

Specification

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.

Oil-less Rotary Vane Vacuum Pump

Each pump shall be a dry rotary vane type vacuum pump, and shall be direct-driven by a C-face integrated electric motor enclosed in the pump housing.

- Pumps 1.5-2 HP are direct-driven by a C-face integrated electric motor enclosed in the pump housing and cooled by the pump fan.
- Pumps 3-10 HP are 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.
- For pumps 7.5-10HP, the patented vane material shall be constructed of a carbon compound with a plastic polymer binder (as opposed to a salt binder). The vane material shall not retain moisture from internal pump condensation like other designs thus extending the vane life. This polymer construction also makes the vanes softer and less susceptible to cracking.

Motors

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

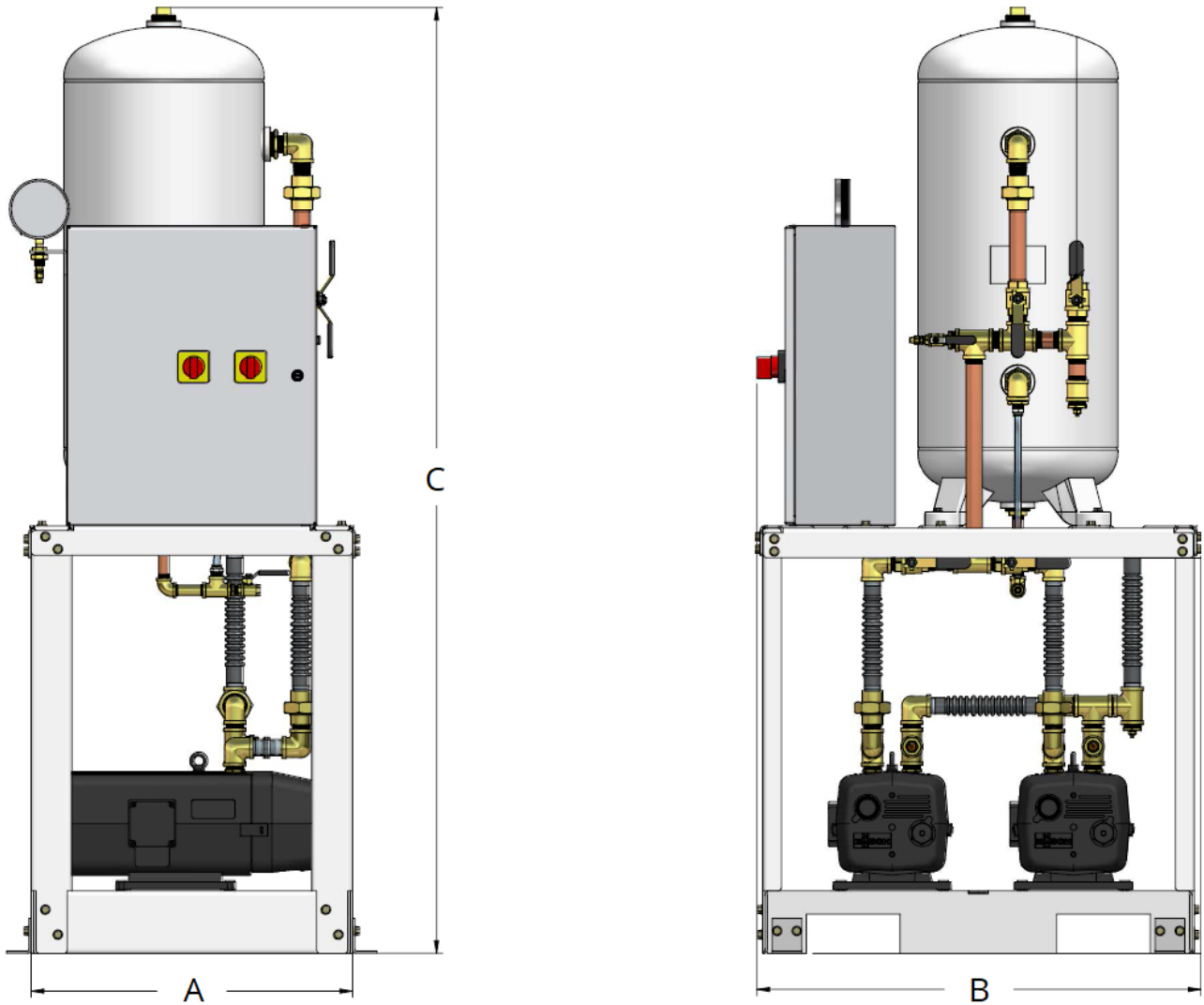
Air Receiver

The system shall include an ASME rated air receiver. The tank shall be internally lined, and equipped with a vacuum gauge, 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 and Web server features. Web servers features include email notifications in case the system is in alarm or has achieved one its maintenance intervals and requires service.
- 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.



Medical Oil-less Vane Vacuum System Specifications

Model	HP	SCFM @ 19" Hg ¹	NFPA System Capacity	Tank (gal)	BTU/Hr ¹	dB(A) Level ¹	System F.L.A.			Weight (lbs)	Dimensions (in)				
							208V	230V	460V		A	B	C	Inlet	Outlet
WOTD0151	1.5	5.3	5.3	30 V	3819	67	10.4	11	6.8	438	25.68	35.23	75.61	1	1
WOTD0201	2	8	8	30V	5092	70	14.6	12.8	6.4	492	25.68	35.48	75.61	1	1

Notes:

- 1 – SCFM, BTU/Hr, & dB(A) values are shown with one or more vacuum pumps in reserve per NFPA 99.
- 2 – Minimum recommended clearance 24" around system; follow OSHA/NEC requirements at control panel.
- 3 – 3 Year Limited Warranty.