



Taylor-Wharton
Since 1742

MicroBulk MB-450

MB-450 (Transportable 450-Liter MicroBulk)

Increased Safety & Durability

- 450 Liter DOT-4L Designs for On-Site Movement by Fork Lift
- 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

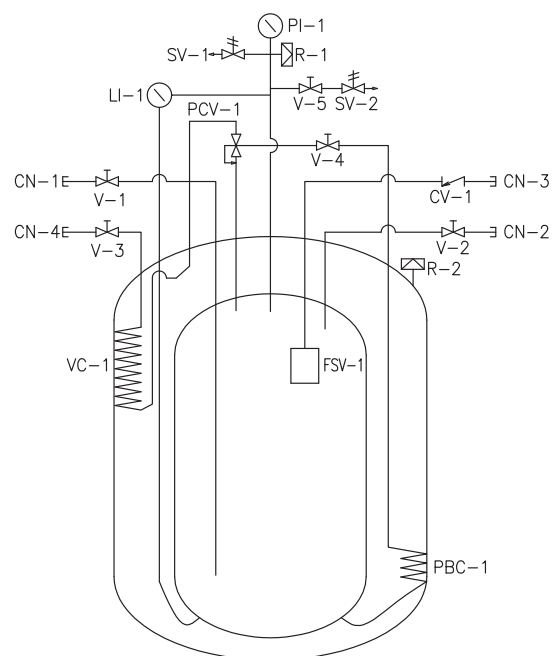
- Reduces Cylinder Fleet
- Reduces Product Losses During Fill Process



MB-450 Specifications

PART/MODEL NO.	MB-450HP	MB-450VHP
Dimensions		
Diameter in (mm)	30 (762)	30 (762)
Height in (mm)	75.7 (1922)	75.7 (1922)
*Weight		
Empty lb. (kg) (Nominal)	730 (331)	830 (376)
Full weight (kg) (Nominal)		
Oxygen	1640(744)	1680(762)
Nitrogen	1370(621)	1390(630)
Argon	1840(835)	1860(844)
Co2	1624(737)	1666(756)
Maximum Liquid Capacity (liters)		
	443	437
MAWP psig (kPa)		
	350 (2413)	500 (3448)
Gaseous Capacity NPT		
Oxygen ft3 (m3)	11,000 (289)	10,210 (269)
Nitrogen ft3 (m3)	8,750 (230)	7,690 (202)
Argon ft3 (m3)	10,700 (282)	9,950 (262)
CO2 ft3 (m3)	7,815(205)	7,308 (192)
Dual Pressure Building/Economizer Regulator		
Pressure Building Setting psig (kPa)	300 (2,069)	400 (2,758)
Economizer Setting psig (kPa)	325 (2,241)	420 (2,896)
Design Specification		
DOT	4L	4L
Safety Devices		
Pressure Relief Valve psig (BAR)	350 (24)	500 (34)
Inner Container Bursting Disc psig (BAR)	525 (36)	750 (5.2)
Road Relief Valve psig (BAR)	22 (1.5)	22 (1.5)
Weight of Contents Based on DOT-Rated Service Pressure		
Oxygen lb. (kg)	907 (411)	845 (383)
Nitrogen lb. (kg)	634 (288)	557 (253)
Argon lb. (kg)	1,102 (500)	1,028 (466)
CO2 lb. (kg)	894 (406)	836 (380)
Gas delivery rate		
Co2 ft3/hr (m3/hr)	200 (5.6)	200 (5.6)
LOX, LAR, LIN ft3/hr (m3/hr)	575 (16.3)	575 (16.3)
NER (percent of capacity per day O2)		
	1.0%	1.0%

* The weight is without pallet



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) V Gas 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
- (FSV-1) Fill Stop Valve*

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



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