

# Polypropylene Welded Systems

**PROGEF Standard**  
**PROGEF Plus**  
**PROGEF Natural**

Universal use, outstanding chemical  
and temperature resistance,  
easy to join by different welding  
technologies



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



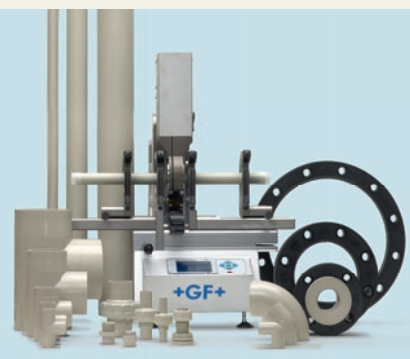
Fittings



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 joining 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 joining 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



Joining technology



Customizing and training

# 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			d																															
	SDR	PN	DN	10	15	20	25	32	40	50	63	75	90	100	110	125	140	150	160	180	200	225	250	280	300	315	350	400	450	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																																
Check vales	11/17.6	10																																
		6																																
Pressure regulating valves	11	10																																
		10																																
Ventilating and bleed valve		10																																
Automation				upon request																														
Flanges PP-V / PP-steel																																		
Flange seals EPDM / FPM																																		
Pipe clips PP / PE																																		

PROGEF Standard

PROGEF Plus

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	<ul style="list-style-type: none"> <li>- d16–d225 β PP-H 100 (β Polypropylene Homopolymer)</li> <li>- d250–d500 state-of-the-art PP</li> </ul>	<ul style="list-style-type: none"> <li>- d20–d225 β PP-H 100 (β Polypropylene Homopolymer)</li> <li>- d250–d315 state-of-the-art PP</li> </ul>
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 53753)	0.16mm / mK (DIN 53753)
Thermal conductivity	0.23W / mK (EN 12664)	0.23W / mK (EN 12664)
Surface resistivity	> 10 <sup>16</sup> Ω (IEC 60093)	> 10 <sup>16</sup> 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	<ul style="list-style-type: none"> <li>- Inner surface Ra &lt; 1.0 μm (39μin) for components d20–d110</li> <li>- Inner surface Ra &lt; 1.5 μm (59μin) for components d125–d315</li> </ul>
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))	FDA CFR 21 177.1520 USP 25 class VI (physiological non-toxic)
Packaging	pipes, fittings and valves bulk bagged	pipes, fittings and valves, each component double bagged
Marking	<ul style="list-style-type: none"> <li>- brand name</li> <li>- product description</li> <li>- article number</li> <li>- material</li> <li>- dimensions</li> <li>- standards and approvals</li> </ul>	<ul style="list-style-type: none"> <li>- brand name</li> <li>- product description</li> <li>- article number</li> <li>- material</li> <li>- dimensions</li> <li>- standards and approvals</li> </ul>

### \* Approvals / Acceptance:

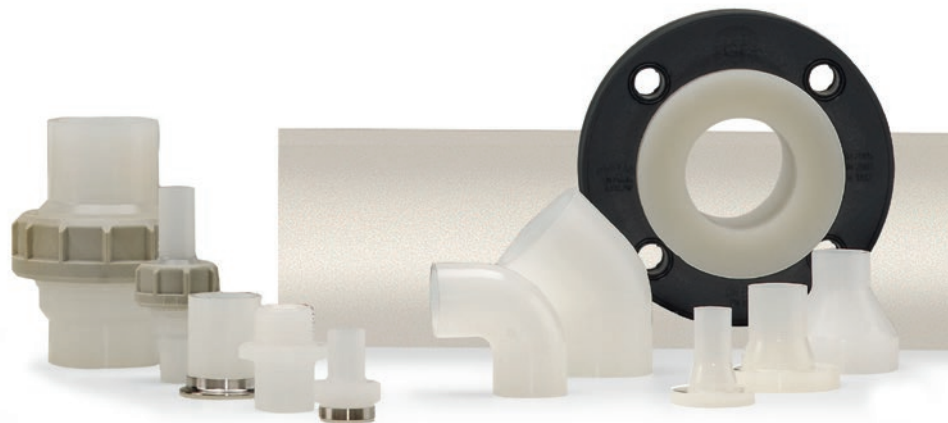


\* The most significant standards and approvals are shown above. An overview of all approvals online: [www.gfps.com](http://www.gfps.com)



# 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 / FPM													
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										

### System

**PROGEF Natural**

### Material

d20-d110 PP-R (Polypropylene Random Copolymer)

### Colour

pigment-free, transparent

### Density

~ 0.90g / cm<sup>3</sup> (ISO 1183 / ASTM D 792)

### Thermal expansion coefficient

0.15mm / m°K (DIN 53752)

### Thermal conductivity

0.23W / mK (EN 12664)

### Surface resistivity

> 1016 Ω (IEC 60093)

### Dimensions

d20–d110 according to EN ISO 15494

### Surface condition

Inner surface:  
Ra < 1.0 µm (39µin)

### Material- and product approvals

FDA CFR 21 177.1520  
USP 25 class VI (physiological non-toxic) Food conformity (D)

### Packaging

pipes, fittings and valves,  
each component single bagged

### Marking

- 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)

**+GF+**

# Proven technologies for your installation

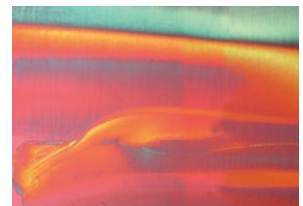
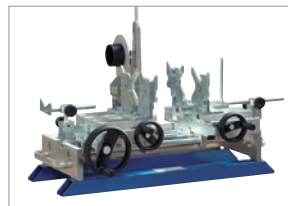
**A large diversity of innovative and intelligent welding solutions enriched with global training and service offerings**

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

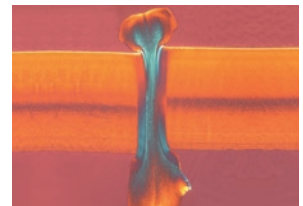
### Socket fusion

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



### Butt fusion

The economical connection, especially for bigger diameters. From manual machines to full CNC control versions including traceability function.



### IR-Plus (Infrared) fusion

The fast, repeatable and clean welding via non-contact heating. Full traceability of the welding process with user guideline.



### BCF-Plus fusion

Smooth bead and Crevice Free jointing with high welding factor, low stress, completely smooth with no intrusions in the fusion zone.



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.

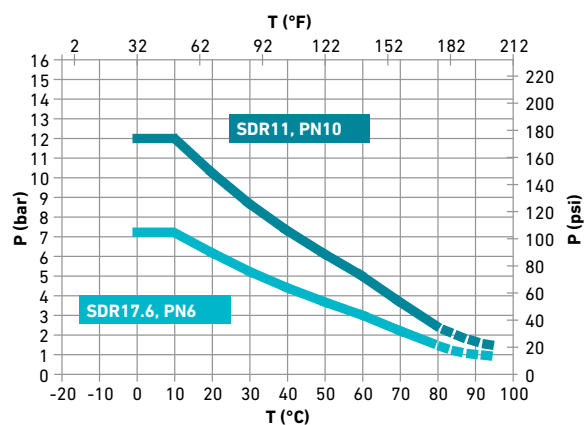
Furthermore, properties such as low weight, low density, minimum internal stresses and an excellent smooth internal surface with high finish quality, make PROGEF systems a high-grade piping material.

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)

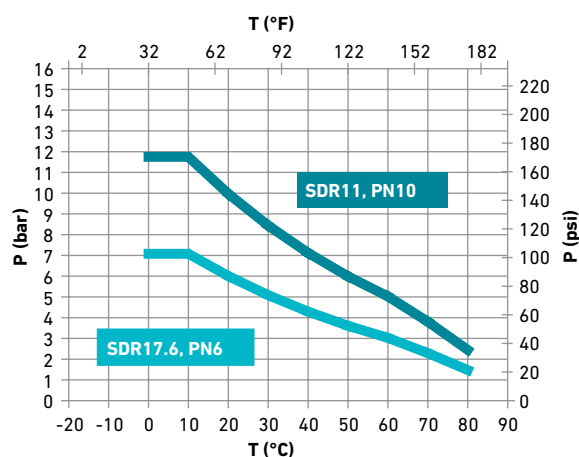
Pressure-Temperature Diagram

PROGEF Standard (PP) and PROGEF Plus (PP)



Pressure-Temperature Diagram

PROGEF Natural (PP-R)



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)



# For your operational safety



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

Professional material technology

## 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 %	+	+	+	+	+	-	-
	70 % ≤ H <sub>2</sub> SO <sub>4</sub> ≤ 96 %	-	-	+	+	+	-	-
<b>Non Oxidizing Acids</b> (HCl, HF, etc.)	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	-
	C <sub>3</sub> H <sub>4</sub> OH (COOH) <sub>3</sub>	+	+	+	+	+	o	-
<b>Bases</b>	Inorganic (NaOH, KOH, etc.)	+	+	-	+	o	+	+
	Organic (amine, imidazole, etc.)	+	+	-	o	-	o	o
<b>Salts</b>	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 follows its system approach consistently. The complete solution combines measurement, control and actuation technology together with high quality piping systems and therefore represents a unique form of product and competence bundling. The system-integrated devices that measure values such as temperature, pressure and flow deliver 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 know how, but also the global service and support infrastructure needed to meet the high customer requirements.



# 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 long-standing 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.



# Worldwide at home

Our sales companies and representatives ensure local customer support in over 100 countries

**www.gfps.com**

## Argentina / Southern South America

Georg Fischer Central Plastics  
Sudamérica S.R.L.  
Buenos Aires, Argentina  
Phone +54 11 4512 02 90  
gfcentral.ps.ar@georgfischer.com  
www.gfps.com/ar

## Australia

George Fischer Pty Ltd  
Riverwood NSW 2210 Australia  
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  
1070 Bruxelles/Brüssel  
Phone +32 (0) 2 556 40 20  
be.ps@georgfischer.com  
www.gfps.com/be

## Brazil

Georg Fischer Sist. de Tub. Ltda.  
04795-100 São Paulo  
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  
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 Ltd  
400 076 Mumbai  
Phone +91 224007 2001  
branchoffice@georgfischer.com  
www.gfps.com/in

## Indonesia

George Fischer Pte Ltd –  
Representative Office  
Phone +62 21 2900 8564  
Fax +62 21 2900 8566  
sgp.ps@georgfischer.com  
www.gfps.com/sg

## 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  
556-0011 Osaka,  
Phone +81 (0) 6 6635 2691  
jp.ps@georgfischer.com  
www.gfps.com/jp

## Korea

GF Piping Systems  
Georg Fischer Korea Co., Ltd.  
Unit 2501, U-Tower  
120 HeungdeokJungang-ro (Yeongdeok-dong)  
Giheung-gu, Yongin-si, Gyeonggi-do, Korea  
Phone: +82 31 8017 1450  
Fax: +82 31 217 1454  
kor.ps@georgfischer.com  
www.gfps.com/kr

## Malaysia

Georg Fischer (M) Sdn. Bhd.  
40460 Shah Alam, Selangor Darul Ehsan  
Phone +60 (0) 3 5122 5585  
Fax +603 5122 5575  
my.ps@georgfischer.com  
www.gfps.com/my

## Mexico / Northern Latin America

Georg Fischer S.A. de C.V.  
Apodaca, Nuevo Leon  
CP66636 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

## Norway

Georg Fischer AS  
1351 Rud  
Phone +47 67 18 29 00  
no.ps@georgfischer.com  
www.gfps.com/no

## Philippines

Georg Fischer Pte Ltd  
Representative Office  
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 125047  
Phone +7 495 258 60 80  
ru.ps@georgfischer.com  
www.gfps.com/ru

## Singapore

George Fischer Pte Ltd  
11 Tampines Street 92, #04-01/07  
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  
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 30 26  
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  
Phone +44 (0) 2476 535 535  
uk.ps@georgfischer.com  
www.gfps.com/uk

## USA / Caribbean

Georg Fischer LLC  
9271 Jeronimo Road  
92618 Irvine, CA  
Phone +1 714 731 88 00  
Fax +1 714 731 62 01  
us.ps@georgfischer.com  
www.gfps.com/us

## International

Georg Fischer  
Piping Systems (Switzerland) Ltd  
8201 Schaffhausen/Switzerland  
Phone +41 (0) 52 631 30 03  
Fax +41 (0) 52 631 28 93  
info.export@georgfischer.com  
www.gfps.com/int

The technical data are not binding. They neither constitute expressly warranted characteristics nor guaranteed properties nor a guaranteed durability. They are subject to modification. Our General Terms of Sale apply.



700.671.544  
GFDO\_6218\_4c (05.15)

© Georg Fischer Piping Systems Ltd  
CH-8201 Schaffhausen/Switzerland, 2015