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

**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</th>
<th>Net Capacity</th>
<th>MAWP*</th>
<th>Flow Capacity**</th>
<th>Diameter</th>
<th>Height</th>
<th>Weight***</th>
<th>NER %/day O₂</th>
<th>NER %/day Ar</th>
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<tr>
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<td>1,104</td>
<td>114</td>
<td>2,896</td>
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</tbody>
</table>

*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

- **A** Top Fill
- **B** Bottom Fill
- **C** Aux Liquid
- **D** Gas Use
- **E** Liquid Phase
- **F** Vapor Phase
- **G** Full Trycock
- **H** Vent
- **J** Aux Vapor
- **K** Economizer
- **C-1** Connection, Aux Liquid
- **C-2** Connection, Aux Vapor
- **C-3** Connection, Secondary Aux Liquid
- **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
- **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
- **PSV-1B** Pressure Safety Element, Inr Ves
- **TSV-1** Thermal Safety Valve, Fill
- **TSV-2** Thermal Safety Valve, Economizer
- **TSV-3** Thermal Safety Valve, PB Circuit
- **TSV-4** Thermal Safety Valve, PB Circuit

*NOTE: Optional valves (not shown)  
*Dashed lines represent optional components

### Your Local Representative

| Your Local Representative | Chart Inc.  
<table>
<thead>
<tr>
<th></th>
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