

# CO<sub>2</sub> Selection Guide – Stationary Tanks

All data for CO <sub>2</sub>	Carbo Series Bulk CO <sub>2</sub> Systems								Perma-Max™ MicroBulk CO <sub>2</sub> Systems				
	Carbo-Mite® 220	Carbo-Mizer® 300	Carbo-Mizer® 450	Carbo-Mizer® 550	Carbo-Max® 600	Carbo-Mizer® 750	Carbo-Max® 750	Carbo-Max® 1000	Perma-Max™ 2200 HP	Perma-Max™ 3300 HP	Perma-Max™ 4400 HP	Perma-Max™ 6000 HP	Perma-Max™ 12000 VHP
Dimensions													
Diameter	20"	20"	20"	22"	22"	26"	26"	30"	42"	48"	48"	58"	80"
Height <sup>(1)</sup>	40"	49.63"	65.88"	66.9"	69.94"	67.88"	67.88"	72.5"	89"	92"	116"	122"	119"
Tare Weight (lbs)	156	216	273	318	323	430	430	788	1785	2200	2600	3300	9100
Thermal Performance (NER%/Day)	0.4%	0.6%	0.5%	0.4%	0.4%	0.4%	0.4%	0.6%	0.3%	0.3%	0.3%	0.3%	0.3%
Storage Capacity (Net)													
(Gas) SCF	1603	2562	4088	5105	5350	6897	6897	8741	19960	29340	38048	52954	99954
(Liquid) Lb	221	299	477	584	612	789	789	1000	2283	3256	4352	6058	11427
Gas Delivery Rate (continuous) <sup>(2)</sup>													
SCFH	8.74	8.74	48	56.8	120	87.4	131.1	262	320.0	450.0	500.0	500.0	1167.0
Lb/Hour	1.0	1.0	5.5	6.5	15.0	10.0	15.0	30.0	36.0	51.0	51.0	51.0	130.0
Gas Delivery Rate (Peak) <sup>(3)</sup>													
Lb/Hour	1.5	3.0	10.0	10.0	40.0	15.0	40.0	50.0	36.0	51.0	51.0	51.0	130.0
Design Specification													
ASME	X	X	X	X	X	X	X	X	X	X	X	X	X
MAWP (psig)	300	300	300	300	300	300	300	300	350	350	350	350	350 <sup>(4)</sup>
Standard Design Features													
Operating Pressure													
125 PSIG	X	X	X	X	X	X	X	X	X	X	X	X	X
300 PSIG									X	X	X	X	X
450 PSIG													X
Gas Withdrawal (PB) <sup>(4)</sup>		X	X	X		X							
Liquid Withdrawal <sup>(5)</sup>	X				X		X	X	X	X	X	X	X
Optional Design Features													
Sure-Fill™		X	X	X	X	X	X	X					
ZX Pressure Build System Available									X	X	X	X	Standard

<sup>(1)</sup> Carbo Series heights without 6" legs. <sup>(2)</sup> Values are based on vessel or vaporizer operating in ambient conditions of 70°F & 50% relative humidity for 12 consecutive hours. <sup>(3)</sup> Values are based on vessel or vaporizer operating in ambient conditions of 70°F & 50% relative humidity for 4 consecutive hours. <sup>(4)</sup> Process gas comes from head space. <sup>(5)</sup> Economizer for Carbo Series / internal process vaporization coils for Perma-Max Series. <sup>(6)</sup> Can be upgraded to 500 psig / 34.5 barg.



**Carbo Series Bulk CO<sub>2</sub> Systems**  
The Carbo Series system incorporates the Sure-Fill™ system designed to allow single-hose filling with minimal losses. Most Carbo Series tanks can be equipped with optional legs.



**Perma-Max™ MicroBulk CO<sub>2</sub> Systems**  
The Perma-Max systems are specifically designed for CO<sub>2</sub> service. One notable performance improvement is the fast fill feature – at least three times the fill rate over our standard Perma-Cyl® MicroBulk Storage Systems from a typical beverage delivery truck.

# CO<sub>2</sub> Selection Guide – Portable Tanks

	Dura-Cyl® Liquid Cylinders			Mega-Cyl® Liquid Cylinders	
	Dura-Cyl® 180	Dura-Cyl® 200	Dura-Cyl® 230 RB	Mega-Cyl® 450	Mega-Cyl® 1000
All data for CO <sub>2</sub>					
Dimensions					
Diameter	20"	20"	26"	30"	42"
Height	64.3"	66.6"	57.2"	62"	76"
Tare Weight (lbs)	300	320	367	1275	2650
Thermal Performance (NER%/Day)	0.5%	0.5%	0.5%	0.6%	0.3%
Storage Capacity (Net/DOT <sup>(1)</sup> )					
(Gas) SCF	3766	4011	4614	8652	18580
(Liquid) Lb	431	459	528	990	2323
Gas Delivery Rate (continuous) <sup>(2)</sup>					
SCFH	110.0	110.0	110.0	195.0	300.0
Lb/Hour	12.6	12.6	12.6	22.3	34.3
Design Specification					
DOT <sup>(1)</sup>	X	X	X	X	
ASME					X
MAWP (psig)	350	350	350	350	350
Standard Design Features					
Max Operating Pressure					
175 PSIG					
300 PSIG	X	X	X	X	X
450 PSIG					
Gas Withdrawal (PB)	X	X	X	X	X
Liquid Withdrawal (Economizer)	X	X	X	X	X

<sup>(1)</sup> DOT = Department of Transportation <sup>(2)</sup> Values are based on vessel or vaporizer operating in ambient conditions of 70°F & 50% relative humidity.



**Dura-Cyl® Liquid Cylinders**  
 Chart's Dura-Cyl series is a premium transportable liquid cylinder for cryogenic service. The patented internal support system design and quality construction makes the Dura-Cyl series the most efficient yet rugged cylinder on the market today.



**Mega-Cyl® Liquid Cylinders**  
 The Mega-Cyl product introduces Chart's line of palletized cylinders, designed for easy transport. It is ideal for construction sites, remote purging operations and back-up systems.



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