

BULK DISPENSE STATION

EFFICIENT PRESSURE TRANSFER OF LIQUID

The Bulk Dispense Station supports the transfer of liquid from a bulk storage tank to a use point such as an Orca, without the use of a pump. Drawing low pressure liquid from a standard bulk tank, the vessel on the dispense station boosts the pressure with an integrated pressure-builder to feed an external vaporizer for pressurizing the bulk tank. The Bulk Dispense Station uses a proven pressure building system that maintains pressure of 50 psig (3.4 barg) differential during a high discharge rate of 50 gpm (189 lpm) from the bulk tank. This innovative design maximizes the pressurization of the bulk tank with the lowest amount of heat, keeping the liquid cold and the pressure transfer losses to a minimum. The dispense station is pneumatically powered to control automatic valves and monitors pressures to assure a safe product transfer. This is a cost effective, pumpless solution for efficiently filling Orca delivery systems, small delivery vessels and liquid cylinders.



Automatic Pressure Building Valve and Coil



Automatic Fill and Safety Shut-Down Valve

PRODUCT HIGHLIGHTS

- System uses standard low-pressure bulk tank to lower the investment cost by using existing assets *
- Fast start up times of less than 20 minutes **
- System contains automatic safety shut down if the pressure sensing hose is broken, not connected or the pressure is too high in the receiving tank
- Requires only 80 psig (5.5 barg) dry air to operate – no electrical power required
- Robust design includes welded stainless steel piping, industrial push-button valves and other key components
- Includes standard 1 ½ inch (38 mm) CGA fill fitting and stainless steel flexible fill hose with special lining for low pressure drop to improve fill times and reduce losses (15 ft / 4.6 m)
- Includes patented HP² high-performance vaporizer and pressure sensing hose
- Frame assembly features a protective top cover in a compact footprint with an elevated fork lift base for improved ventilation in snow cover
- Available for Nitrogen, Argon and Oxygen service
- Can be used with any fill plant bulk tank ***

* Losses will vary with tank thermal performance

** 6000 gallon bulk tank at 50% full with 20 – 100 psig (1.4 – 6.9 barg) start pressure

*** Do not operate at the same time as fill plant HP pump



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ROBUST STAINLESS STEEL PLUMBING AND COMPONENTS

System Requirements

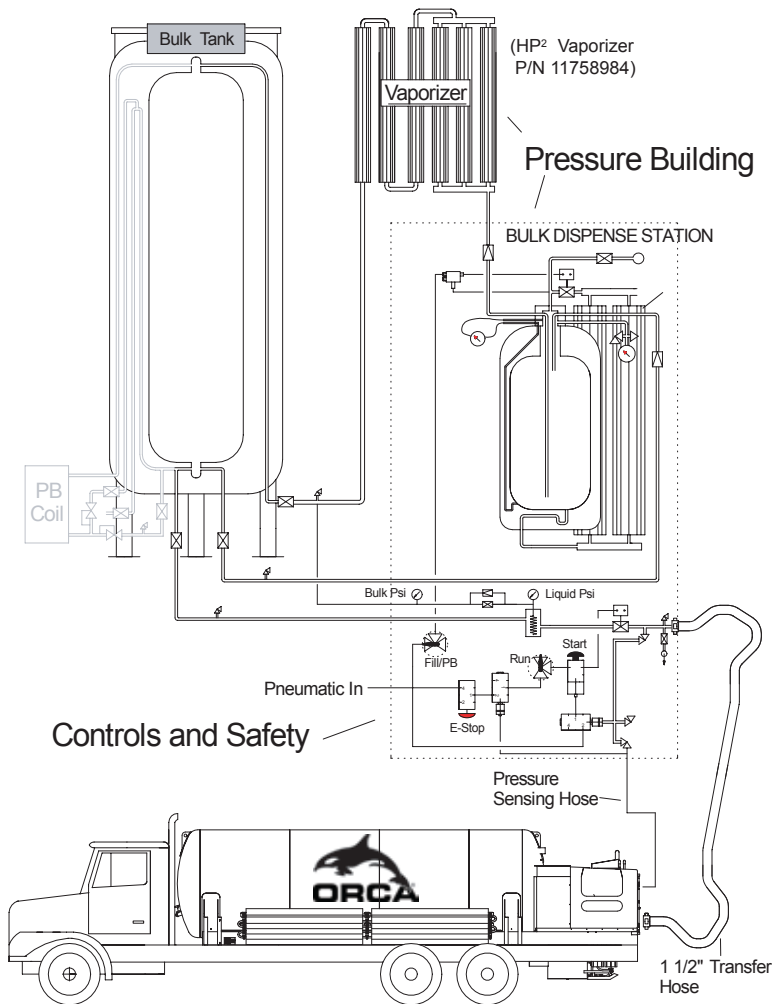
- 80 psig (5.5 barg) to 150 psig (10.3 barg) dry air or nitrogen gas pressure

Specifications

- Maximum operating pressure: 100 psig (6.9 barg)
- Capacity: 200 Liters/Cycle

Dimensions

Length	53 in	1347 mm
Width	55 in	1400 mm
Height	96 in	2440 mm
Tare Weight	1300 lbs	590 kg



Performance

Differential Pressure (psi/bar)	Bulk Discharge Rate (gpm/lpm)
25/1.7	25/95
50/3.4	50/139
75/5.2	75/284

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