

Medical Oilless Dry Vane Vacuum System with Premium NFPA Controls

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 the NFPA 99 requirements for Risk Category 1 systems. Each system is completely tested before shipment and includes:

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

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

Oilless Dry Rotary Vane Vacuum Pump

Each pump shall be a dry rotary vane type vacuum pump, and shall be direct-driven through a shaft coupling by a C-face, TEFC electric motor.

- Each vacuum pump shall be dry-running, featuring self-lubricating carbon/graphite vanes and shall not require any sealing fluid in the pumping chamber.
- Each vacuum pump shall include an internal relief valve, a check valve, inlet and discharge flex connectors, a 5 micron inlet filter and a pump isolation valve.

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 sight gauge, by-pass valves, and a manual drain.

Premium NFPA Control Panel

The control system provides automatic lead/lag sequencing and automatic alternation of all pumps in order to equalize the amount of usage among the available vacuum pumps. The Premium NFPA Control panel shall include a gateway server card and all features listed below:

- PLC controller and a color touch screen panel which displays the operating status of the unit.
- Building automation communication gateway with BacNet® 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.
- UL508A listed control panel in a NEMA 12 enclosure. The panel door will include: the HMI touch screen, an audible and visual alarms with an acknowledge button, and an HOA switch for each pump.
- Magnetic starters.
- Vacuum transducer for process control.
- Single point power connection.
- Redundant 120Vac control transformers with fused primary and secondary protection.
- System overload trip, high temperature conditions or maintenance intervals for the pump will result in visual and audible alarms.

Available Options

Internal tank lining for corrosion resistance.

P W E REX MEDICAL

Medical Vacuum Tankmount Duplex 3-HP with Premium Controls

| Dimensions | | | | | | | | | |
|------------|--------|--------|--------|--------|--------|--|--|--|--|
| Model | Dim. A | Dim. B | Dim. C | Inlet | Outlet | | | | |
| VVOTD0303 | 35.5″ | 54.5″ | 79.0″ | 1 1/2″ | 1 1/2″ | | | | |
| VVOTD0404 | 35.5″ | 54.5″ | 79.0″ | 1 1/2″ | 1 1/2″ | | | | |
| VVOTD0504 | 35.5″ | 54.5″ | 79.0″ | 1 1/2″ | 1 1/2″ | | | | |



| | C |
|---|---|
| | |
| B | |

| Oil-less Medical Vacuum Package with Premium Controls | | | | | | | | | | | |
|---|-----|------------------|----------------------------|--------------------|---------------|--------------------|---------------|------|------|------------------|--|
| Model | HP | HP SCFM @ 19" Hg | NFPA System Capacity | Tank Size (gal) | BTU/ Hr(2) | dB(A) Level (3) | System F.L.A. | | | System Weight | |
| | | | | | | | 208V | 230V | 460V | (lbs) | |
| VVOTD0303 | 3 | 13.5 | 13.5 | 80V | 7,638 | 76 | 19.8 | 18.4 | 10.2 | 1144 | |
| VVOTD0404 | 4.0 | 17 | 17 | 120V | 12,730 | 77 | 28.8 | 26.8 | 14.4 | 1334 | |
| VVOTD0504 | 5.4 | 21 | 21 | 120V | 12,730 | 76 | 33.4 | 31.6 | 16.8 | 1467 | |

Notes:

1 – System Capacity is shown with one or more pumps in reserve per NFPA 99. 2 – BTU/Hr levels are shown with reserve compressor(s) on standby.

3 - dB(A) levels are shown with one compressor in reserve.

4 – 3 Year Limited Warranty.

-