

## NFPA 99 Compliant Quadruplex Oil-Less Claw Medical Vacuum Package 15 HP Base Mounted Single Point Connection with Variable Frequency Drive (VFD)

### Vacuum Package

- Fully compliant with the latest edition of NFPA 99
- Four oil-less rotary claw type vacuum pumps with inlet filter and isolation valve for each
- Four motors
- ASME coded vacuum receiver with bypass and manual drain
- Quadruplex control panel with automatic lead/lag controls
- All components completely pre-piped and pre-wired to single point service connections
- 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
- Direct-driven through a shaft coupling
- Air-cooled
- End (ultimate) vacuum = 23.4" Hg
- Dry-running, with two claw-type, non-contacting rotors
- Sealing fluid not required
- Virtually maintenance-free operation
- Oil change required at approximately 5,000 operating hour intervals in the gearbox only
- Vacuum relief valve
- High discharge temperature switch
- Oil drain valve and oil sight glass
- Exhaust Muffler
- Built-in, anti-suck-back valve mounted at the pump inlet and equipped with a 2 micron inlet filter for removal of particulates

### Vacuum Motor

- NEMA rated
- C-face
- TEFC
- 3450 RPM, with 1.15 service factor
- 208 or 230/460V 3-phase

### Intake Piping

- Vacuum pumps are connected to a common manifold and piped to a vertical receiver
- Inlet check valve on each pump
- Inlet isolation valve on each pump
- Flexible connector between pump and manifold
- Flexible connectors for discharge and vibration pads included

### Vacuum Receiver

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

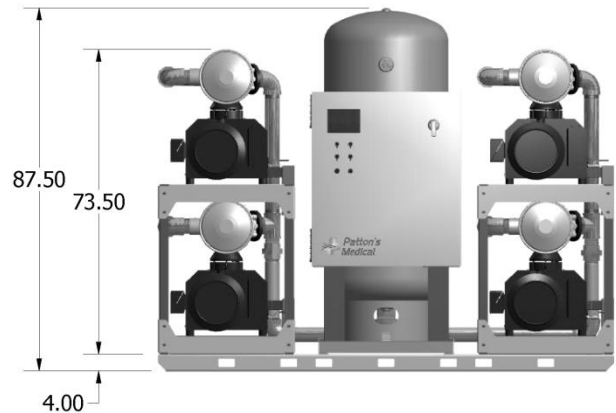
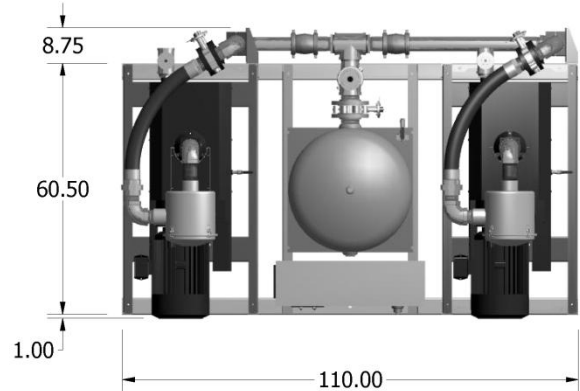
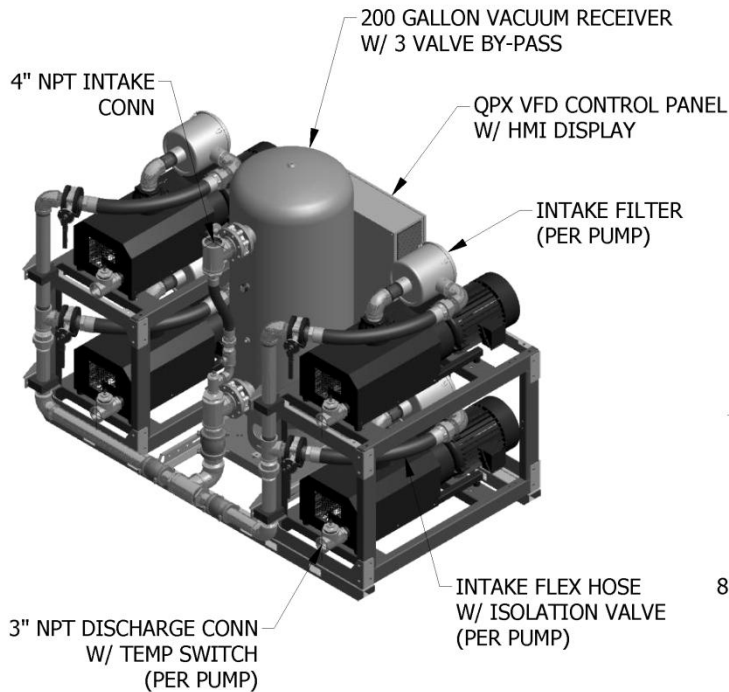
### Control System

- Mounted and wired quadruplex control system
- NEMA 12 and U.L. labeled
- Variable frequency drive to control one pump at a time
- Automatic lead/lag sequencing
- Circuit breaker disconnects for each motor with external operators
- 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
- Automatic alternation of both vacuum pumps based on a first-on/first-off principle with provisions for simultaneous operation if required
- Automatic activation of reserve unit if required
- Visual and audible alarm indication for high discharge temperature shutdown with isolated contacts for remote alarm
- SIGNAL 1™ – touch screen gateway

#### Standard Screen displays

- |                         |  |
|-------------------------|--|
| + Vacuum level /Runtime | + Replacement parts                    |
| + Alarm history         | + Troubleshooting guidelines           |
| + Service indicator     | + Historical trending of system status |
| + Maintenance schedule  |  |

- + 7" Wide TFT Graphic Touch Screen with Motion Actuated Backlit LED
- + 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 BACnet IP, Ethernet IP, and Modbus TCP/IP
- + With Multiple Ports it can handle three (3) additional Protocols simultaneously
- + Built-in VNC server allowing remote monitoring over Ethernet/Internet network for "Real Time" monitoring of live graphics through standard browser, smart phones and mobile devices.
- + Share data between HMI and Building Management systems with no additional software to implement.



Quadruplex Claw Medical Vacuum Package Specifications <sup>1</sup>										
System Model No.	HP	Capacity @19" Hg <sup>2</sup>		System BTU/HR <sup>3</sup>	Receiver	Noise Level <sup>4</sup>	System FLA			Package Weight
		Pump (SCFM)	System (SCFM)				A 208V	B 230V	C 460V	
74v-43-154A	15	129	387	114,500	200 Gallon	89	155			5230
74v-43-154B								143		
74v-43-154C									72	

Notes:

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

<sup>2</sup> Capacities are shown as NFPA system capacities (reserve vacuum pump on standby).

<sup>3</sup> Package BTU/HR are shown with the reserve pump on standby.

<sup>4</sup> Noise levels are shown in dB(A) and reflect three pump running.

Assembly Diagram [74v-43-154-ASM](#) Installation Diagram [74v-43-154-INT](#) Piping Diagram [74v-43-154-PID](#)

**Statement of Warranty**

Patton's Medical warrants all Medical Vacuum 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.