



**Taylor-Wharton**  
Since 1742

## LSN-450 Product Data Sheet



The LSN-450 Horizontal liquid cylinder is specifically designed for transport / distribution of liquefied oxygen or nitrogen. The unit is vacuum insulated, rugged and sized for maximum payload in standard van configurations.

Oxygen service models provide internal baffles and a Full-Trycock valve for medical oxygen distribution applications; several additional models serve nitrogen distribution needs and do not contain these features.

All LSN-450 feature easy-to-use controls on one end of the unit, protected by a stainless-steel halo ring. A differential pressure gauge provides constant contents indication that is easy to read. In-line relief devices allow simple plumbing to the outside in vehicle applications.

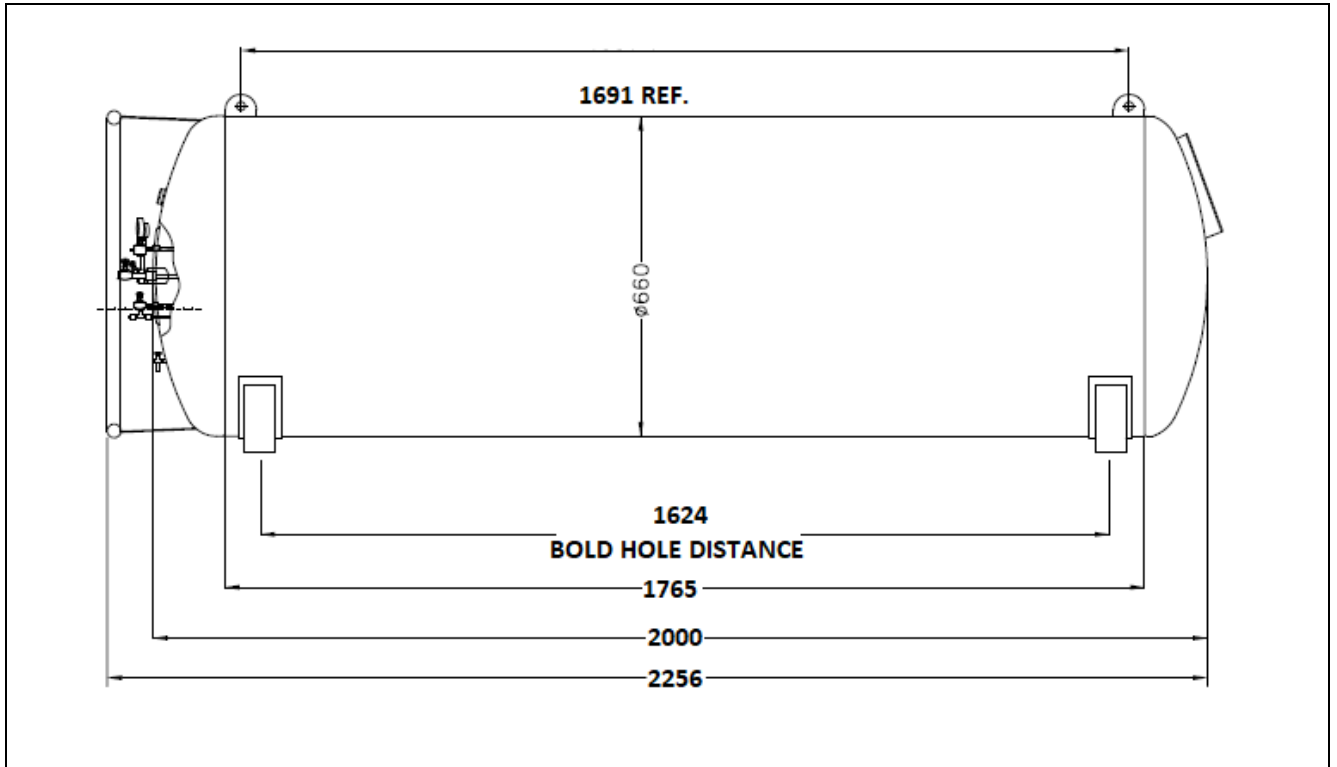
The LSN-450 may be configured for either 110 psig or 50 psig service to meet your final saturation pressure needs.

### SPECIFICATIONS

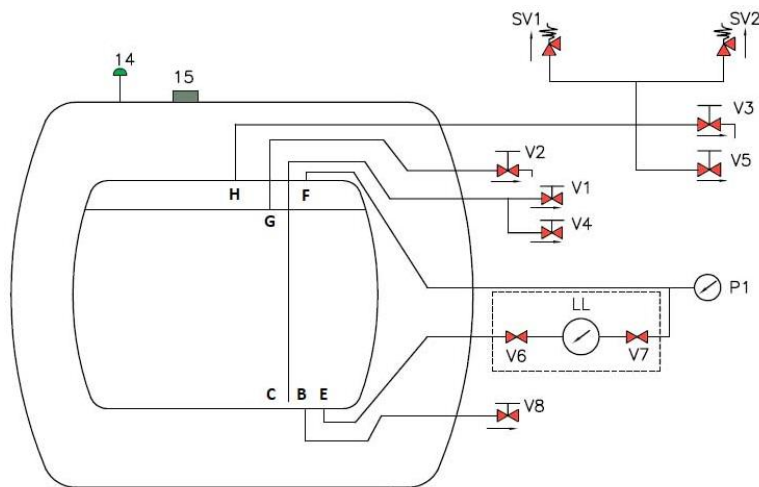
|  | Oxygen Service                          | Nitrogen Service                        |
|--|---|---|
| <b>Dimensions</b>  |   |   |
| Diameter   | 26 in. (66cm)                           | 26 in. (66cm)                           |
| Height   | 27 ¾ in. (70cm)                         | 27 ¾ in. (70cm)                         |
| Length, overall  | 89 in. (226cm)                          | 89 in. (226cm)                          |
| <b>Weight, empty</b> (nominal)                           | 520 lbs. (236 kg)                       | 516 lbs. (232 kg)                       |
| <b>Weight, full</b> (nominal)                            | 1246 lbs. (2771 kg)                     | 1246 lbs. (2771 kg)                     |
| <b>Capacity</b>  |   |   |
| Liquid, Maximum Usable*                                  | 107 gal. (405 liter)                    | 107 gal. (405 liter)                    |
| Weight of contents (110 psig relief valve) full capacity | 886 lbs. (402 kg)                       | 730 lbs. (331 kg)                       |
| Gaseous equivalent, Oxygen (NTP)                         | 10,700 cu. ft.                          | N/A                                     |
| <b>Normal Evaporation Rate</b> (per day)                 | 2% of contents                          | 3% of contents                          |
| <b>Design specification</b>                              | DOT 4L                                  | DOT 4L                                  |
| <b>Rated (DOT) Service</b>                               |   |   |
| Pressure   | 115 psig (739 kPa)                      | 115 psig (739 kPa)                      |
| <b>Safety Devices</b>                                    |   |   |
| Pressure Relief Valve                                    | 110 psig or 50 psig (759 kPa) (345 kPa) | 22 psig or 110 psig (152 kPa) (759 kPa) |
| <b>Inner Container Frangible, disc rating</b>            | 200 psig (1380 kPa)                     | 200 psig (1380 kPa)                     |
| <b>Outer jacket bursting, disc rating</b>                | 18 psig (124 kPa)                       | 18 psig (122 kPa)                       |
| <b>Line Connections</b>                                  |   |   |
| Liquid, Fill and Vent Value                              | CGA 440                                 | CGA 295 (vent ¾ NPT)                    |
| Full-trycock   | 3/8" tube                               | N/A                                     |

\*Usable capacity under normal conditions, with tank level.

\* Model with or without pressure building are available for option.



**PIPING SCHEMATIC**



| Tag no  | Description                    |
|---------|--------------------------------|
| V1      | Liquid Withdrawal Line         |
| V2      | Full Trycock Valve             |
| V3      | Vent Valve                     |
| V4      | Pressure Building Inlet Valve  |
| V5      | Pressure Building Outlet Valve |
| V6 & V7 | Gauge Isolation Valve          |
| V8      | Liquid Fill Valve              |
| SV1     | Safety Valve                   |
| SV2     | Safety Valve                   |
| LL      | Level Gauge                    |
| P1      | Pressure Gauge                 |
| 14      | Vacuum Bursting Disc           |
| 15      | Evacuation Connection          |
| B       | Liquid Fill Line               |
| C       | Liquid Withdrawal Line         |
| E       | Liquid Instrument Line         |
| F       | Gas Instrument Line            |
| G       | Full-Trycock Line              |
| H       | Safety Line                    |

\*Specifications are general and subject to change without prior notice

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