



Duplex Lubricated Rotary Vane Medical Vacuum System-Vertical Frame

System Description:

The *Global Vac & Air* Duplex Lubricated Rotary Vane Laboratory Vacuum System is built as two lubricated rotary vane vacuum pumps mounted and piped to a vertical receiver with a mounted on a frame over an 80-gallon vertical receiver with a mounted and wired duplex NFPA99 compliant PLC control panel. The system is completely tested before shipment and is built with single point connection for process inlet, and system power. Each pump will have a single discharge connection. 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 Flooded Rotary Vane 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. Each pump is air cooled and rated for continuous operation at an ultimate pressure of 29.9" HgV without overheating. Each pump contains:

- Integrated anti suck back valve
- High efficiency oil separator element
- Pump mounted check valve
- 5 micron inlet filter with polyester element
- Pump isolation valve
- Air cooled oil cooler
- Oil sight glass
- Oil drain valve
- Single shaft direct drive
- Exhaust flex connector
- Exhaust high temperature switch
- Inlet flex connector

Vacuum Receiver:

The vertical vacuum receiver is ASME coded and rated for 200 PSI and full vacuum. The receiver is equipped with sight glass, 3 valve tank bypass, drain valve, 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
VR01F-XXM-08V	1.5	29.9	18	6	80	3,245	3.0
VR02F-XXM-08V	2	29.9	28	10	80	4,327	3.4
VR03F-XXM-08V	3	29.9	45	16	80	6,490	4.8
VR05F-XXM-08V-002	5	29.9	71	26	80	10,816	7.6
VR05F-XXM-08V	5	29.9	103	38	80	10,816	7.6

*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