



## Duplex Oil-Less Rotary Vane Medical Vacuum System – Vertical Frame

### System Description:

The *Global Vac & Air* Duplex Oil-Less Rotary Vane Medical Vacuum System is built as two oil-less rotary vane vacuum pumps mounted above an 80-gallon receiver on a vertical frame and piped to the 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-Less 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 its ultimate pressure without overheating. Each pump contains:

- Integrated and pump mounted check valves
- 5 micron inlet filter with polyester element
- Built in suction filter
- Pump isolation valve
- Self-lubricating graphite composite vanes
- Exhaust high temperature switch
- 100% dry operation
- Inlet & outlet 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



**Duplex Oil-Less Rotary Vane  
Medical Vacuum System – Vertical Frame**

<b>Model Number*</b>	<b>Pump motor rating (HP)**</b>	<b>Maximum Vacuum (in. HgV)</b>	<b>Nominal Capacity (ACFM/pump)**</b>	<b>System Capacity @ 19" Hg (SCFM/system)**</b>	<b>Receiver size (Gallons)</b>	<b>System BTU/hr**</b>	<b>System FLA @ 460 V / 3 / 60 Hz</b>
VV01F-XXM-08V	1.2	25.1	18	7	80	2,596	2.5
VV02F-XXM-08V	2	25.1	28	10	80	4,327	3.4
VV03F-XXM-08V	3.5	26.6	42	15	80	7,571	5.6
VV05F-XXM-08V	4.8	26.6	66	24	80	10,384	7.3

\*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