

VS-DSS SERIES

VERTICAL DISTRIBUTOR STORAGE SYSTEM

Chart's VS-DSS (Distributor Storage System) Series of vertical bulk storage stations are engineered for superior performance, durability and value. Equipped with our proprietary Composite Super Insulation™ (a light-weight system offering better thermal performance than Perlite), the VS-DSS series provides reduced product losses and a slower rate of pressure rise during periods of non-use. Backing up this performance is a competitive 2-year vacuum warranty.

Available in the 525, 900, 1500, 3000, and 6000 gallon (2000, 3400, 5700, 11,400, and 23,000 liter) models, the VS-DSS series features the industry standard thermal performance. The modular plumbing system has been selectively optimized to meet the flow requirements of a complete range of liquid or gas applications. With a comprehensive set of plumbing features, each circuit has been carefully designed to match the demands placed on these vessel sizes. Dual safety relief devices are standard, and tank mounted vaporizers are optional on the 525, 900, and 1500 gallon sizes.

PRODUCT ADVANTAGES

- Sizes, pressures and configurations to meet most applications
- Backed by our standard 2-year vacuum warranty
- Leg design provides better access to anchor bolts for quicker installation
- Lower tare weight reduces freight and pad costs
- Long-life urethane paint system
- Plumbing built in accordance with ASME B31.3 code and leak tested at 1.1 times the MAWP
- Inner vessel designed and built to ASME Section VIII Division 1 code



Innovation. Experience. Performance.®

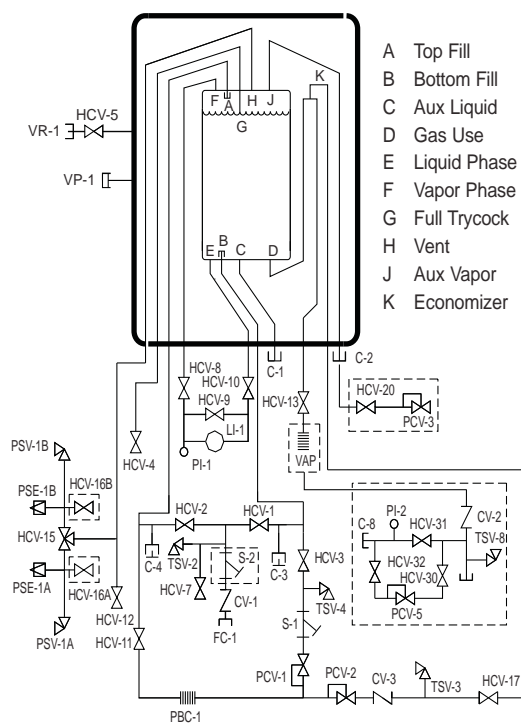
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Model	Gross Capacity		Net Capacity		MAWP*		Flow Capacity**		Diameter		Height		Weight***		NER % /day in O ₂ / Ar	NER % /day in N ₂
	Gal	Liters	Gal	Liters	psig	bar	SCFH	Nm ³ /hr	in	mm	in	mm	lbs.	Kg		
VS 525SC-DSS	570	2,158	510	1,931	250	17.2	9,000	237	66	1,676	105	2,667	3,300	1,500	.55	.89
VS 900SC-DSS	940	3,558	850	3,218	250	17.2	9,000	237	66	1,676	136	2,354	4,400	2,000	.45	.73
VS 1500SC-DSS	1,640	6,208	1,580	5,981	250	17.2	9,000	237	66	1,676	196	4,978	6,200	2,818	.35	.56
VS 3000SC-DSS	3,150	11,924	3,030	11,470	250	17.2	18,000	473	86	2,184	228	5,791	12,800	5,806	.25	.40
VS 6000SC-DSS	6,010	22,750	5,770	21,842	250	17.2	18,000	473	86	2,184	383	9,728	21,500	9,752	.15	.24

* MAWP - Maximum Allowable Working Pressure ** Flow capacity rating down to a 20% contents level with a maximum fall off in tank operating pressure of 15 psi (1 bar)

*** Weights are for ASME designs (NER) = Normal Evaporation Rate



Dashed lines indicate optional equipment.

Nomenclature

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

NOTE: Optional valves (not shown)

HCV-18 Valve, Liquid W/drawal (from C-1)
 HCV-19 Valve, Vapor Return (from C-2)
 HCV-21 Valve, Sec Aux Liquid (from C-3)
 HCV-22 Valve, Sec Aux Vapor (from C-4)

* Dashed lines represent optional components

C-8 Connection, Customer Houeline
 CV-2 Check Valve, Houeline
 HCV-16A Valve, Relief Line Purge
 HCV-16B Valve, Relief Line Purge
 HCV-20 Valve, Economizer Vent
 HCV-30 Valve, Inlet Houeline
 HCV-31 Valve, Bypass Houeline
 HCV-32 Valve, Outlet Houeline
 PCV-3 Pressure Control Valve, Econo Vent
 PCV-5 Pressure Control Valve, Houeline
 PI-2 Pressure Indicator, Houeline
 S-2 Strainer, Fill
 TSV-8 Thermal Safety Valve, Houeline
 VAP Vaporizer, Product Withdrawal