



Simplex Lubricated Rotary Vane Laboratory Vacuum System-Vertical Tank mount

System Description:

The *Global Vac & Air* Simplex Lubricated Rotary Vane Laboratory Vacuum System is built as one lubricated rotary vane vacuum pump mounted and piped to a vertical receiver with a mounted and wired simplex control panel. The system is completely tested before shipment and is built with single point connection for process inlet, pump discharge 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 Flooded Rotary Vane Vacuum Pump:

The vacuum pump is 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

Automatic Purge System:

Each pump is equipped with an automatically controlled purge system. The purge system actuates prior to pump shutdown by closing an inlet solenoid valve and opening a separate purge solenoid valve to atmosphere to remove any gases from the pumping chamber thus preventing condensation as the pump cools.

Vacuum Receiver:

The vertical vacuum receiver is ASME coded and rated for 200 PSI and full vacuum. The receiver is equipped with sight glass, drain valve, and single point process inlet valve. The receiver is epoxy lined for corrosion resistance. Multiple receiver size options available.

Simplex Control Panel:

The system is controlled by a UL labeled simplex mounted and wired control panel.

The control panel is built with:

- Line Voltage Motor Starter with Overload Protection
- 120 Volt Control Transformer with protected Primary and Secondary Circuits
- PLC controller with HMI
- Vacuum Gauge
- 4-20 mA vacuum transmitter to control pump via PLC input
- Selectable; automatic timed alternation, auto alternation, or manual alternation
- NEMA 12 Enclosure
- Pump status indicators integrated into HMI display
- UL Listed



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Laboratory Vacuum System-Vertical Tank mount**

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
VR01A-XXL-06V	1.5	29.9	18	6	60	3,245	2.5
VR02A-XXL-06V	2	29.9	28	10	60	4,327	3.0
VR03A-XXL-08V	3	29.9	45	16	80	6,490	4.8
VR05A-XXL-08V-002	5	29.9	71	26	80	10,816	7.6
VR05A-XXL-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