



## Plastic Piping Systems

→ Solutions for the  
Chemical Process Industry

# GF Piping Systems

Throughout the world everyone demands a secure supply of clean water. GF Piping Systems meets this challenge by providing complete piping systems for safe operation in virtually all environments. We have developed systems which comprise pipes, fittings, valves and measuring and control devices in high quality corrosion-resistant thermoplastics for the transport of not only clean water, but also gas and other industrial media.

Whether installed above or below ground, in industrial, commercial or domestic applications, GF Piping Systems provides an ideal solution.

## **Innovation and technology.**

GF Piping Systems, through focussed research, is continually developing new products and technologies, setting new global standards in quality and performance for our customers.

**All from one source.** GF Piping Systems covers the growing demand for complete solutions from a single source in a wide range of applications.

**Quality management.** All system components are stringently tested in accredited test laboratories. Management and production procedures are certified to ISO 9001 and ISO 14001 to guarantee form, fit, function and compliance in whatever application they may be used throughout the world.

## **Sales and service – worldwide.**

Our local sales companies and representatives in over 100 countries provide “one-stop” shopping, including planning support, training and product availability.

**Facts and Figures.** GF Piping Systems with its 3200 employees achieves an annual turnover of about CHF 800 million. GF Piping Systems is part of the Georg Fischer Corporation, which was founded in Schaffhausen, Switzerland in 1802. Today the corporation has more than 13,000 employees and an annual turnover of CHF 3.3 billion.



## → Your benefits

- technological expertise
- “one-stop” shopping
- premier quality and performance
- system solutions
- know-how and experience
- local support





→ Know-how for a safe environment

**+GF+**

**GEORG FISCHER**  
PIPING SYSTEMS

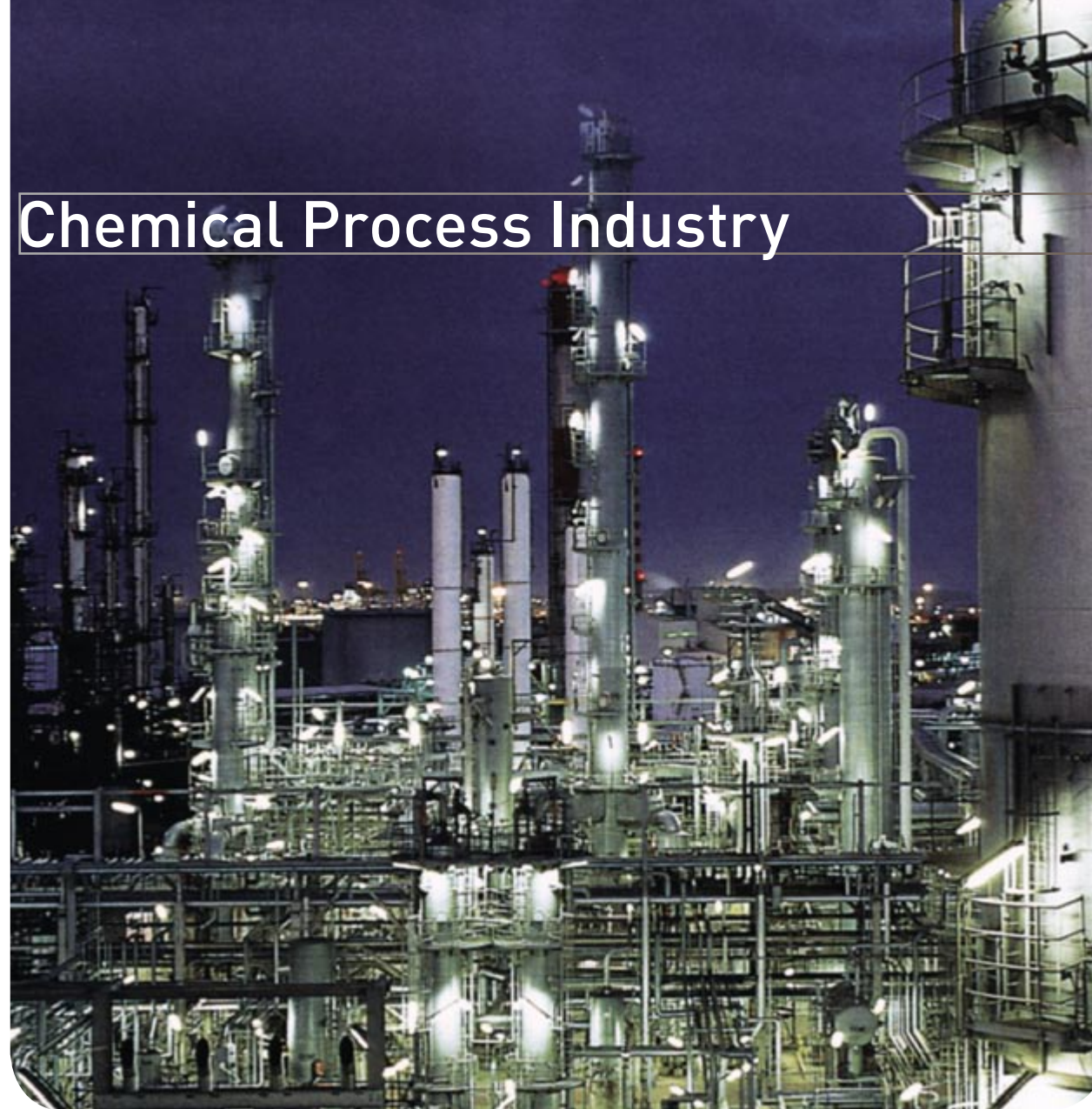


# Chemical Process Industry

Thermoplastic piping systems have been relied on for decades to convey media, whether it's water for process cooling or hazardous liquids for industrial applications such as:

- chemical production
- chemical distribution
- plating industry / surface treatment
- pulp and paper
- textile and leather industry
- refining and mining
- power plants
- and others.

Corrosion is no longer a problem when choosing the appropriate GF piping system. The harsh environment within chemical plants and the conveyance of chemicals place high demands on the piping systems in terms of safety, economic factors and subsequent maintenance.



## → Plastics can do more

Most acids and bases are considered dangerous and are classified as substances hazardous to water.

Materials such as PE,  $\beta$ -PP-H, PE 100, PVC-U, PVC-C and PVDF are particularly suitable for this purpose because of their high chemical resistance to most corrosive media used in the chemical process industry. Choosing the most suitable material is prerequisite for each application.

GF Piping Systems offers comprehensive support so that customers know how to select the most suitable piping system, how to design it and how to accomplish a high quality installation. We regularly organize seminars at our headquarters in Schaffhausen as well as at our local sites.



Process Cooling –  $\beta$ -PP-H, PE 100, PVC-U



Chemical Conveyance – PVDF, PVC-C, PVC-U,  $\beta$ -PP-H, PE 100



Chemical Conveyance – CONTAIN-IT Plus



Chemical Drainage and Waste Water Treatment



High Purity Fluids – SYGEF® Plus, Progef natural





## → Your benefits at a glance

- No corrosion problems
- Safe and economical solutions
- Reduced maintenance costs
- Simple, but high quality installation
- Widest range of plastic piping systems
- Worldwide presence

## → Applications – Materials – Systems

### Process Cooling

Water for the cooling process, whether temperature controlled or not, is one of the principal demands in the chemical process industry. It is used extensively in heat exchangers and reclaim equipment or high-tech manufacturing processes.

Corresponding to your expectations or given building restrictions, GF Piping Systems can adapt the solution to meet your needs. The PE,  $\beta$ -PP-H or PVC-U product lines are corrosion-free, in addition to the internal pipe surface being free of encrustation. Moreover, the insulation aspect is exceedingly advantageous compared with metal pipelines. Our piping systems ensure the long-term and efficient operation of your cooling systems.

### Chemical Conveyance

The transport of chemicals represented one of the first applications for GF Piping Systems products more than 50 years ago. Since then, our products have continually been developed in accordance with market needs and today we are uniquely positioned to provide suitable materials as well as cost-effective and safe methods for conveying corrosive fluids. With PVDF, GF Piping Systems meets your chemical delivery requirements even up to 140 °C combined with an extraordinarily good chemical resistance.

Our piping systems in PE 100, PVDF, PVC-C, PVC-U and  $\beta$ -PP-H are top quality, reliable solutions for various chemical media. For hazardous fluids CONTAIN-IT Plus pipe-in-pipe systems satisfy your demands. The internal pipe carries the harsh chemical waste and can be chosen according to your specific needs. The external pipe serves to protect the system and can be combined with additional equipment to indicate possible leaks.

### Chemical Drain and Waste Water Treatment

Chemical waste drain as well as water reclaim and recycling applications present environmental challenges to any factory. GF Piping Systems' FUSEAL products in flame-retardant PP or PVDF have been developed especially for

such applications with the goal of protecting our environment. This is a cost-effective and safe method for conveying corrosive liquids even at elevated temperatures. CONTAIN-IT Plus with its excellent properties can be used for hazardous chemical drain as well.

### High Purity Fluids

SYGEF® Plus, SYGEF® Standard or PROGEF® Natural are complete high purity piping systems with excellent surface roughness, inertness and corrosion resistance. All components show a very low ionic contamination and guarantee long-term as well consistent quality at a favorable price/performance ratio.

### Vacuum

Complete systems for use in applications down to absolute vacuum, including valves in rigid plastics with low pressure loss, e.g. PE 100,  $\beta$ -PP-H and PVC systems which offer high corrosion resistance and virtually no maintenance.

### Compressed Air

Improved efficiency with smooth bore pipes, combined with reliable and simple installation technology. Complete systems in PB and PE 100 with application-specific components and dedicated engineering support.

### Measurement and Control

System solutions including actuated valves (pneumatic and electric). Flow, pH and analytical conductivity measurement equipment from SIGNET complement our product range.

### Welding

We have developed specific welding technologies for each product group and application. Proven and simple technologies such as butt and socket fusion are complemented with IR and BCF fusion technologies which offer both traceability and repeatability. High quality and very little stress concentration in the welding zone are given, rendering them less prone to stress cracking corrosion.

Vacuum –  $\beta$ -PP-H, PVC, PE 100



Measurement and Control – Actuated Valves



Welding – IR



# GF Piping Systems → worldwide



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

Please find more information concerning the Chemical Process Industry:  
[www.piping.georgfischer.com](http://www.piping.georgfischer.com) → Solutions → Chemical Process Industry

The technical data is not binding and not an expressly warranted characteristic of the goods.  
 It is subject to change. Please consult our General Conditions of Supply.

## Australia

George Fischer Pty Ltd  
 Kingsgrove NSW 2008  
 Phone +61(0)2/95 54 39 77  
[sales@georgfischer.com.au](mailto:sales@georgfischer.com.au)  
[www.georgfischer.com.au](http://www.georgfischer.com.au)

## Austria

Georg Fischer  
 Rohrleitungssysteme GmbH  
 3130 Herzogenburg  
 Phone +43(0)2782/856 43-0  
[office@georgfischer.at](mailto:office@georgfischer.at)  
[www.georgfischer.at](http://www.georgfischer.at)

## Belgium/Luxembourg

Georg Fischer NV/SA  
 1070 Bruxelles/Brüssel  
 Phone +32(0)2/556 40 20  
[info.be@be.piping.georgfischer.com](mailto:info.be@be.piping.georgfischer.com)  
[www.georgfischer.be](http://www.georgfischer.be)

## Brazil

Georg Fischer Ltda  
 04795-100 São Paulo  
 Phone +55(0)11/5687 1311

## China

Georg Fischer Piping Systems Ltd Shanghai  
 Pudong, Shanghai 201319  
 Phone +86(0)21/58 13 33 33  
[info@cn.piping.georgfischer.com](mailto:info@cn.piping.georgfischer.com)  
[www.cn.piping.georgfischer.com](http://www.cn.piping.georgfischer.com)

## Denmark/Iceland

Georg Fischer A/S  
 2630 Taastrup  
 Phone +45 (0)70 22 19 75  
[info@dk.piping.georgfischer.com](mailto:info@dk.piping.georgfischer.com)  
[www.georgfischer.dk](http://www.georgfischer.dk)

## France

Georg Fischer S.A.S.  
 93208 Saint-Denis Cedex 1  
 Phone +33(0)1/492 21 34 1  
[info@georgfischer.fr](mailto:info@georgfischer.fr)  
[www.georgfischer.fr](http://www.georgfischer.fr)

## Germany

Georg Fischer GmbH  
 73095 Albershausen  
 Phone +49(0)7161/302-0  
[info@georgfischer.de](mailto:info@georgfischer.de)  
[www.vgd.georgfischer.de](http://www.vgd.georgfischer.de)

Georg Fischer DEKA GmbH  
 35232 Dautphetal-Mornshausen  
 Phone +49(0)6468/915-0  
[info@dekapipe.de](mailto:info@dekapipe.de)  
[www.dekapipe.de](http://www.dekapipe.de)

## Greece

Georg Fischer S.p.A.  
 10434 Athens  
 Phone +30(0)1/882 04 91  
[office@piping-georgfischer.gr](mailto:office@piping-georgfischer.gr)

## India

Georg Fischer Piping Systems Ltd  
 400 093 Mumbai  
 Phone +91(0)22/2820 2362  
[branchoffice@georgfischer.net](mailto:branchoffice@georgfischer.net)

## Italy

Georg Fischer S.p.A.  
 20063 Cernusco S/N (MI)  
 Phone +3902/921 861  
[office@piping.georgfischer.it](mailto:office@piping.georgfischer.it)  
[www.georgfischer.it](http://www.georgfischer.it)

## Japan

Georg Fischer Ltd  
 556-0011 Osaka,  
 Phone +81(0)6/6635 2691  
[info@georgfischer.jp](mailto:info@georgfischer.jp)  
[www.georgfischer.jp](http://www.georgfischer.jp)

## Malaysia

Georg Fischer (M) Sdn. Bhd.  
 47500 Subang Jaya  
 Phone +60 (0)3-8024 7879  
[conne.kong@georgfischer.com.my](mailto:conne.kong@georgfischer.com.my)

## Netherlands

Georg Fischer N.V.  
 8161 PA Epe  
 Phone +31(0)578/678 222  
[info.vgnl@nl.piping.georgfischer.com](mailto:info.vgnl@nl.piping.georgfischer.com)  
[www.georgfischer.nl](http://www.georgfischer.nl)

## Norway

Georg Fischer AS  
 1351 Rud  
 Phone +47(0)67 18 29 00  
[info@no.piping.georgfischer.com](mailto:info@no.piping.georgfischer.com)  
[www.georgfischer.no](http://www.georgfischer.no)

## Poland

Georg Fischer Sp. z o.o.  
 02-226 Warszawa  
 Phone +48(0)22/313 10 50  
[www.georgfischer.pl](http://www.georgfischer.pl)

## Romania

Georg Fischer  
 Rohrleitungssysteme AG  
 70000 Bucharest - Sector 1  
 Phone +40(0)1/222 91 36  
[office@georgfischer.ro](mailto:office@georgfischer.ro)

## Singapore

Georg Fischer Pte Ltd  
 417 845 Singapore  
 Phone +65(0)67 47 06 11  
[info@georgfischer.com.sg](mailto:info@georgfischer.com.sg)  
[www.georgfischer.com.sg](http://www.georgfischer.com.sg)

## Spain/Portugal

Georg Fischer S.A.  
 28046 Madrid  
 Phone +34(0)91/781 98 90  
[info@georgfischer.es](mailto:info@georgfischer.es)  
[www.georgfischer.es](http://www.georgfischer.es)

## Sweden/Finland

Georg Fischer AB  
 12523 Älvsjö-Stockholm  
 Phone +46(0)8/506 775 00  
[info@georgfischer.se](mailto:info@georgfischer.se)  
[www.georgfischer.se](http://www.georgfischer.se)

## Switzerland

Georg Fischer Rohrleitungssysteme (Schweiz) AG  
 8201 Schaffhausen  
 Phone +41(0)52 631 30 26  
[info@rohrleitungssysteme.georgfischer.ch](mailto:info@rohrleitungssysteme.georgfischer.ch)  
[www.piping.georgfischer.ch](http://www.piping.georgfischer.ch)

## United Kingdom/Ireland

George Fischer Sales Limited  
 Coventry, CV2 2ST  
 Phone +44(0)2476 535 535  
[info@georgfischer.co.uk](mailto:info@georgfischer.co.uk)  
[www.georgfischer.co.uk](http://www.georgfischer.co.uk)

## USA/Canada/Latin America/Caribbean

George Fischer Inc.  
 Tustin, CA 92780-7258  
 Phone +1(714) 731 88 00, Toll Free 800/854 40 90  
[info@us.piping.georgfischer.com](mailto:info@us.piping.georgfischer.com)  
[www.us.piping.georgfischer.com](http://www.us.piping.georgfischer.com)

## Export

Georg Fischer Rohrleitungssysteme (Schweiz) AG  
 8201 Schaffhausen  
 Phone +41(0)52 631 11 11  
[export@piping.georgfischer.com](mailto:export@piping.georgfischer.com)  
[www.piping.georgfischer.com](http://www.piping.georgfischer.com)