



Taylor-Wharton
Equipping The Hydrogen Infrastructure

MicroBulk

Why Buy Taylor-Wharton MicroBulk?

Taylor-Wharton understands the evolving needs of customers and have leveraged their cryogenic experience to provide a premium new MicroBulk offering.

- Stock Inventory of Standard Models for Immediate Shipment.
- Standard Sizes (1000 - 7500 Liters) and a Broad Range of Working Pressures.
- Quality Materials: Durable Stainless Steel, Super Insulation, Upgraded Components.
- Units Can Be Filled with any and All Cryogenic Delivery Trucks.
- Reliable: L Built to Last, 5 Year Vacuum Warranty
- High Quality Galvanized Steel Pallet.
- 3,500 SCFH Gaseous Flow Rates as Standard Skid Package; **3x Higher Flow Rates** Compared to Previous MB Designs.
- Isolation and Extended Stem Cryogenic Valves Included as Standard Features.



MicroBulk Tank Specifications

PART/MODEL NO.		MB1000HP/ MB1000MP/ MB1000VHP	MB2000HP/ MB2000MP/ MB2000VHP	MB3000HP/ MB3000MP/ MB3000VHP	MB5000HP/ MB5000MP/ MB5000VHP	MB7500HP/ MB7500MP/ MB7500VHP
MAWP	PSI (MPa)	250 (1.72) 350 (2.41) 500 (3.45)	250 (1.72) 350 (2.41) 500 (3.45)	250 (1.72) 350 (2.41) 500 (3.45)	250 (1.72) 350 (2.41) 500 (3.45)	250 (1.72) 350 (2.41) 500 (3.45)
Operation Pressure	PSI (MPa)	174 (1.20) 207 (1.43) 400 (2.76)	174 (1.20) 207 (1.43) 400 (2.76)	174 (1.20) 207 (1.43) 400 (2.76)	174 (1.20) 207 (1.43) 400 (2.76)	174 (1.20) 207 (1.43) 400 (2.76)
Gross Capacity	US Gallons (m ³)	269 (1.02)	568 (2.15)	782 (2.96)	1321 (5.00)	1984 (7.51)
Net Capacity	US Gallons (m ³)	243 (0.92)	512 (1.94)	713 (2.70)	1189 (4.50)	1786 (6.76)
Estimated Tare Weight	Lbs (kg)	2006 (910) 2102 (953) 2293 (1040)	3020 (1370) 3216 (1459) 3748 (1700)	3616 (1640) 4005 (1817) 4674 (2120)	5056 (2293) 5729 (2599) 6658 (3020)	7873 (3571) 8930 (4051) 10141 (4600)
Capacity Nitrogen	Gas SCF(NM ³) Liquid Lbs(kg)	22623 (595) 1635 (742)	47705 (1254) 3447 (1564)	66393 (1745) 4798 (2176)	110655 (2908) 7996 (3627)	166228 (4369) 12012 (5449)
Capacity Oxygen	Gas SCF(NM ³) Liquid Lbs(kg)	28014 (735) 2314 (1050)	59073 (1550) 4880 (2214)	82215 (2158) 6792 (3081)	137025 (3596) 11320 (5135)	205842 (5402) 17005 (7713)
Capacity Argon	Gas SCF(NM ³) Liquid Lbs(kg)	27338 (718) 2825 (1282)	57647 (998) 5958 (2702)	80231 (2108) 8292 (3761)	133718 (3514) 13820 (6269)	200873 (5279) 20760 (9417)
Capacity CO₂	Gas SCF(NM ³) Liquid Lbs(kg)	18008 (473) 2261 (1026)	37974 (998) 4768 (2163)	52850 (1389) 6636 (3010)	88083 (2315) 11060 (5017)	132320 (3477) 16615 (7537)
Tank Diameter	in (mm)	43.3 (1100)	53.1 (1350)	59.1 (1500)	72.4 (1840)	79.5(2020)
Total Depth	in (mm)	59.1 (1500)	82.7 (2100)	82.7 (2100)	88.6 (2250)	95.3 (2420)
Total Width	in (mm)	59.1 (1500)	66.1 (1680)	66.1 (1680)	78.7 (2000)	85.8 (2180)
Total Height	in (mm)	87.4 (2220)	107.1 (2720)	112.4 (2855)	118.3 (3005)	141.7 (3600)
Max N₂/O₂/Ar Withdrawal Rate	SCFH (NM ³ /hr)	1770 (50)	3540 (100)	3540 (100)	3540 (100)	5310 (150)
Max CO₂ Withdrawal Rate	SCFH (NM ³ /hr)	668 (19)	1300 (37)	1300 (37)	1300 (37)	1968 (56)



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www.twcryo.com

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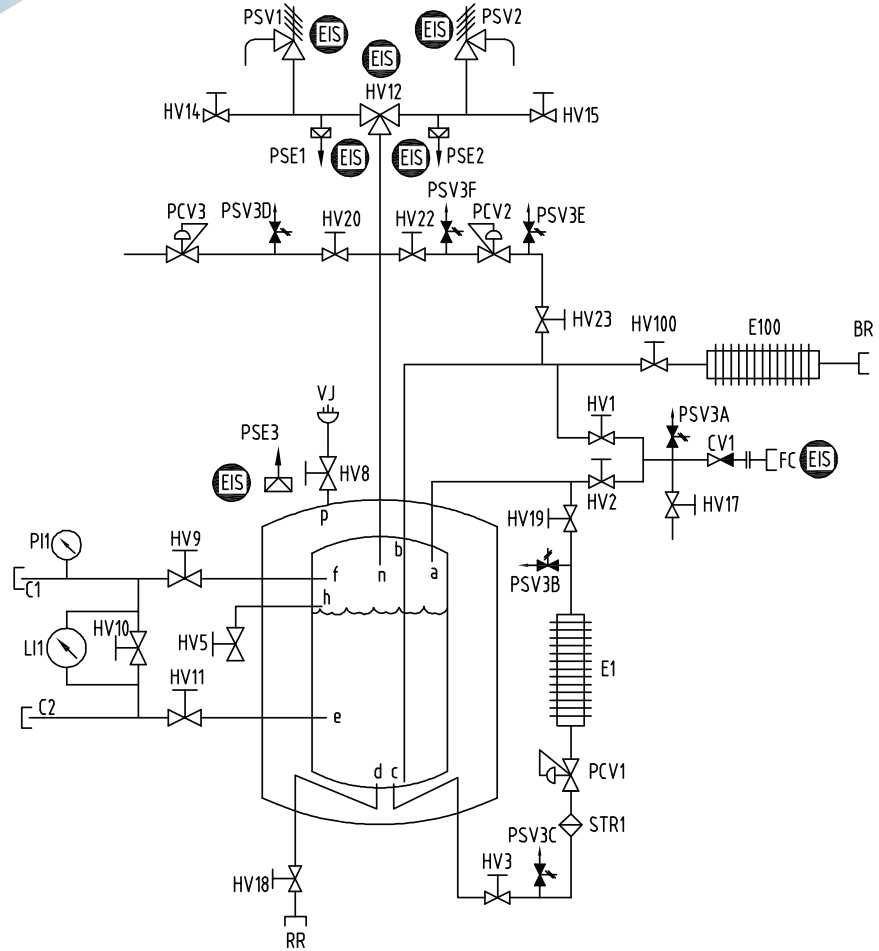
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MicroBulk Tank Specifications

Piping and Instrument Diagram (1000-5000 liter units)

SYMBOLS	
	ELEMENT IMPORTANT FOR SAFETY
	GLOBE VALVE
	GATE VALVE
	STRAINER
	SAFETY VALVE
	PRESSURE BUILDING COIL
	PRESSURE REGULATOR
	VACUUM PROBE
	VACUUM PUMPOUT VALVE
	TANK RUPTURE DISC
	VACUUM JACKET LIFT PLATE
	TANK PRESSURE RELIEF VALVE
	ANGLE GLOBE VALVE
	3-WAY DIVERTER VALVE



Piping and Instrument Legend

a	TOP FILL LINE 1/2" (1000 THRU 3000-LITERS)	PSE3	VACUUM PUMP & VACUUM BURSTING DISC, 1 1/2"	HV14&15	SAFETY LINE PURGE VALVE, 1/4" MNPT
a	TOP FILL LINE 1" (5000-LITER)	C1	INSTRUMENT GAS CONNECTION, 1/4" FNPT	E100	ATMOSPHERIC VAPORIZER
b	BOTTOM FILL LINE 1/2" (1000 THRU 3000-LITERS)	C2	INSTRUMENT LIQUID CONNECTION, 1/4" FNPT	VJ	VACUUM PROBE, 1/8" MVPT
b	BOTTOM FILL LINE 1" (5000-LITER)	PSE1&2	BURSTING DISC, 1/2" MNPT	HV8	VACUUM PROBE VALVE, 1/8" FNPT
c	LIQUID WITHDRAWAL LINE, 1/2"	HV12	SAFETY CHANGEOVER VALVE, BRONZE	STR1	STRAINER, 1/2" SW
d	LIQUID WITHDRAWAL LINE, 1/2"	PI1	TANK PRESSURE GAUGE, G 1/2"	FC	FILLING CONNECTION, 1 1/2"
e	LIQUID INSTRUMENT LINE, 3/8" OD	LI1	LIQUID LEVEL GAUGE, 1/4" FNPT	CV1	CHECK VALVE FILL PORT, 1/2" FNPT (1000 THRU 3000-LITERS)
f	FULL TRYCOCK LINE, 1/2"	HV17	FILL LINE PURGE VALVE, 1/2" SW	CV1	CHECK VALVE FILL PORT, 1" FNPT (5000-LITER)
n	SAFETY VENT LINE, 1/2"	PCV2	ECONOMIZER REGULATOR VALVE, 1/4", FNPT	HV19	ISOLATION VALVE FOR PBU, 1/2" SW
t	VACUUM PUMPOUT LINE & JACKET RELIEF DEVICE, 1/2"	PCV3	BACK PRESSURE REGULATOR VALVE, 1/4" FNPT	HV20	ISOLATION VALVE FOR PVC2, 1/2" FNPT
P	VACUUM PROBE, 1/8"	HV10	EQUALIZATION VALVE, 1/4" MNPT	HV22	ISOLATION VALVE FOR PVC3, 1/2" FNPT
HV1	FILLING LIQUID BOTTOM VALVE, 1/2"	HV11	LIQUID ISOLATION VALVE, 1/4" MNPT	HV23	ISOLATION VALVE FOR PVC3, 1/2" FNPT
HV2	FILLING GAS TOP VALVE, 1/2"	HV9	GAS ISOLATION VALVE, 1/4" MNPT		
HV5	FULL TRYCOCK VALVE, 1/2"	E1	PRESSURE BUILDING COIL		
HV100	GAS SUPPLY VALVE, 1/2"	PCV1	PRESSURE REGULATOR, 1/4" FNPT		
HV18	BOTTOM LIQUID VALVE, 1/2"	RR	LIQUID CONNECTION, 1/2" FNPT		
BR	GAS SUPPLY CONNECTION, 1/2" + 1/2" FNPT	PSV1&2	SAFETY VALVE, 1/2" FNPT		
		PSV3A	THERMAL EXPANSION VALVE, 1/4" MNPT		
		PSV3F	THERMAL EXPANSION VALVE, 1/4" MNPT		
		HV3	PRESSURE BUILDUP VALVE, 1/2" SW		



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