

# HS-SERIES

BULK STATIONS

---

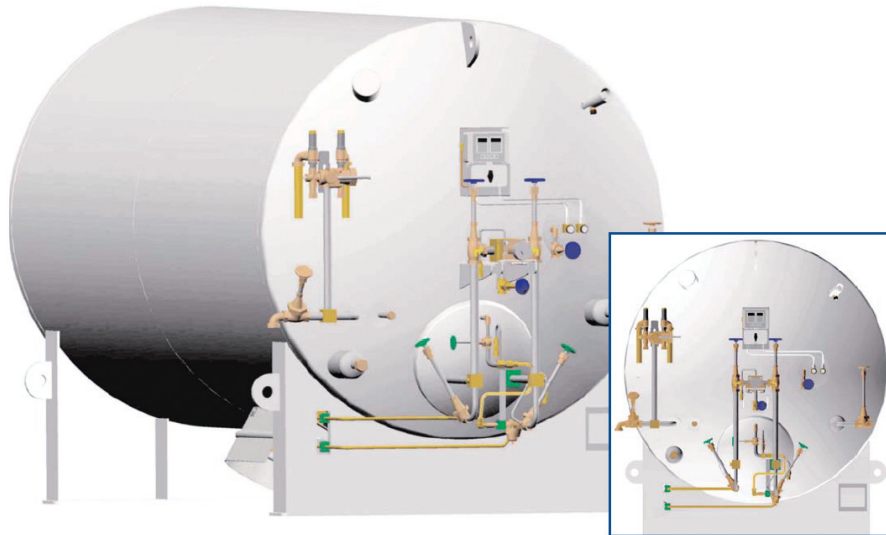


Chart Storage Systems Division, the leader in cryogenic bulk tanks, is pleased to present the new Horizontal Series Bulk Stations for liquid Nitrogen, Oxygen or Argon service. These HS Bulk Stations are engineered and built with the same quality you have come to expect, and have standard features along with pre-engineered options sure to satisfy all of your requirements. Chart's HS Series Bulk Stations are designed to ASME code and available in 175 and 250 psig (12 and 17 bar) as standards, with other pressures available upon request.

Our composite insulation system gives you the competitive edge with high thermal performance, extended hold times, low life-cycle costs and light weight to reduce your operational and installation costs. Chart leads the industry with an innovative modular piping system designed for performance, durability and low maintenance.

## **PRODUCT HIGHLIGHTS**

---

- Piping modules designed for ease-of-access to all operational control valves with stainless steel interconnecting piping to minimize the number of connections, reducing maintenance and cost of ownership
- Component selection to improve operational performance – Combination Pressure Building/Economizer Regulator for easy pressure adjustment and extended Bonnet Bronze Control Valves for ease of operation
- High performance safety system with dual relief valves and rupture disks supplied as a standard
- New, innovative Vertical Fin Pressure Building System improves performance, while reducing frost and ice build-up to further reduce your maintenance costs
- Backed by an industry-leading warranty
- Interchangeable gauge systems with digital telemetry capable gauge and flexible stainless steel interconnection lines



Innovation. Experience. Performance.™

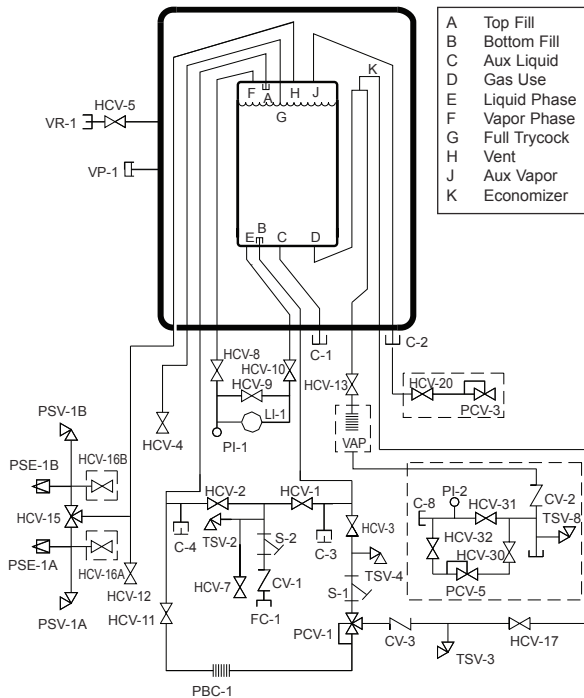
# HS-SERIES

## BULK STATIONS

Model	Gross Capacity		Nominal Capacity		Working Pressure*		Width		Height		Length		Weight**		NER %/day
	Gal	Liters	Gal	Liters	psig	bar	in	mm	in	mm	in	mm	lbs	Kg	in O <sub>2</sub>
HS 1500NC	1,585	5,999	1,509	5,714	250	17.2	68	1,728	80	2,032	188	4,775	7,300	3,310	.56
HS 3000NC	3,158	11,954	3,037	11,495	175 250	12.1 17.2	86	2,184	95	2,413	233	5,918	12,200 13,500	5,534 6,123	.32
HS 6000NC	6,075	22,997	5,841	22,112	175 250	12.1 17.2	86	2,184	95	2,413	386	9,804	22,700 25,100	10,297 11,390	.22
HS 9000NC	9,447	35,761	9,084	34,387	175 250	12.1 17.2	114	2,896	126	3,200	348	8,839	32,700 36,600	14,840 16,610	.15
HS 11000NC	11,480	43,457	11,145	42,188	175 250	12.1 17.2	114	2,896	126	3,200	408	10,363	39,300 43,800	17,830 19,870	.15
HS 13000NC	13,513	51,151	13,119	49,661	175 250	12.1 17.2	114	2,896	126	3,200	467	11,862	46,000 51,400	20,870 23,320	.15
HS 15000NC	15,545	58,846	15,093	57,132	175 250	12.1 17.2	114	2,896	126	3,200	528	13,411	53,200 59,400	24,140 26,950	.15

\* 400, 500 psig tanks are available upon request  
(NER) = Nominal Evaporation Rate

\*\* Weights are for ASME designs



## Nomenclature

C-1	Connection, Aux Liquid	S-1	Strainer, Pressure Building
C-2	Connection, Aux Vapor	S-2	Strainer, Fill
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, Product Supply		
HCV-15	Valve, Safety Relief Selector		
HCV-17	Valve, Economizer		
LI-1	Level Indicator, Inner Vessel		
PBC-1	Pressure Building Coil, Inr. Ves.		
PCV-1	Pressure Control Valve		
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		
S-2	Strainer, Fill		
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		
<b>NOTE: Optional valves (not shown)</b>			
HCV-18	Valve, Liquid Withdrawal (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)		
<i>*Dashed lines represent optional components</i>			
C-8	Connection, Customer Housetline		
CV-2	Check Valve, Housetline		
HCV-16A	Valve, Relief Line Purge		
HCV-16B	Valve, Relief Line Purge		
HCV-20	Valve, Economizer Vent		
HCV-30	Valve, Inlet Housetline		
HCV-31	Valve, Bypass Housetline		
HCV-32	Valve, Outlet Housetline		
PCV-3	Pressure Control Valve, Econo Vent		
PCV-5	Pressure Control Valve, Housetline		
PI-2	Pressure Indicator, Housetline		
TSV-8	Thermal Safety Valve, Housetline		
VAP	Vaporizer, Product Withdrawal		

Chart Industries, Inc.  
U.S.: 1-800-400-4683  
Worldwide: 1-952-882-5000



Copyright ©2004 Chart Industries  
P/N 11391553 11/04  
www.chart-ind.com