg Fischer shall be entitled to a penalty amounting to 10% of the contract price, Georg Fischer's right to prove and claim higher damages remaining reserved.

Purchaser shall be entitled to prove, that Georg Fischer has suffered no or a considerably lower damage than the penalty forfeited.

## 11 Packing

If the Products are provided with additional packing over and above the standard packing, such packing shall be charged additionally.

## 12 Passing of Risk

- 12.1 The risk in the Products shall pass to the Purchaser as soon as they have left Georg Fischer's works [EX WORKS, Incoterms 2010 ICC, or latest version], even if delivery is made carriage-paid, under similar clauses or including installation or when carriage is organized and managed by Georg Fischer.
- 12.2 If delivery is delayed for reasons beyond Georg Fischer's control, the risk shall pass to the Purchaser when he is notified that the Products are ready for despatch.

## 13 Carriage and Insurance

- 13.1 Unless agreed otherwise, the Purchaser shall bear the cost of carriage.
- 13.2 The Purchaser shall be responsible for transport insurance against damage of whatever kind. Even when such insurance is arranged by Georg Fischer it shall be deemed taken out by the order of and for the account of the Purchaser and at his risk.
- 13.3 Special requests regarding carriage and insurance shall be communicated to Georg Fischer in due time. Otherwise carriage shall be arranged by Georg Fischer at their discretion, but without responsibility, by the quickest and cheapest method possible.  
In case of carriage-paid delivery transport arrangements shall be made by Georg Fischer. If the Purchaser specifies particular requirements, any extra costs involved shall be borne by him.
- 13.4 In the event of damage or loss of the Products during carriage the Purchaser shall mark the delivery documents accordingly and immediately have the damage ascertained by the carrier. Not readily ascertainable damages sustained during carriage shall be notified to the carrier within six (6) days after receipt of the Products.

## 14 Inspection, Notification of Defects and Damages

- 14.1 The Products will be subject to normal inspection by Georg Fischer during manufacture. Additional tests required by the Purchaser shall be agreed upon in writing and shall be charged to the Purchaser.
- 14.2 It shall be a condition of Georg Fischer's obligation under the warranties stated hereinafter that Georg Fischer be notified in writing by the Purchaser of any purported defect immediately upon discovery. Notice concerning weight, numbers or apparent defects is to be given latest within 30 days from receipt of the Products, notice of other defects immediately latest within seven (7) working days after discovery, in any event within the agreed warranty period.
- 14.3 Purchaser shall not dispose of allegedly defective Products until all warranty and/or damage claims are finally settled. At its request, defective Products are to be placed at Georg Fischer's disposal.
- 14.4 At its request, Georg Fischer shall be given the opportunity to inspect the defect and/or damage, prior to commencement of remedial work, either itself or by third party experts.

## 15 Warranty

- 15.1 At the written request of the Purchaser, Georg Fischer undertakes to repair or replace at its discretion, as quickly as possible and free of charge, all Products supplied which demonstrably suffer from faulty design, materials or workmanship, from faulty operating or installation instructions or which become defective or unusable due to faulty advice.  
In order to protect employees from toxic or radioactive substances which may have been transported through defective parts returned to Georg Fischer's sales organisation, said parts must be accompanied by a Material Safety Disclosure Form. The form may be obtained from Georg Fischer's local sales company or via [www.piping.georgfischer.com](http://www.piping.georgfischer.com). Replaced parts shall become property of Georg Fischer, unless Georg Fischer waives such claim.
- 15.2 For Products which are manufactured to specifications, drawings or patterns supplied by the Purchaser, Georg Fischer's warranty shall be restricted to proper materials and workmanship.
- 15.3 The Purchaser shall be entitled to rescind the contract or to demand a reduction of the contract price if
- the repair or replacement of the defective Product is impossible
  - the defective Product is not repaired or replaced within a reasonable period
  - Georg Fischer refuses the repair or replacement or if for reasons attributable to Georg Fischer the repair or replacement is delayed.
- 15.4 For Products or essential components manufactured by a third party and supplied by Georg Fischer under this contract, Georg Fischer's warranty is limited to the warranty provided by said third party.
- 15.5 This warranty shall not apply to damage resulting from normal wear and tear, improper storage and maintenance, failure to observe the operating instructions, overstressing or overloading, unsuitable operating media, unsuitable construction work or unsuitable building ground, improper repairs or alterations by the Purchaser or third parties, the use of other than original spare parts and other reasons beyond Georg Fischer's control.
- 15.6 No action or claim may be brought by the Purchaser on account of any alleged breach of warranty or any other obligation of Georg Fischer after the expiration of twelve (12) months from receipt of the Products by the end user or at the latest within eighteen (18) months of the Products being despatched by Georg Fischer.
- 15.7 In case of Products for use in domestic installations or in utilities
- Georg Fischer will assume the costs of dismantling the defective Product and restoring the damaged object up to CHF 1'000'000 per occurrence.
  - warranty or damage claims - contrary to Section 15.6 - are time-barred five (5) years from the date of installation or seven (7) years from the production date, whichever is earlier.

## 16 Limitation of Liability

The rights and remedies of the customer shall be exclusively governed by these General Conditions of Supply and shall be in lieu of any remedies at law. All further claims for damages, reduction of the purchase price, termination of or rescission of the contract are excluded. In no case whatsoever shall the customer be entitled to claim damages other than compensation for costs of remedying defects in the supplies. This in particular refers, but shall not be limited, to loss of production, loss of use, loss of orders, loss of profit, third party recovery claims and other direct or indirect or consequential damages.  
This limitation of liability equally applies to the extent Georg Fischer is liable for acts or omissions of its employees or third parties engaged for the performance of its obligations. It does not apply in case of unlawful intent or gross negligence on the part of Georg Fischer's management and in case of Georg Fischer's statutory liability, in particular under applicable product liability laws.

## 17 Severability

Should any term or clause of these General Conditions in whole or in part be found to be unenforceable or void, all other provisions shall remain in full force and effect and the unenforceable or void provision shall be replaced by a valid provision, which comes closest to the original intention of the unenforceable or invalid provision.

## 18 Place of Performance and Jurisdiction

- 18.1 Place of performance for the Products shall be the Georg Fischer works from which the Products are despatched.
- 18.2 The contract shall be governed by Swiss law without regard to conflict of law provisions that would require the application of another law.
- 18.3 Any civil action based upon any alleged breach of this contract shall be filed and prosecuted exclusively in the courts of Schaffhausen, Switzerland.  
Georg Fischer however reserves the right to file actions in any court having jurisdiction over controversies arising out of or in connection with the present contract.





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[www.gfps.com](http://www.gfps.com)

## Argentina / Southern South America

Georg Fischer Central Plastics Sudamérica S.R.L.  
Buenos Aires / Argentina  
Phone +54 11 4512 02 90  
gfccentral.ps.ar@georgfischer.com  
www.gfps.com/ar

## Australia

George Fischer Pty Ltd  
Riverwood NSW 2210  
Phone +61 (0) 2 9502 8000  
australia.ps@georgfischer.com  
www.gfps.com/au

## Austria

Georg Fischer Rohrleitungssysteme GmbH  
3130 Herzogenburg  
Phone +43 (0) 2782 856 43-0  
austria.ps@georgfischer.com  
www.gfps.com/at

## Belgium / Luxembourg

Georg Fischer NV/SA  
1600 Sint-Pieters-Leeuw / Belgium  
Phone +32 (0) 2 556 40 20  
Fax +32 (0) 2 524 34 26  
be.ps@georgfischer.com  
www.gfps.com/be

## Brazil

Georg Fischer Sist. de Tub. Ltda.  
04571-020 São Paulo/SP  
Phone +55 (0) 11 5525 1311  
br.ps@georgfischer.com  
www.gfps.com/br

## Canada

Georg Fischer Piping Systems Ltd  
Mississauga, ON L5T 2B2  
Phone +1 (905) 670 8005  
Fax +1 (905) 670 8513  
ca.ps@georgfischer.com  
www.gfps.com/ca

## China

Georg Fischer Piping Systems Ltd  
Shanghai 201319  
Phone +86 21 3899 3899  
china.ps@georgfischer.com  
www.gfps.com/cn

## Denmark / Iceland

Georg Fischer A/S  
2630 Taastrup / Denmark  
Phone +45 (0) 70 22 19 75  
info.dk.ps@georgfischer.com  
www.gfps.com/dk

## Finland

Georg Fischer AB  
01510 Vantaa  
Phone +358 (0) 9 586 58 25  
Fax +358 (0) 9 586 58 29  
info.fi.ps@georgfischer.com  
www.gfps.com/fi

## France

Georg Fischer SAS  
95932 Roissy Charles de Gaulle Cedex  
Phone +33 (0) 1 41 84 68 84  
fr.ps@georgfischer.com  
www.gfps.com/fr

## Germany

Georg Fischer GmbH  
73095 Albershausen  
Phone +49 (0) 7161 302 0  
info.de.ps@georgfischer.com  
www.gfps.com/de

## India

Georg Fischer Piping Systems Pvt. Ltd  
400 083 Mumbai  
Phone +91 22 4007 2000  
Fax +91 22 4007 2020  
branchoffice@georgfischer.com  
www.gfps.com/in

## Indonesia

PT Georg Fischer Indonesia  
Karawang 41371, Jawa Barat  
Phone +62 267 432 044  
Fax +62 267 431 857  
indonesia.ps@georgfischer.com  
www.gfps.com/id

## Italy

Georg Fischer S.p.A.  
20063 Cernusco S/N (MI)  
Phone +39 02 921 861  
it.ps@georgfischer.com  
www.gfps.com/it

## Japan

Georg Fischer Ltd  
530-0003 Osaka  
Phone +81 (0) 6 6341 2451  
jp.ps@georgfischer.com  
www.gfps.com/jp

## Korea

Georg Fischer Korea Co. Ltd  
Unit 2501, U-Tower  
120 Heungdeok Jungang-ro  
(Yeongdeok-dong)  
Giheung-gu, Yongin-si, Gyeonggi-do  
Phone +82 31 8017 1450  
Fax +82 31 217 1454  
kor.ps@georgfischer.com  
www.gfps.com/kr

## Malaysia

George Fischer (M) Sdn. Bhd.  
41200 Klang, Selangor Darul Ehsan  
Phone +60 (0) 3 3122 5585  
Fax +60 (0) 3 3122 5575  
my.ps@georgfischer.com  
www.gfps.com/my

## Mexico / Northern Latin America

Georg Fischer S.A. de C.V.  
CP 66636 Apodaca, Nuevo Leon / Mexico  
Phone +52 (81) 1340 8586  
Fax +52 (81) 1522 8906  
mx.ps@georgfischer.com  
www.gfps.com/mx

## Middle East

Georg Fischer Piping Systems (Switzerland) Ltd  
Dubai / United Arab Emirates  
Phone +971 4 289 49 60  
gcc.ps@georgfischer.com  
www.gfps.com/int

## Netherlands

Georg Fischer N.V.  
8161 PA Epe  
Phone +31 (0) 578 678 222  
nl.ps@georgfischer.com  
www.gfps.com/nl

## New Zealand

Georg Fischer Ltd  
5018 Upper Hutt  
Phone +04 527 9813  
Fax +04 527 9834  
nz.ps@georgfischer.com  
www.gfps.com/nz

## Norway

Georg Fischer AS  
1351 Rud  
Phone +47 67 18 29 00  
no.ps@georgfischer.com  
www.gfps.com/no

## Philippines

George Fischer Pte Ltd  
Representative Office  
1604 Pasig City  
Phone +632 571 2365  
Fax +632 571 2368  
sgp.ps@georgfischer.com  
www.gfps.com/sg

## Poland

Georg Fischer Sp. z o.o.  
05-090 Sekocin Nowy  
Phone +48 (0) 22 31 31 0 50  
poland.ps@georgfischer.com  
www.gfps.com/pl

## Romania

Georg Fischer Piping Systems (Switzerland) Ltd  
020257 Bucharest - Sector 2  
Phone +40 (0) 21 230 53 80  
ro.ps@georgfischer.com  
www.gfps.com/int

## Russia

Georg Fischer Piping Systems (Switzerland) Ltd  
Moscow 125040  
Phone +7 495 748 11 44  
ru.ps@georgfischer.com  
www.gfps.com/ru

## Singapore

George Fischer Pte Ltd  
528 872 Singapore  
Phone +65 6747 0611  
Fax +65 6747 0577  
sgp.ps@georgfischer.com  
www.gfps.com/sg

## Spain / Portugal

Georg Fischer S.A.  
28046 Madrid / Spain  
Phone +34 (0) 91 781 98 90  
es.ps@georgfischer.com  
www.gfps.com/es

## Sweden

Georg Fischer AB  
117 43 Stockholm  
Phone +46 (0) 8 506 775 00  
info.se.ps@georgfischer.com  
www.gfps.com/se

## Switzerland

Georg Fischer Rohrleitungssysteme (Schweiz) AG  
8201 Schaffhausen  
Phone +41 (0) 52 631 3026  
ch.ps@georgfischer.com  
www.gfps.com/ch

## Taiwan

Georg Fischer Co. Ltd  
San Chung Dist., New Taipei City  
Phone +886 2 8512 2822  
Fax +886 2 8512 2823  
www.gfps.com/tw

## United Kingdom / Ireland

George Fischer Sales Limited  
Coventry, CV2 2ST / United Kingdom  
Phone +44 (0) 2476 535 535  
uk.ps@georgfischer.com  
www.gfps.com/uk

## USA / Caribbean

Georg Fischer LLC  
92618 Irvine, CA / USA  
Phone +1 714 731 8800  
Fax +1 714 731 6201  
us.ps@georgfischer.com  
www.gfps.com/us

## Vietnam

Georg Fischer Pte Ltd  
Representative Office  
Ho Chi Minh City  
Phone +84 28 3948 4000  
Fax +84 28 3948 4010  
sgp.ps@georgfischer.com  
www.gfps.com/vn

## International

Georg Fischer Piping Systems (Switzerland) Ltd  
8201 Schaffhausen / Switzerland  
Phone +41 (0) 52 631 3003  
Fax +41 (0) 52 631 2893  
info.export@georgfischer.com  
www.gfps.com/int

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