



**GFS™ (Glycol Fill Station)** is a self-contained package of the key components required for any closed system using glycol anti-freeze. Each package includes a highly effective air purger, relief valve, expansion tank connection and a pair of fill and purge hose connections. Each system is pre-assembled, leak tested and mounted in an attractive white cabinet. It is constructed from non-ferris materials, making it suitable for iron free systems as well as systems with iron components.

Select the model that most closely matches heating system capacity or contact Vortex for assistance.

Note: The heat source (boiler) used must be compatible with the anti-freeze solution used or an isolating heat exchanger is required.

### Physical Properties

Model	Capacity (Btu/h)	Flowrate (usgpm)	Cabinet dimensions			Heating System Water Connections*	Shipping Weight
			height	width	depth		
GFS060	60,000	6.0	24"	14 1/4"	8 1/2"	3/4"	24 lb.
GFS110	110,000	11	24"	14 1/4"	8 1/2"	1"	25 lb.
GFS160	160,000	16	24"	14 1/4"	8 1/2"	1 1/4"	27 lb.
GFS220	220,000	22	24"	14 1/4"	8 1/2"	1 1/2"	30 lb.

- Copper sweat is standard. Any alternate plumbing connection is available by special order: barb, compression, NPT.
- Capacity based on 20°F temperature rise at the boiler. A higher capacity is available with a higher temperature rise.

## **Mounting**

The CLP™ may be mounted in a mechanical room or basement wall or in a closet. It may be surface mounted or recessed into the wall. It must be mounted in the orientation with the air purger at the top.

For **surface mounting**, use anchors suitable for the wall surface (concrete, drywall or wood screws). The cabinet should be screwed from inside the cabinet through the left and right channels along rear edges.

For **recessed installations**, the cabinet may be screwed from the inside through the sides of the cabinet into the wall stud. The cabinet is designed to fit between wall studs that are 16 inches on centre. Additional wood blocking may be necessary to support both sides of the cabinet. It is recommended that the GFS™ be recessed at least 3-1/2" in order to hide all plumbing connections.

Note: for recessed installations, all plumbing connections must be completed before the drywall is installed around the cabinet.

## **Plumbing Connections**

All connections to the GFS are sweat copper and may be adapted to crimp PEX,

compression PEX or NPT. Note: PEX with an oxygen barrier is required for closed loop (boiler) systems. The oxygen barrier is not required for open systems, iron-free boiler systems or boiler systems isolated with a heat exchanger.

Connect the hot supply from the boiler to the GFS inlet. Connect the GFS outlet to the heating system (supply). The main circulating pump should be installed at this location. Connect the expansion tank below the cabinet to permit air to escape to the purger (5).

## **Start Up**

Check expansion tank pressure and charge according to manufacturer instructions.

Refer to the attached drawing.

Once all air has been removed, the heating system may be started according to manufacturer's instructions.

## **Troubleshooting**

Relief valve weeps -- check the following:

- Pressure setting on the expansion tank
- Defective relief valve