



Taylor-Wharton
Equipping The Hydrogen Infrastructure

MicroBulk

PED/TPED

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 - 5000 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 Stainless Steel Pallet - Rust Free & Environmentally Conscious.
- 100 NM³/hour 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

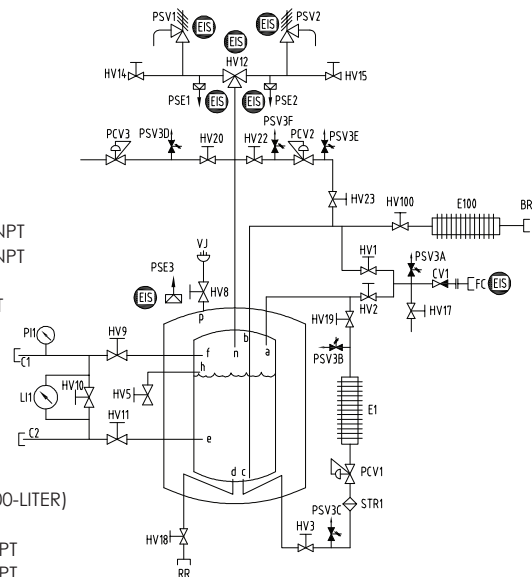
PART/MODEL NO.		MB1000HP	MB1000VHP	MB2000MP	MB2000VHP	MB3000MP	MB3000VHP	MB5000MP	MB5000VHP			
MAWP	bar	24	37	17	35	17	35	17	35			
Operation Pressure	bar	21	30	12	30	12	30	12	30			
Gross Capacity	m ³	0.996	0.994	2.06	2.06	2.97	2.97	5.00	5.00			
Net Capacity	m ³	0.946	0.994	1.85	1.85	2.67	2.67	4.50	4.50			
Estimated tare weight	kg	1100	1315	1290	1610	1650	2180	2640	3550			
Capacity	Gas	Liquid	Gas	Liquid	Gas	Liquid	Gas	Liquid	Gas	Liquid	Gas	Liquid
	Nitrogen	NM3 kg	611 765	610 763	1287 1500	1287 1500	1858 2160	1858 2160	3132 3640	3132 3640	3132 3640	3132 3640
	Oxygen	NM3 kg	756 1080	754 1087	1594 2110	1594 2110	2301 3050	2301 3050	3878 5140	3878 5140	3878 5140	3878 5140
	Argon	NM3 kg	739 1318	739 1315	1556 2580	1556 2580	2245 3720	2245 3720	3784 6270	3784 6270	3784 6270	3784 6270
CO2	NM3 kg	487 961	486 957	1025 1880	1025 1880	1479 2710	1479 2710	2493 4570	2493 4570	2493 4570	2493 4570	
Tank Diameter	mm	1100	1100	1350	1350	1500	1500	1840	1840			
Pallet W x L	mm	1550 x 1550	1550 x 1550	1680 x 2100	1680 x 2100	1680 x 2100	1680 x 2100	2000 x 2250	2000 x 2250			
Total Height*	mm	2200	2200	2627	2627	2871	2871	3009	3009			
Max N2 Withdrawal Rate	NM ³ /h	34	34	100	100	100	100	100	100			
Max CO2 Withdrawal Rate	NM ³ /h	12	12	50	50	50	50	50	50			
Design Approval		TPED	TPED	PED	PED	PED	PED	PED	PED			

*Includes pallet. All specifications are nominal.

Piping and Instrument Legend

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

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



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