Chart’s VS-01 Series Storage Systems, available in liquid nitrogen, oxygen or argon service are offered in a wide range of sizes for applications requiring Maximum Allowable Working Pressures of 175 and 250 psig (12 and 17 barg) as standard.

Our proprietary Composite Super Insulation™ system gives you the competitive edge with high thermal performance, extended hold times, low life-cycle costs and lower weight to reduce operational and installation costs. Chart leads the industry with an innovative modular piping system designed for performance, durability and low maintenance.

**PRODUCT ADVANTAGES**

- Sizes, pressures and configurations to meet most applications
- Backed by an industry-leading 5-year vacuum warranty
- Leg design provides better access to anchor bolts for quicker installation
- Plumbing built in accordance with ASME B31.3 code and leak tested at 1.1 times the MAWP
- Long-life urethane paint system
- Inner vessel designed and built to ASME Section VIII Division 1 code
- Tank mounted vaporizer optional on the 525, 900 and 1500 gallon models (2000 SCFH)

**MODULAR PIPING ADVANTAGES**

- Reduces your life-cycle costs by reducing the number of external piping joints, minimizing the risk of external piping leaks and the cost to repair.
- Simple by design yet robust and able to support a broad range of customer applications.
- Combination pressure building/economizer regulator for easy pressure adjustment and extended bonnet bronze control valves for ease of operation.
- Piping modules designed for ease-of-access to all operational control valves with stainless steel interconnecting piping for improved durability.
**VS-01 SERIES**

*Premier Vertical Storage Systems*

<table>
<thead>
<tr>
<th>Model</th>
<th>Gross Capacity Gal</th>
<th>Net Capacity Gal</th>
<th>MAWP* psig</th>
<th>Flow Capacity** SCFH</th>
<th>Diameter in</th>
<th>Height in</th>
<th>Weight*** lbs</th>
<th>MaWP* bar</th>
<th>NER %/day in O₂ / Ar</th>
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* MAWP - Maximum Allowable Working Pressure. 400, 500 psig tanks are available upon request  ** Flow capacity rating down to a 20% contents level with a maximum fall of in tank operating pressure of 15 psig (bar)  *** Weights are for ASME designs  (NER) = Normal Evaporation Rate

**Nomenclature**

- **C-1** Connection, Aux Liquid
- **C-2** Connection, Aux Vapor
- **C-3** Connection, Secondary Aux Liq.
- **C-4** Connection, Secondary Aux Vapor
- **CV-1** Check Valve, Fill
- **CV-3** Check Valve, Economizer
- **FC-1** Connection Fill
- **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
- **HCV-19** Level Indicating, Inner Vessel
- **HCV-20** Pressure Control Valve
- **HCV-21** Pressure Indicator, Inner Vessel
- **HCV-22** Pressure Safety Valve, Inr Ves
- **HCV-23** Pressure Safety Valve, Inr Ves

**NOTE:** Optional valves (not shown)

- **C-8** Connection, Customer Houseline
- **CV-2** Check Valve, Houseline
- **CV-3** Check Valve, Houseline

- **HCV-18** Valve, Liquid Withdrawal (From C-1)
- **HCV-19** Valve, Vapor Return (From C-2)
- **HCV-21** Valve, Sec Aux LIq. (From C-3)
- **HCV-22** Valve, Sec Aux Vapor (From C-4)

**Weights**

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* Dashed lines represent optional components

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