

VS HIGH PRESSURE

HIGH PRESSURE BULK STATIONS

The VS High Pressure Bulk Stations are engineered for superior performance, durability and value for liquid nitrogen, oxygen or argon service. These High Pressure Tanks are all designed to ASME code and utilize many of our standard VS Series features.

Advanced insulation technology provides longer holding times, and the continuing development of insulation systems has resulted in unsurpassed performance. Our composite insulation is a lightweight system offering superior performance compared to Perlite or Super-Insulation and is easier to maintain, offering longer product hold times.

The standard 400 psig (27.6 bar) tank is available in 900 - 15,000 gallon (3,407 - 56,781 liters) models, and the standard 500 psig (34.5 bar) tank is available in 900 - 6,000 gallon (3,407 - 22,712 liter) models. Other sizes of both models are available upon request.

Each tank comes with fully functional, mounted pressure-building systems. Remote pressure-building systems with higher withdrawal rates are available upon request.

PRODUCT HIGHLIGHTS

- All welded stainless steel piping modules
- Heavy duty bronze valves with extended bonnets
- Valve bonnet uniformity to reduce spare parts inventory
- Highest grade components for low to zero maintenance
- Separate pressure building and economizer regulators are standard on all 400 and 500 psig (27.6 and 34.5 bar) units
- High performance safety system with dual relief valves and rupture disks supplied as a standard
- Interchangeable gauge systems with a choice of analog or digital telemetry capable systems are available with flexible stainless steel interconnecting lines



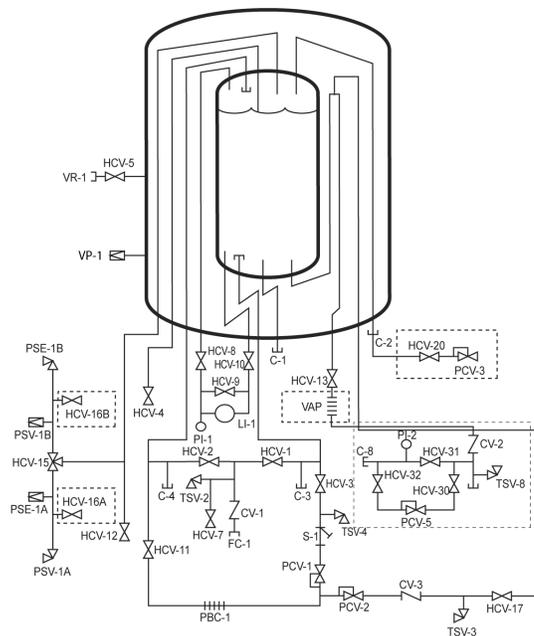
Innovation. Experience. Performance.®

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Model	VS 900NC	VS 1500NC	VS 3000NC	VS 6000NC	VS 9000NC	VS 11000NC	VS 13000NC	VS 15000NC
Gross Capacity (gal / liters)	929/3517	1585/5999	3158/11954	6075/22997	9447/35767	11480/43457	13513/51152	15545/58844
Nominal Capacity (gal / liters)	845/3197	1509/5714	3037/11495	5841/22112	9084/34387	11145/42188	13119/49661	15093/57133
Working Pressure (psig / bar)	400 / 27.6 500 / 34.5	400 / 27.6 500 / 34.5	400 / 27.6	400 / 27.6	400 / 27.6			
Diameter (in / mm)	66/1676	66/1676	86/2184	86/2184	114/2896	114/2896	114/2896	114/2896
Height (in / mm)	134/3404	188/4776	228/5791	382/9703	347/8814	406/10312	465/11811	525/13335
Weight (lbs / kg)	6000/2720 6700/3040	8400/3810 9500/4310	16400/7439 18300/8301	29700/13472 33000/14969	44800/20330	53700/24360	62700/28450	72200/32660
Flow Capacity (SCFH / Nm³ per hr)	5200/137 3100/82	5900/155 3600/97	6400/168 3800/100	7900/208 4700/124	7500/197	8100/213	8600/226	14400/378
*NER (%/day in O₂)	.45	.33	.25	.15	.10	.10	.10	.10

* NER = Nominal Evaporation Rate



Dashed lines indicate optional equipment.

Nomenclature

C-1	Connection, Aux Liquid	HCV-32	Valve, Outlet Houeline
C-2	Connection, Aux Vapor	LI-1	Level Indicator, Inner Vessel
C-3	Connection, Secondary Aux Liq	PBC-1	Pressure Building Coil, Inner Vessel
C-4	Connection, Secondary Aux Vapor	PCV-1	Pressure Control Valve, Inner Vessel
C-8	Connection, Customer Houeline	PCV-2	Pressure Control Valve, Economizer
CV-1	Check Valve, Fill	PCV-3	Pressure Control Valve, Econo Vent
CV-2	Check Valve, Houeline	PCV-5	Pressure Control Valve, Houeline
CV-3	Check Valve, Economizer	PI-1	Pressure Indicator, Inner Vessel
FC-1	Connection Fill	PI-2	Pressure Indicator, Houeline
HCV-1	Valve, Bottom Fill	PSE-1A	Pressure Safety Element, Inner Vessel
HCV-2	Valve, Top Fill	PSE-1B	Pressure Safety Element, Inner Vessel
HCV-3	Valve, PB Inlet	PSE-3	Pressure Safety Element, Outer Vessel
HCV-4	Valve, Full Trycock	PSV-1A	Pressure Safety Valve, Inner Vessel
HCV-5	Valve, Vacuum Gauge Tube	PSV-1B	Pressure Safety Valve, Inner Vessel
HCV-7	Valve, Fill Line Drain	TSV-2	Thermal Safety Valve, Fill
HCV-8	Valve, LI-1 Vapor Phase	TSV-3	Thermal Safety Valve, PB Circuit
HCV-9	Valve, LI-1 Equalization	TSV-8	Thermal Safety Valve, Houeline
HCV-10	Valve, LI-1 Liquid Phase	VAP	Vaporizer Product Withdrawal
HCV-11	Valve, PB Outlet	VR-1	Vacuum Readout, Outer Vessel
HCV-12	Valve, Vapor Vent		
HCV-13	Valve, Vaporizer Inlet		
HCV-15	Valve, Safety Relief Selector		
HCV-16A	Valve, Test		
HCV-16B	Valve, Test		
HCV-17	Valve, Economizer		
HCV-20	Valve, Economizer Vent		
HCV-30	Valve, Inlet Houeline		
HCV-31	Valve, Bypass Houeline		
VP-1	Vacuum Port		

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