

GF Piping Systems

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See the difference

SeaDrain® White



Lighter in every way

Lighter in weight, lighter on maintenance requirements, lighter on installation time and labor, and lighter in lifetime system costs. SeaDrain® White is the new best in class piping system solution for black and grey water applications in marine passenger vessels.

Engineered for the task

SeaDrain® White was engineered from the beginning with today's marine drainage applications in mind. Long-term system sustainability and passenger safety were critical considerations in the system design. The complete system ranges in size from 1-1/2" to 6" (DN40 - DN150), and includes all the components required to complete any installation.

SeaDrain® White is suitable for cruise ships, passenger ferries, and luxury yacht installations, in both new build and retrofit construction. As a plastic piping system, SeaDrain® White offers numerous advantages over traditional metal systems and will provide a long, maintenance-free life.

Installation of the system is eased by the lightweight components, the reduced need for pipe hangers, and the option of two simple jointing methods. There's no need to paint after installation as SeaDrain® White is manufactured from a UV protected white polypropylene material.

The first purpose-built thermoplastic piping system specifically engineered for marine drainage applications.



Electrofusion and Fast-Lock mechanical jointing

SeaDrain® White utilizes either our patented Fast-Lock mechanical fastening system or electrofusion (USPH compliant) jointing. If required for your installation, the two jointing systems can be intermixed. The SeaDrain Fast-Lock® jointing method utilizes an integrated clamp that can resist long-term burst pressures up to 36 psi (2.5 bar) independent of secondary restraint, such as pipe hangers.



A complete system solution

Working directly with marine engineers in new build and retrofit construction, GF Piping Systems developed SeaDrain® White to be a complete system solution to control drainage from the deck, to the holding tanks.

By incorporating the industry's first patented thermoplastic drain scupper for the marine market, SeaDrain® White offers a complete solution for black and gray water marine drainage. The system can be used throughout the ship, from open decks, balconies, class A0, and class A60 fire-protected decks to customer-facing areas. It also has the necessary custom components for food preparation (USPH) areas, cabin service lockers, and applications, where threaded and mechanically joined connections are required.



See the difference

Benefits that are beyond compare

GF Piping Systems' new SeaDrain® White drainage system for black and grey water in marine applications provides multiple advantages over alternative marine drainage systems. See the difference that SeaDrain® White can have on your marine installation:



Faster installation

Both jointing technologies offered with SeaDrain® White provide for a fast installation with no metal welding required. The SeaDrain Fast-Lock® mechanical jointing system installs quickly with a single 8mm or 10mm socket driver tool. Additionally, when installed via electrofusion jointing, permanent (USPH compliant) connections are assembled in minutes using a GF Piping Systems electrofusion machine.

Paint free

SeaDrain® White is manufactured in a bright-white UV protected thermoplastic material, making it ready for installation in customer facing locations without the extra time, expense and maintenance of painting and upkeep.



Corrosion-free

Made of polypropylene, SeaDrain® White is non-corroding and environmentally friendly. The ultra-smooth inner surface eliminates encrustation and reduces maintenance downtime. Compared to metal alternatives, SeaDrain® White will provide a longer system life with lower maintenance costs.



High pressure

SeaDrain® White has a best-in-class safety pressure rating of 4 Bar, making it ideal when passenger safety is critical for black and grey water applications.



Light weight

Not only is the SeaDrain® White system 50% lighter than alternative systems, it also requires, on average, about 45,000 fewer pipe hangers in a midsize cruise ship installation. This weight savings translates to reduced labor costs during installation and greater fuel savings over the life of the vessel.



See the difference above and below the line

A complete piping system for black and grey water drainage on passenger vessels, SeaDrain® White offers a lightweight, easy-to-install system that enhances safety and efficiency on board. The corrosion-free and incrustation-free plastic piping system effectively eliminates leakage and downtime due to corrosion damage.



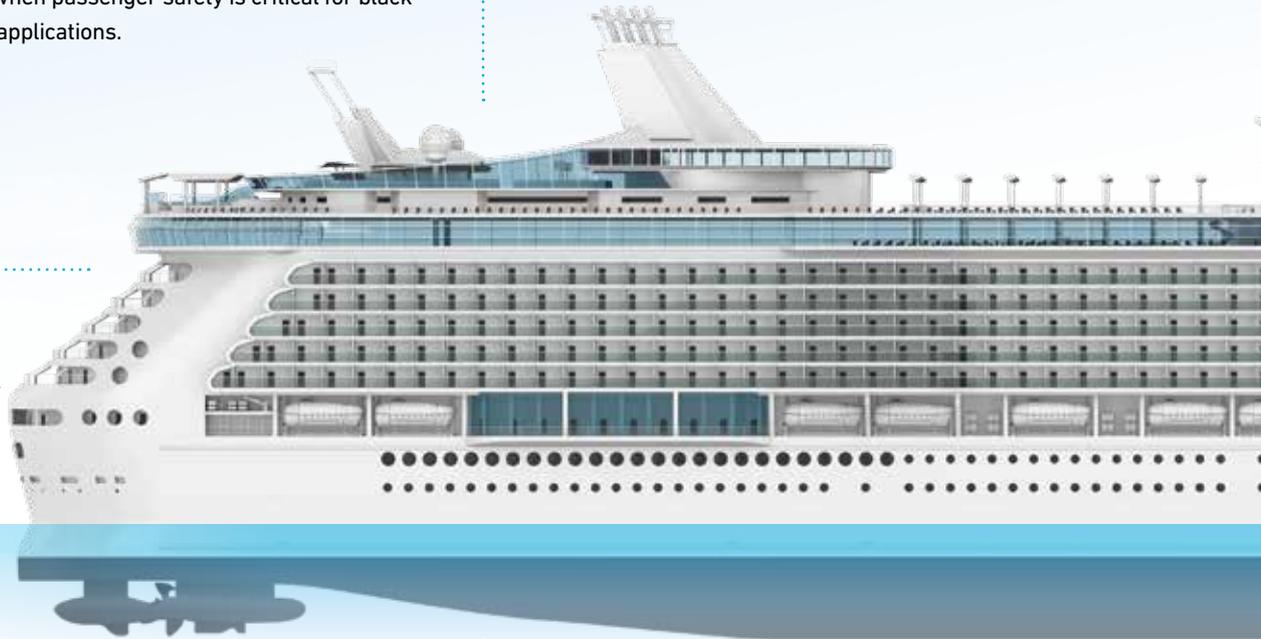
Increased safety onboard

SeaDrain® White is produced from a light, flexible, tough and corrosion-free high-performance polymer. SeaDrain White has a best-in-class safety pressure rating of 4 bar, making it ideal when passenger safety is critical for black and grey water applications.



Environmentally friendly

Made of polypropylene plastic, SeaDrain® White takes less CO₂ to manufacture making it an eco-friendly alternative to metals.



UV-resistant, no paint needed

SeaDrain® White's bright white external coloring includes additives for UV resistance against discoloration, negating the need for external paint. Therefore, both pleasing aesthetics and reduced work hours are achieved across an install of up to 24,000 ft of balcony piping alone.



Lower operating costs

Made entirely from a non-corroding thermoplastic, SeaDrain® White is engineered for a minimum of 25 years life compared to 5 to 10 years for metal alternatives.

50%

weight savings versus metal systems

45,000

less pipe hangers*

4 Bar

best in class safety pressure rating

\$930k

average install saving*



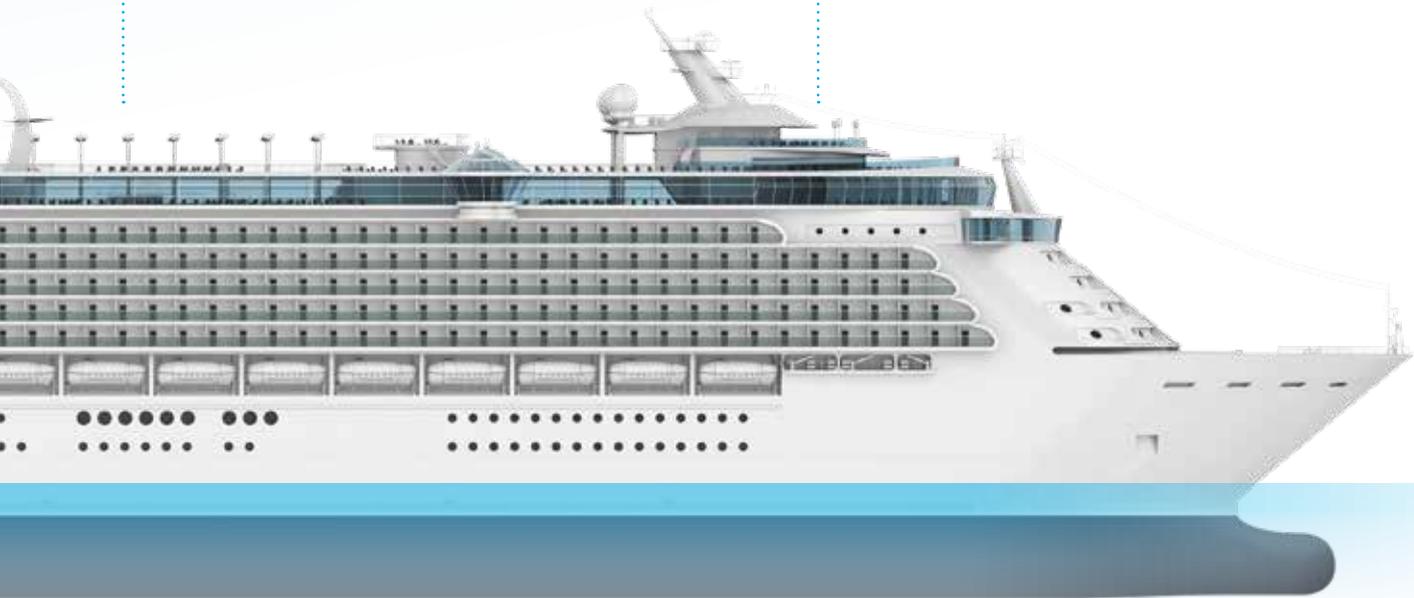
Less downtime

The ultra-smooth inner surface of SeaDrain® White means encrustation is a thing of the past, and reduced downtime is a thing of your future.



Fast installation

The unique push-fit and lock mechanism of the SeaDrain Fast-Lock® jointing system makes installation up to 5x faster than alternative metal solutions.



Easy to install

With a single tool, SeaDrain Fast-Lock® is quick and easy to install for line sizes 4" (DN100) and below. Automated electrofusion is available in all sizes 1½" (DN40) to 6" (DN150).



Multiple jointing options

With multiple jointing options, SeaDrain® White makes it easy to transition between food prep (USPH) and general use application spaces.

*Based on vessel size of 130,000 GT

SeaDrain® White

Plotting a new course for the industry

One Complete System

A new course in how we think about plastics, SeaDrain® White represents the only thermoplastic marine drainage system that can act as a direct replacement to alternative metal solutions from the drains to the holding tanks.

Corrosion Free

Like a ship changes course, SeaDrain® White changes the way we think about drainage system maintenance by removing system integrity as a primary consideration.

UV resistant, no paint needed

Get back on course quickly with SeaDrain® White. Without the need for constant maintenance and touchup, SeaDrain® White allows maintenance teams to focus valuable time on other critical areas of the ship.

Multiple jointing technologies

Like setting a course throughout the globe, SeaDrain® White, with its multiple jointing options, allows you to supply the best-in-class solution throughout the vessel including, balconies, open decks, service lockers, food prep (USPH) and fire protected A0 and A60 locations.

A complete system ready for every application



SeaDrain® White is a complete drainage piping system ranging in size from 1-1/2" to 6" (DN40 - DN150), and includes all the components required for a complete installation. Available connectors include a range of couplings and elbows, 3-way bends, branch tees, reducing branch tees, double reducing branch tees, branch wyes, reducing branch wyes, double branch wyes, reducer fittings, adapter fittings, flanges, caps, access points, p-traps and cabin service locker connectors. The offering is rounded out by the SeaDrain® White drain scupper in both standard and class A0-A60 fire-protected versions.

Global acceptance

The SeaDrain® White piping system is produced in the United States and approved for use by ABS, DNV-GL, Lloyd's Register, RINA and Bureau Veritas. It is also NSF certified and ASTM D635-18 (HB) compliant. A solution with all properties desirable for marine environments.

Weight comparison

Size	Stainless steel black and grey water		SeaDrain® White	
	lb / ft	kg / m	lb / ft	kg / m
1½" IPS (DN40)	0.8	1.2	0.3	0.5
2½" IPS (DN65)	1.2	1.8	0.7	1.0
3" IPS (DN80)	1.4	2.1	0.9	1.4
4" IPS (DN100)	1.8	2.7	1.3	1.9
6" IPS (DN150)	3.4	5.1	2.3	3.4

Maximum horizontal support hanger comparison

Size	Other plastic black and grey water		SeaDrain® White	
	(ft)	(m)	(ft)	(m)
1½" IPS (DN40)	1.6	0.5	6.6	2.1
2½" IPS (DN65)	2.5	0.8	9.0	2.8
3" IPS (DN80)	3	0.9	9.8	3.1
4" IPS (DN100)	3.6	1.1	9.8	3.1
6" IPS (DN150)	5.2	1.6	9.8	3.1



Typical applications

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

Material

- Color: bright white
- Schedule 40 PPFR
- Up to 10-year UV protection
- Laser print stream (non-color)

Size range and jointing methods

- 1½" IPS (DN40) – Electrofusion / Fast-Lock
- 2" IPS (DN50) – Electrofusion / Fast-Lock
- 2½" IPS (DN65) – Electrofusion / Fast-Lock
- 3" IPS (DN80) – Electrofusion / Fast-Lock
- 4" IPS (DN100) – Electrofusion / Fast-Lock
- 6" IPS (DN150) – Electrofusion

Pressure / Vacuum rating

- Max Operating: 14.5 psi (1.0 bar)
- Long-Term Burst Pressure: 36 psi (2.5 bar)
- Short-Term Burst Pressure: 58 psi (4 bar)
- Vacuum: -14.5 psi (-1.0 bar)

Temperature rating

- Constant temperature: 180°F (82°C)
- Intermittent (15min.) temperature: 212°F (100°C)

Standards

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



Local support around the world

Visit our webpage to get in touch with your local specialist:

www.gfps.com/our-locations



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