

Specification

General

The Powerex Scroll tank mounted system is designed to provide clean, dry air for applications where the quality of the compressed air is critical. This package shall have V-belt drive/s, OSHA compliant beltguard/s, safety relief valve, check valve/s, pressure gauge and pressure switch/s.

Air Compressor System

The package shall include one or two oil-less scroll air compressor and associated equipment, one ASME tank, and one optional magnetic starter/alternating control panel. The only field connections required will be system discharge, power connection at the control panel and dryer, and condensate drain connection. All interconnecting piping and wiring shall be included and operationally tested prior to shipment. A refrigerated or desiccant dryer system is optional, and requires separate 115 V outlet.

Oilless Scroll Compressor Pump

The compressor/s shall be belt driven oil-less rotary scroll single stage, air-cooled oil-less construction with absolutely no oil needed for operation. The rotary design shall not require any inlet or exhaust valves and shall be rated for 100% continuous duty. Direct drive compressors shall not be used. Tip seals shall be of a composite PTFE material and be rated for 10,000 hours operation or 5,000 hours if high pressure. Compressor bearings shall be external to the air compression chamber and shall all be serviceable for extended compressor life. Bearing maintenance shall not be required until 10,000 run hours, or 5,000 hours if high pressure. Compressors with bearings that are not accessible for service have a limited life span and shall not be accepted. Compressors shall have an integral radial flow fan for cooling and shall not require additional electrical cooling fans. Each compressor shall have an air-cooled aftercooler.

Motor

Each compressor shall be belt driven by a 1750 RPM, ODP NEMA construction motor. OSHA approved belt guards shall be provided. Motor shall not operate in the service factor. Optional motors include TEFC.

Air Receiver

The system shall include an ASME rated internally lined air receiver, rated for 200PSI MAWP. The tank shall be equipped with a pressure gauge, safety relief valve, discharge shut-off valve, and 115V type automatic electric condensate drain.

Air-cooled Aftercooler

Air-cooled aftercoolers shall be provided for each compressor and shall be sized to provide an approach temperature of 20°F. Each unit shall be constructed of corrosion-resistant metals.

Air Filters

The standard inlet filter screens directly into the pump inlet and is a pleated element. Optional items include threaded inlet housings for remote piping.

Optional Control Panel

Simplex

The system shall include a UL listed magnetic starter in a NEMA 1 enclosure with full voltage motor starter with overload protection, 115V control transformer, fused primary and secondary circuits, elapsed time indicator, on/off switch, run light, and power connection for tank drain.

Duplex

The system shall include a UL listed magnetic starter in a NEMA 1 enclosure with full voltage motor starter with overload protection, lead/lag alternation 115V transformer, fused primary and secondary circuits, elapsed time indicators, and maintenance switch (left/ auto/right), and power connection for tank drain. Control panels shall be UL 508A listed and labeled.

Optional Dessicant Air Dryer/Filtration

The twin-tower, heatless desiccant air dryer shall be sized for the full system capacity and to yield a pressure dew point of -40 degrees F. The dryer design shall be of the automatic pressure swing, heatless, regenerative type and shall include integrated exhaust air silencers for quiet operation. Control display features include a schematic of the dryer, two LED indicators for each tower to indicate whether the tower is drying or regenerating/re-pressurizing, and one LED indicating operation of the pre-filter drain. Four user selectable purge

optimizer settings are provided to allow adjusting the purge rate in situations where the full dryer capacity is not required. The purge settings are based on percentage of rated flow and can be set at 100%, 80%, 60%, or 40%. The filtration system shall consist of 2 stages of filtration. The first stage of filtration shall include a .01 micron coalescing pre-filter with element change indicator and automatic condensate drain and installed upstream of the air dryer. The second stage is a 1 micron particulate filter with element change indicator and mounted at the discharge of the dryer. Dryer requires separate 115V power supply.

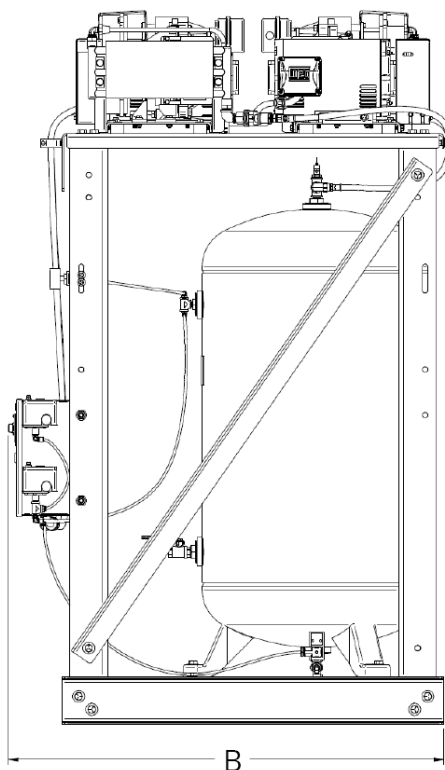
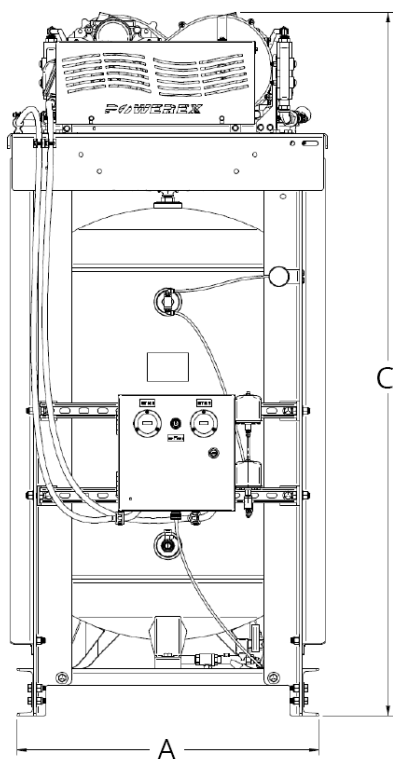
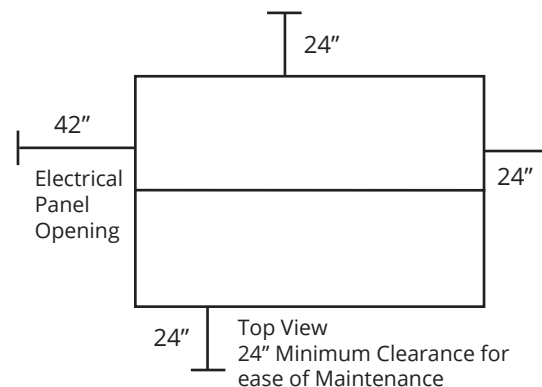
Optional Refrigerated Air Dryer

The refrigerated air dryer is a direct expansion type using R513A (up to 115 SCFM) or R410A (above 115 SCFM) refrigerant. A 0.01-micron coalescing filter and an adjustable pressure regulator with gauge maintain a stable pressure dew point. The dryer requires separate 115V power supply. Key features include direct expansion refrigeration for moisture removal, a self-regulating hot gas bypass valve, an integral moisture separator with a zero-loss drain, and easily removable panels for maintenance accessibility.

Available Options

- Motor options
 - TEFC
- Dew point monitor with high dewpoint alarm and purge saver control function for desiccant dryers.
- FDA approved internal tank lining
- Control Panel options
 - NEMA 4/12
- High temperature shutdown with light, latching relay, reset button, and dry contacts for remote monitoring.
- Remote inlet: includes threaded NPT connection.

Dimensions				
Model	Dim. A	Dim. B	Dim. C	Outlet
STDV0303	34.0"	45.2"	74.9"	0.5"
STDV0503	34.0"	45.2"	74.9"	0.5"



Vertical Tankmount Scroll Air Compressors

Model ¹	HP ²	System HP	SCFM @ 100 PSIG	Maximum Pressure (PSIG)	Tank Size (gal)	BTU/Hr	dB(A) Level	System F.L.A.*			System Weight (lbs)
								208 V	230 V	460 V	
STDV0303	3.0	6.0	17.6 (14.2)	116 (145)	80	15,270	75	17.5	15.8	7.9	860
STDV0503	5.0	10.0	30.4 (25.0)	116 (145)	80	25,450	75	28.4	25.9	12.9	904

Notes:

1 - Systems are available with high pressure option. Values for system with high pressure option added are indicated in parentheses. "HP" is to be added to the end of the model number to designate high pressure.

2 - Actual BHP is less than rated name plate. Contact Powerex for BHP rating.

* System F.L.A. excludes refrigerated or desiccant dryers. If installed, dryers require a separate 115 V power supply.