

Water Treatment Applications

From applications
to products



Table of Contents

4 - 5	Find your Solution
6 - 7	Drinking Water Process
8 - 9	Industrial Process Water
10 - 11	Waste Water Treatment Process
12 - 13	Pack 1 Dilution and water injection
14 - 15	Pack 2 Membrane technology
16 - 21	Pack 3 Chemical dosing systems Calculation ROI and savings
22 - 23	Pack 4 Media filtration application
24 - 27	Pack 5 Resin ion exchangers Neutralisation
28 - 35	Material Material selection Material specifications Joining technologies Chemical resistance
36 - 43	Products Valve selection Instrumentation selection Product range

GF Piping Systems

Your global system provider

We are dedicated to designing, manufacturing and marketing piping systems for the safe and secure conveyance of liquids and gases.

We put customers first

- Customer needs guide our product development
- We offer customer support and training worldwide
- We measure your satisfaction

We act fast

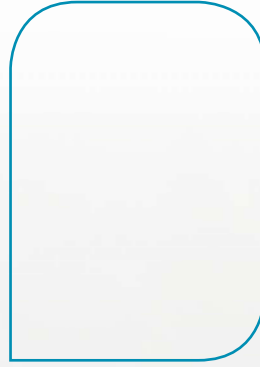
- Local presence worldwide
- Superior logistics
- Speed in all details

We do what we say

- Tested quality
- Always trustworthy



+GF+



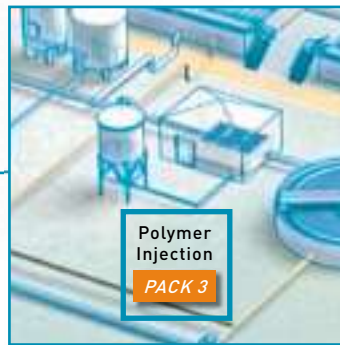
GF Piping Systems

→ Your benefits

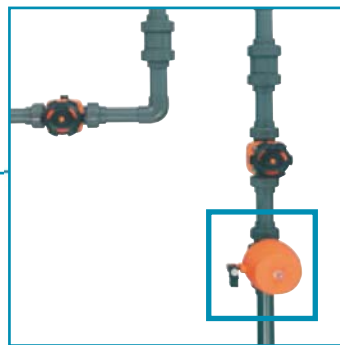
- technological expertise
- “one stop” shopping around the world
- premier quality and performance
- system solutions
- know-how and experience
- local support



1 Start with your process



2 Select your pack



3 Find your solution

Characteristics	Ø PP-H	PVC-U
Temperature limits (25 years)	0 / +80 **	0 / +60
Weight / meter pipe (PN10, d63)	0.49	0.4
Density	0.90-0.91	1.38
Flexural modulus	1250	> 2400
Tensile modulus	1300	
Stiffness *	3	5
Toughness *	5	3
	3	2
	1	1
Charpy notched impact strength	85	> 6
	4.8	> 3
	-	-
Taber abrasion	150...200	250...300
Abrasion resistance *	4	4
Coefficient of thermal expansion	0.16...0.18	0.07...0.08
Thermal conductivity	0.23	0.15

4 Choose your material



5 Add products

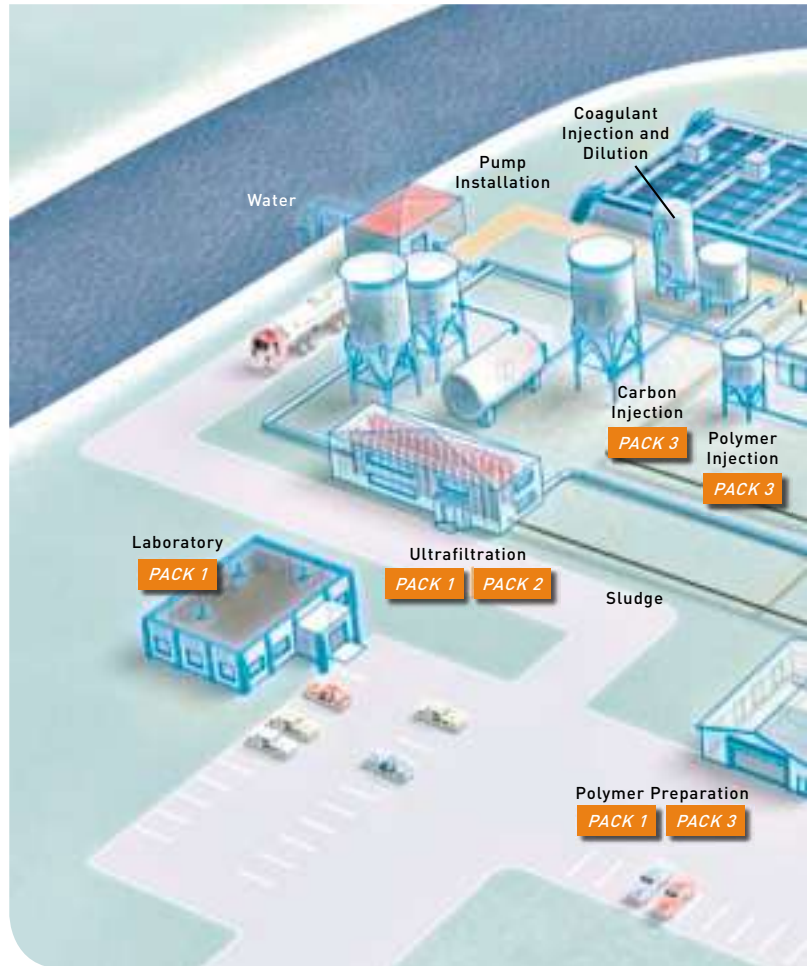
Drinking Water Process

Producing drinking water is always a challenge. The choice of plastic material for pipes, valves and fittings according to their chemical and mechanical properties is essential for a long-lasting system.

By choosing the appropriate instrumentation to measure water quality and to regulate chemical dosing, total cost of ownership can be optimised. Automation and state-of-the-art valves then operate best and ensure constant water quality.

For material, instrumentation, automation, valves, pipes and fittings, GF Piping Systems is the right partner for all drinking water processes.

GF Piping Systems Visible benefits.



PACK 1

Dilution and Water Injection

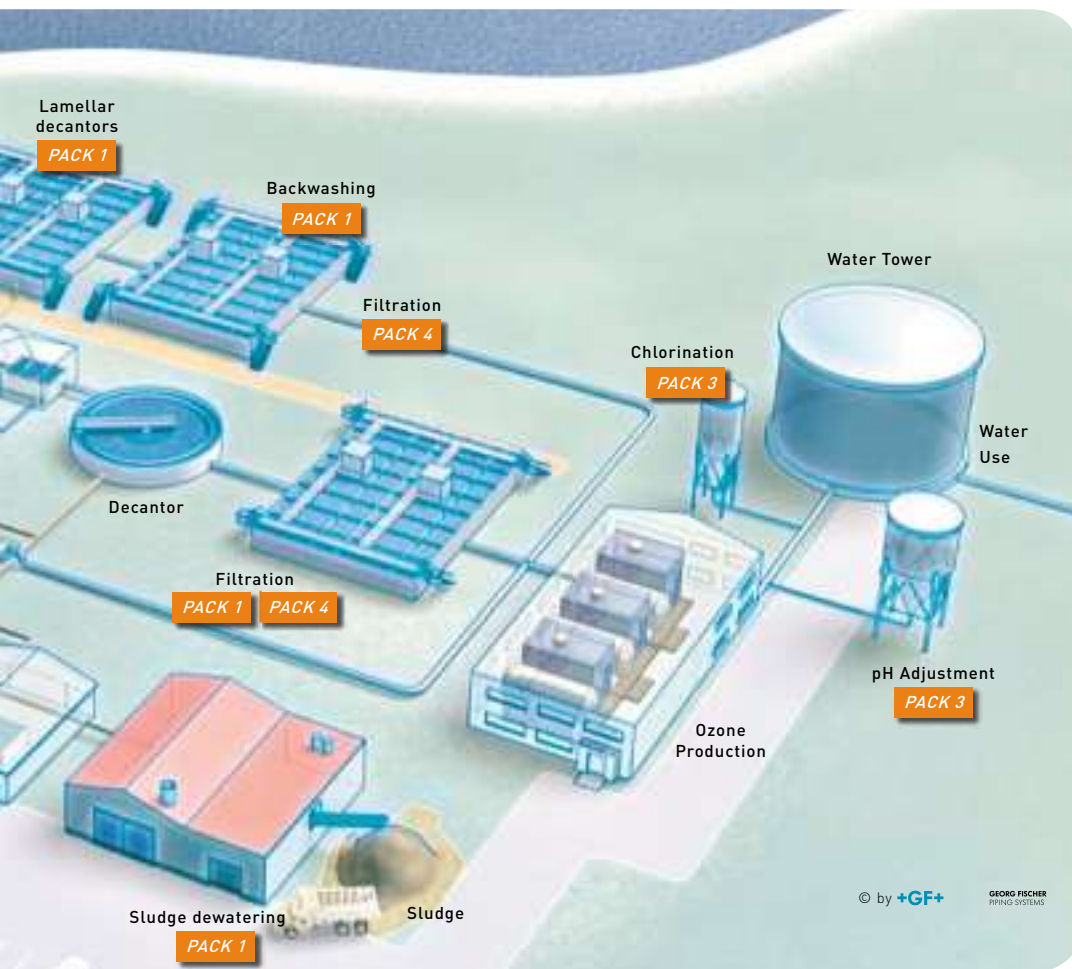
All equipments for water conveyance and dilution lines.

PACK 2

Membrane Technology

Materials for membrane applications: reverse osmosis, ultrafiltration, nanofiltration.

Drinking Water Process



PACK 3

Chemical Dosing Systems

State-of-the-art products and materials for chemical dosing.

PACK 4

Media Filtration Application

Complete systems for safe operation of sand filters, cartridges or active carbon filters.

PACK 5

Resin Ion Exchangers

High quality, automated valves and tips for resin softeners and demineralisation units.



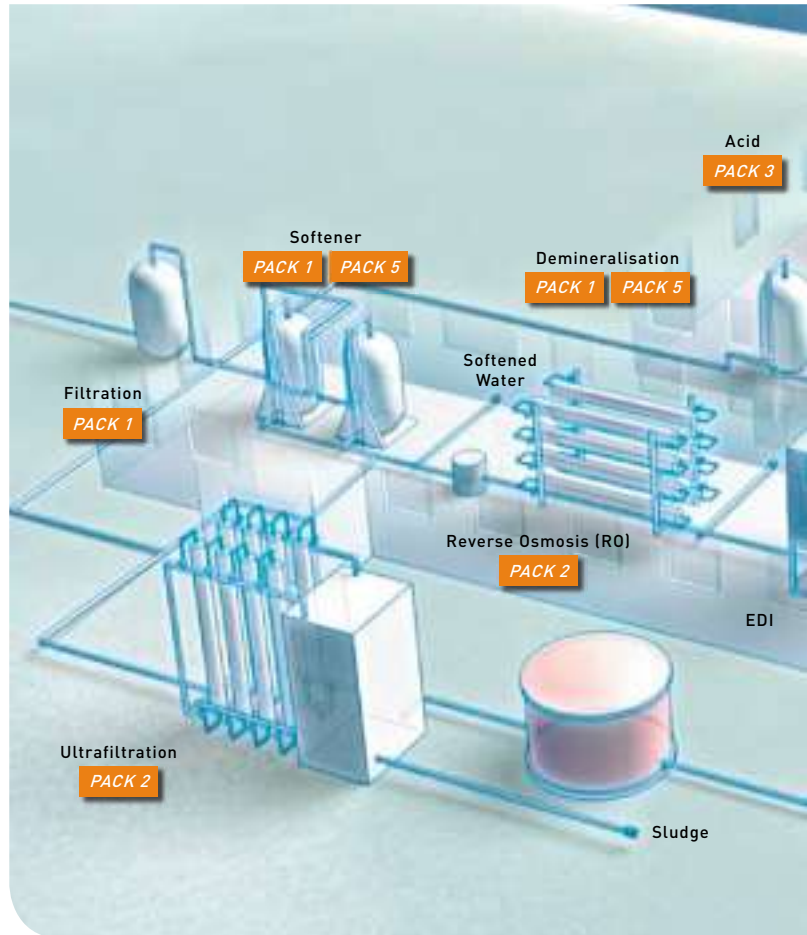
Industrial Process Water

Industries require high water quality to feed boilers, processes, cooling systems, etc.

Avoiding contamination, scale formation and corrosion in these systems is obviously essential.

Our high quality valves, our inert plastic materials such as β PP-H or PVDF, (PROGEF®/SYGEF®), our reliable instrumentation and our high level of expertise allow GF Piping Systems to provide our customers with reliable quality systems.

GF Piping Systems Visible benefits.



PACK 1

Dilution and Water Injection

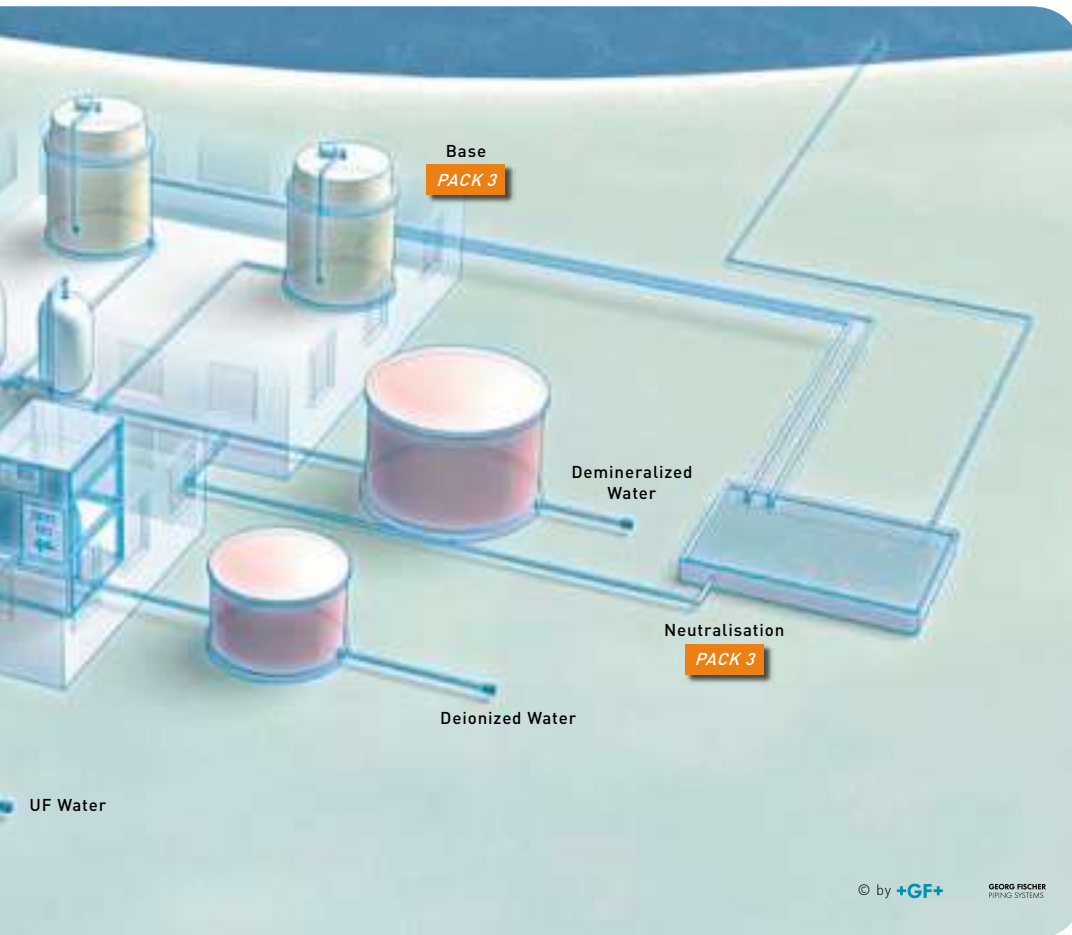
All equipments for water conveyance and dilution lines.

PACK 2

Membrane Technology

Materials for membrane applications: reverse osmosis, ultrafiltration, nanofiltration.

Industrial Process Water



PACK 3

Chemical Dosing Systems

State-of-the-art products and materials for chemical dosing.

PACK 4

Media Filtration Application

Complete systems for safe operation of sand filters, cartridges or active carbon filters.

PACK 5

Resin Ion Exchangers

High quality, automated valves and tips for resin softeners and demineralisation units.



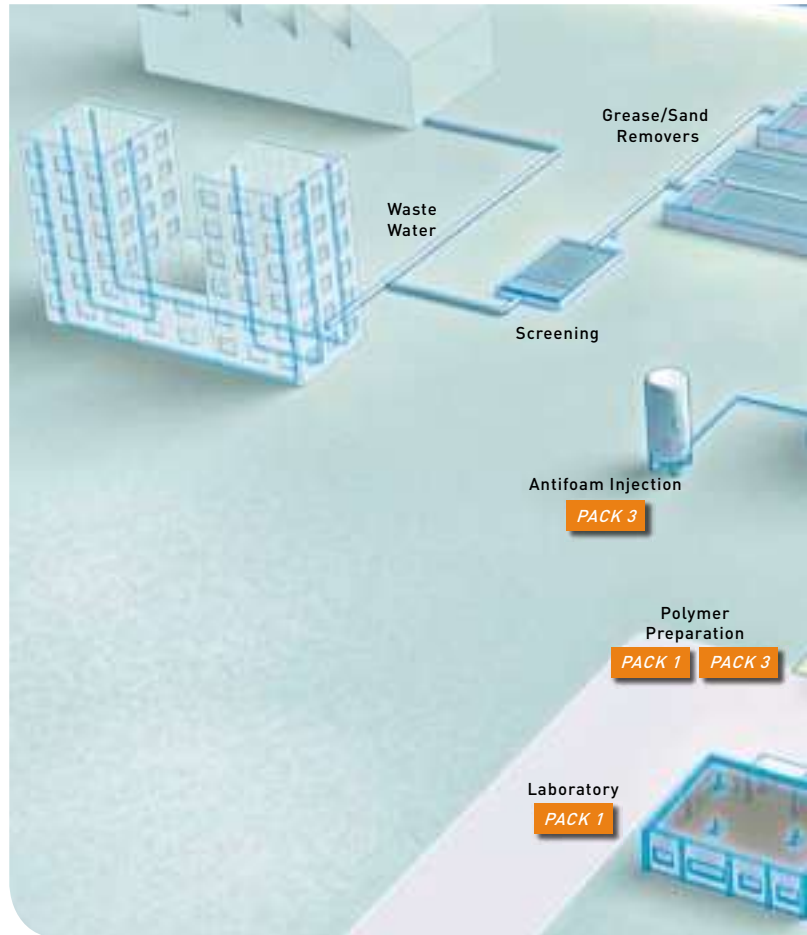
Waste Water Treatment Process

More stringent regulation demands state-of-the-art technologies in the sewage plants of today.

Membrane technology, chemical dosing systems, polymer preparation are applications that require efficient water conveyance systems. With its complete and dedicated range of products, GF Piping Systems offers innovative and reliable solutions for these applications.

GF from applications to products.

GF Piping Systems Visible benefits.



PACK 1

Dilution and Water Injection

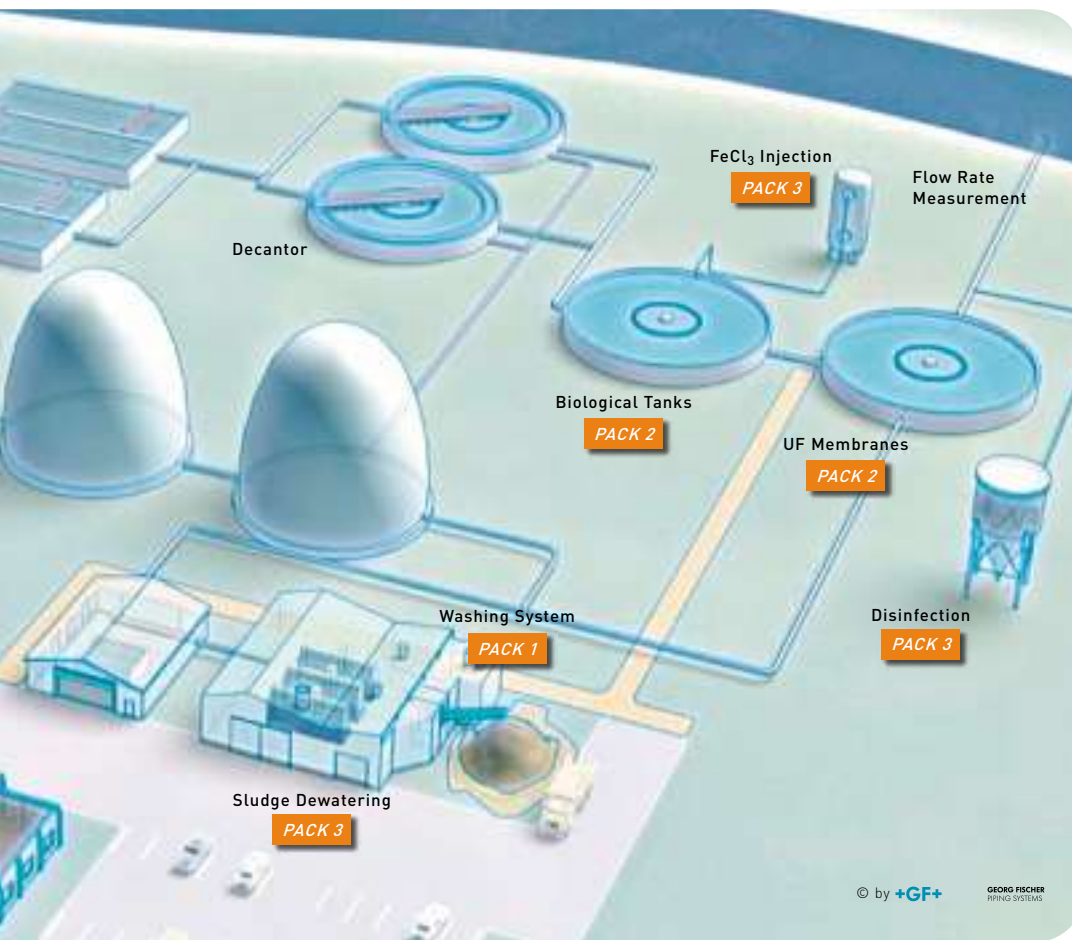
All equipments for water conveyance and dilution lines.

PACK 2

Membrane Technology

Materials for membrane applications: reverse osmosis, ultrafiltration, nanofiltration.

Waste Water Treatment Process



PACK 3

Chemical Dosing Systems

State-of-the-art products and materials for chemical dosing.

PACK 4

Media Filtration Application

Complete systems for safe operation of sand filters, cartridges or active carbon filters.

PACK 5

Resin Ion Exchangers

High quality, automated valves and tips for resin softeners and demineralisation units.



Application

Efficiently diluting chemicals like FeCl_3 , lime, polymers and coagulants will obtain the best use of them, increasing their efficiency, thereby reducing total operating costs.

Utilising the right water system is essential in water treatment plants. Laboratories, dewatering rooms, sludge storage areas, ultrapure water production, all need water lines for diverse purposes, such as cleaning the ground, running analyses or for sanitary use. For these needs and more, GF Piping Systems has the right products and know-how.

Our technologies and products help you to achieve this.



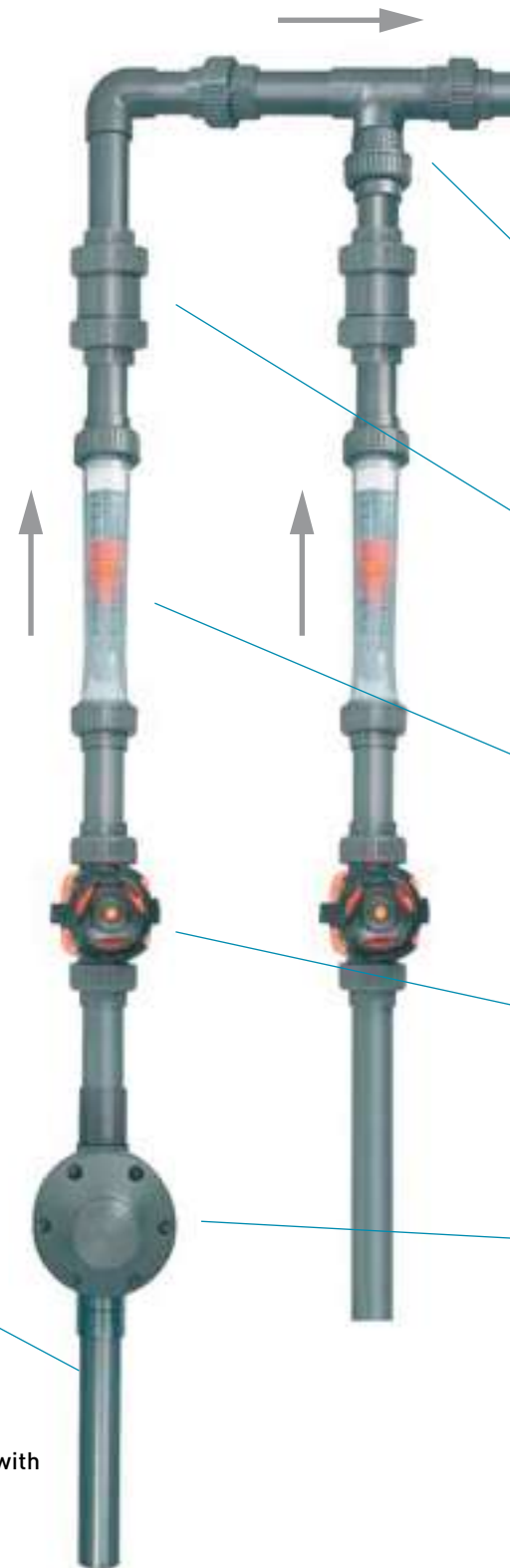
Pipes

The tolerance is adjusted to fit with our fittings.

The dry-fit (U-PVC) allows you to pre-assemble the installation easily with our pipes. By using high quality products you will avoid the expense of shutdown and increase plant safety.

Your benefits:

- high mechanical stability



- exceptionally high level of chemical resistance
- optimised UV resistance and heat stability
- wide range of approvals

Pack 1

Dilution and water injection



Water Jet Pump Type P20

Our water jet suction pumps are an extremely efficient method of pumping and/or mixing chemicals with water.



Ball Check Valve Type 360

With our complete range of check valves, water lines are not polluted by chemicals any more. An essential requirement for all industrial water lines.



Variable Area Flow Meters Type 807

Available in a wide range of measurements and materials, our variable flowmeter offers a great value at an economical price.



Tip: By using the limit switches accessories, you can generate an alarm or control a valve.



Diaphragm Valve Type 314, PVC-U

Our diaphragm valves allow you to secure an ideal dilution rate.



Tip: For a suction process, please use our throttle valves type V251.



Pressure Reducing Valve Type V182 or V782

Use our pressure reducing valves to get a stable pressure ensuring a good and constant dilution.



Tip: For high precision or expensive chemicals use our V782.

1

PACK 1

→ Dilution and Water Injection

Advantages and return on investment

- easy to install
- modular automated solution
- high dosage accuracy with our different valves
- ideal measurement and control combination
- increase blending efficiency
- avoid water pollution
- reduce operating costs
- reduce installation costs
- reduce chemical costs
- reduce process downtime
- reduce disposal costs



Advantages and return on investment

Membranes have become the most commonly used technology in water treatment.

To produce potable water or to increase sewage plant efficiency, ultrafiltration membranes, reverse osmosis or nanofiltration require the right choice of materials and products.

PROGEF® plus (β PP-H), PVC-U or PE100 can satisfy your different requirements.

Our manual and automated valves together with our instruments provide your system with quality and reliability.

The use of plastic materials

→ In **Ultrafiltration** where the pressure varies from 2 to 4 bar with large amounts of sodium bisulfite or chlorine, the use of stainless steel is extremely limited. In such cases, the use of PVC-U or PE100 is recommended; even our β PP-H and ABS could be used under certain conditions of chemical use.

The use of plastic materials in membrane

Application

Ultrafiltration



PACK 2 → Membranes

Advantages and return on investment

- easy to install and/or modify
 - easy to commission and operate
 - one-stop shopping
 - no corrosion
 - added value welding technology
- one partner – a single source will:
 - reduce engineering costs
 - reduce installation costs
 - reduce commissioning costs
 - reduce maintenance costs

Reverse Osmosis



* see our material specifications and
 ** under certain conditions of chlorine

Pack 2

Membranes

in membrane technology is a reality.

→ In **Reverse Osmosis**, the use of stainless steel is in question now that the new membrane technologies are usable below 16 bar. In these cases, we recommend our PVC-U material as well as our PE100. On the low pressure side, we recommend our β PP-H material which provides excellent leach-out values for high-end applications.

All of our plastic materials have less pressure loss than metals which is major advantage in skids (lot of pressure loss due to fittings and high velocity).

Our materials are designed for 25 years with 25°C water at 10 or 16 bar, respectively.



PACK 2

2

technology is a reality.



Recommended Material*	Benefits
PVC-U	Reliable and cost effective solution. You get a fast and compact installation with our PRO-FIT fittings ①.
PE100	Blank mounting possible. Use our Alprene couplers ② and electrofusion saddles and couplers ③.
β PP-H **	Excellent purity and leach-out values. Easy to install. Aesthetic. IR fusion solutions.
PVC-U	Reliable and cost effective solution ①④.
β PP-H	Excellent purity and leach-out values. Easy to install. Aesthetic. IR fusion solutions ⑤.

advantages, page 29 use





① Injection*

→ The simplest way to inject chemicals. Whether manual or automatic, the system allows you to:

- blend the products
- visually check the flow rates
- adjust the flows
- Ensure there is no water contamination

→ as an option it can:

- be automated
- generate an alarm for low or high flow rates (limit switches on the variable flow meters)



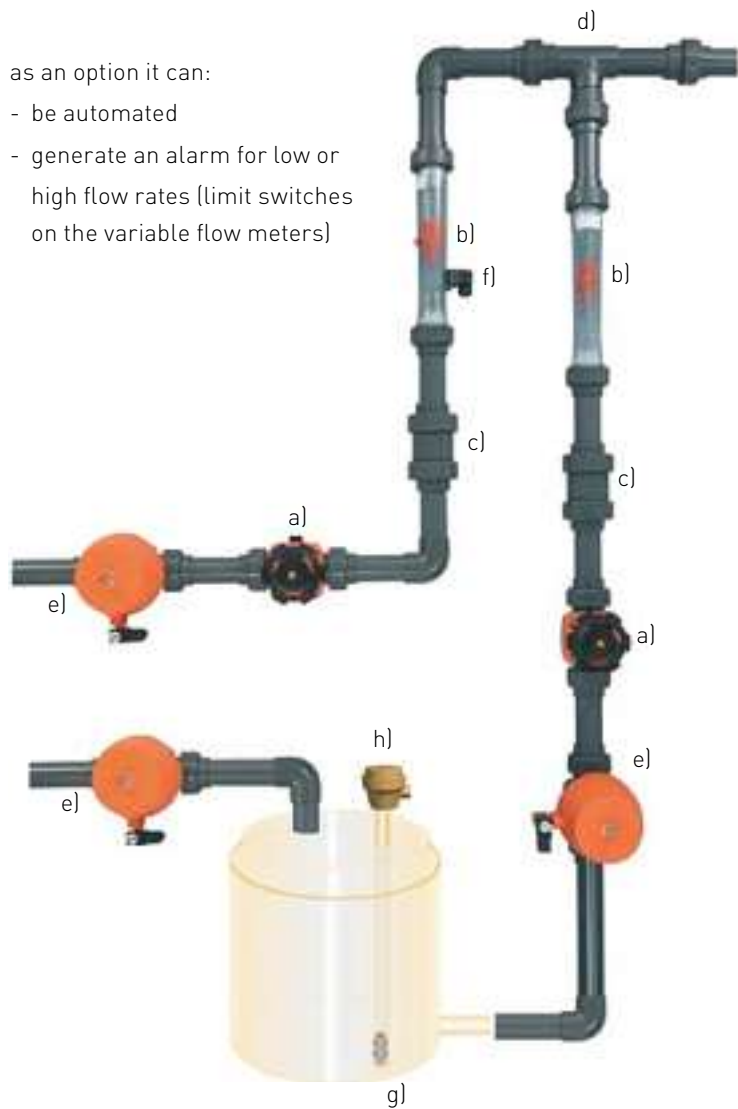
Tip: We recommend you incorporate a pressure re-tainer valve where you have several lines in series.



Tip 2: The water jet pump can be used both for suction and blending.



Tip 3: Put the water jet suction pump P20 in between two pressure gauges to control it efficiently.



* see our materials selection, pages 28–35

① Injection – Product list			
Mechanical	pcs.	Pneumatical/Electrical Options	pcs.
a) Diaphragm Valve 314	2	e) Pneumatic Diaphragm Diastar 028/025	3
b) Variable Area Flow Meter	2	f) Low Flow Alarm, limit switch	1
c) Check Valve 360	2	g) Hydrostatic Pressure Sensor 2450-4U	1
d) Water Jet Pump P20	1	h) Transmitter 8250	1

Pack 3

Chemical dosing systems

Preparing chemicals and dosing them in the most efficient way will secure their consumption and increase their effectiveness.

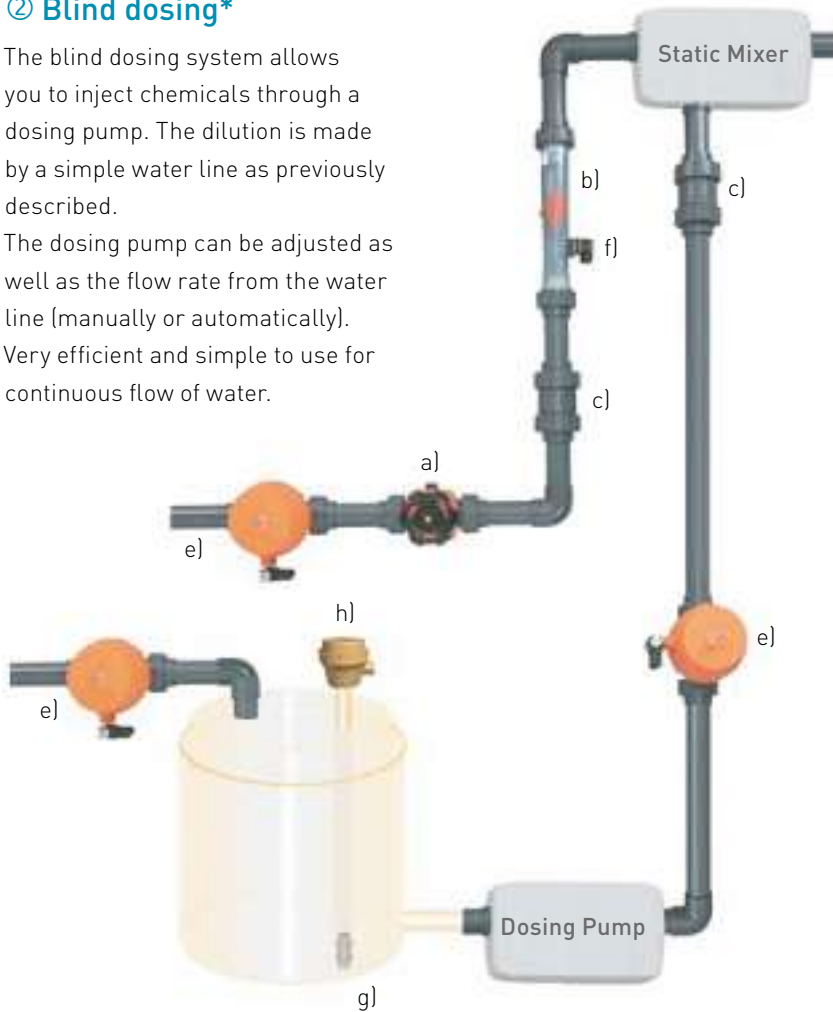
For these purposes, GF Piping Systems has prepared several applications to suit to your requirements.

② Blind dosing*

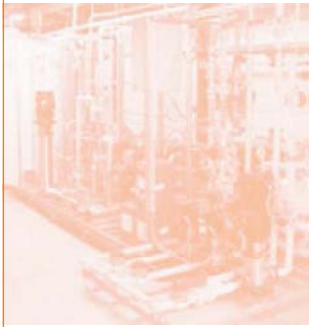
The blind dosing system allows you to inject chemicals through a dosing pump. The dilution is made by a simple water line as previously described.

The dosing pump can be adjusted as well as the flow rate from the water line (manually or automatically).

Very efficient and simple to use for continuous flow of water.



② Blind dosing – Product list			
Mechanical	pcs.	Pneumatical/Electrical Options	pcs.
a) Diaphragm Valve 314	1	e) Pneumatic Diaphragm Diastar 028/025	3
b) Variable Area Flow Meter	1	f) Low Flow Alarm, limit switch	1
c) Check Valve 360	2	g) Hydrostatic Pressure Sensor 2450-4U	1
		h) Transmitter 8250	1



PACK 3

3

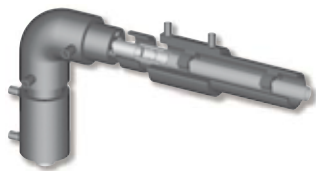


Tip: Double containment system

Using hazardous chemicals at a water treatment facility requires a safe system for handling, stocking and transporting them until their use.

Safety for people and environment is one of the main challenge for water works managers.

Wherever environmentally hazardous media need to be conveyed, the accident risk can be practically avoided with the use of our double containment system and leak detection.

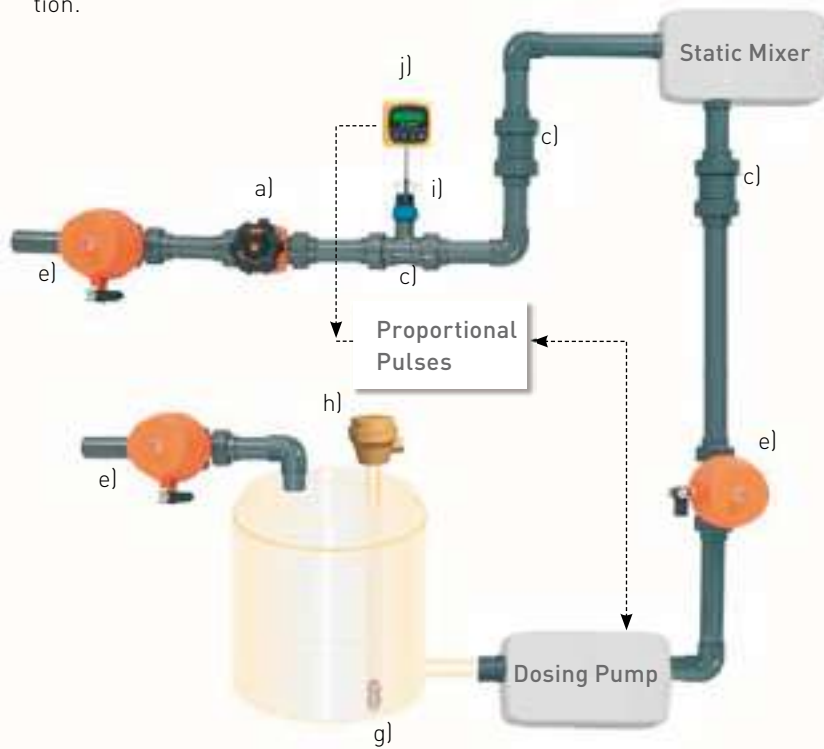


③ Proportional Dosing System*

The proportional dosing system allows you to control the flow rate and to adjust the dosage proportionally. By using both our GF SIGNET instruments and our valves, you have the assurance of continuous operation.

→ This system allows you:

- to control the flow rate and to register data
- to adjust dosage by activating the pump



* see our materials selection, pages 28–35

③ Proportional dosing system – Product list

Mechanical	pcs.	Pneumatical/Electrical Options	pcs.
a) Diaphragm Valve 314	1	e) Pneumatic Diaphragm Diastar 028/025	3
c) Check Valve 360	2	i) Paddlewheel Flow Meter 2536	1
		j) Display 8550-2	1
		g) Pressure Sensor 2450-4U	1
		h) Display 8250	1

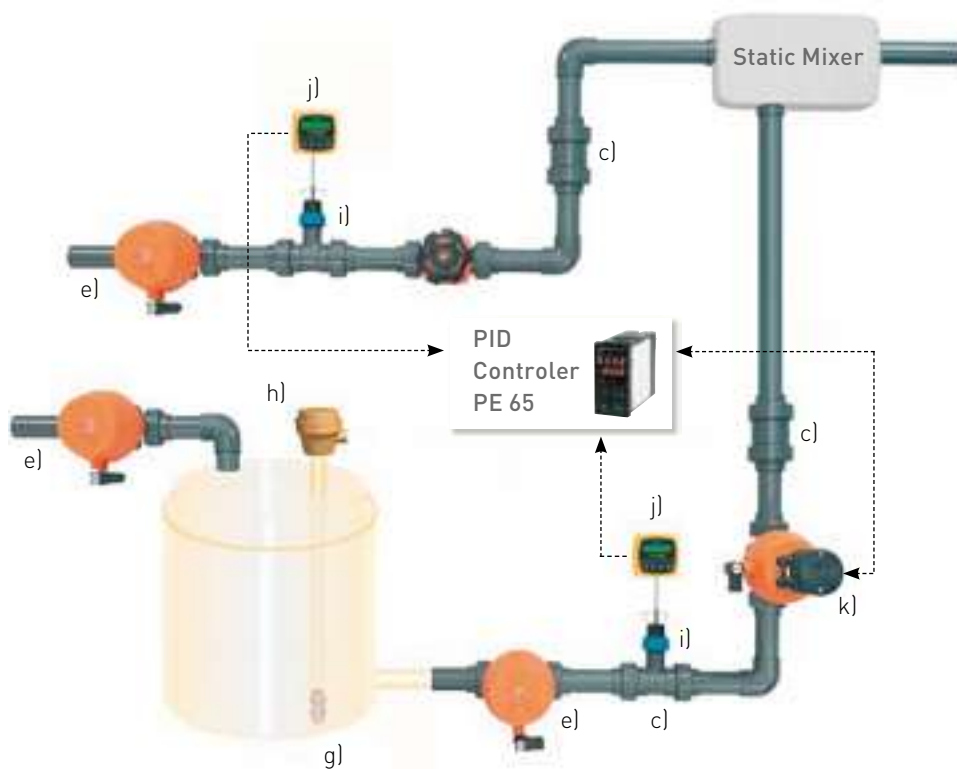
Pack 3

Chemical dosing systems

④ Ratio Control Dosing*

The ratio control is extremely efficient and allows precise dosages. Registering both flow rates, it adjusts the ratio accordingly and controls the valve via a mix controller.

Especially interesting with gravity flow or with expensive chemicals. You control and adjust dosages precisely.



④ Ratio control dosing – Product list

Mechanical	pcs.	Pneumatical/Electrical Options	pcs.
a) Diaphragm Valve 314	1	e) Pneumatic Diaphragm Diastar 028/025	3
c) Check Valve 360	2	i) Paddlewheel Flow Meter 2536	2
		j) Transmitter 8550-2	2
		g) Pressure Sensor 2450-4U	1
		h) Transmitter 8250	1
		k) DSR I/P Positionner	1



PACK 3

3



Application

Having the right dosing installation for the right application is always a challenge.

In this table you will find the most common chemicals with our recommended dosing systems.

Making the right choice is always a balance between the investment cost and the possible return on investment or savings.

The more expensive the chemical is and the greater its impact on operation is, the more important it is to find a global solution.

Recommended applications

	Drinking water process
① Simple injection (see page 16)	- Ozone
② Blind dosing (see page 17)	- Activated Carbon Powder
③ Proportional dosing (see page 18)	- Disinfectants - WAC (Aluminium Polychloride)
④ Ratio control (see page 19)	- Flocculants - Coagulants

Chemical Dosing

Calculation of ROI and savings

Key performance indicators

The KPI help you to determine which level of technology you should use to dose chemicals.

- price of the chemical
- dosing rate
- quantity used per year
- impact on operation
- impact on total cost of ownership
- risks in handling and using



PACK 3

3

Make-up water	Waste water processes	Investment level
- Resin ion exchangers regeneration (acid / base) with batch control - NaCl for softeners	- Ferric chloride (phosphore removal) - Lime	Base 100
- NaOCl (Sodium hypochlorite) - Resin ion exchangers regeneration - Acid and base with batch control	- Ferric chloride (phosphore removal) - Phosphoric acid	80 (without pump)
- Sodium bisulfite - NaOCl - Acid and base with gravity flow	- Flocculants - Disinfection - Urea/acetic acid	120 (without pump)
- Flocculants - Coagulants	- Flocculants - Coagulants	200

PACK 3

→ Chemical Dosing Systems

Advantages and return on investment

- easy to install
- modular automated solution
- high dosage accuracy with our valve range options
- ideal measurement and control combination
- avoid pollution
- reliable piping systems reduces the risk of accidents
- no corrosion, no leakage
- reduce total operating costs
- reduce chemical costs
- reduce process downtime due to wrong blending Water pollution
- reduce disposal costs



Application

Industrial and municipal sand filters, sludge band filters, cartridge filters need a total package of valves, instrumentation, fittings and pipes in order to operate efficiently.

GF Piping Systems has designed a complete solution for each of your applications.

Cartridge filters, industrial sand filters and municipal sand filters, all need valves, fittings, instrumentation and automation.

We recommend using the products mentioned here to operate your filters in safe condition at an affordable cost.



PACK 4 → Media Filtration Application

Advantages and return on investment

- long-lasting systems
- easy set-up
- efficient backwashing systems
- ideal measurement and control combination allows optimal filtration.
(pressure, delta pressure, level...)
- lower investments
- reduced number of valves

Pack 4

Media filtration application



Ball valve Type 546

Use our manual ball valve 546 to secure blow down in all your filters.



Tip: For easier regulation, use our ball with linear characteristics. (see Page 37)



3-Way Ball Valve Type 275

Use our 3-way ball valves to replace 2-way ball valves. In some cases, this will provide you with additional safety and lower costs.



Pneumatic Diaphragm Valve Diastar Type 025/028 and Type Eco

Use our Diastars to operate your applications, safely and securely. Our valves will operate in excellent condition for a long time even with media containing solids.



Tip: You can also use our position indicator on the top.



Butterfly Valve Type 567

Use our double eccentric butterfly valve for all your filtration systems. Modularity and reliability are the most important features of our valve.



Line Strainer Type 305

Use our strainer in your application to ensure no sand loss. Just select the most suitable screen for your particles sizes.



Tip: Use our transparent strainer for visual inspection.



Diaphragm Gauge Guard Type Z700

Our pressure gauge for 6 or 10 bar shows you the exact value at a glance. Your operators can then act faster.



Filler Valve Type V95

Use our filler on top of your pressure tank in order to aerate it.



Pressure Reducing Valve Type V182 or V782

Use our pressure reducing valves to get a stable pressure in the filter.



Tip: If you have several filters in line, use our pressure retainer valve to maintain a constant pressure in the filters.



PACK 4

4

Pack 5

Resin ion exchangers

Application

Softeners and demineralisation units secure the production of softened water and demineralised water to feed boilers, cooling systems and participate in high purity water systems. Therefore, their reliability is a key parameter for all customers. GF Piping Systems has a wide selection of packages specially adapted for these applications.

- softeners
- demineralisation
- mixed Beds

GF Piping Systems

We have what you need.



Klip-it

Use our Klip-it to support all pipes in your water loops.



Filler

Use our filler on top of your pressure tank in order to aerate it.





Ball Valve Type 546

Use our ball valve 546 to control the acid or base flow rate.



Tip: For easier regulation, use our ball with linear characteristics.



Diaphragm Valve Type 314/315/317

Use our diaphragm valves to regulate flows.



Water Jet Suction Pump Type P20

Use our water jet pump for suction of acids and bases for regeneration. You get a reliable and extremely efficient pump at a very low cost.



Paddlewheel Flowmeter

Use our paddlewheel flow meter to count volume and start regeneration.



Variable Area Flow Meters

Available in a wide range of measurements and materials, our variable flowmeter offers a great value at an affordable price.



Tip: By using the limit switches accessories, you can generate an alarm or control a valve.



Line Strainer Type 305

Use our strainer in your application to ensure no sand loss. Just select the most suitable screen for your particles sizes.



Tip: Use our transparent strainer for visual inspection.



Signet Conductivity/Resistivity Meter

Use our Signet conductivity meter to measure the water quality of your demineralisation.



Tip: Use the conductivity meter only as a control tool to generate an alarm and/or a regeneration for safety.

PACK 5

→ Resin Ion Exchangers

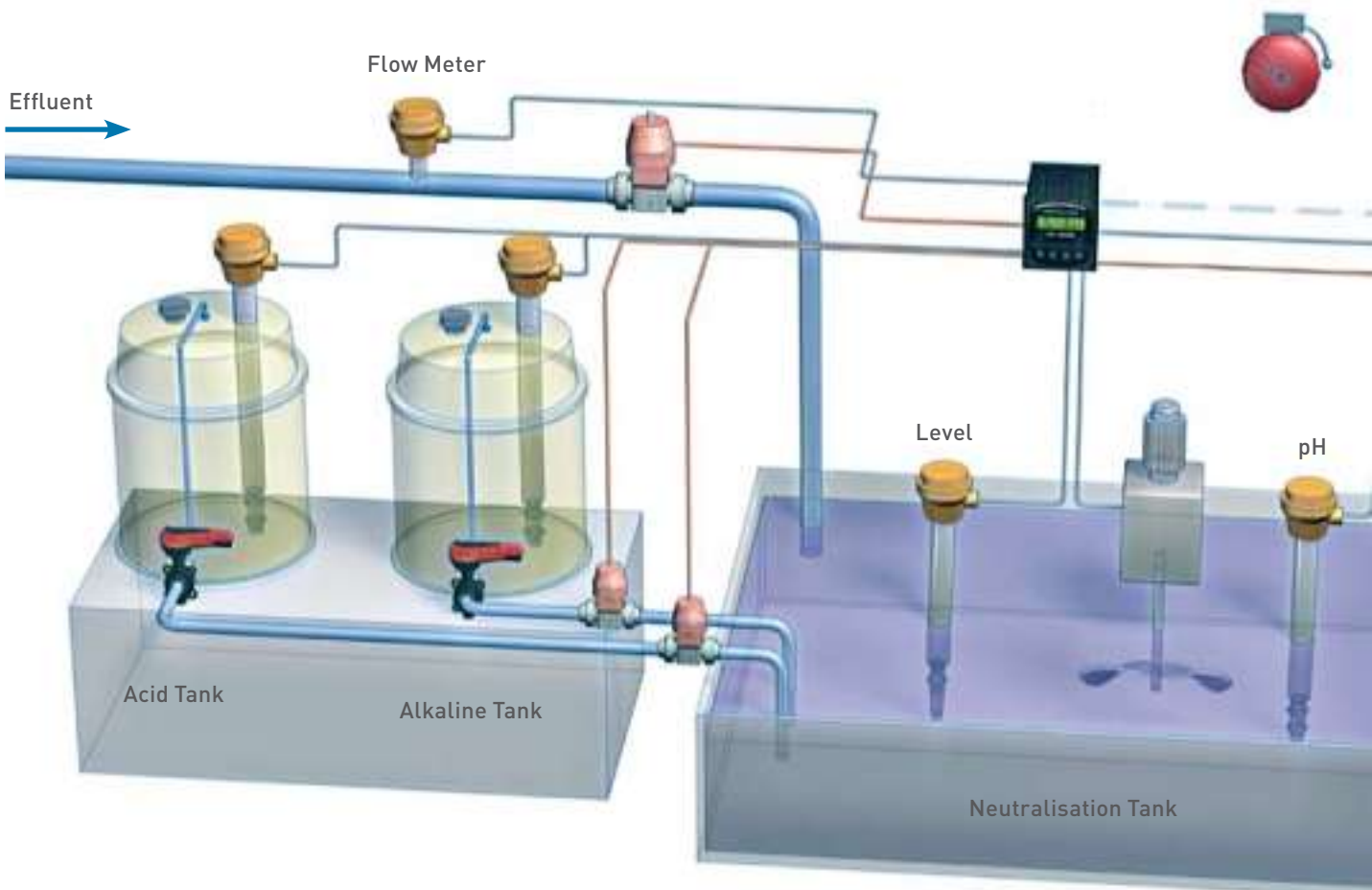
Advantages and return on investment

- reduced cost of maintenance
- allows single sourcing
- easy set-up for automation and instrumentation
- safe and easy chemical dosing systems
- fully compatible instrumentation and automation valves
- easy installation, easy commissioning
- reduces attrition and resin use



PACK 5

5



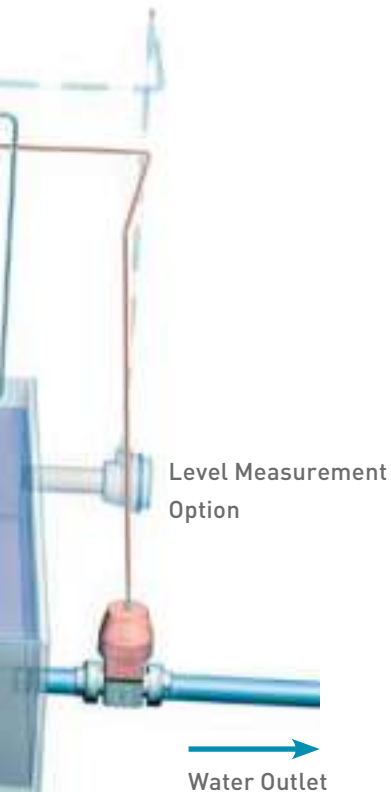
Pack 5

Neutralisation



To regenerate a demineralisation skid, acid and alkaline products are necessary. Neutralising these effluents is mandatory. The use of the right technology and automation will help you to secure:

- a lower chemical consumption of up to 20%
- a better performance
- a reliable pH and flow measurement
- a reduced risk of regulation penalties

The return on investment is therefore lower waste neutralisation costs.



Controller 8900

Up to 6 inputs = 
4 outputs = 
8 relays



Electromagnetic Flowmeter

Use our electromagnetic flowmeter to control the incoming flow.



Level (Hydrostatic pressure)

Check the level in the neutralisation tank to ensure the process and control the effluent intake.



Pneumatic Diaphragm Valve Diastar Type 025/028 and Type Eco

Use our Diastars to operate your applications safely and securely. Our valves will operate in excellent condition for a long time even with media containing solids.



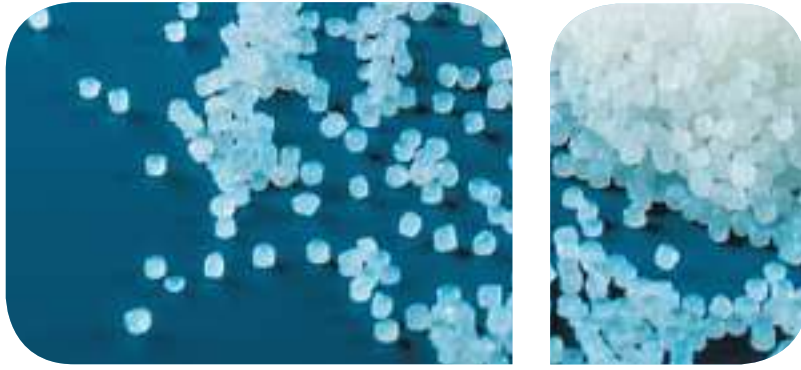
Butterfly Valve Type 567

Use our butterfly valve at the bottom of the chemical tank for safety and blowdown.



PACK 5

5



PVC-U / PVC-C

Polyvinyl chloride

The **fast solution** for your water treatment system.

- excellent chemical resistance
- non-toxic, physiologically inert
- tolerance fit for specific purpose
- easy and fast jointing
- fast installation
- wide range of drinking water approvals
- complete system in global standards (EN/DIN, BS, ASTM, JIS)
- proven in millions of applications over nearly 50 years



ABS

Acrylonitrile-Butadiene-Styrene

Ideal for **low temperature applications**.

- high impact strength even at low temperatures to -40 °C
- easy handling thanks to solvent cemented jointing
- biologically inert
- recyclable
- 25% less installation time than metal



SYGEF® PVDF

The **excellent solution** for high purity water.

Weldable (socket, IR Plus® (Infra Red)fusion and BCF® Plus(Bead and Crevice Free)),

Outstanding chemical resistance and pressure/temperature range.



Material Selection for Water Treatment



β PP-H

Beta-Polypropylene-Homopolymer

The **heavy duty** material for good water quality in hot water or chemically sanitized processes.

- socket, butt or IR fusion technology
- high impact strength
- temperature resistant up to 95°C
- good long-term performance
- excellent resilience to cleaning agents
- UV-resistant
- excellent leach-out values



PE 100

Polyethylene

The **economical solution** for cold water applications.

- socket, butt, electrofusion or IR fusion technology
- excellent flexibility
- allows easy membrane changes
- good chemical resistance
- good ductile characteristics
- superior price-performance ratio
- UV-resistant
- blank mounting for skid possible
- adjustable with Alprene couplers
- huge network of installers
- high impact resistance

M



Material



Characteristics		ABS
Temperature limits (25 years)		-40 / +60
Weight / meter pipe (PN10, d63)		0.368
Density		≥ 1.035
Flexural modulus	23°C	≥ 1800
Tensile modulus	23°C	
Stiffness *		4
Toughness *	23°C	5
	0°C	4
	-40°C	3
Charpy notched impact strength	23°C	42
	0°C	-
	-40°C	>10
Taber abrasion		-
Abrasion resistance *		/
Coefficient of thermal expansion	not linear	0.1
Thermal conductivity	23°C	0.17
Limiting oxygen index LOI		19
Burning behavior (0 burning / X self-extinguishing)		0
Long-term strength MRS		14
Pressure resistance *		3

	PVC-U	PVC-C	PE 100	β PP-H	PROGEF PP-n	SYGEF PVDF	CONTAIN- IT Plus
Pipes	■	■	■	■	■	■	■
Fittings	■	■	■	■	■	■	■
Butterfly Valves	■	■		■		■	
Ball Valves	■	■		■		■	■
Diaphragm Valves	■	■		■	■	■	■
Actuated Valves	■	■		■	■	■	■
Process Control Valves	■	■		■		■	■
Measurement and Control	■	■		■	■	■	■

Material specifications

This table allows you to select the material according to its characteristics.

PE 100	β PP-H	PVC-U	PVC-C	PVDF	Unit	Standard
-40 / +60	0 / +80 **	0 / +60	0 / +80	-20 / +140	°C	
0.33	0.49	0.4	0.435	0.331	kg /m	
0.95	0.90-0.91	1.38	1.5	1.78	g/cm ³	ISO 1183
-	1250	> 2400	-	> 1800	N/mm ²	EN ISO 527-1
900	1300		> 2550	-	N/mm ²	EN ISO 527-1
2	3	5	5	4		
5	5	3	3	4		
4	3	2	2	3		
3	1	1	1	1		
83	85	> 6	> 6	> 9	kJ/m ²	DIN EN ISO 179/1eA
-	4.8	> 3	-	> 8	kJ/m ²	DIN EN ISO 179/1eA
13	-	-	-	-	kJ/m ²	DIN EN ISO 179/1eA
60	150...200	250...300	250...300	-	mm ³ /10 ³ cycles	DIN 53754
5	4	4	4	/		
0.15...0.2	0.16...0.18	0.07...0.08	0.06...0.07	0.12...0.18	mm/m K	DIN 53752
0.38	0.23	0.15	0.15	0.19	W/m K	DIN 52612
>19	19	42	60	44	%	ISO 4589
0	0	X	X	X		
10	10	25	25	31.5	MPa	ISO 9080 / ISO 12162
2	2	4	4	5		

* relative valves ranked on a scale from 1 to 5. 5 being the highest valve

** up to 95°C for limited amount of time and/or low pressure needs

M



Material



Solvent Cemented

- the fast connection



Socket Fusion

- the strong connection



Butt Fusion

- the connection for larger dimensions



IR Plus® Fusion

- the clean connection



BCF® Plus Fusion

- the smooth connection



Electrofusion

- the easy connection



Joining Technologies

In combination with the most suitable piping system, the best joining technology is required to install a reliable and high quality piping system. GF has developed it for you.

Solvent Cementing

For ABS, PVC-U and PVC-C

reliable joining, excellent with GF dry fit pipes and fittings



Tip: Use our Dytex cement for acid lines in regeneration (For example, for **PACK 1** and **PACK 3**).

Socket Fusion

for PE, β PP-H and PVDF

- fast and easy welding
- transportable device

Butt Fusion

available for large dimensions

IR Plus[®] Fusion

for β PP-H, PP-n, PVDF standard and high purity

- 50% faster than conventional butt fusion and automatic
- fully traceable and controllable system
- provides optimal welding geometry



Typeplate

BCF[®] Plus Fusion

for PVDF standard and high purity (SYGEF[®], SYGEF[®] Plus) and PP-n (PROGEF[®] Natural)

- provides a smooth connection for the highest welding quality
- fully traceable and controllable

Electrofusion

for PE100

- electrical fusion
- safe for the user
- record and trace with bar code system

M



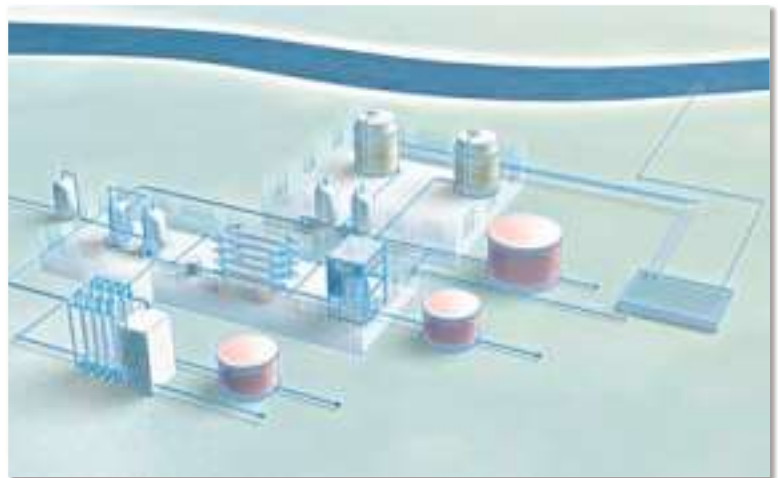
Material



Material Chemical Resistance

The chemical resistance of materials is an important issue in water treatment.

With all the chemicals used, the choice of material is a major step toward securing your installation.






- + Resistant
Within the acceptable limits of pressure and temperature, the material is unaffected or only insignificantly affected.
- o Conditionally resistant
The medium can attack the material or cause swelling. Restrictions must be made regarding pressure and/or temperature, taking the expected service life into account. The service life of the installation can be noticeably shortened. Further consultation with Georg Fischer is recommended.
- Not recommended
The material cannot be used with the medium at all, or only under special conditions.









Chemical Resistance

Chemical Resistance					Material						Seals/Diaphragms				
Medium	Formula	Concentration	T °C	PVC-U	PVC-C	ABS	PE 100	β PP-H	PVDF	EPDM	FPM	NBR	CR	CSM	
Drinking Water DW	Chlorine water (SpRB, G)	Cl ₂ H ₂ O	saturated	20	+	+	0	0	0	0	0	-	0	-	
				40	+	+		0							
	Bromine (G)	Br ₂	liquid, technically pure	20-40	-	-	-	-	-	+	-	-	-	-	
	Ozone (SpRB, G)	O ₃	up to 2% in air	20-40	+	+	-	-	-	0	0	+	-	0	+
	Ozone (SpRB, G)	O ₃	cold saturated, aqueous	20	+	+	-	0	0	0	-	+	-	0	+
40				+			-	-			0		-	-	+
Make Up Water MUW	Hydrochloric acid (Q/E, D/P, G)	HCl	up to 30%, aqueous	20	+	+	0	+	+	+	+	-	-	+	
				40	+	+	-	+	0	+	+	+			0
	Sulfuric acid	H ₂ SO ₄	up to 80%, aqueous	20-40	+	+	-	+	+	+	0	+	-	-	+
	Caustic soda solution	NaOH	50%, aqueous	20-40	+	+		+	+		+		-		0
	Calcium hydroxide	Ca(OH) ₂	saturated, aqueous	20-40	+	+	+	+	+	-	+	+	+	+	+
	Sodium hypochlorite (SpRB)	NaOCl	12,5% active chlorine		+	0	-	0	-	-	+	-	-	+	+
	Sodium chloride	NaCl	all, aqueous	20-40	+	+	+	+	+		+	+			
	Hydrogen peroxide (SpRB)	H ₂ O ₂	10%, aqueous	20	+	+	-	+	+	0		+	0	-	+
40				+			+	+	0	0	0	0	-		+
Hydrogen peroxide (SpRB)	H ₂ O ₂	90%, aqueous	20	+		-	+	-	0		0	-	-	0	
Waste Water WW	Iron (III) - chloridsulfate	FeCl ₃	saturated	20-40	+	+	+	+	+	+	+				
	Phosphoric acid	H ₃ PO ₄	up to 30% *	20-40	+	+	+	+	+	+	+	0	+	+	
	Phosperic acid	H ₃ PO ₄	75%	20-40	+	+	-	+	+	+	+				
	Phosphoric acid	H ₃ PO ₄	up to 95%	20	+	+	-	+	+	+	0	+	-	-	-
				40	+	+		+	+	+		+			
	Phosphoric acid	H ₃ PO ₄	85%, aqueous	20-40	+	+	+	+	+	+	+	-	+	0	
	Phosphoric acid	H ₃ PO ₄	50-85%, aqueous	20-40	+	+	+	+	+	+	0	+	-	+	+
	Urea (SpRB)	H ₂ N-CO-NH ₂	up to 30%, aqueous	20-40	+	+	+	+	+	+	+	+	+	+	+
Acetic acid (SpRB)	CH ₃ -COCH	10% aqueous	20-40	+	+	+	+	+	+	+	-	0	+	-	



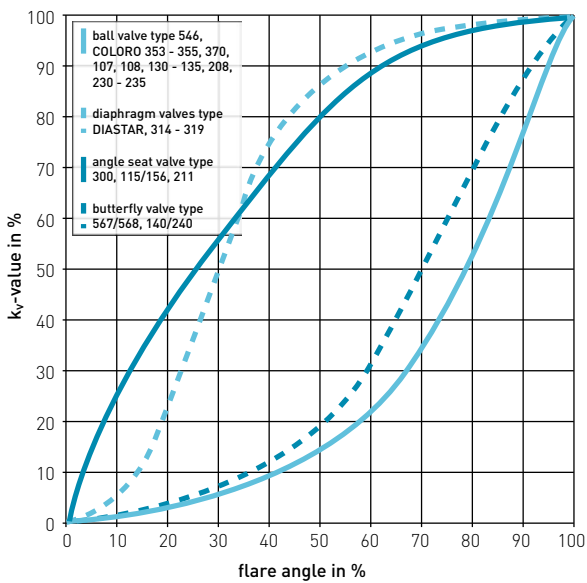
Criteria	Valuation		
Characteristics	 Diaphragm valve	 Butterfly valve	 Ball valve
Chemical resistance	+	+	+
Abrasion resistance	+	0	-
Operating cycles	+	-	-
Controllability fluids	+	-	0
Controllability gases	-	-	+
Pressure range	-	+	+
Temperature range	0	+	+
Vacuum	0	+	+
Leak tight closing	+	+	+
Pressure drop (valve 100% opened)	0	+	+
Low flow turbulence (valve 100% opened)	+	+	+
Low flow turbulence (valve partly opened)	+	0	0
Applied material diversity	+	+	+
Compact installation height	0	+	+
Weight / Size ratio	0	+	-
		+ recommended	- not recommended

Valve Selection

Valves			
PVC-U	Manual	Electric Actuated	Pneumatic Actuated
2-way ball valve	 Type 546	 Type 107	 Type 230 - FC
3-way ball valve	 Type 343	 Type 175	 Type 275
Diaphragm Valve	 Type 314		 Diastar Type 028 /025/ Eco

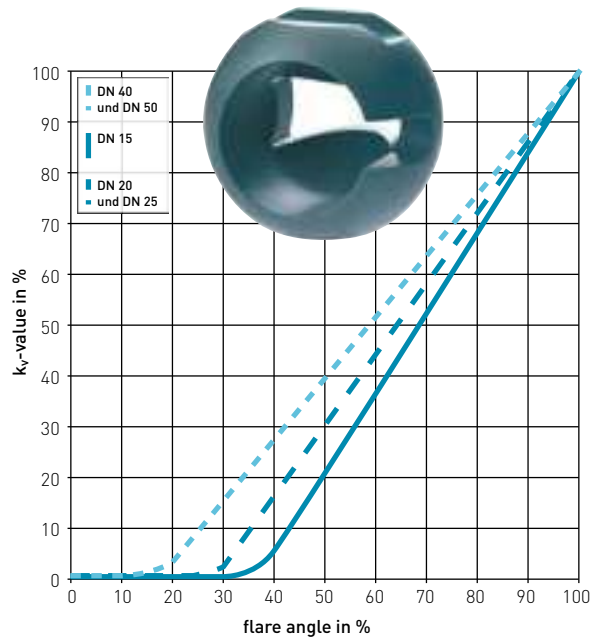
Flow characteristics

of valves



Flow characteristics

Ball valve 546 linear (Type 110)



P







Products



Flow

Four high-performance GF SIGNET flow sensor types make the choice simple and complete. Just select on the basis of «most favourable» criteria.

		Performance Characteristics										Application Packs	
		Size Range	Material Options	Installation Simplicity	Dynamic Range	Low Flow Capability	Accuracy	Repeat Ability	Pressure Drop	Moving Parts	High Purity Water		Cost
	Paddle wheel	5	5	5	5	3	3	5	5	yes	3	5	PACK 1 PACK 2 PACK 3 PACK 4
	Vortex	3	3	3	2	2	5	5	3	no	5	3	PACK 2 PACK 3 PACK 5
	Magnetic	4	2	3	5	4	4	5	5	no	1	2	PACK 2
	Turbine	2	2	4	2	5	3	5	3	yes	3	5	PACK 1 PACK 2 PACK 3 PACK 4

Items are ranked on a scale of 1 to 5. 5 being most favourable.

Engineered specifically for small diameter applications, the 2100 Turbine Flow Sensor provides accurate readings in two flow ranges (low/high).

Instrumentation selection

Guidelines

Level



A complete level sensing system is ready to go to work in a host of applications.

2450 Pressure Sensor offers 4 to 20mA or serial output.

Together with the transmitter 8250 allows fill-empty systems, registration, indications, etc..



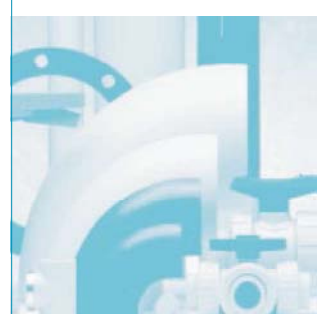
8250 Level Transmitter is ideal for field installations.

		Point Level				Continuous Level				
		Float	Electro Optic	Tuning Fork	Ultrasonic	Pressure	Capacitance	Ultrasonic	Magnetostrictive	Radar
Fluid Conditions	Operating Environment									
Process Cleanliness	Some particles	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>			<input type="checkbox"/>
	Viscous, coating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	Slurry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>
Temperature	> 50 degrees C	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pressure	0 to 15 psi					<input type="checkbox"/>				
	16 to 15 psi					<input type="checkbox"/>				
	> 50 psi	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>				
Fluid Surface	Mixed	<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	
	Splashing, Choppy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
	Foam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Area Above Fluid Surface	Still									
	Vapours						<input type="checkbox"/>			
	Spray	<input type="checkbox"/>						<input type="checkbox"/>		
	Pressurized	<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	

= may interfere with mechanical movement
 = may affect electrical stability
 = may affect measurement reference
 = may clog small diameter tubes or openings
 - = may require residual wetness

A table is a general overview only and should not be used for the specification of level sensors in place of manufacturer specifications or recommendations. Any level sensor should work well in clean, still and ambient conditions. This matrix may help to select the right sensor for your particular application. Table is based on non-flammable fluids. Blank cells denote applicable without restriction.

P













Products

Product Range							Packs	
		Document Number	Size Range	Pressure Rating	Temperature Range	Material Available		
ABS Pipes / Fittings		Fi 5034	d16 – d315	–	-40°C – 60°C	–	PACK 1 PACK 3	PACK 4 PACK 5
PE100 Pipes / Fittings		–	d20 – d400	PN 16	-50°C – 60°C	–	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
PE100 Pipes / Fittings		–	d50 – d400	PN 10	-50°C – 60°C	–	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
β PP-H Pipes / Fittings		Fi 5488	d16 – d400	PN 10	0°C – 80°C / 95°C •	–	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
β PP-H Pipes / Fittings		Fi 5488	d20 – d25	PN 16	0°C – 80°C / 95°C •	–	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
PVC-U Pipes / Fittings		Fi 5034	d25 – d315	PN 10	0°C – 60°C	–	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
PVC-U Pipes / Fittings		Fi 5034	d12 – d160	PN 16	0°C – 60°C	–	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
PVC-C Pipes / Fittings		Fi 5034	d16 – d160	PN 16	0°C – 80°C	–	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
PVC-C Pipes / Fittings		Fi 5034	d75 – d225	PN 10	0°C – 80°C	–	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
PVDF Pipes / Fittings		Fi 5475	d90 – d315	PN 10	-20°C – 140°C	–	PACK 2 PACK 3	PACK 4 PACK 5
PVDF Pipes / Fittings		Fi 5475	d16 – d225	PN 16	-20°C – 140°C	–	PACK 2 PACK 3	PACK 4 PACK 5
Type 360 Check Valve		Fi 5668	d16 – d90	PN 16	0°C – 60°C 0°C – 80°C -40°C – 60°C 0°C – 80°C	PVC-U PVC-C ABS PP-H	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
Type 546 / 370 2-way Ball Valve		Fi 5678	d16 – d160	PN 16	0°C – 60°C 0°C – 80°C -20°C – 140°C -40°C – 60°C 0°C – 80°C	PVC-U PVC-C PVDF ABS PP-H	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
Type 230 2-way Ball Valve pneumatic		Fi 5749	d16 – d63	PN 10	0°C – 60°C 0°C – 80°C -20°C – 140°C -40°C – 60°C 0°C – 80°C	PVC-U PVC-C PVDF ABS PP-H	PACK 1 PACK 3	PACK 5

• β PP-H up to 95°C for limited time and/or limited pressure

Product Range

		Document Number	Size Range	Pressure Rating	Temperature Range	Material Available	Packs
Type 107 2-way Ball Valve electric		Fi 5750	d16 – d63	PN 10	0°C – 60°C	PVC-U	PACK 1 PACK 3 PACK 5
					0°C – 80°C	PVC-C	
					-20°C – 140°C	PVDF	
					-40°C – 60°C	ABS	
					0°C – 80°C	PP-H	
Type 343 3-way Ball Valve		Fi 5368	d16 – d63	PN 10	0°C – 60°C	PVC-U	PACK 1 PACK 2 PACK 3 PACK 4 PACK 5
					0°C – 80°C	PVC-C	
					-20°C – 140°C	PVDF	
					-40°C – 60°C	ABS	
					0°C – 80°C	PP-H	
Type 275 3-way Ball Valve pneumatic		Fi 5804	d16 – d63	PN 10	0°C – 60°C	PVC-U	PACK 1 PACK 3 PACK 5
					0°C – 80°C	PVC-C	
					-20°C – 140°C	PVDF	
					-40°C – 60°C	ABS	
					0°C – 80°C	PP-H	
Type 175 3-way Ball Valve electric		Fi 5804	d16 – d63	PN 10	0°C – 60°C	PVC-U	PACK 1 PACK 3 PACK 5
					0°C – 80°C	PVC-C	
					-20°C – 140°C	PVDF	
					-40°C – 60°C	ABS	
					0°C – 80°C	PP-H	
Type 314/315/317 Diaphragm Valve		Fi 5348	d16 – d170	PN 10	0°C – 60°C	PVC-U	PACK 1 PACK 2 PACK 3 PACK 4 PACK 5
					0°C – 80°C	PVC-C	
					-20°C – 140°C	PVDF	
					-40°C – 60°C	ABS	
					0°C – 80°C	PP-H	
Type Diastar 028 Pneumatic Diaphragm Valve		Fi 5398	d20 – d63	PN 10 →	0°C – 60°C	PVC-U	PACK 1 PACK 2 PACK 3 PACK 4 PACK 5
					0°C – 80°C	PVC-C	
					-20°C – 140°C	PVDF	
					-40°C – 60°C	ABS	
					0°C – 80°C	PP-H	
Type Diastar 025 Pneumatic Diaphragm Valve		Fi 5398	d20 – d160	FO/FC/DA PN 10 ↔	0°C – 60°C	PVC-U	PACK 1 PACK 2 PACK 3 PACK 4 PACK 5
					0°C – 80°C	PVC-C	
					-20°C – 140°C	PVDF	
					-40°C – 60°C	ABS	
					0°C – 80°C	PP-H	
Type Diastar Eco Pneumatic Diaphragm Valve		Fi 5398	d20 – d63	PN 10 →	0°C – 60°C	PVC-U	PACK 1 PACK 2 PACK 3 PACK 4 PACK 5
					0°C – 80°C	PVC-C	
					-20°C – 140°C	PVDF	
					-40°C – 60°C	ABS	
					0°C – 80°C	PP-H	
Type 567 Butterfly Valve		Fi 5885	d63 – d 225	PN 10	0°C – 60°C	PVC-U	PACK 1 PACK 2 PACK 3 PACK 4 PACK 5
					0°C – 80°C	PVC-C	
					-10°C – 120°C	PVDF	
					-40°C – 60°C	ABS	
					-5°C – 80°C	PP-H	
Variable Area Flow Meter		Fi 8222	d32 – d75	PN 10	0°C – 60°C	PVC-U	PACK 1 PACK 3 PACK 5
					0°C – 80°C	PVC-C	
					-10°C – 120°C	PVDF	
					-40°C – 60°C	ABS	
					-5°C – 80°C	PP-H	

















Product Range							Packs	
		Document Number	Size Range	Pressure Rating	Temperature Range	Material Available		
Type V182 Pressure Reducing Valve		Fi 5093	d16 – d50	0.5 – 10 bar	0°C – 60°C -10°C – 80°C -20°C – 100°C	PVC-U PP-H PVDF	PACK 1 PACK 3	PACK 5
Type V782 Pressure Reducing Valve		Fi 5093	d16 – d50	0.5 – 10 bar	0°C – 60°C -10°C – 80°C -20°C – 100°C	PVC-U PP-h PVDF	PACK 1 PACK 3	PACK 5
Type V251 Throttle Valve		Fi 5558	d16 – d63	PN 10	0°C – 60°C -10°C – 80°C -20°C – 100°C	PVC-U PP-H PVDF	PACK 1 PACK 3	PACK 5
Type Z700 Gauge Guard		Fi 5558	d25 – d32	0 – 10 bar	0°C – 60°C -10°C – 80°C -20°C – 100°C	PVC-U PP-H PVDF	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
Type V95 Ventilating Valve		Fi 5558	d16 – d90	PN 10	0°C – 60°C -10°C – 80°C -20°C – 100°C	PVC-U PP-H PVDF	PACK 3	PACK 4 PACK 5
Type P20 Water Jet Pump		Fi 5558	d16 – d90	PN 10	0°C – 60°C -10°C – 80°C -20°C – 100°C	PVC-U PP-H PVDF	PACK 1 PACK 3	PACK 5
Type 060 / 061 KLIP-IT		-	d16 – d400				PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
Unions for Adaptor Connections		-	d20 – d110			PVC-U / C PP-H PE PVDF ABS	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
Adaptors and Threaded Connections			16-3/8" – 90-3"			PVC-U* PVC-C* PVDF* ABS* PP-H* PE*	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
Threaded Fittings with Reinforced Ring			12-1/4" – 63-2"			PVC-U** ABS** PP-H** PE**	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
Threaded Fittings without Reinforced Ring			1/4" – 4"			PVC-U** ABS** PP-H** PE**	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5
Adaptor Unions for Stainless Steel and Plastic		Fi 5476	d16-3/8" – d63-2"			PVC-C* PVC-U* ABS*	PACK 1 PACK 2 PACK 3	PACK 4 PACK 5

• β PP-H up to 95°C for limited time and/or limited pressure

* → Metal
** → Plastic

Product Range

		Document Number	Size Range	Pressure Rating	Temperature Range	Material Available	Packs
Type 305 Line Strainer			d20 – d90	PN 10			PACK 1 PACK 4 PACK 2 PACK 5 PACK 3
2100 Turbine Flow Sensor		Fi 5535	d20	16 bar	-20°C – 70°C		PACK 1 PACK 4 PACK 2 PACK 5 PACK 3
2551 Magmeter Flow Sensor		Fi 5535	DN15 – DN200	10 bar			PACK 2 PACK 5 PACK 3
7000/7001 Vortex Flow Sensor		Fi 5535	d20 – d63	16 bar 10 bar 16 bar	-10°C – 60°C -10°C – 65°C -40°C – 65°C	PVC-U PP PVDF	PACK 2 PACK 5 PACK 3
2536 Paddlewheel Flow Sensor		Fi 5535	DN15 - DN1000	12.5 bar 14 bar	-20°C – 85°C	PP PVDF	PACK 1 PACK 4 PACK 2 PACK 5 PACK 3
2450 Pressure Sensor		Fi 5455		0 – 17 bar	-15°C – 85°C	PVDF	PACK 5 PACK 3
2754 – 2757 pH/ORP Electrodes		Fi 5535			0°C – 85°C		PACK 4 PACK 5 PACK 3
2350 Temperature Sensor		Fi 5535			-10°C – 100°C		PACK 1 PACK 4 PACK 2 PACK 3
2819-2821 Conductivity/Resistivity Sensors		Fi 5535			- 120°C		PACK 1 PACK 2 PACK 5 PACK 3
8250 Pressure Transmitter		Fi 5638			-10°C – 70°C		PACK 5 PACK 3
8550 Flow Transmitter		Fi 5535			-10°C – 70°C		PACK 1 PACK 4 PACK 2 PACK 5 PACK 3
8900 Multi-Parameter		Fi 5535			-10°C – 70°C		PACK 1 PACK 4 PACK 2 PACK 5 PACK 3
Pro-Fit		Fi 5548	d20 – d63	PN 16		PVC-U	PACK 1 PACK 4 PACK 2 PACK 5 PACK 3
Contain-It Plus		Fi 5671		PN 16	depends on internal material	PVC-U PVC-C PVDF PP-H PF	PACK 1 PACK 4 PACK 2 PACK 5 PACK 3



GF Piping Systems → worldwide at home

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

www.piping.georgfischer.com



The technical data are not binding and not expressly warranted characteristics of the goods. They are subject to change. Our General Conditions of Sale apply.

Australia

George Fischer Pty Ltd
Kingsgrove NSW 2008
Phone +61(0)2/95 54 39 77
australia.ps@georgfischer.com
www.georgfischer.com.au

Austria

Georg Fischer
Rohrleitungssysteme GmbH
3130 Herzogenburg
Phone +43(0)2782/856 43-0
austria.ps@georgfischer.com
www.georgfischer.at

Belgium/Luxembourg

Georg Fischer NV/SA
1070 Bruxelles/Brüssel
Phone +32(0)2/556 40 20
be.ps@georgfischer.com
www.georgfischer.be

Brazil

George Fischer Ltda
04795-100 São Paulo
Phone +55(0)11/5687 1311
br.ps@georgfischer.com

China

Georg Fischer
Piping Systems Ltd Shanghai
Pudong, Shanghai 201319
Phone +86(0)21/58 13 33 33
china.ps@georgfischer.com
www.cn.piping.georgfischer.com

Denmark/Iceland

Georg Fischer A/S
2630 Taastrup
Phone +45(0)70 22 19 75
info.dk.ps@georgfischer.com
www.georgfischer.dk

France

Georg Fischer S.A.S.
93208 Saint-Denis Cedex 1
Phone +33(0)1/492 21 34 1
fr.ps@georgfischer.com
www.georgfischer.fr

Germany

Georg Fischer GmbH
73095 Albershausen
Phone +49(0)7161/302-0
info.de.ps@georgfischer.com
www.vgd.georgfischer.de

Georg Fischer DEKA GmbH
35232 Dautphetal-Mornshausen
Phone +49(0)6468/915-0
deka.ps@georgfischer.com
www.dekapipe.de

India

George Fischer Piping Systems Ltd
400 093 Mumbai
Phone +91(0)22/2820 2362
in.ps@georgfischer.com

Italy

Georg Fischer S.p.A.
20063 Cernusco S/N (MI)
Phone +3902/921 861
it.ps@georgfischer.com
www.georgfischer.it

Japan

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

Malaysia

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

Middle East

Georg Fischer Piping Systems
Dubai, United Arab Emirates
Phone +971 4 289 41 20
gfdubai@emirates.net.ae
www.piping.georgfischer.com

Netherlands

Georg Fischer N.V.
8161 PA Epe
Phone +31(0)578/678 222
nL.ps@georgfischer.com
www.georgfischer.nl

Norway

Georg Fischer AS
1351 Rud
Phone +47(0)67 18 29 00
no.ps@georgfischer.com
www.georgfischer.no

Poland

Georg Fischer Sp. z o.o.
02-226 Warszawa
Phone +48(0)22/313 10 50
poland.ps@georgfischer.com
www.georgfischer.pl

Romania

Georg Fischer
Rohrleitungssysteme AG
70000 Bucharest - Sector 1
Phone +40(0)1/222 91 36
ro.ps@georgfischer.com

Singapore

George Fischer Pte Ltd
528 872 Singapore
Phone +65(0)67 47 06 11
sgp.ps@georgfischer.com
www.georgfischer.com.sg

Spain/Portugal

Georg Fischer S.A.
28046 Madrid
Phone +34(0)91/781 98 90
es.ps@georgfischer.com
www.georgfischer.es

Sweden/Finland

Georg Fischer AB
12523 Älvsjö-Stockholm
Phone +46(0)8/506 775 00
info.se.ps@georgfischer.com
www.georgfischer.se

Switzerland

Georg Fischer
Rohrleitungssysteme (Schweiz) AG
8201 Schaffhausen
Phone +41(0)52 631 30 26
ch.ps@georgfischer.com
www.piping.georgfischer.ch

Taiwan

Georg Fischer Ltd.
2F, No. 88, Hsing Te Road
San Chung City
Taipei Hsien, Taiwan (R.O.C.)
Phone +886 2 8512 2822
Fax +886 2 8512 2823

United Kingdom/Ireland

George Fischer Sales Limited
Coventry, CV2 2ST
Phone +44(0)2476 535 535
uk.ps@georgfischer.com
www.georgfischer.co.uk

USA/Canada/Latin America/Caribbean

Georg Fischer Inc.
Tustin, CA 92780-7258
Phone +1(714) 731 88 00
Toll Free 800/854 40 90
us.ps@georgfischer.com
www.us.piping.georgfischer.com

Export

Georg Fischer
Piping Systems (Switzerland) Ltd.
8201 Schaffhausen
Phone +41(0)52-631 30 26
Fax +41(0)52-631 28 93
export.ps@georgfischer.com
www.piping.georgfischer.ch

GMST 5908/4 (01.06)

© Georg Fischer Piping Systems Ltd
CH-8201 Schaffhausen/Switzerland, 2006
Printed in Germany

+GF+

GEORG FISCHER
PIPING SYSTEMS