



Duplex Oil Free Claw Medical Vacuum System-Horizontal Tank mount

System Description:

The *Global Vac & Air* duplex oil-free dry claw medical vacuum system is built as two dry claw vacuum pumps mounted and piped to a horizontal receiver with a mounted and wired NFPA99 compliant duplex PLC control panel. The system is completely tested before shipment and is built with single point connection for process inlet, and system power. The complete assembly is finished in GLOBALVAC white and supplied with inlet and discharge flex connectors and vibration pads. The system is piped, wired and factory tested prior to shipment.

Oil-Free Dry Claw Vacuum Pump:

The vacuum pumps are direct driven by a continuous duty TEFC motor available in 208-230/460/3/60 electrical service. Additional electrical supply options available upon request. The contact free operating principle provides a nearly maintenance-free operation. The pump is oil-free in the pumping chamber and only requires oil change of gear oil. Each pump is air cooled and rated for continuous operation at an ultimate pressure of 28.1" HgV without overheating. Each pump contains:

- Integrated and pump mounted check valves
- 5 micron inlet filter with polyester element
- Internal inlet screen
- Pump isolation valve
- Oil sight glass (gear oil)
- Oil drain valve (gear oil)
- Exhaust high temperature switch
- Inlet & outlet flex connector

Vacuum Receiver:

The 120 gallon horizontal vacuum receiver is ASME coded and rated for 200 PSI and full vacuum. The receiver is equipped with sight glass, drain valve, 3 valve bypass, and single point process inlet valve. The receiver is epoxy lined for corrosion resistance.

Duplex NFPA99 PLC Control Panel:

The system is controlled by a UL labeled duplex NFPA99 compliant PLC control panel. The controller provides automatic alternation of the pumps or simultaneous operation if needed. Supplied with comprehensive software package which will display system and pump status and allow adjustment of system parameters. The control panel is built with:

- Finger safe power distribution block
- Dual 120V control transformer with CB protection for primary and secondary circuits
- Dual 120vac/24vdc power supply
- Transformer switching circuit to allow backup transformer to power circuit in event of primary transformer failure
- Transformer/Power Supply failure warning circuit, activates system general warning relay and PLC display warning indicator if either should fail
- 7" color OIT with integrated Hand/Off/Auto
- Door mounted system disconnect
- Door mounted Emergency Stop button
- Adjustable run-on timer (frequent start protection) integrated into OIT
- 4-20ma transmitter to control pumps
- Selectable, Auto Timed Alternation (default), Auto Alternation or Manual Alternation
- Hour meter integrated into OIT
- Reserve (Lag) Unit in use indicator with audible alarm
- Dry contacts for remote monitoring
- Maintenance screens with adjustable intervals for tracking maintenance items
- UL508A listed NEMA 12 enclosure
- Low vacuum alarm which may be enabled/disabled
- Door mounted Bypass circuit with selector switch
- Panel mounted vacuum gauge
- Ethernet bulkhead for temporary site connection



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Model Number*	Pump motor rating (HP)**	Maximum Vacuum (in. HgV)	Nominal Capacity (ACFM/pump)**	System Capacity @ 19" Hg (SCFM/system)**	Receiver size (Gallons)	System BTU/hr**	System FLA @ 460 V / 3 / 60 Hz
VC02B-XXM-12H	2	28.1	44	16	120	4,327	3.4
VC03B-XXM-12H	3	28.1	57	21	120	6,490	4.8
VC04B-XXM-12H	4	28.1	79	29	120	8,653	6.4
VC05B-XXM-12H	5.4	28.1	103	38	120	11,682	8.2

*XX in the model number is a placeholder for system voltage. 43=460V/3/60Hz, 23=230V/3/60Hz, 53=575V/3/60Hz

** All data shown assumes 60 Hz electrical supply and one pump sitting idle for redundancy