

General

The Powerex vacuum system is designed provide vacuum for applications such as laboratories, molding, packaging, printing, and other similar facilities.

Vacuum System

The package shall include one, two, three, or four vacuum pumps and associated equipment, one ASME tank and one control panel. Depending on the size of the system, it may include up to 3 skids. Each pump is factory piped to a common intake manifold.

The system shall be completely tested prior to shipment.

Rotary Vane Vacuum Pump

The vacuum pumps shall be of the rotary vane air-cooled design. Each vacuum pump shall be direct driven through a shaft coupling by a TEFC electric motor. Belt drives shall not be permitted. Each vacuum pump shall be air-cooled and have absolutely no water requirements. Each vacuum pump shall have an end (ultimate) vacuum of 29.3" Hg (15 torr). Lubrication shall be provided by an integral, fully recirculating oil supply that is filtered by an automotive type, spin-on oil filter. Non-recirculating (once through) or partial re-circulating oil supply systems shall not be permitted. Each vacuum pump shall be capable of operation with standard SAE 30 weight oil. The oil separation systems shall be integral and shall consist of no less than three stages of internally installed oil and smoke eliminators through which the exhaust gas stream must pass. This system shall consist of bulk separation, oil mist elimination, and smoke elimination, and shall be capable of removing 99.9+ percent of all oil and smoke particles from the exhaust gas stream. Each vacuum pump shall include a built-in, anti-suck-back valve, mounted at the pump inlet, and three sliding vanes. Each vacuum pump shall be equipped with a 10-micron inlet filter for removal of particulates. The vacuum pumps shall be mounted on vibration isolators. The system shall also include a supplementary check valve between the inlet filter and the pump.

Motor

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

Receiver

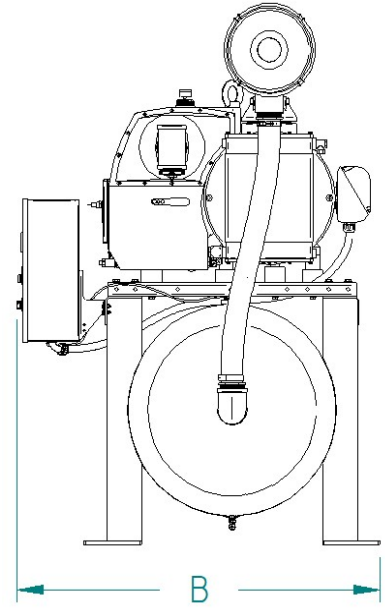
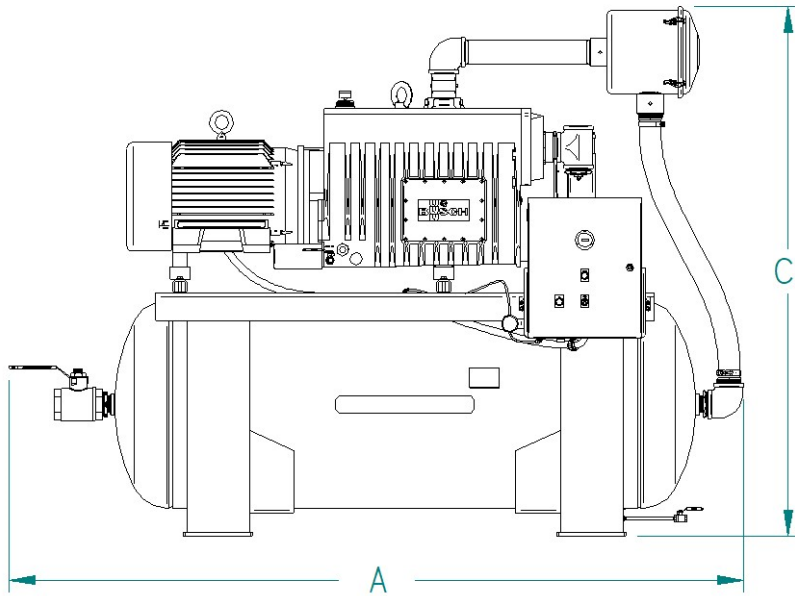
The system shall include an ASME rated receiver rated for full vacuum. The tank shall be equipped with a vacuum gauge and a manual drain.

Control Panel

The system shall include a UL listed control panel in a NEMA 1 enclosure in Simplex, Duplex, Triplex, or Quadplex configurations utilizing a 120V control transformer with fused primary and secondary protection. The control panel also includes the following accessories for each pump: Run time indicator, magnetic starter with 3-leg overload protection and Hand/Off/Auto selector switch. Standard features shall also include minimum run timers via a PLC or time delay relay for each pump and timed lead/lag pump alternation to maintain even run hours on each pump. The lag vacuum pump shall be able to start automatically if the lead vacuum pump fails to operate.

Available Options

- Internal tank lining for corrosion resistance
- Tank Sight Gauge
- Exhaust flex hose



Industrial Vacuum System Specification

Model	System HP	Pump HP	SCFM @ 19" Hg	SCFM @ 0" Hg	Tank (Gal) and Configuration	BTU/Hr	dB(A) Level	System FLA		Weight (lbs)	Dimensions (in)			Tank Inlet	Each Pump Outlet	Number of Skids
								230V	460V		A	B	C			
IBVS1506	15	15	111	305	240 H	32,513	79	40.8	21.4	1,932	106.2	51.5	76.6	3"	3"	1
IBVS2006	20	20	137	375	240 H	43,350	79	54	28	2,141	106.2	51.5	76.6	3"	3"	1
IBVS2506	25	25	168	455	240 H	54,188	79	64	33	2,185	106.2	51.5	76.6	3"	3"	1