



**Taylor-Wharton**

# Cryogenic Bulk Tanks

## VJ-Series

**Vacuum Jacketed  
CO<sub>2</sub>-N<sub>2</sub>O Receivers**

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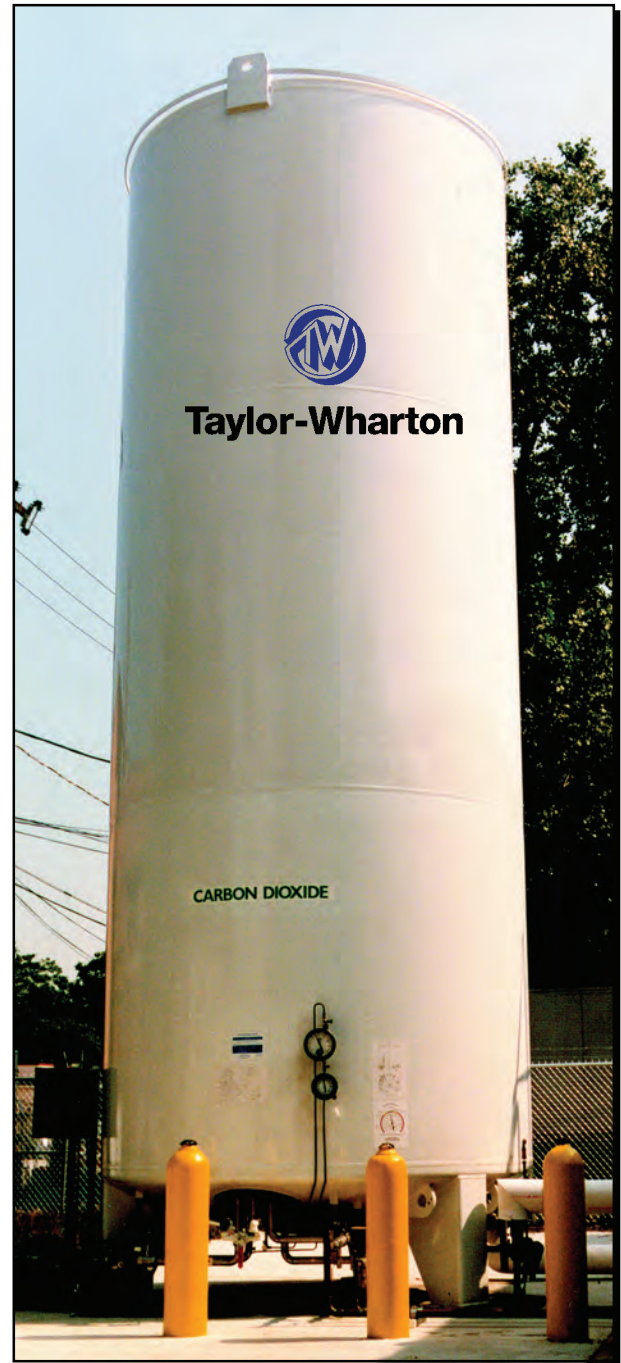
**Eliminate mechanical refrigeration service cost, reduce rehab cost. Broad range of models and options.**

- **Eliminate the need for mechanical refrigerator in most applications:**  
Taylor-Wharton's superior vacuum insulation technology makes this possible. The absence of mechanical refrigeration lessens environmental concerns, electricity cost, and refrigeration services parts/maintenance.
- **Reduce rehab cost:**  
The VJ Series eliminates the expensive cost of re-insulating conventional CO<sub>2</sub> tanks.
- **Broad range of models and options:**  
Each VJ tank can be customized by adding the following options—pressure building systems, manway, evaporator coil, product vaporizers, low pressure alarm, and various valve configurations.

**Call Taylor-Wharton at:**

**1 (800) 898-2657**

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# VJ-Series

## Vacuum Jacketed CO<sub>2</sub>-N<sub>2</sub>O Receivers

### SPECIFICATIONS

	VJ6	VJ14	VJ26	VJ35	VJ50
<b>Capacity Net Liquid*</b>					
CO <sub>2</sub> tons (metric tons)	5.9 (5.4)	14.0 (12.7)	25.5 (23.1)	34.3 (31.1)	49.0 (44.5)
N <sub>2</sub> O tons (metric tons)	5.7 (5.2)	13.5 (12.2)	24.7 (22.4)	33.3 (30.2)	47.8 (43.4)
<b>Dimensions</b>					
Height ft-in (m)	15-10 (4.83)	19-5 (5.92)	31-3 (9.52)	28-6 (8.69)	38.7 (11.76)
Diameter ft-in (m)	6-6 (1.98)	8-0 (2.44)	8-0 (2.44)	9-6 (2.9)	9-6 (2.9)
<b>Weight</b>					
Tare Gross, Full 1000 lb (1000 kg)	11.5 (5.2)	27.8 (12.6)	39.1 (17.7)	47.3 (21.5)	62.1 (28.2)
CO <sub>2</sub> 1000 lb (1000 kg)	23.3 (10.6)	55.8 (25.3)	90.1 (41.0)	115.9 (52.6)	160.0 (73.0)
N <sub>2</sub> O 1000 lb (1000 kg)	22.9 (10.4)	54.8 (24.9)	88.5 (40.1)	113.9 (51.7)	157.7 (71.5)
<b>Normal Evaporation</b> CO <sub>2</sub> lb/day (kg/day)	7 (3.2)	17 (7.7)	26 (11.8)	28 (12.7)	40 (18.1)
<b>Maximum Working Pressure</b> psig (bar/kPa)	350 (24/2413)	350 (24/2413)	350 (24/2413)	350 (24/2413)	350 (24/2413)
<b>Maximum Working Temperature</b>	-50° F (-40° C)	-40° F (-40° C)	-40° F (-40° C)	-38° F (-34° C)	-38° F (-34° C)
<b>Line</b>					
A Liquid Fill in (m)	2.0 (50.8)	2.0 (50.8)	2.0 (50.8)	2.0 (50.8)	2.0 (50.8)
B Vapor Relief (Safety) in (m)	1.0 (25.4)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)
C Vapor Equalization in (m)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)
D Liquid Instrument in (m)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)
E Vapor Instrument in (m)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)
F Liquid Process in (m)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)	2.0 (50.8)
G Vapor Pressure Builder in (m)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)
H Vapor Process in (m)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)	2.0 (50.8)
J Liquid Pressure Builder in (m)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)	1.5 (38.0)
K Refrigeration Discharge in (m)	1.12 (28.4)	1.12 (28.4)	1.12 (28.4)	1.12 (28.4)	1.12 (28.4)
L Refrigeration Suction in (m)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)
M Auxiliary Liquid Process in (m)	N/A	N/A	N/A	1.5 (38.0)	2.0 (50.8)

\* Based on cold vessel volume, with product saturated at 0° F (-17.78° C), 93% full.

\* Normal evaporation rate based on net liquid capacity.

Specifications are subject to change without notice.



**Taylor-Wharton**

#### Flow Schematic

- L1 Liquid Level Gauge
- P1 Pressure Gauge, Inner Vessel
- PCV Back Pressure Regulator
- R-1 Outer Jacket Relief Device
- SV-1A Safety Relief Valve, ASME
- SV-1B Safety Relief Valve, ASME
- V-1 Liquid Fill Valve
- V-2 Vapor Equalization Valve
- V-3 Vacuum Gauge Valve
- V-3 Evacuation Valve
- V-5 Vapor Phase Isolation Valve
- V-6 Liquid Phase Isolation
- V-7 Instrument Equalization Valve
- V-8 Back Pressure Regulator Isolation Valve
- V-9A Drain Valve
- V-9B Drain Valve
- V-10 Safety Relief Valve Selector
- VR-1 Vacuum Tube

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