



Taylor-Wharton
Since 1742

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.

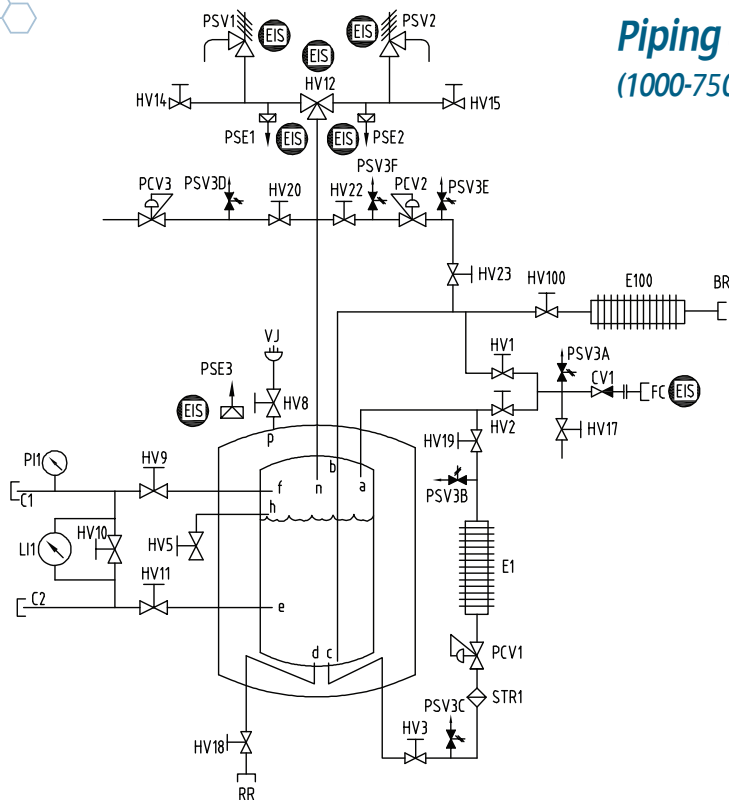
- Stock Inventory of Standard Models for Immediate Shipment.
- Standard Sizes (1000-7500 Liters) and a Broad Range of Working Pressures.
- Quality Materials: Durable Stainless Steel, Super Insulation, Upgraded Components.
- Units Can Be Filled with any and All Cryogenic Delivery Trucks.
- Reliable: Built 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.		MB1000MP / MB1000HP / MB1000VHP		MB2000MP / MB2000HP / MB2000VHP		MB3000MP / MB3000HP / MB3000VHP		MB5000MP / MB5000HP / MB5000VHP		MB7500MP / MB7500HP / MB7500VHP		
MAWP	PSI (MPa)	250 (1.72)		250 (1.72)		250 (1.72)		250 (1.72)		250 (1.72)		
		350 (2.41)		350 (2.41)		350 (2.41)		350 (2.41)		350 (2.41)		
		500 (3.45)		500 (3.45)		500 (3.45)		500 (3.45)		500 (3.45)		
Operation Pressure	PSI (MPa)	174 (1.20)		174 (1.20)		174 (1.20)		174 (1.20)		174 (1.20)		
		207 (1.43)		207 (1.43)		207 (1.43)		207 (1.43)		207 (1.43)		
		400 (2.76)		400 (2.76)		400 (2.76)		400 (2.76)		400 (2.76)		
Gross Capacity	US gallon (m³)	269 (1.02)		568 (2.15)		782 (2.96)		1321 (5.00)		1984 (7.51)		
Net Capacity	US gallon (m³)	243 (0.92)		512 (1.94)		713 (2.70)		1189 (4.50)		1786 (6.76)		
Estimated Tare Weight	Lbs (kg)	2006 (910)		3020 (1370)		3616 (1640)		5056 (2293)		7873 (3571)		
		2102 (953)		3216 (1459)		4005 (1817)		5729 (2599)		8930 (4051)		
		2293 (1040)		3748 (1700)		4674 (2120)		6658 (3020)		10141 (4600)		
Capacity												
Nitrogen	Gas	SCF (NM³)	22623 (595)		47705 (1254)		66393 (1745)		110655 (2908)		166228 (4369)	
	Liquid	Lbs (kg)	1635 (742)		3447 (1564)		4798 (2176)		7996 (3627)		12012 (5449)	
Oxygen	Gas	SCF (NM³)	28014 (735)		59073 (1550)		82215 (2158)		137025 (3596)		205842 (5402)	
	Liquid	Lbs (kg)	2314 (1050)		4880 (2214)		6792 (3081)		11320 (5135)		17005 (7713)	
Argon	Gas	SCF (NM³)	27338 (718)		57647 (1515)		80231 (2108)		133718 (3514)		200873 (5279)	
	Liquid	Lbs (kg)	2825 (1282)		5958 (2702)		8292 (3761)		13820 (6269)		20760 (9417)	
CO2	Gas	SCF (NM³)	18008 (473)		37974 (998)		52850 (1389)		88083 (2315)		132320 (3477)	
	Liquid	Lbs (kg)	2261 (1026)		4768 (2163)		6636 (3010)		11060 (5017)		16615 (7537)	
Tank Diameter	Inches (mm)	43.3	1100	53.1	1350	59.1	1500	72.4	1840	79.5	2020	
Total Depth	Inches (mm)	59.1	1500	82.7	2100	82.7	2100	88.6	2250	95.3	2420	
Total Width	Inches (mm)	59.1	1500	66.1	1680	66.1	1680	78.7	2000	85.8	2180	
Total Height	Inches (mm)	87.4	2220	107.1	2720	112.4	2855	118.3	3005	141.7	3600	
Max N2/O2/Ar Withdrawal Rate	SCFH (NM³/hr)	1770 (50)		3540 (100)		3540 (100)		3540 (100)		5310 (150)		
Max CO2 Withdrawal Rate	SCFH (NM³/hr)	668 (19)		1300 (37)		1300 (37)		1300 (37)		1968 (56)		





Piping and Instrument Diagram (1000-7500 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)	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



Taylor-Wharton
Since 1742
www.twcryo.com

The Americas
Phone: (281) 738-2863

Asia-Pacific & Europe
Phone: (+60 3) 5191-3003

Email
sales@twcryo.com
customerservice@twcryo.com