

# PERMA-MAX™ 1400 XHP

## EXTRA HIGH PRESSURE MICROBULK STORAGE FOR CO<sub>2</sub> SERVICE

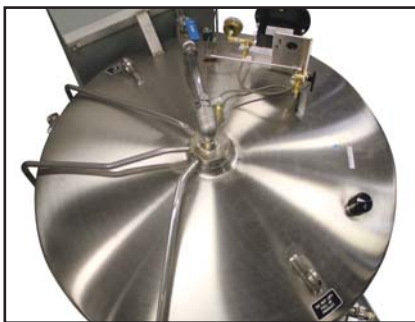
The Perma-Max™ 1400 XHP MicroBulk Storage System is Chart's introductory model to address extra high pressure CO<sub>2</sub> applications. Current applications include, but are not limited to, special effects and botanical extraction. The unique design of this Perma-Max system allows only for the delivery of high pressure liquid CO<sub>2</sub> at operating pressures up to 750 psig. An integral electric pressure build vaporizer sustains pressure for high liquid flows and provides rapid pressure recovery after filling. The upsized fill and vent circuits allow for a much faster fill as compared to the standard Perma-Cyl model.

### PRODUCT HIGHLIGHTS

- Beverage quick disconnect fill fitting to allow filling from standard beverage CO<sub>2</sub> delivery trucks. (Other fill fitting options are available.)
- 1" bottom withdrawal nozzle for very high liquid flow rates
- Integrated 6kW electric pressure build vaporizer for sustaining pressure during high flows and rapid pressure recovery after fills
- Steel pallet base allows for easy movement with a forklift or pallet jack
- Chart Vacuum Technology® for extended product holding times
- Dual safety reliefs with diverter valve for ease of maintenance
- Muffler on vent for noise reduction during blow down



Perma-Max 1400 XHP



Plumbing Configuration - Top View



Thermax Electric Pressure Builder Vaporizer

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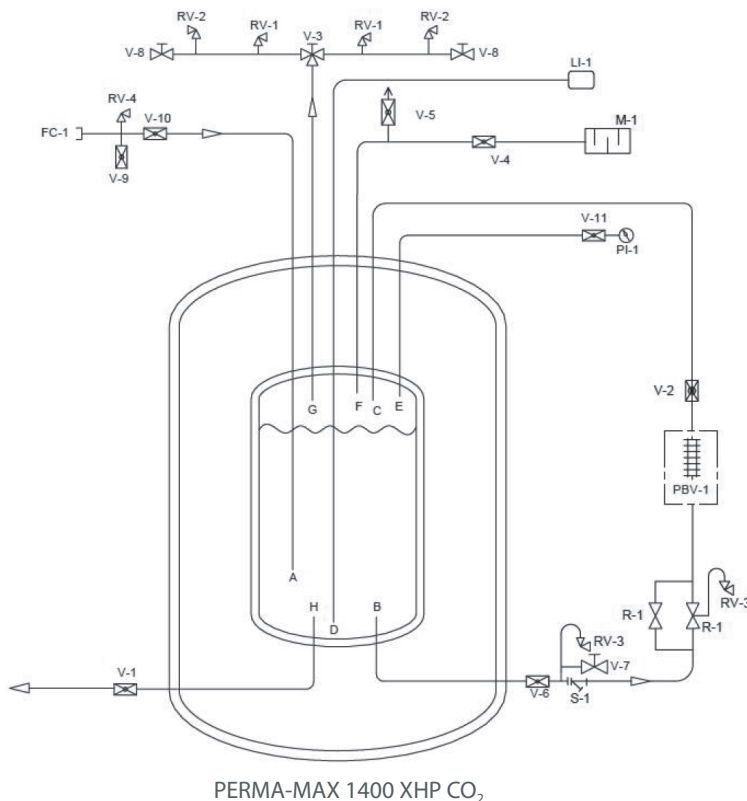
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GENERAL SPECIFICATIONS		
Relief Valve Setting / MAWP	800 psi	55 bar
Overall Height w/ Pallet Base & Piping	66.7 in	1694 mm
Width x Length w/ Pallet Base	46.6 x 62.6 in	1184 x 1590 mm
Tank Diameter	42 in	1067 mm
Tare Weight w/ Pallet Base & Vaporizer	2015 lbs	914 kg
Thermax Electric PB Vaporizer	6 kW	480 VAC 3 phase
CAPACITIES		
Gross Volume	171 gal	646 liters
Net Volume	160 gal	606 liters
Gas Storage Capacity*	11,826 scf	335 Nm <sup>3</sup>
Liquid Storage Capacity*	1352 lbs	615 kg
PERFORMANCE		
Normal Evaporation Rate (% per day)**	.3%	
Liquid Supply Rate (Peak Flow Rate)	2 lb/sec/nozzle	1 kg/sec/nozzle
CONSTRUCTION		
Design & Manufacturing Code	ASME Sec.VIII Div. 1	
Outer Vessel	Type 304 SS	
Pallet Base	Galvanized Carbon Steel	

**Footnotes:** Specifications subject to change without prior notice.

\*Gas measured at 1 atm and 70°F. Liquid measured at 1.7°F and 300 psig / 20.7 barg saturated pressure.

\*\*Values are based on gross volume.



NOMENCLATURE	
FC-1	FILL CONNECTION FITTING
LI-1	C-STIC TANK LIQUID LEVEL GAUGE
PBV-1	TANK PRESSURE BUILD ELECTRIC VAPORIZER COIL
PI-1	TANK PRESSURE GAUGE
R-1	TANK PB REGULATORS
RV-1	TANK PRIMARY RELIEF VALVE
RV-2	TANK SECONDARY RELIEF VALVE
RV-3	TANK PB INLET RELIEF VALVE
RV-4	TANK FILL RELIEF VALVE
V-1	TANK LIQUID WITHDRAWAL VALVE
V-2	TANK PRESSURE BUILD OUTLET BALL VALVE
V-3	TANK SAFETY 3-WAY DIVERTER VALVE
V-4	TANK FULL TRYCOCK / VENT VALVE
V-5	TANK GAS USE VALVE
V-6	TANK PRESSURE BUILD INLET BALL VALVE
V-7	TANK PRESSURE BUILD DRAIN VALVE
V-8	TANK SAFETY DRAIN VALVES
V-9	TANK FILL DRAIN BALL VALVE
V-10	TANK FILL SHUT OFF VALVE
V-11	PRESSURE GAUGE ISOLATION VALVE
M-1	MUFFLER
S-1	STRAINER
PIPING	
A	FILL EDUCATOR
B	TANK PB INLET
C	TANK PB OUTLET
D	C-STIC
E	TANK VAPOR PHASE
F	TRYCOCK / VENT VALVE
G	TANK DUAL
H	BOTTOM LIQUID WITHDRAWAL