



Industrial Vacuum System (IVS/IVD)

Rev. 1/27/14

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 or two 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. Vibration isolation pads for installation between the system mounting feet and the floor shall be included with the system.

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 re-circulating oil supply that is filtered by an automotive-type, spin-on oil filter. Non-re-circulating (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 EISA compliant, continuous duty, NEMA rated, C-face, TEFC, suitable for 208-230, or 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 or duplex 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.

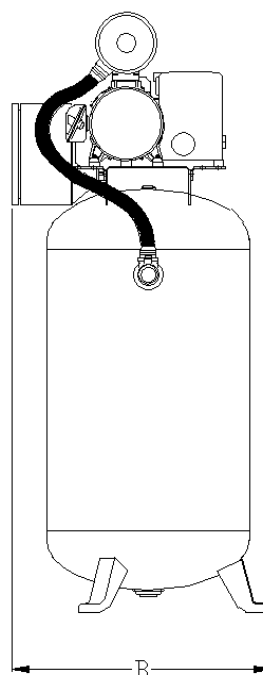
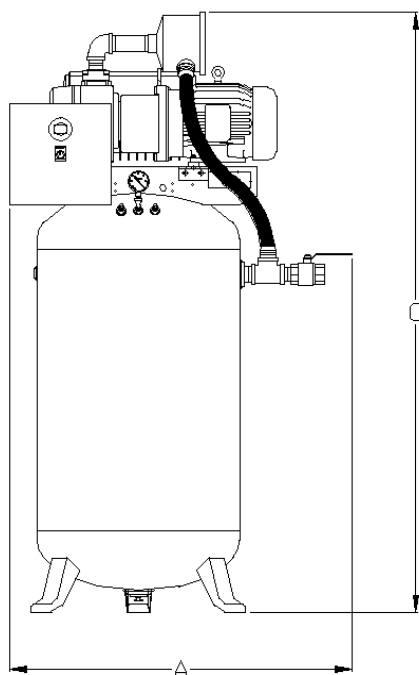
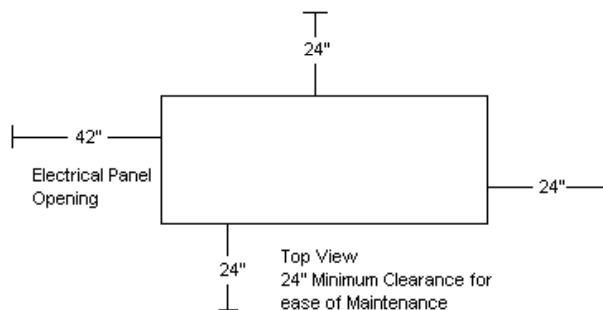
AVAILABLE OPTIONS

- ☐ High discharge air temperature shutdown alarm with visual and audible indicators and dry contacts
- ☐ Internal tank lining for corrosion resistance
- ☐ Tank Sight Gauge
- ☐ Exhaust flex hose with drip leg and valve

Industrial Tankmount System 1.5 – 3 HP

Rev. 1/14/13

MODEL	DIM. A	DIM. B	DIM. C	Inlet	Outlet
IVS0151	36"	25"	62"	1-1/2"	1-1/4"
IVS0152	41"	27"	70"	1-1/2"	1-1/4"
IVS0202	37"	30"	71"	1-1/2"	1-1/4"
IVS0303	41"	31"	71"	1-1/2"	1-1/4"



Industrial Tankmount Systems									
MODEL	HP	Tank Size (Gal.)	SCFM* @ 19" Hg	BTU/HR	dB(A) Level	SYSTEM F.L.A.			UNIT WT. (LBS.)
						208V	230V	460V	
IVS0151	1.5	30 V	7	3,251	70	6.5	6.4	4.2	295
IVS0152	1.5	60 V	7	3,251	70	6.5	6.4	4.2	375
IVS0202	2	60 V	11	4,335	70	7.6	7.4	4.7	435
IVS0303	3	80 V	17	6,503	70	10.4	9.8	5.9	510

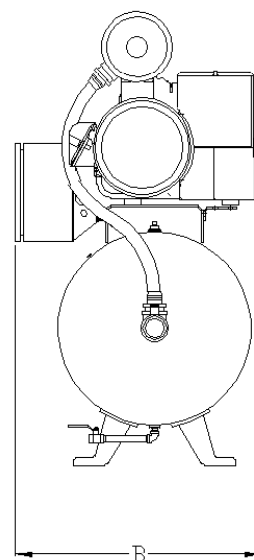
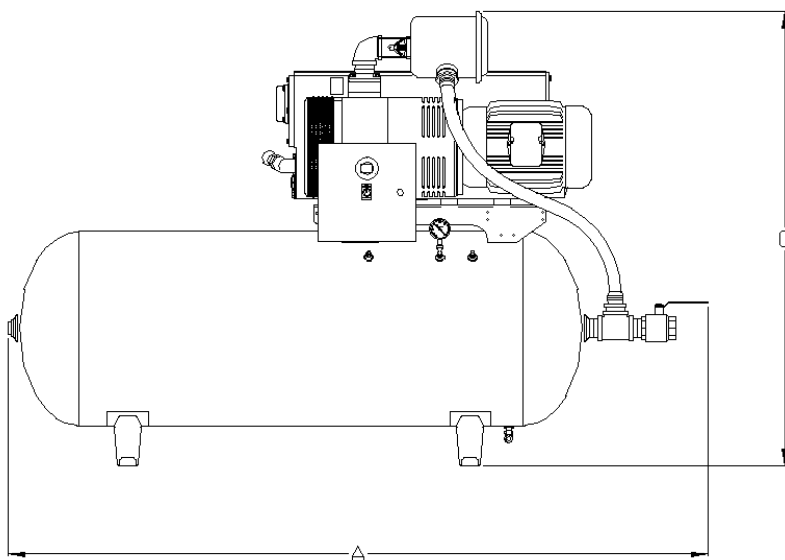
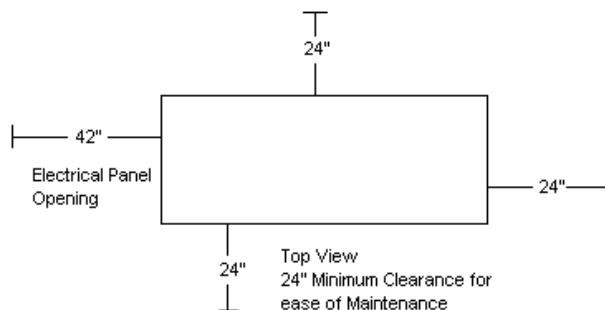
Notes: Control panel will include a magnetic starter with overload protection, an hour meter, an on/off switch, and a minimum run timer for the pump.

*SCFM shown at total system capacity.

Industrial Tankmount System 5-10 HP

Rev. 9/4/13

DIMENSIONS					
MODEL	DIM. A	DIM. B	DIM. C	Inlet	Outlet
IVS0403	77"	28"	47"	1-1/2"	1-1/4"
IVS0503	77"	30"	52"	1-1/2"	1-1/2"
IVS0754	86"	31"	56"	2"	2"
IVS1005	90"	33"	61"	2"	2"



Industrial Tankmount Systems									
MODEL	HP	Tank Size (Gal.)	SCFM* @ 19" Hg	BTU/HR	dB(A) Level	SYSTEM F.L.A.			UNIT WT. (LBS.)
						208V	230V	460V	
IVS0403	5	80 H	26	10,838	71	15.8	15	8.5	590
IVS0503	5	80 H	41	10,838	74	16.4	15	7.5	620
IVS0754	7.5	120 H	52	16,256	79	23	22.4	12.2	930
IVS1005	10	200 H	77	21,675	81	28.4	27.6	14.8	1,340

Notes: Control panel will include a magnetic starter with overload protection, an hour meter, an on/off switch, and a minimum run timer for the pump.

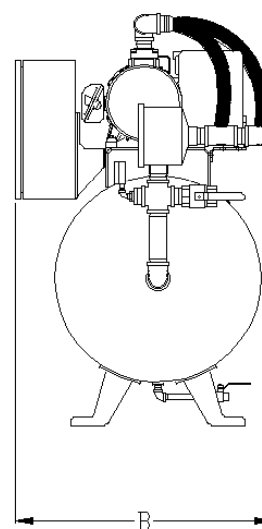
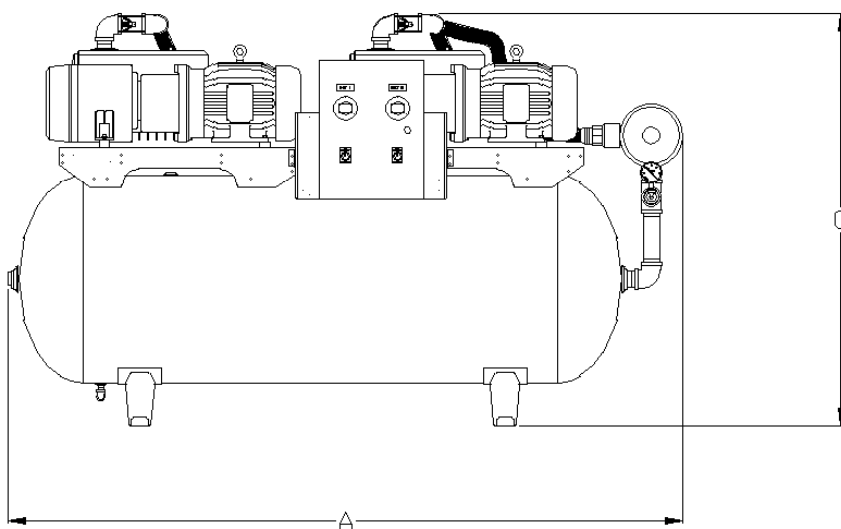
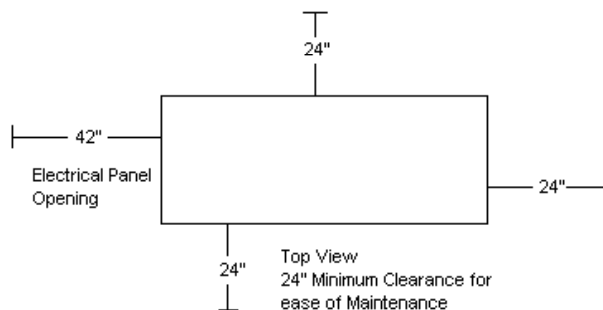
*SCFM shown at total system capacity.



Industrial Duplex Tankmount System

Rev. 3/4/14

MODEL	DIM. A	DIM. B	DIM. C	Inlet	Outlet (X2)
IVD0153	71"	30"	42"	1-1/2"	1-1/4"
IVD0203	71"	30"	42"	1-1/2"	1-1/4"
IVD0304	79"	31"	48"	1-1/2"	1-1/4"
IVD0404	79"	30"	48"	1-1/2"	1-1/4"
IVD0504	79"	37"	54"	2"	1-1/2"
IVD0505	95"	37"	60"	2"	1-1/2"
IVD0755	95"	37"	60"	2"	2"
IVD1006	93"	50"	60"	2"	2"



Industrial Duplex Tankmount Systems									
MODEL	HP ¹	Tank Size (Gal.)	SCFM* @ 19" Hg	BTU/HR	dB(A) Level	SYSTEM F.L.A.			UNIT WT. (LBS.)
						208V	230V	460V	
IVD0153	1.5 (2)	80 H	14	6,502	70	11.0	10.4	6.4	620
IVD0203	2 (2)	80 H	22	8,670	70	13.2	12.8	7.4	740
IVD0304	3 (2)	120 H	34	13,006	70	18.8	15.6	9.8	910
IVD0404	5 (2)	120 H	52	21,676	71	29.6	28.0	15.0	980
IVD0504	5 (2)	120 H	82	21,676	74	30.8	28.0	15.0	1,040
IVD0505	5 (2)	200 H	82	21,676	74	30.8	28.0	15.0	1,450
IVD0755	7.5 (2)	200 H	104	32,512	79	44.0	42.8	22.4	1,760
IVD1006	10 (2)	240 H	154	50,900	81	54.8	53.2	27.6	2,070

Notes: Control panel will include a magnetic starter with overload protection, an hour meter, a selector switch, and a minimum run timer for each pump.

*SCFM shown at total system capacity.