

The Pressure Step Deaerator (PSD) is an innovative tool that uses vacuum technology to remove entrained air from hot or chilled water in a sealed hydronic system. This innovative equipment combines the pressure step principle and side stream configuration to minimize the effects of dissolved air in a hydronic system. The real-time display shows the status of the equipment while monitoring the system hydronic pressure and health of its own components.

### Product Features

- Will deaerate system volumes up to 39,625 gallons
- Vacuum deaerating, turbo and normal interval modes
- Glycol mixture up to 50%
- Adjustable differential
- Pressure settings in 1 PSI increments
- MODBUS and RS485 connectivity
- Auxiliary contacts for common fault
- Interruption and common alarm
- Event logging for pump start, pump run hours counter, electrical
- Pump exercising option (2 second pulse if inactive for 60 days)
- Service reminder option (12 months)
- Pump fault, pressure transducer
- Pump inlet strainer and pump check valve
- Password protection for parameter entry
- Two year warranty



### Application of Use:

- Commercial
- Industrial
- Residential

### Material of Construction:

- Cabinet: Mild Steel AISI 1010
- Cylinder: Stainless Steel 304
- Valves: Brass
- Connection: Brass
- Pipework: Copper

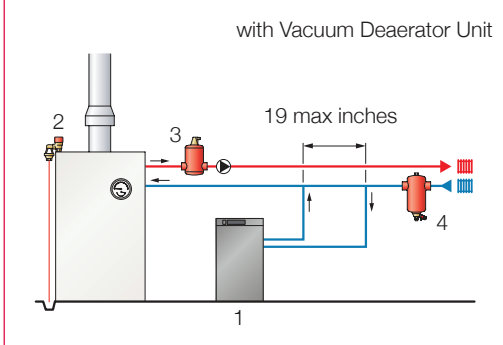
<b>Noise Output</b>	<75 dBA
<b>Design Pressure</b>	145 PSI @ 212°F
<b>System Temperature Range</b>	32 – 194°F
<b>Maximum Temperature at Point of Connection</b>	158°F
<b>Ambient Temperature Range</b>	32 – 113°F
<b>Fuse Rating</b>	10 Amps
<b>Safety Rating</b>	IP 54
<b>Auxiliary Contacts</b>	Common Fault Contact
<b>Voltage</b>	110v 60Hz 1PH

# Advanced Solutions

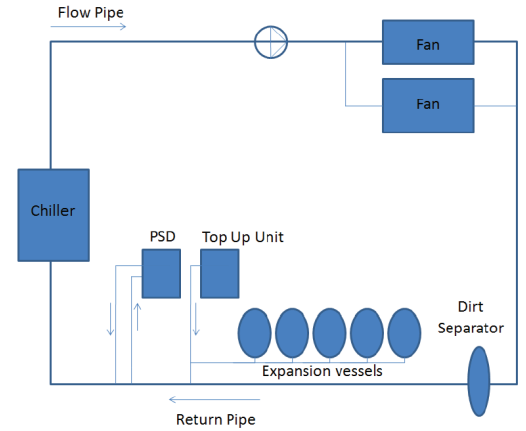
## Installation and Placement

The PSD should be installed in the return header of the system, on the suction side of the circulating pump, in a frost-free and humidity free area. The point of connection will be the same as the system expansion vessel to provide a neutral pressure reading. The two system connections must be installed on the return pipe approximately 19 inches apart.

## System Schematics



Number	Description
1	PSD Pressure Step Deaerator
2	Safety Valve
3	Flamcovent Smart Air Separator
4	Clean Smart Dirt Separator

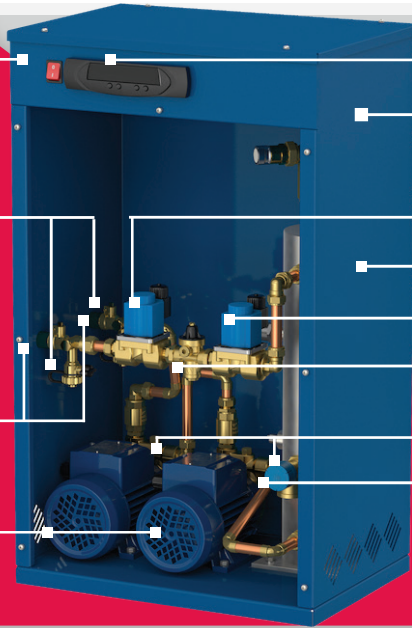


Power On/Off Switch

Isolation Valves

System Connections

Double Pump



Digital Controller

Automatic Air Vent with Air-Intake Preventer

Solenoid Valve

Vacuum Deaerator Cylinder

Variable Bypass Valve

Reducing Valve

Check Valve

Safety Valve

## FPSD 250D

A [in]	B [in]	C [in]	D [in]	E [in]	F [in]	H [in]	K [in]
12.2	18.3	31.1	19.68	5.9	31.49	17.51	17.51

Pump Quantity	Mounting	Connections	Pressure Rating	Operating Pressure	Power Consumption	Full Load Current	Nom. Weight	Order Code
2	Floor	1/2" NPT (ISO THREADS)*	150 PSI	14 - 87 PSI	1430 W	3.4 Amps	40	FPSD-250D

\*Shipped with isolation valve kit

