

**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. Each pump is factory piped to a common intake manifold. The system shall be completely tested prior to shipment.

Depending on the size of the system, the shipment may include up to three skids.

**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**

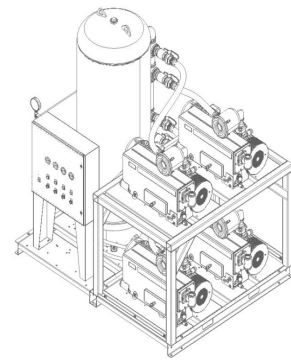
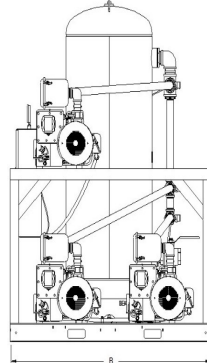
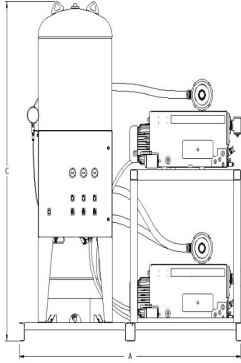
The system shall include an ASME rated receiver rated for full vacuum. The tank shall be equipped with a vacuum gauge and a manual drain.

**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																
Model	System HP	Pump HP	SCFM @ 19" Hg	SCFM @ 0" Hg	Tank (Gal) Configuration	BTU/Hr	dB(A) Level	System FLA		Weight (lbs)	Dimension (in)			Tank Inlet	Each Pump Outlet	Number of Skids
								230V	460V		A	B	C			
IBVT0505	15	5 (3)	78	309	200 V	32,514	77	53.6	28	2,468	90	70	83.3	3"	2"	2
IBVT1006	30	10 (3)	195	636	240 V	65,025	81	106.8	54.4	3,362	90	70	95.3	3"	2"	2
IBVQ0506	20	5 (4)	104	412	240 V	43,352	78	53.6	28	2,856	90	70	95.3	3"	2"	2
IBVQ0756	30	7.5 (4)	208	564	240 V	65,024	80	89.2	45.6	3,620	90	70	95.3	3"	2"	2
IBVQ1006	40	10 (4)	260	848	240 V	86,700	82	106.8	54.4	3,951	90	70	95.3	3"	2"	2