

AES Group, Inc.

Sales • Construction • Service

SPECIFICATION

BASE MODEL NUMBER: STED0505HP-DD-TM-AES-SPL
SYSTEM CAPACITY: 25 SCFM @ 145 PSIG – 100 PSIG Discharge pressure
*NOTE: 12.5 SCFM @ 145 PSIG Each Compressor
HORSEPOWER: 5 HP (5HP x2)
RECEIVER SIZE/CONFIGURATION: 200 Gallon Horizontal
ELECTRICAL: 208V-460V, 3PH, 60Hz – Please Confirm Voltage Requirement
*System performance shown with all pumps running

GENERAL DESCRIPTION

The Scroll Tank-mounted Enclosed System is tank mounted design consisting of two Class Zero rated oil-less scroll air compressor and associated equipment inside of two rigid steel enclosures mounted on an ASME tank. Enclosures will have a powder coat finish and shall include sound deadening insulation. The only field connections required will be system discharge, power connection at the control panel, power connection at the optional desiccant dryer, and (if needed) plumbing to the standard remote air intake fitting on the outside of the enclosure. All interconnecting piping and wiring shall be included and operationally tested prior to shipment.

DETAILED PRODUCT DESCRIPTION:

OIL-LESS SCROLL COMPRESSOR PUMP

The compressors 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 8,000 hours operation. 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 8,000 run hours. 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 any additional electric cooling fans. Each compressor to be equipped with the following components:

- Isolation, check, and safety valve
- ODP electric motor, belts & belt-guard
- After-cooler
- Pumps can have all major maintenance performed by only removing the fixed scroll side

RECEIVER TANK(S):

The system shall include an ASME-rated air receiver, rated for 200 PSI MAWP. The tank shall be equipped with a pressure gauge, safety relief valve, discharge shut-off valve, and a condensate drain. AUTO ELECTRIC TIMER DRAIN: Electronic timer drain installed on the air receiver. Requires 115V power supply.

CONTROLS

The controls shall be integrated with the compressor cabinet from the factory. A lighted on/off switch is provided along with a user friendly, touch screen, HMI type display panel. The controls will operate and continuously monitor the system and provide information and alarms to the user through the HMI display. Features include display of system pressure, pump run status, pump fault conditions (high temperature shutdown, motor overload fault), maintenance counters and warnings, system trends, and pump HOA control. System setup mode allows user to adjust system pressure setpoints, enable auto restart function, reset alarms, and reset maintenance counters. Compressor operation shall include the Powerex Variable-Pump-Drive control logic. Each compressor pump is automatically staged on or off individually based on actual system demand. Energy efficiency is maximized at all usage levels. Lead compressor status will rotate every 10 minutes to maintain equal run hours. Dry contacts are provided for remote monitoring of compressor fault conditions.

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DESICCANT AIR DRYER / FILTRATION: (Installed)

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 dryer 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 up-stream 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.

DEWPOINT MONITOR – (Installed)

Mounted and Wired to Dryer to Provide Dewpoint-Controlled Purge Control.