

Engineered Simplicity

Double-See[®]

Vinyl Double Containment Piping System





Double-See® Vinyl Double Containment Piping System

Easy to Install, Innovative-Design Pressure Piping System

Overview

Protect people and the environment in your facility with the Double-See double contained vinyl piping system. Double-See is fast and easy to install, and is available with a complete selection of pipe, fittings, leak detection and access tees, closure couplings, and termination fittings. All fittings are factory assembled.

Double-See is available in PVC and CPVC; either material may be primary or secondary with Clear PVC always being an option for the containment pipe. All CPVC pipe, fittings and valves are ChlorFIT® Schedule 80 CORZAN® CPVC high performance resin. System size options range from ½"×2" to 6"×10", meeting virtually any application requirement.

Installation versatility allows simultaneous joining throughout a system or in combination with patented closure couplings, which enable practical compliance with ASME B31.3

The primary piping is fully pressure rated according to the size and schedule. The containment piping is hydrostatic pressure rated for 50psi with simultaneous joined connections, and 5psi with closure couplings.



Double-See™ Benefits

- Enhance safety by protecting people and the environment from potential leaks
- Eliminate potential downtime at production facilities
- Installation is fast and easy due to unique design features and preassembled components
- Flexible choice of PVC, CPVC, and Clear PVC
- Designed for maximum reliability and service life
- Easy to install leak detection cable due to centralizer design
- Allows true, practical compliance with ASME B31.3 during installation
- GF quality materials and service support



High Performance Design

Double-See pipe centralizers securely snap over the carrier pipe and allow it to freely “float” inside the containment pipe. This is important, as the carrier and containment piping is often at different temperatures, and will expand and contract at different rates. If the carrier piping is restricted from moving, it will experience additional stress.

GF’s fitting centralizers have a patented design that accommodates movement in 3 dimensions. This feature can eliminate or reduce the need for some expansion loops; please see our technical manual for detailed information.

The Double-See Valve-in-Valve is a unique solution that gives the containment piping full pressure rating with an easily accessible, high quality ball valve. The design uses a Type 546 valve inside the housing of a larger Type 546 valve, with the carrier valve’s stem connected to the containment valve handle. In any case, GF can offer a double containment box of any size or shape to fit any valve, union, or object in the system, ensuring complete containment.

Easy to Install

Double-See is fast and easy to install. All fittings feature flush carrier and containment, and fittings have the socket depth pre-marked on the outside. When pipe is cut in the field, the inner and outer are cut to the same length. These features make planning, measuring and installing Double-See easy. In addition, all Double-See fittings are factory pre-assembled. Some other double contained piping systems on the market require the installer to solvent cement additional joints between the carrier fitting and couplings, which require more time on site and increase the risk of leaks.

The system can be installed by simultaneously joining (solvent cementing) the carrier and containment, or by using GF's closure couplings. For projects that require ASME B31.3 compliance, the primary line must be visible during the pressure test to allow inspection for leaks. The GF closure coupling allows practical compliance to this standard and is easy to install.

GF pipe centralizers are easy install in cases where the installer needs to reposition or otherwise put them on the pipe. No tape or adhesive is required.



Closure coupling installation





Applications

Double containment ensures that, should there be a leak in the carrier piping, the chemicals or water will not come in contact with people, production processes or the environment. Double-See is an ideal containment system for drinking water and wastewater treatment, chemical processing, delivery and dosing, microelectronics, metal plating and surface finishing, life sciences applications, and data centers.

Drinking and Waste Water Treatment

Water treatment often requires dosing water with concentrated chemicals such as sodium hypochlorite (a component of bleach), sulfuric acid, sodium hydroxide, and ferric chloride. Double-See is perfectly suited for these applications, whereas other thermoplastics such as HDPE are not recommended.

Chemical Production Facilities

Chemical plants produce a wide range of products. For many, PVC or CPVC is the best choice for piping material as it will not corrode like metals. Protecting employees and equipment from these chemicals is the highest priority; Double-See provides reliable protection.

Data Centers

The increase usage of digital data is generating continued, worldwide growth of facilities housing computer servers.

Eliminating unplanned downtime is the main concern for planners and managers of these mission critical facilities. Double-See is the solution of choice for the pressurized piping lines, located over critical spaces. (For glycol systems, see COOL-FIT® Plus pre-insulated piping system).

Product Range

Size range	<ul style="list-style-type: none"> • ½"–6" primary pipe • 2"–10" containment pipe 								
Material	<ul style="list-style-type: none"> • Polyvinyl Chloride (PVC) Grey • Chlorinated Polyvinyl Chloride (CPVC) • Clear Polyvinyl Chloride (Clear PVC) 								
Pressure rating	<ul style="list-style-type: none"> • Varies by size (primary) • Schedule 80 and 40 pipe • Up to 5 psi (secondary with closure coupling) • Up to 50 psi (secondary with simultaneous joining) 								
Operating temperature	PVC: 32°F–140°F (0°C–60°C) CPVC: 32°F–200°F (0°C–93°C)								
Joining technology	Solvent (Cement) Weld								
Standards	<table border="0"> <tbody> <tr> <td>ASTM D1784</td> <td>ASTM D1785</td> </tr> <tr> <td>ASTM D2467</td> <td>ASTM F441</td> </tr> <tr> <td>ASTM F439</td> <td>NSF 14</td> </tr> <tr> <td>NSF 61</td> <td>ASME B31.3 compliant</td> </tr> </tbody> </table>	ASTM D1784	ASTM D1785	ASTM D2467	ASTM F441	ASTM F439	NSF 14	NSF 61	ASME B31.3 compliant
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Complete System Includes Leak Detection and Custom Products

The Double-See offering includes a complete range of pipe, fittings—including 45 wyes and terminations—and leak detection low points, plus leak detection alarm panels and sensors. GF's Signet float switches, ultrasonic switches, and more can be used in low points, tied back to alarm panels that alert facilities personnel locally, or communicate with building automation systems. Continuous-type leak detection systems are also available through GF.

Double-See containment boxes can be fabricated to contain any valve or instrument, in any shape or size. Custom fittings and spools can also be designed and fabricated by our expert US engineering and production teams to meet any need.



Valve containment box

CORZAN® is a registered trademark of The Lubrizol Corp.

System Features



GF Piping Systems

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

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