

**Quadraplex “Oil-Less” Claw Lab Vacuum Package 10 HP (Fixed Speed or VFD)
Base Mount Single Point Connection with Automatic Purge Control**

Vacuum Package

- Four oil-less rotary claw type vacuum pumps with inlet filter and isolation valve for each
- ASME coded vacuum receiver with bypass and manual drain
- Quadraplex control panel with automatic lead/lag controls
- All components completely pre-piped and pre-wired to single point service connections
- Vibration isolation mountings
- Liquid tight conduit, fittings and junction boxes for all control and power wiring
- All interconnecting piping and wiring is completed and operationally tested prior to shipment

Vacuum Pump

- Oil-less rotary claw pump
- Direct-driven through a shaft coupling
- Air-cooled
- End (ultimate) vacuum = 28" Hg
- Dry-running, with two claw-type, non-contacting rotors
- Sealing fluid not required
- Virtually maintenance-free operation
- High discharge temperature switch
- Oil change required at approximately 5,000 operating hour intervals in the gearbox only
- Built-in, anti-suck-back valve mounted at the pump inlet
- 2 micron inlet filter for removal of particulates

Vacuum Motor

- NEMA rated
- C-face
- TEFC
- 208 or 230/460V 3-phase

Vibration Isolation System

- Vacuum and motor - fully isolated from the package base by means of a four-point, heavy duty, isolation system
- Minimum of 95% isolation efficiency
- Optional seismically restrained isolators at an additional cost

Intake/Discharge Piping

- Vacuum pumps are connected to a common manifold and piped to a receiver
- Inlet check valve on each pump
- Inlet isolation valve on each pump
- Flexible connectors between pumps and manifold
- Flexible connectors for inlet and discharge connections
- Discharge flex connection shipped loose

Vacuum Receiver

- Vertical orientation with integrally mounted 3-valve bypass and manual drain
- ASME Code stamped
- National Board Certified
- Rated for a minimum 200 PSIG design pressure
- Vacuum gauge
- Manual drain

System Health

- Monitoring and Trending of key components to provide notification of potential issue with the Health of the System
- Vacuum monitoring
- Current monitoring for each motor
- Ambient Temperature monitoring
- Trending of pumps running

Control System

- Mounted and wired quadraplex control system
- NEMA 12 and UL 508A labeled
- **75Lv only:** Variable frequency drive to control one pump at a time
- Automatic lead/lag sequencing
- Circuit breakers
 - **75L:** One for each motor with external operators
 - **75Lv:** One external disconnect, but internally one for VFD and one for each motor
- Full voltage motor starters with overload protection
- 120V control circuit transformers for each motor circuit
- Visual and audible reserve unit alarm with isolated contacts for remote alarm
- Hand-off-auto selector switches for reliable back-up
- Automatic alternation of compressors based on a first-on/first-off principle with provisions for simultaneous operation
- Automatic activation of reserve unit if required
- Visual and audible alarm indication for high discharge air temperature shutdown with isolated contacts for remote alarm
- SIGNAL 1™ – touch screen gateway

Standard Screen Displays

- | | |
|------------------------|--|
| + Air level/Runtime | + Replacement parts |
| + Alarm history | + Troubleshooting guidelines |
| + Service Indicator | + Historical trending of system status |
| + Maintenance Schedule | + System Health |

- 7” Wide TFT Graphic Touch Screen with Motion Actuated Backlit LED and Bright 65,536 (16-bit) Colors
- Downloadable Trend Information via USB Host Port or Network Device
- 128MB Flash Memory, 64MB DRAM
- Built-in Ethernet Port 10/100 Base-T (RJ45)
- Supports over 100 Communication Protocols including Ethernet IP, and Modbus TCP/IP
- Built-in VNC server allowing remote monitoring of live graphics through standard browser, smart phones & mobile devices
- Share data between HMI and Building Management systems

Automatic Purge Control

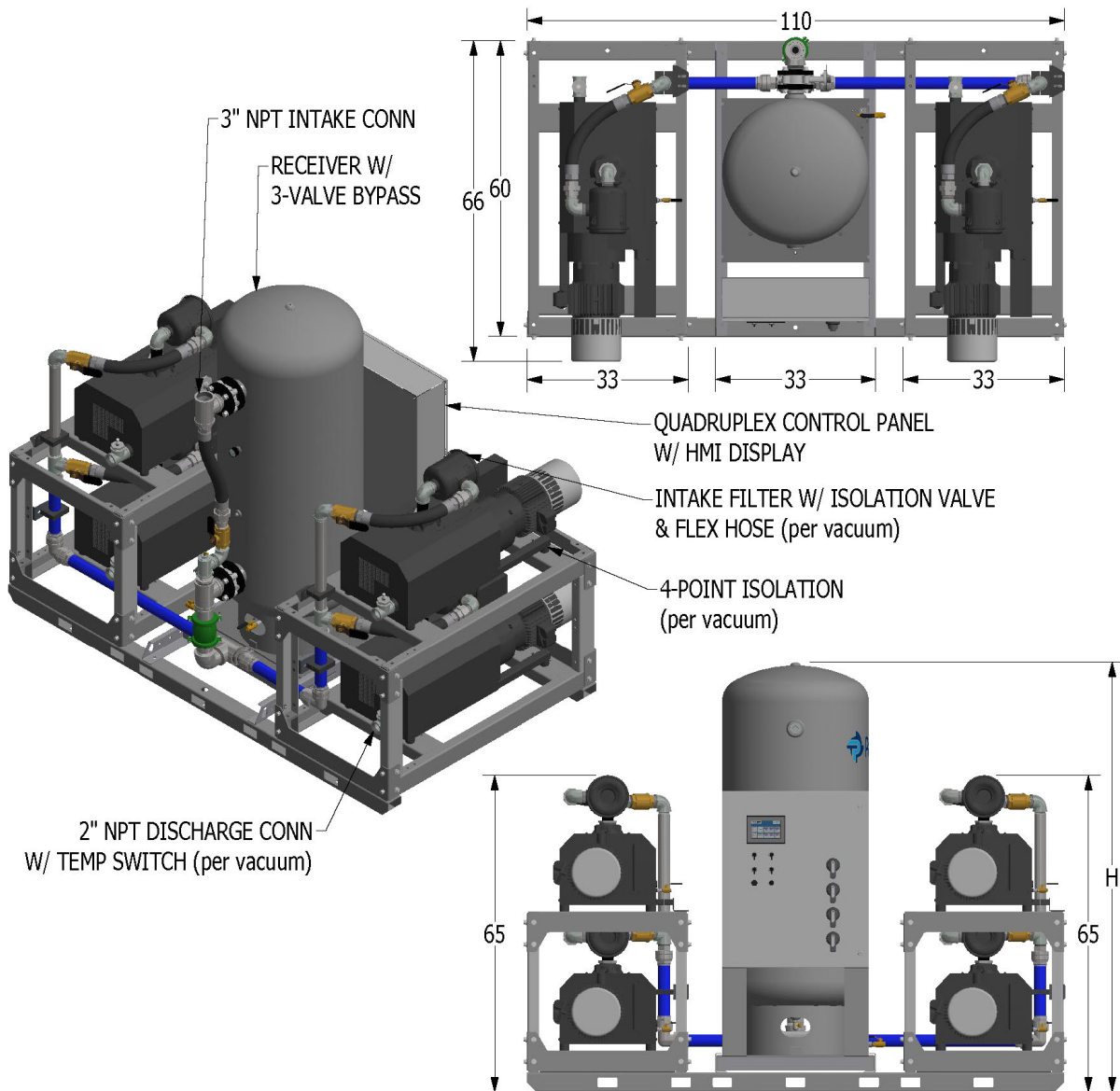
- Each pump intake is equipped with an automatic purge valve and automatic isolation valve
- Minimum run and purge cycle are controlled via SIGNAL 1 purge control function
- Selection of automatic purge, manual purge, or purge off
- 15 minute purge cycle per pump
- Can be set to exit purge if vacuum falls below a setting

SPECIFICATION

75L-43-103 75Lv-43-103

75L-43-104 75Lv-43-104

75L-43-105 75Lv-43-105



Quadraplex Claw Lab Vacuum Package Specification

Model Number	HP	Capacity @19" Hg ²		Package BTU/HR ³	Noise Level ⁴	System FLA			Receiver Size (gallons)	L (inches)	Package Weight (pounds)
		Pump (SCFM)	System (SCFM)			208V (A)	230 (B)	460 V (C)			
75L-43-103(A/B/C)	10	87	348	102,000	90.5	108	97	49	120	83	4,276
75Lv-43-103(A/B/C)											4,326
75L-43-104(A/B/C)									200	88	4,431
75Lv-43-104(A/B/C)											4,481
75L-43-105(A/B/C)									240	100	4,569
75Lv-43-104(A/B/C)											4,619

Notes:

¹ Normal Operating conditions at a maximum ambient of 105° F. Consult factory for higher ambient conditions.

² Capacities are shown with all pumps running.

³ Package BTU/HR are shown with all pumps running.

⁴ Noise levels are shown in dB(A) and reflect all pumps running.

Statement of Warranty

Patton's Medical warrants all Medical Air packages, to be free of defects in material and workmanship under normal use for a period not to exceed thirty (30) months from date of shipment, or twenty-four (24) months from date of start-up.