

Liquid Ring “Vectra Camel” Medical Vacuum Base Mount Single Point Connection (SPC) Duplex System (3 - 10 HP)

SPECIFICATION

Vacuum System

The duplex medical vacuum system must be fully compliant with the latest edition of NFPA 99. The package will consist of two oil-free liquid ring vacuum pumps, a control panel, and a receiver sized for appropriate demand all mounted on a common base frame. The receiver shall be ASME coded with a isolation valve to allow for draining of the receiver without interrupting the vacuum service. A manual drain shall be provided on the receiver. The pumps and receiver shall be connected to a common intake manifold. A single point of connection to the intake of the system shall be provided. A single point of connection to the electrical panel of the system shall also be provided. The package shall be completely tested prior to shipment.

Vacuum Pump

The pumps shall be a NASH Vectra “SX” oil-free, single-stage, positive displacement, and non-pulsating liquid ring type. The pump will be fitted with mechanical seals. Each pump shall be equipped with a check valve to prevent backflow through off-cycle units, a vacuum relief valve and an isolation valve.

Vacuum Pump Drive

The pumps shall be direct driven. Torque is transmitted from the motor to the pump through a shaft coupling.

Vacuum Pump Motor

The motor shall be a continuous duty, NEMA rated, open drip proof, 1800 RPM, with 1.15 service factor suitable for 208V or 230/460V, 60 hertz, 3 phase electrical service.

Re-circulation and Seal Water

Under normal operation, the system shall not use more than 3/4 gpm seal water. The system shall include a reservoir sufficient for up to 48 hours of operation without a fresh water supply. The system is self contained and air-cooled. No cooling water is required for the operation of the re-circulation system.

Intake Piping

Each vacuum pump shall have a factory piped intake. Interconnecting piping shall consist of brass pipe and fittings.

Vacuum Receiver

The vacuum receiver shall be ASME Code stamped, and rated for a minimum 150 PSIG design pressure. The receiver vessel includes a sight glass with manual drain and piping to permit tank venting without interrupting vacuum service.

Control System

The duplex control system shall be NEMA 12 and U.L. labeled. The control system shall provide automatic lead/lag sequencing with circuit breaker disconnects for each vacuum pump with external operators, full voltage motor starters with overload protection, redundant 120V control circuit transformers, visual and audible reserve unit alarm with isolated contacts for remote alarm, hand-off-auto lighted selector switches and runtime hourmeters. A programmable logic controller (PLC) shall control the automatic alternation of both vacuum pumps with provisions for simultaneous operation if required, and automatic activation of reserve unit if required. The control system shall include an automatic minimum run time adjustment to control run time based on demand. A vacuum gauge shall be provided in the control panel.

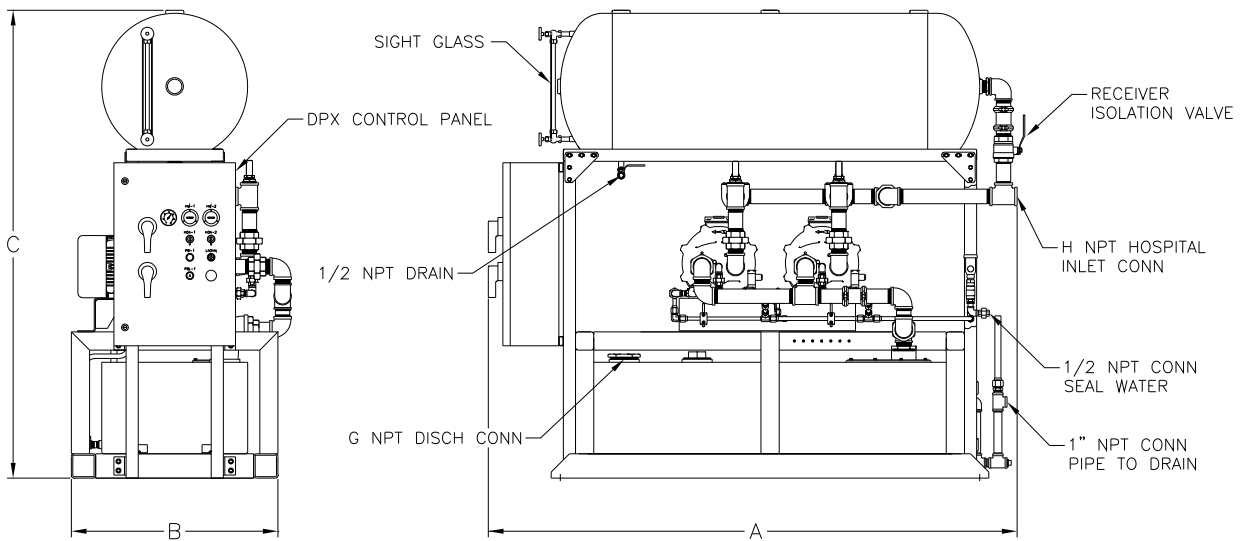
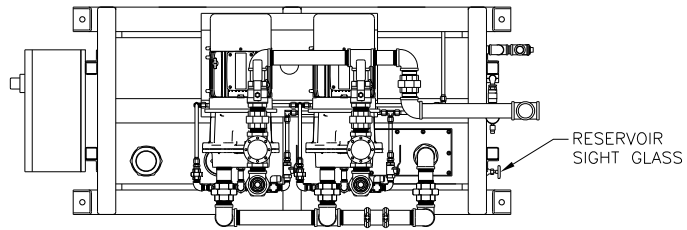
Vacuum System Specifications ¹									
System Model No.	H	Capacity ² @ 19” Hg		Receiver ³ (Gallons)	Max. Ambient Temp.	System FLA @ 60 hz			Weight (lbs.)
		Pump	System			208V	230V	460V	
LPV-3D-RC120V	3	17.5 scfm	17.5 scfm	120	105° F	24	21	11	961
LPV-5D-RC120V	5	30 scfm	30 scfm	120	105° F	35	31	16	1157
LPV-7D-RC120V	7.5	41 scfm	41 scfm	120	105° F	51	45	23	1189
LPV-10D-RC120V	10	54 scfm	54 scfm	120	105° F	64	56	28	1648

- Notes:
- ¹ Normal operating conditions at a maximum ambient of 105° F. Consult factory for higher ambient conditions.
 - ² All capacities are shown as NFPA system capacities (reserve vacuum pump on standby).
 - ³ Standard receiver

Standard Configuration

NOTES:

1. INTAKE, DISCHARGE & SEAL WATER FLEX HOSES WILL BE SHIPPED LOOSE.
2. ALLOW 36" IN FRONT OF CONTROL PANEL FOR MAINTENANCE AND VENTILATION, ALL OTHERS SIDES REQUIRE 24" OF CLEARANCE.



10HP SHOWN

COMPLETE SYSTEM MODEL NO.	UNIT (Hp)	RECEIVER (GAL.)	DIMENSIONS (in.)					SQUARE FEET REQUIRED
			A	B	C	G	H	
LPV-3D-RC120V-D	3	120	80	28	70	3	1-1/2	16
LPV-5D-RC120V-D	5		87	34	77	3	2	21
LPV-7D-RC120V-D	7.5					3	2	
LPV-10D-RC120V-D	10					4	2	

(4107 9504 24 SSS)