VPH-10000-IS Vaporizer

Overview:

Hydro Instruments' VPH-10000-IS vaporizer is designed to vaporize up to 10,000 PPD (200 kg/hr.) of chlorine, 8,000 PPD (150 kg/hr.) of sulfur dioxide, or 2,500 PPD (50 kg/hr.) of ammonia. Designed with the highest quality parts, the VPH-10000-IS is the most **ADVANCED, DURABLE AND EFFICIENT** vaporizer on the market.

Features Include:

ASME section VIII certified pressure chamber with "L" certification for lethal gas service

Stainless Steel Water Tank with 1.5" drain valve

18 kW heater with circulating pump for maximum heat transfer

SCR heater controller for maximum heater life and minimum energy consumption

Electronic controller capable of monitoring superheat temperature with new superheat alarm feature

Two Pressure Reducing Valve connections for duty / standby operation

Modbus, 4-20mA, and relay communication features for remote control and monitoring

Superheat baffles and water circulation for optimal heat transfer

Automatic water level control & cathodic corrosion protection systems

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Operation:

The vaporizer inner pressure chamber is immersed in a hot water bath that is heated by an externally mounted heater. Incoming liquid chemical flows into the bottom of this pressure chamber through an internal drop tube. Through contact with the hot walls of the pressure chamber, heat is transferred causing vaporization of the liquid to a gas.

As demand changes, so does the liquid level in the pressure chamber. An increase in demand will cause the liquid level in the chamber to rise creating more contact area between the liquid and the walls of the pressure chamber, thus allowing for more heat transfer. A decrease in demand will create an increase in pressure in the chamber forcing liquid back to the ton container thus lowering the liquid level.

Chlorine gas temperature and pressure are measured electronically, while software calculates the instantaneous superheat value automatically. The superheat value, in conjunction with other control features and alarms, can then provide emergency shut-off (should relevant alarm conditions exist) and remote indication. Controls are also provided for automatic water level control, corrosion protection and set point heater control.

Model: VPH-10000-A-B-C-D-IS

Position	Option	Description
A. Chemical	**C**	10,000 PPD (200 kg/hr.) max. Chlorine use
	S	8,000 PPD (150 kg/hr.) max. Sulfur Dioxide use
	A	2,500 PPD (50 kg/hr.) max. Ammonia use
B. Heater Power	**1**	480 VAC (3 Ph.) power
	2	240 VAC (3 Ph.) power
C. Control and Instrument Power	**1**	120 VAC (1 Ph.) power
	2	240 VAC (1 Ph.) power
D. Pressure Reducing Valve Arrangement	**1***	Single pressure reducing valve control on relay 1
	2*	Dual pressure reducing valve control on relay 1 and relay 10

Notes:

**Pressure reducing valves, expansion chamber assemblies, and pressure relief valve assemblies are sold separately.*
**At least one (1) pressure relief valve, expansion chamber assembly, and electronic pressure reducing valve must be ordered and installed with each new vaporizer. More may be required depending on site conditions.*

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