

SPECIFICATIONS														
MODEL	230L MP, LCCM Sq/Rnd Base w/Casters	230L HP, LCCM Sq/Rnd Base w/Casters	265L MP, LCCM Sq/Rnd Base w/Casters	265L HP, LCCM Sq/Rnd Base w/Casters	450L HP Plate Base	450L MP Plate Base	450L VHP Plate Base	700L HP Plate Base	1000L HP/VHP Pallet Base	1500L HP/VHP Pallet Base	2000L HP/VHP Pallet Base	3000L HP/VHP Pallet Base	3000L HP/VHP Horizontal Forklift Base	5500L MP/VHP Pallet Base
CAPACITY (Liters	s)													
Gross Net	240 230	240 230	276 265	276 265	450 420	450 420	450 420	688 645	1,056 950	1,550 1,455	2,042 1,945	2,911 2,707	2,911 2,707	5510/5434 5262/5110
CAPACITY (Gall	ons)													
Gross Net	63.4 60.8	63.4 60.8	72.9 70.0	72.9 70.0	118.9 111.0	118.9 111.0	118.9 111.0	181.8 170.4	279.0 251.0	409.5 384.4	539.5 513.9	770 715	770 715	1456/1435 1390/1350
MAWP										,	,			
psig barg	230 15.9	350 24.1	230 15.9	350 24.1	350 24.1	250 17.2	500 34.5	350 24.1	350/500 24.1/34.5	350/500 24.1/34.5	350/500 24.1/34.5	350/500 24.1/34.5	350/500 24.1/34.5	250/500 17.2/34.5
PRE-SET OPERA	TING PRE	SSURE												
psig barg	125 8.6	300 20.7	125 8.6	300 20.7	300 20.7	125 8.6	450 31.0	300 20.7	300/450 20.7/31.0	300/450 20.7/31.0	300/450 20.7/31.0	300/450 20.7/31.0	300/450 20.7/31.0	125/450 8.6/31.0
DESIGN SPECIF	ICATIONS													
DOT/ASME	DOT	DOT	DOT	DOT	DOT/ASME	ASME	DOT/ASME	ASME	ASME	ASME	ASME	ASME	ASME	ASME
STORAGE CAPA	CITY (1)													
Nitrogen SCF Nm³	5,024 142	4,734 134	5,769 152	5,769 152	8875/10332 271/272	10,332 272	7922/10332 271/272	15,860 449	24,350 689	35,790 1,013	47,847 1,257	66,592 1,750	66,592 1,750	128700/125000 3644/3540
Oxygen SCF	6,244	5,930	7,186	7,186	11124/12760	12,760	11124/12760	19,600	30,070	44,220	59,089	82,239	82,239	159400/154900
Nm³	177	168	189	189	315/336	336	315/336	554	850	1,250	1,553	2,161	2,161	4514/4386
Argon SCF Nm³	6,073 172	5,763 163	6,982 183	6,982 183	10812/12478 306/328	12,478 328	10812/12478 306/328	19,160 542	29,400 832	43,220 1,223	57,786 1,519	80,425 2,115	80,425 2,115	156200/151700 4423/4296
THERMAL PERF	ORMANC	E (2) (NER	%/Day)											
N_2 O_2 -Ar	1.8% 1.12%	1.8% 1.12%	2% 1.4%	2% 1.4%	1.9%/1.6% 1.2%/1%	1.6% 1%	1.9%/1.6% 1.2%/1%	1% .62%	1% .62%	1% .62%	1% .62%	1% .62%	1% .62%	.7% .43%
GAS DELIVERY	RATE (LIN	LAR/LOX)											
SCFH Nm³h	400 10.5	400 10.5	400 10.5	400 10.5	575 15.1	575 15.1	575 15.1	660 18.6	960 25.2	1,350 35.4	1350/2000 ⁽³⁾ 35.4/52.4	1350/2000 ⁽³⁾ 35.4/52.4	2,000 52.4	3500/5000 ⁽⁴ 99/141
DIMENSIONS														
Diameter in mm	26 660	26 660	26 660	26 660	30 762	30 762	30 762	42 1.067	42 1,067	48 1,219	48 1,219	58 1,473	58 1,473	80 2,032
Height in mm	61.8/62 1570/1575	61.8/62		64.6/64.8 1641/1646	69 1,753	69 1,753	69 1,753	62.5 1,588	89 2,260	92/91	118.5/119.6 3,010/3,037	122/122.25	71 1,803	119 3,023
Tare Weight lbs kg	300 136	340 154	370 168	430 195	688* 312	605* 274	812* 368	1,250* 567	1781/1750** 807/794	⁴ 2200/2500 ^{*-} 998/1134	* 2600/3860** 1179/1751	3300/4500** 1497/2045	3800/4250** 1724/1928	6800/9100** 3084/4128

All specifications are subject to change without prior notice.

Patents: 5,954,101 • 6,542,848 - Other Patents Pending

DOT- Department of Transportation, 4L Code

ASME- American Society of Mechanical Engineers, Section VIII, Division 1

Contact Factory for Canadian Approvals.
*Weights do not include lab base option. (265 lbs) **Weights include lab bases.

All dimensions are measured from the floor to the top of the highest plumbing component. See Perma-Max Literature for Specifications on CO $_2$ (PN 20890958 & 21176920)

Your Local Representative



Chart Inc. U.S.: 1-800-400-4683 Worldwide: 1-952-758-4484 www.microbulk.com

¹⁾ Values are based on net capacity at 0 psig (0 barg) for ASME vessels. DOT vessels are per code.

²⁾ Values are based on gross capacity.

³⁾ Optional 3,500 SCFH (92 $\mathrm{Nm^3h}$) flow kit available.

⁴⁾ Optional 3,500 SCFH hang on vaporizer or 5,000 SCFH stand alone vaporizer.





The Perma-Cyl® MicroBulk Storage System allows users to enjoy the benefits of on-site gas delivery. Gone are the hassels, waste and expense of full-forempty gas cylinders. Using Perma-Cyl tanks, there are no cylinders to change, no residual gas losses, no back, hand or foot injuries from handling cylinders, and no lost or damaged cylinders.

The Perma-Cyl tank is reliable, efficient and more economical than comparable transportable cylinders. Designed for a higher level of thermal efficiency, it can hold its gas contents longer with lower pressure rise than other similar-type vessels. The Perma-Cyl tank's extraordinary thermal quality limits product losses during extended periods of little or no gas use.

This innovative storage system incorporates a top fill float designed to allow single-hose filling without losses under normal conditions. It automatically shuts off the Orca™ MicroBulk Delivery System for a safe and reliable fill.

PRODUCT ADVANTAGES

- Sizes, pressures and configurations to meet most applications
- Capacities from 230 liters to 5500 liters (60.8 gal to 1350 gal)
- Supply pressures up to 450 psig
- Automatic fill shut-off feature with optional fill box allows for remote filling from outside the building or compound when a Perma-Cyl tank is installed indoors
- Orca truck automatically safely stops the fill process when Perma-Cyl tank is full
- Cyl-Tel[®] Liquid Level Gauge supports remote alarms or telemetry communications
- High-pressure, high flow models available for laser assist gas applications
- Outdoor or indoor installation and operation

