


GF Piping Systems

+GF+

Future horizons

**Sustainable water solutions
for marine**



Facts and figures

- Established: 1802 (Georg Fischer AG)
in Switzerland
- Locations: 31 countries
- Turnover: 21 billion Swiss francs (2022)
- Employees: 8'085 (2022)



We provide sustainable water solutions for the marine industry and help you to increase the safety and efficiency of your cruise ship, merchant vessel, and offshore energy platform.

Our lightweight, corrosion-free plastic piping systems help you lower the maintenance and overall costs and reducing downtimes as much as possible. Our products warrant the safe conveyance of drinking water and other process fluids on board.

GF Piping Systems has been the partner of the global marine industry for more than 30 years and supplies piping solutions for water treatment and distribution, grey and black water disposal, exhaust gas scrubbing, and cooling.

Sustainable water solutions for marine

Future sustainability

Our plastic piping systems are up to 60 percent lighter than metal alternatives and help to reduce the weight of your fleet, and thus the environmental impact.

Future reliability

Corrosion- and leakage-free with a minimum 25-year lifespan; robust and weather-resistant solutions for the maritime industry.

Future automation

We offer a true partnership with a unified vision toward active water conservation. Our automated solutions ease the way toward autonomous vessels and offshore energy platforms.

Future engineering

Highly engineered piping systems to integrate into your new build or retrofit project with the help of our engineering and prefabrication offering.

gfps.com/marine

e



+ COOL-FIT 2.0 / 4.0

Extreme cooling confidence

Advantages

- Maintenance- and corrosion-free
- Fast and easy installation with electrofusion
- Up to 60% lighter than metal alternatives
- Up to 30% more energy efficient thanks to factory pre-insulation
- Time and cost saving

Parameters

Dimension range: d32 to d140mm / d32 - d450mm

Operating temperature: 0 to 60°C / -50° to 60°C

Operating pressure: 16 bar / 16 bar

Nominal insulation: 22mm / 40mm

Operation area: Indoors / in- and outdoors

Applications

- HVAC
- RSW
- Non-essential cooling
- Refrigeration
- Food provision
- Brine and salt solutions



+ Butterfly Valve 565

Beats metal in every round

Advantages

- Corrosion-resistant
- Direct replacement of metal solutions
- 60% lighter than metal solutions
- High p/T performance for harsh conditions and extreme temperatures

Product range

565 Wafer-style DN 50-300 (2"-12")

565 Lug-style DN 100-200 (4"-8") launched, range extension DN50 to 300 will follow shortly.

Pressure rating

DN50-150: PN16

DN200-250: PN10

DN300: PN6

Applications

- Ballast water treatment
- Wastewater treatment
- Hot and cold water
- HVAC
- RSW



+ HEAT-FIT

Ultimate fire protection

Advantages

- 30% lighter than metal alternatives
- 0 hazardous materials (Green Ship Passport)
- Fire Resistant up to 1000°C for 30 minutes under pressure (3bar)
- Compliant with IMO Res. A753 Fire Endurance Level 3
- Fast and easy installation

Product range

d110 to d315mm

Pressure rating

Up to 16 bar

Temperature range

-50° to 60°C

Applications

- Ballast water
- Ballast water treatment
- Exhaust gas scrubber
- Freshwater and seawater cooling systems
(L3 applications approved)



+ ecoFIT

Polyethylene piping system

Advantages

- Corrosion-resistant
- UV-resistant and weather-resistant
- Good chemical and temperature resistance
- Long service life up to 25 years

Product range

PE 100: d20-d630 in accordance to EN ISO15494

PE 80: d20-d110 in accordance to EN ISO15494

Pressure rating

PN16 (d20 – d630)

PN10 (d50 – d630)

Temperature range

-50° to 60°C

Applications

- Ballast water
- Ballast water treatment
- Scrubber
- Potable water
- Water treatment
- HVAC
- Brine



+ INSTAFLEX

State-of-the-art drinking water installation

Advantages

- Noise reducing
- Quick and safe handling and installation
- Hygienic pipe system thanks to corrosion-free material
- Full flow cross section
- Easy and safe jointing with electrofusion
- Cost effective prefabrication

Available online

- Life Cycle Analysis (LCA)
- Type III Environmental Product Declaration (EPD)
- VDI 3805 data set and Autodesk REVIT
- CO₂ calculator

Parameters

Dimension range:	d16mm to d315mm
Operating pressure:	Up to 10 bar
Operating temperature:	0° to 70°C in continuous operation, short term up to 95° C

Applications

- Hot and cold sanitary water
- HVAC
- Compressed air
- Main manifold
- Cooling water



+ JRG Sanipex MT

Hygienic connection without water pockets

Advantages

- Very low pressure losses
- Water pocket free hygienic connections
- Hardly any noise pollution
- Detachable and reuseable
- Type III Environmental Product Declaration (EPD)

Product range

d16mm to d63mm for fitting and pipes

Pressure rating

Up to 10 bar, vacuum -0.8 bar

Temperature range

0 °C to 70 °C in continuous operation,
short term up to 95 °C

Applications

- Hot and cold water
- Heating and cooling applications
- Compressed air
- HVAC



+ JRG Valves

Corrosion-free high performance valves

Advantages

- Hygienic design thanks to dead space free construction
- Excellent long time performance
- Corrosion-resistance thanks to gun metal alloy
- Extensive range

Pressure rating

Corrosion-resistant bronze

Product range

- Distribution valves
- Fill and drain cock valves
- Hose taps
- Backflush filters
- Fine filters
- Slanted filters
- Pressure reducing valves
- Safety valves
- Slanted seat valves
- Straight seat valves
- Ball valves
- Check valves
- Control valves

Applications

- Hot and cold water
- Heating and cooling applications
- Compressed air
- HVAC



+ ABS System

High performance at low temperatures

Advantages

- High impact strength at low temperatures
- Low thermal conductivity
- Fast and low-cost installation
- Outstanding abrasion resistance

Product range

- 20mm to 315mm (ISO/DIN)

Pressure rating

Up to 16 bar

Temperature range

- 50 °C to +60 °C

Applications

- HVAC
- Brine
- Sewage



+ SeaCor

US Coast Guard-type approved system

Advantages

- Corrosion-resistant
- Low weight, the system is up to 5 times lighter
- Easy to assemble thanks to two-step welding process
- Temperature-resistant
- Comply with FTP Code part 5 flame spread and part 2 smoke and toxicity

Product range

- 1/2" - 6"

Pressure rating

Sch.80

Temperature range

0 °C to +80 °C

Applications

- Hot and cold water
- Grey water
- Black water
- Water Treatment + Swimming pool



+ PVC-C System

Innovation with heritage

Advantages

- Increased temperature range
- Very good chemical resistance
- Low costs for installation equipment
- Long support distances
- Comply with FTP Code part 2 and 5

Product range

- 16mm to 225mm (ISO/DIN)
- ¼" to 24" (ANSI/ASTM)
- flanges and valve connections (JIS)

Pressure rating

Up to 16 bar

Temperature range

0 °C to +80 °C

Applications

- Water treatment
- Swimming pools
- HVAC



+ SeaDrain White

See the difference

Advantages

- UV-resistant, no paint needed
- Easy to install
- Multiple jointing technologies
- Increased safety on board

Product range

1-1/2" to 6" (DN40 - DN150)

Temperature rating

- Constant temperature: 180°F (82°C)
- Intermittent temperature: 212°F (100°C)

Pressure rating

- Standard operation 14.5 psi (1 bar)
- Short term burst 58 psi (4 bar)
- Vacuum -29 psi (-2 bar)

Standards

- ASTM D635-18 (HB)
- ASTM F1412
- USPH (with electrofusion jointing)

Applications

- Black and grey water sanitary drains
- Cabins, galleys and laundries
- Deck and balcony drains
- Customer-facing areas



+ Valves and Actuators

Upgrade through modularity

Advantages

- Wide range of valves, actuators and accessories
- Long time reliable operation
- High corrosion resistance

Parameters

Material:	PVC-U, PVC-C, ABS, PP-H, PVDF, PP fiberglass reinforced
Product range:	Ball valves: DN10 to DN150 Diaphragm valves: DN15 to DN150 Butterfly valves: DN50 to DN600 Process valves: DN10 to DN100 Electric and pneumatic actuators open/close and continuous control

Applications

- Water treatment and water production
e.g. Desalination and Osmosis
- Osmosis
- Sludge treatment
- BWT
- Scrubber
- HVAC



+ Process Automation

Together as one: we make process automation easy

Advantages

- Simple operation and installation
- Sensors for all major parameters
- High corrosion resistance of housings
- Global availability of products

Parameters

Material:	PVC, PP, PVC-U, PVC-C, PVDF, Ryton body, PTFE junction, 316L stainless steel
Product range:	Flow, conductivity, pH, ORP (Redox), temperature, pressure, level, dissolved oxygen, salinity and chlorine
Joining technology:	Special installation fittings, strap on saddles, ISO/NPT pipe threads

Applications

- Water treatment and production e.g. Desalination
- Reverse Osmosis
- BWT
- Scrubber
- HVAC



+ Hyclean Automation System

Revolutionizing sanitary automation processes

The Hyclean Automation System conducts your drinking water installation safely and conveniently from one central control unit. With the automated control system GF Piping Systems ensure flowing harmony in your installation.

Advantages

- Hygiene thanks to uniformly high temperatures and regular water exchange
- Comfort
- Energy saving thanks to optimal hydraulic balancing
- Simple to install

Product range

DN15- DN20

Temperature rating

+5°C to +90°C

Pressure rating

Up to 10 bar

Applications

- Potable water

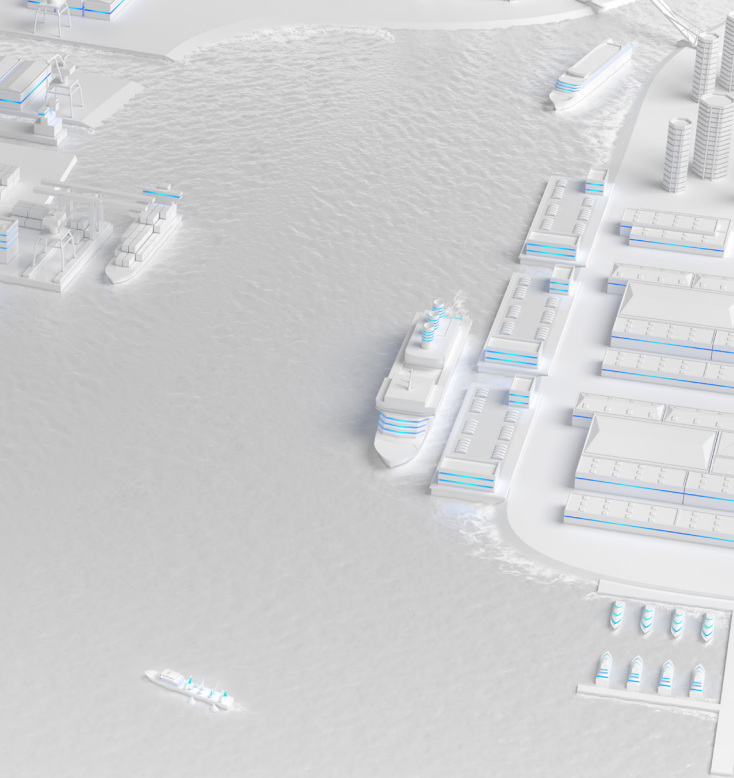


An aerial, top-down view of a 3D model of an offshore energy platform. The platform is a complex of white, cylindrical and rectangular structures, including several large storage tanks and processing units, situated on a grey, curved landmass or island. A white ship with a blue stripe is docked at a pier on the left side of the platform. Another white ship is shown in the water below the platform, moving away and leaving a white wake. The background is a light grey, textured surface representing the sea or sky.

Applications for the maritime industry

Engineered performance

GF Piping Systems develops application-oriented thermoplastic piping solutions that enable fast and easy installation, profitable operations, and environmental benefits. We support our customers in implementing sustainable, future-oriented, and well-designed piping concepts with state-of-the-art planning techniques to optimize the economic efficiency of processes. Our piping systems can be applied for the transportation of water, seawater, coolants, and sewage onboard cruise ships, ferries, mega-yachts, container ships, bulk and LNG carriers, OSVs, wind farms, and offshore energy platforms.



Smart water solutions for cruise ships

Thermoplastic and multilayer piping systems safely convey the transport of water onboard passenger ships like cruise liners, mega yachts, or ferries and provide a lightweight, soundproof, and corrosion-free alternative to metal piping systems.

Future-proof water solutions for merchant vessels

Corrosion- and maintenance-free thermoplastic piping systems have a long service life and help lowering the maintenance time and cost of merchant's vessels, bulk carriers, trawlers, and LNG carriers to a minimum.

Efficient water solutions for offshore energy

Floating wind farms, offshore support vessels, floating cranes, or oil platforms can benefit from the easy-to-install piping solutions with automation capabilities, enabling the way to autonomous operations.


Sustainability

Reduced environmental impact

Learn more about our
sustainability goals:



www.gfps.com/sustainability

The background consists of a dense field of dark green, textured leaves. A bright, glowing white circular line is superimposed over the leaves, curving from the left side towards the bottom center. The text is positioned in the upper left quadrant of the image.

Sustainability is a key value driver in our strategy: We aim to become a sustainability and innovation leader by offering high-value sustainable products and solutions to drive the circular economy.

Specialized solutions

Ready when you are

With Specialized Solutions, GF Piping Systems supports the design and installation of state of the art plastic piping systems, so that owners and planners can concentrate on their daily business without interruption. GF Piping Systems is present every step of the way, from providing planning support on new projects to testing the condition of old systems.



Custom Product Design and Prefabrication

Specialized ideas



Engineering

Specialized expertise



CONNECT conrivo

Specialized visibility



Training

Specialized education

Learn more



gfps.com/specialized-solutions



With Specialized Solutions, the global leader GF Piping Systems provides project support every step of the way to achieve construction excellence.

Custom Design & Prefabrication Solutions offers the opportunity to address a customer's specific needs during the planning and design phase, within the Specialized Solutions range by GF Piping Systems.

GF Piping Systems supports the conception and design process of a project from the outset to ensure that a sustainable and efficient solution is achieved. Whether in the selection of the right plastic solution from our extensive portfolio, the management of complex sub-projects, or quality control based on recognized international standards - you can benefit from Specialized Solutions for all application areas and references from a wide range of industries across the entire product range.

Material	PVC-U	Marine Grade PVC-C	Seacor CPVC
	Metric	Metric	Schedule
Joining	Cementing	Cementing	Cementing

Applications in Accomodation, Engine Room, Technical Spaces

Freshwater System Hot		X*	X
Freshwater System Cold	X	X*	X
Greywater System & Treatment	X	X	X
Blackwater / Sewage System & Treatment	X	X	X
Technicalwater / Deckwash System	X	X	X
HVAC System / Chilled Water System			
Food Processing / Waste water Service	X	X	X
Kitchen Drains / Grease Trap System	X	X	X
Swimming Pool / Jacuzzi	X	X	X
Brine Water System / Cool-Freeze / Sec.System			
Central Heating			
Drainage / Scuppers	X	X	X
Cable Protection Piping			
Working Air / Compressed Air			
Starting Air/ Engine			
FiFi / Fire Main System			
Engine Cooling Water System			
Ballastwater / Heeling Treatment System			
Bilgewater System			
Scrubber Treatment System			
Scrubber Effluent Lines			
Cargo Lines			
Purging Lines Air / Water			
Jetting Leg Backup System / Spud Pillars			
Jet-Water System			
RSW System (Refrigerated Sea Water)			
Fish Production / Processing Street	X		
Ballast Bubble system / De-Icing System			
Tank Venting			
Sounding Pipes			
Desalination Units / RO Units	X	X	X
Ballast Water Treatment / BWT	X	X	X
Cooling Hydrogen / H2-Container / Methanol			
Electrical Cabinet / Panel Cooling			

*Only schedule system is applicable.

** If L3 is required, ecoFIT is only applicable in combination with HEAT-FIT Jacket System.

	COOL-FIT	ecoFIT	PROGEF	AQUA-SYSTEM	INSTAFLEX	i-FIT
ABS	2.0 / 4.0	PE-100	PP-H	PP-R	PB	Multilayer Composite
Met./Sched.	Metric	Metric	Metric	Metric	Metric	Metric
Cementing	Welding	Welding	Welding	Welding	Welding	Mechanical
				X	X	X
		X	X	X	X	X
X		X				
X		X				
		X	X	X	X	X
X	X	X				X
		X				
		X				
X		X				
	X	X				
					X	X
		X				
		X				
		X	X		X	X
		X**			X	
		X**				
		X**				
		X**				
		X**	X			
		X**	X			
		X				
		X				
		X				
X	X	X				
X		X				
		X				
		X	X		X	
		X				
			X		X	
		X**	X			
		X	X			
			X		X	X

Hycleen Automation System	JRG Sanipex MT Multilayer Composite	Seadrain White PPR	HEAT-FIT Insulation Jacket	UNI-Coupling	Butterfly valve 565
	Metric	Schedule	Metric	Metric	Metric
	Mechanical	Welding	Mechanical	Mechanical	Mechanical

X	X			X	X
X	X			X	X
	X	X		X	X
	X	X		X	X
	X			X	X
	X			X	X
	X	X		X	X
		X		X	X
				X	X
	X			X	X
	X			X	X
		X		X	X
	X			X	X
			X	X	X
			X	X	X
			X		
			X	X	X
			X	X	X
			X	X	X
			X	X	X
			X	X	X
			X	X	X
	X			X	X
				X	X
				X	X
	X			X	X
				X	X
	X	X		X	X
				X	X
	X			X	X
			X	X	X
				X	X
	X			X	X

Thank you very much for your visit

We are available any time
after the exhibition!

Your local contact:

GF Marine USA
3370 Davie Rd Ste 605
Davie, FL 33314
United States
gmarineusa@georgfischer.com

Your global contact:

Georg Fischer Piping Systems Ltd
Ebnatstrasse 111
8201 Schaffhausen
Switzerland
Phone +41 52 631 11 11

Learn more about sustainable water
solutions for marine:
gfps.com/marine



GF Piping Systems



M1096 Marine Booklet V2 (02/24)
© Georg Fischer LLC
Printed in USA