

PERMA-CYL® HORIZONTAL

MICROBULK HORIZONTAL STORAGE SYSTEM

Chart has created a horizontal version of the very popular Perma-Cyl® 3000 HP and VHP. This new product offering has the same performance as our 3000 HP and VHP, but in a package that is easily delivered on a flatbed truck and short enough to fit under a 6' fence. It also utilizes our new FlexFill technology.

FlexFill is a top and bottom fill circuit that replaces the top float assembly so the driver can control the tank pressure while filling the Perma-Cyl. This new design maintains the auto shut-off feature with the Orca delivery unit for a safe and reliable fill. The FlexFill uses technology adopted from our LNG fueling system which allows for a ventless fill. This patented automatic dispensing system simulates the same process drivers have used for years to safely fill Perma-Cyl storage tanks with a single hose. The new FlexFill feature works with all Orca models, both new and existing.

* The FlexFill tank is presently not approved for use with CO₂.



PRODUCT ADVANTAGES

- Capacity of 3,000 liters (715 gal)
- Pressures up to 350 psig (24.1 barg) or 500 psig (34.5 barg)
- Gas supply rate up to 2,000 scfh (52.4 Nm³H)
- All 304 stainless steel construction
- Patented automatic fill shut-off with optional fill box for remote filling from outside the building
- Orca automatically safely stops the fill process when Perma-Cyl is full
- Patented Cyl-Tel® gauge supports remote alarms or telemetry communications
- Separate pressure build and economizer regulators
- Outdoor or indoor installation and operation
- Optional VJ withdrawal on HP style tanks
- Forklift access from all sides



Innovation. Experience. Performance. ®

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CAPACITIES	3000 HP - Horizontal		3000 VHP - Horizontal	
	Gross Volume	770 gal	2911 liters	770 gal
Net Volume	715 gal	2707 liters	715 gal	2707 liters
Gas Storage Capacity (@ 1 Atm & 68° F / 20° C)*				
Oxygen	82,239 scf	2161 Nm ³	82,239 scf	2161 Nm ³
Nitrogen	66,592 scf	1750 Nm ³	66,592 scf	1750 Nm ³
Argon	80,425 scf	2115 Nm ³	80,425 scf	2115 Nm ³
GENERAL SPECIFICATIONS				
Relief Valve Setting / MAWP	350 psi	24.1 bar	500 psi	34.5 bar
Overall Height w/ Piping & Base	71 in	1803 mm	71 in	1803 mm
Width w/ Piping & Base	68 in	1727 mm	68 in	1727 mm
Length w/ Piping	124 in	3150 mm	124 in	3150 mm
Length w/ Base	132 in	3353 mm	132 in	3353 mm
Tank Diameter	59 in	1499 mm	59 in	1499 mm
Tare Weight	3800 lbs	1724 kg	4250 lbs	1928 kg
PERFORMANCE				
Normal Evaporation Rate (% per day)**				
Nitrogen	1%	1%	1%	1%
Oxygen & Argon	0.62%	0.62%	0.62%	0.62%
Gas Supply Rate	2000 scfh	52.4 Nm ³ H	2000 scfh	52.4 Nm ³ H
CONSTRUCTION				
Design & Manufacturing Code	ASME Sec. VIII Div. 1		ASME Sec. VIII Div. 1	
Outer Vessel	Type 304 SS		Type 304 SS	
Multi-Function Vaporizer (Standard)	Ambient Side-Mounted Aluminum		Ambient Side-Mounted Aluminum	

Footnotes: Specifications subject to change without prior notice.

Patents: 6,128,908 • 5,954,101 • 6,799,429.

*Values are based on net capacity at 0 psig (0 barg). See page 19 of Chart's MicroBulk Systems Product Catalog (P/N 11926802) for conversion densities.

**Values are based on gross volume.

