

**NFPA 99 Compliant Quadruplex Oil-Less Rotary Vane Medical Vacuum Package  
5 HP Base Mount with Single Point Connection**

**Vacuum Package**

- Fully compliant with the latest edition of NFPA 99
- Four oil-less rotary vane type vacuum pumps with integrated inlet filter and isolation valve for each
- 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
- 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**

- Dry rotary vane type pump
- Self-lubricating carbon/graphite vanes
- Direct-driven through a shaft coupling
- Air-cooled
- Internal inlet filter for removal of particulates
- Vacuum relief valve
- Check valve to prevent backflow through off-cycle units
- Sealing fluid not required
- Vibration Isolation

**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

**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**

- Integrally mounted 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

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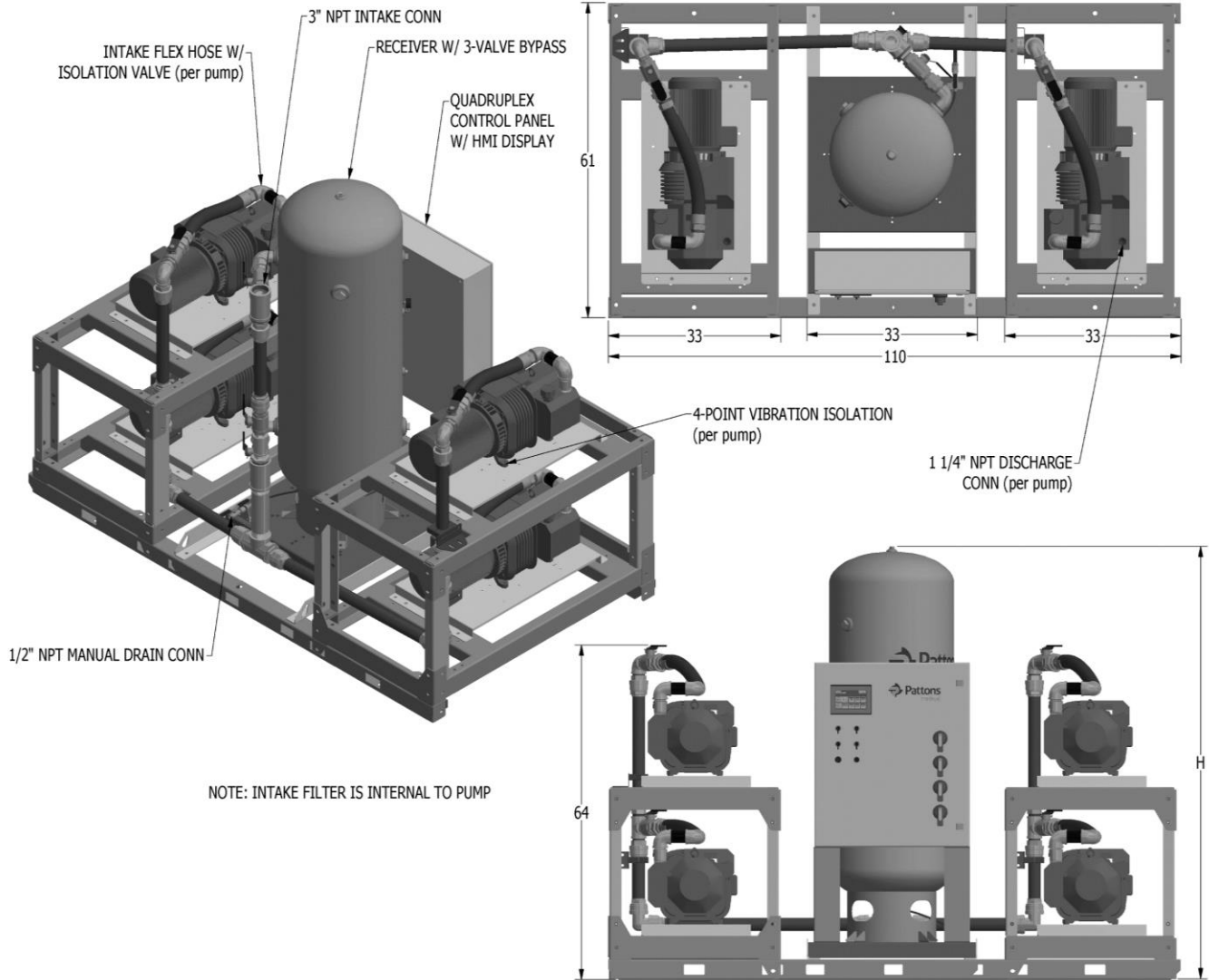
**Control System**

- Mounted and wired quadruplex control system
- NEMA 12 and UL 508A labeled
- 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 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



NOTE: INTAKE FILTER IS INTERNAL TO PUMP

| Quadruplex Oil Less Rotary Vane Medical Vacuum Package Specification |    |                               |               |                             |                          |            |          |          |                         |            |                         |
|--|----|-------------------------------|---------------|-----------------------------|--------------------------|------------|----------|----------|-------------------------|------------|-------------------------|
| Model Number   | HP | Capacity @19" Hg <sup>2</sup> |               | Package BTU/HR <sup>3</sup> | Noise Level <sup>4</sup> | System FLA |          |          | Receiver Size (gallons) | H (inches) | Package Weight (pounds) |
|  |    | Pump (SCFM)                   | System (SCFM) |                             |                          | 208V (A)   | 230V (B) | 460V (C) |                         |            |                         |
| 70BI-43-053(A/B/C)   | 5  | 22                            | 66            | 30,540                      | 80                       | 66         | 60       | 31       | 120                     | 83         | 2,875                   |
| 70BI-43-054(A/B/C)   |    |                               |               |                             |                          |            |          |          | 200                     | 88         | 3,105                   |
| 70BI-43-055(A/B/C)   |    |                               |               |                             |                          |            |          |          | 240                     | 100        | 3,243                   |

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 per NFPA 99 standard with one pump in reserve.

<sup>3</sup> Package BTU/HR are shown with one pump in reserve.

<sup>4</sup> Noise levels are shown in dB(A) and reflect one vacuum modules in reserve.

**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.