AES Group, Inc.

Sales ▪ Construction ▪ Service

SPECIFICATION

BASE MODEL NUMBER:	VVTD0303-AES-SPL
SYSTEM CAPACITY:	17 SCFM @ 19" HGVAC
HORSEPOWER:	6 HP Total (3HP x 2)
RECEIVER SIZE/CONFIGURATION:	80 Gal - Vertical
ELECTRICAL:	460V, 3PH, 60Hz.

**System performance shown with one pump module in reserve per NFPA 99*

General

The Powerex medical vacuum system is designed to create a suction system to remove unwanted fluids or gases from hospital/laboratory working areas. The medical vacuum system package is compliant with NFPA 99 requirements for Risk Category 1 systems. Each system is completely tested before shipment and includes:

- Multiple vacuum pumps and associated equipment.
- ASME air receiver.
- Medical control panel.

Each pump is factory piped to a common intake manifold. Vibration isolation pads are included with the system.

ROTARY VANE VACUUM PUMP

Three oil sealed carbon-fiber vanes are housed in the pump rotor. As the rotor turns, centrifugal force pushes the vanes against the cylinder wall to help form suction. The rotor and pump housings are made of cast iron and machined with precision tolerances to provide increased vane life and reliability. Oil is used for lubrication and cooling and helps seal the suction system. Lubrication oil is separated from the vapor as the materials are pumped through the exhaust compartment. The exhaust process shocks and expands the material through a 30-micron cartridge coalescing filter. The vapor is vented to the atmosphere and the oil is trapped for automatic recycling. Inlet filtration is required to prevent solid particles from entering the pump. Powerex provides polyester inline filters to 5 micron as standard.

Motor

The motor is continuous duty, C-face, TEFC, suitable for 208-230, or 460V, 3 phase, 60 hertz electrical operation.

Air Receiver

The system shall include an ASME rated air receiver. The tank shall be equipped with a vacuum gauge, a sight gauge, by-pass valves, and a manual drain.

PREMIUM NFPA 99 CONTROL PANEL

The control system provides automatic lead/lag activation based on demand and automatic alternation of all pumps to equalize the amount of usage among the available pumps. The control panel shall include:

- A color touch screen panel which displays the operating status of the unit. The touch screen will display pump status,
- pump faults, pump run hours, system pressure, system alarms and service alert notifications for the pumps.
- Building automation communication through BacNet® over IP protocol
- Ethernet port for connection to BacNet® server or direct connection to facility Ethernet for viewing of system operations
- and status via device IP-address.
- A PLC controller that includes logic programmed to appropriately manage start-stop, lead-lag and other pump
- operations.
- UL508A listed control panel in a NEMA 12 enclosure.

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SYSTEM CONNECTIONS

The system is supplied with a remote air intake connection and flexible connectors for both intake and discharge. All piping complies with current NFPA 99 requirements. Isolation pads included.

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