Enclosed Scroll Tankmount Air Compressor System

Specification

General

The Powerex Scroll Enclosed Air Compressor System is designed to provide clean, dry air for applications where the quality of the compressed air is critical. The standard unit is rated for a maximum of 116 PSIG. The high pressure unit is rated for a maximum of 145 PSIG.

Air Compressor System

The package shall include multiple oil-less scroll air compressors and associated equipment. The only field connections required will be system intake if remote intake option is chosen, exhaust, and power connection at the control panel.

Motor

Each compressor shall be belt driven by a 2 pole, TEFC, NEMA construction motor that run at 3500 RPM. Motors are EISA compliant and premium efficient.

Motor Slide Base

Maintenance feature designed for easy adjustment of belt tension from the motor side on the basemount assembly.

- Robust single screw linear belt tension adjustment
- Custom compact design

System Controls

The controls operate the duplex or triplex air compressor modules as needed in response to a pressure signal from a pressure transducer located in the system manifold. An illuminated on/off push button controls power to the motor starters. When the button is in the off position, the system is merely in stand-by mode, not powered off.

The pressure transducer sends a signal to the programmable logic controller (PLC) which is programmed to operate two, three or four compressor modules as needed to maintain the system pressure requirements. An HMI touch screen interface displays system status and alarm conditions. Pressure settings are user adjustable within factory predetermined setting limits.

The PLC will alternate each compressor module based on demand as well as timed alternation. If a compressor module is running longer than ten minutes continuously, the control will alternate to the next available compressor module to equalize run time and synchronize maintenance intervals. On initial startup or if air pressure drops rapidly, simultaneous motor starts are prevented by a programmed three second stagger. One 120VAC control circuit transformer with primary and secondary fuses is installed for control circuit voltage.

Motor circuit breakers with lockable disconnects are provided for each compressor module. Operating hours, high temperature alarms, motor overload alarms, run indication, and hours to scheduled maintenance for each compressor module are displayed on the screen. All alarm history is kept in the alarm log. Easily navigated menus are provided to allow the user to select the display conditions and acknowledge the alarms. Remote alarm contacts are provided as shown on the system wiring diagram.

Inlet Filters

The system includes an inlet filter with a pleated element and a canister with silencing tubes for each pump. The filters are located on each pump inside the sound reducing cabinet protected by a convenient access panel.

Sound Reducing Enclosure

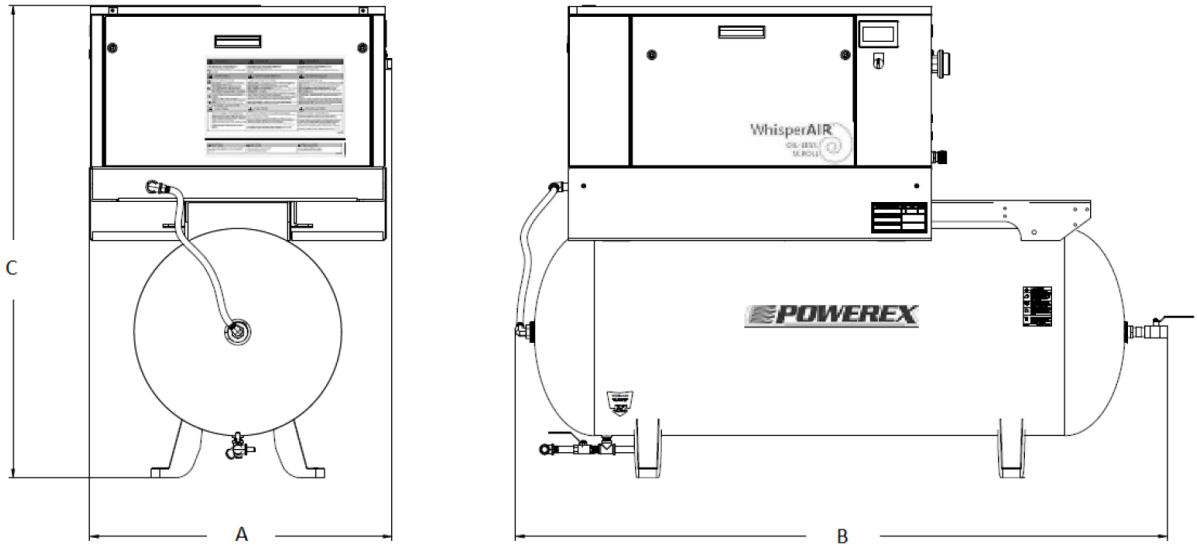
The system is constructed with an internal frame and steel base system with individual vibration isolation mounted compressor modules. The sound reducing enclosure has a front access panel to allow service of the electrical controls. The enclosure has rear cooling air intake and all exhaust air leaves the enclosure from the top.

Moisture Separator

The moisture separator shall be sized for the peak calculated demand and shall include an auto float drain to purge the collected moisture.

Enclosed Scroll Tankmount
STE Series

Dimensions				
Model	Dim. A	Dim. B	Dim. C	Outlet
STES075	35″	76″	55″	0.75″
STES075HP	35″	76″	55″	0.75″
STES10B	35″	76″	55″	0.75″



Notes:
- Allow a minimum of 36″ in front of control panels for maintenance and ventilation. All other sides require 24″ clearance.

Enclosed Scroll Tankmount										
Model	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	
STES075	7.5	23.1	116	120	19,100	64	20	18.3	9.2	975
STES075HP	7.5	17	145	120	19,100	64	20	18.3	9.2	975
STES10B	10	31.2	116	120	25,400	65	27.5	25	12.5	995

Notes:
*Table specifications are defined at sea level conditions with all pumps in operation. Consult factory for installations above 3,000 ft.