



**Taylor-Wharton**  
Since 1742

# **MicroBulk** **MB-450 TPEd**

## **MB-450** **(Transportable 450-Liter MicroBulk)**

### **Increased Safety & Durability**

- Safe & Easy-to-Transport
- Eliminate Handling of Cylinders to Reduce Risk of Potential Injury
- Galvanized Steel Pallet & Frame
- Compact & Rugged

### **Convenient & Customer-Focused**

- On-Site Filling
- No Interruptions to End-Use Application
- Suitable for Industrial & CryoBio Applications
- All Valves Located at Operator Level
- Fill Shut-Off

### **Economical**

- Reduces Cylinder Fleet
- Reduces Product Losses During Fill Process

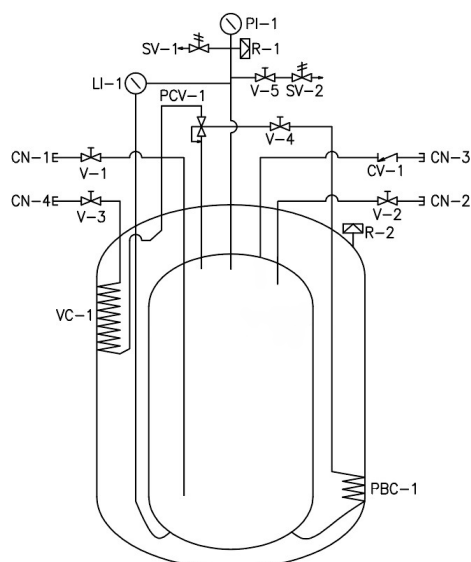


# MB-450 Specifications

PART/MODEL NO.		MB450LP	MB450HP	MB450VP
MAWP	bar	10	24	37
Gross Capacity	liters	452	441	433
Estimated tare weight *)	kg	355	435	515
Capacity **)		<b>Gas Liquid</b>	<b>Gas Liquid</b>	<b>Gas Liquid</b>
Nitrogen	Nm <sup>3</sup> /kg	278 701	272 773	266 847
Oxygen	Nm <sup>3</sup> /kg	343 845	336 913	329 984
Argon	Nm <sup>3</sup> /kg	-	328 1020	321 1089
CO <sub>2</sub>	Nm <sup>3</sup> /kg	-	216 903	212 974
Tank Diameter	mm	762	762	762
Pallet W x L	mm	953 x 953	953 x 953	953 x 953
Total Height w or w/o frame	mm	2049 / 2165	2049 / 2165	2049 / 2165
Max N <sub>2</sub> Withdrawal Rate	NM <sup>3</sup> /h	16.3	16.3	16.3
Max CO <sub>2</sub> Withdrawal Rate	NM <sup>3</sup> /h	-	6.9	6.9
NER	% per day O <sub>2</sub>	1.25		
Design Approval		TPED 2010/35/EU		

\*) The weight includes the galvanized steel pallet. Subtract 55 kg for weight without pallet.

\*\*) At 0 barg pressure for N<sub>2</sub>, O<sub>2</sub>, Ar and 10 bar for CO<sub>2</sub>



## Flow Schematic

(CN-1) Liquid Fill/Withdrawal Connection

(CN-2) Full Trycock & Vent Connection

(CN-3) Pump/Top Fill Connection

(CN-4) Gas Withdrawal Connection

(V-1) Liquid Fill/Withdrawal Valve

(V-2) Full Trycock/Vent Valve

(V-3) VGas Withdrawal Valve

(V-4) Pressure Building Valve

(V-5) Road Relief Isolation Valve

(CV-1) Pump/Top Fill Check Valve

(LI-1) Liquid Level Gauge

(VC-1) Vaporizer Coil

(PI-1) Pressure Gauge

(PBC-1) Pressure Building Coil

(PCV-1) Pressure building

Regulator

(SV-1) Safety Valve

(SV-2) Road Relief Valve

(R-1) Inner Container Safety Disc

(R-2) Vacuum Bursting Disc

\* Note: For use with delivery vehicle equipped with automatic filling system. I.e. Express-fill delivery truck.



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