

## NFPA 99 Compliant Triplex Lubricated Rotary Vane Medical Vacuum Package 20 HP Base Mounted Single Point Connection

### Vacuum Package

- Fully compliant with the latest edition of NFPA 99
- Three lubricated rotary vane type vacuum pumps with inlet filter and isolation valve for each
- Three motors
- ASME coded vertical vacuum receiver with bypass and manual drain
- Triplex control panel with automatic lead/lag controls
- System designed for access through a standard 36" doorway
- 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

- Lubricated rotary vane pump
- Three non-metallic, non-asbestos vanes with minimum life of 30,000 hrs.
- Direct-driven through a shaft coupling
- Air-cooled
- End (ultimate) vacuum = 29.3" Hg
- Integral, fully recirculating oil supply
- Spin-on oil filter
- High discharge temperature switch
- Oil drain valve assembly with temperature gauge
- Integral oil separation system with three stage oil and smoke eliminators capable of removing 99.9+% of particles from the exhaust gas stream
- Built-in, anti-suck-back valve mounted at the pump inlet
- 2 micron inlet filter for removal of particulates
- Shipped with initial charge of pump fluid

### Vacuum Motor

- NEMA rated
- C-face
- TEFC
- 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 connectors between pumps and receiver
- Flexible connectors for discharge connections

### Vacuum Receiver

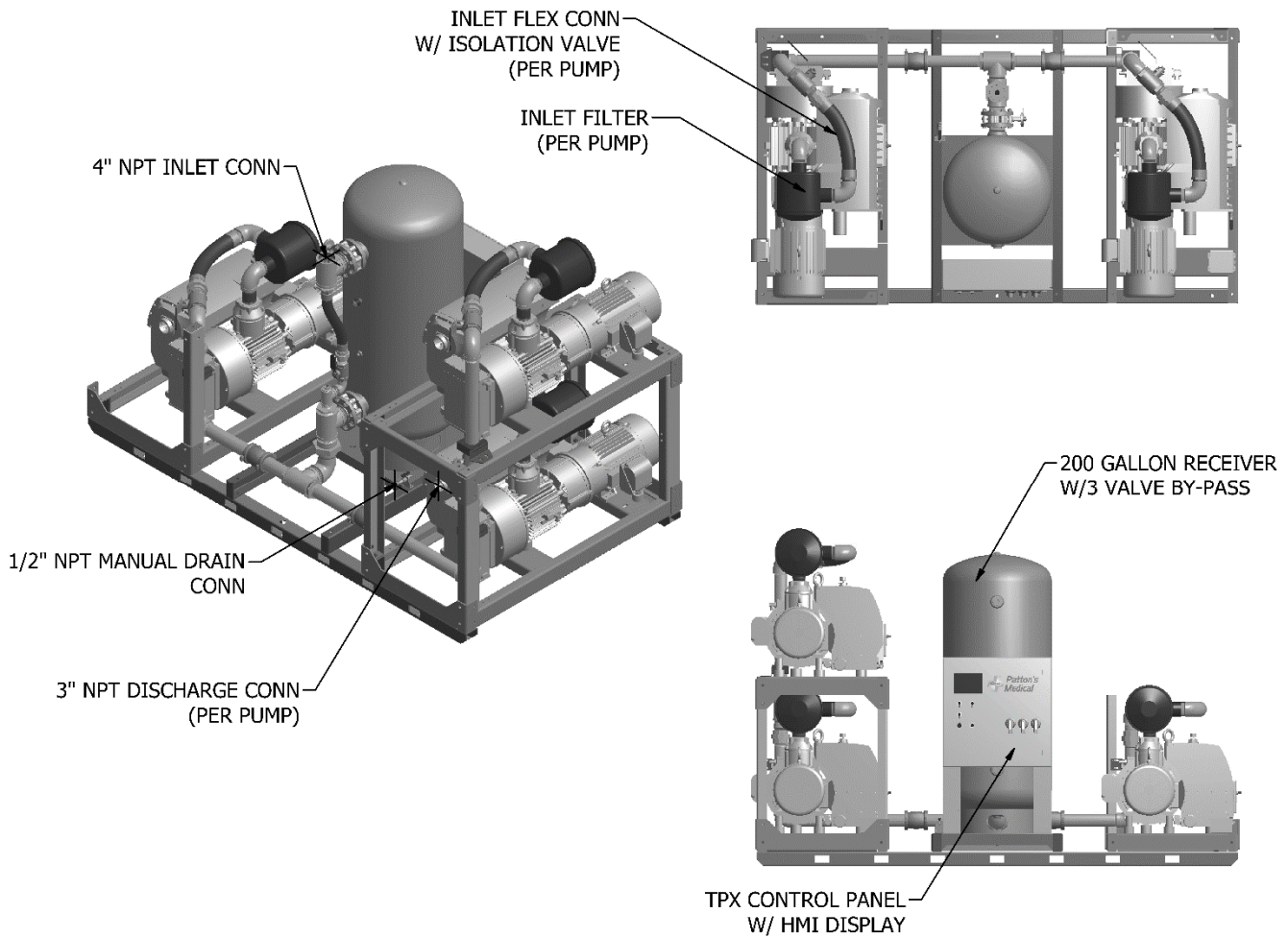
- Vertical orientation with integrally mounted bypass and manual drain
- ASME Code stamped
- National Board Certified
- Rated for a minimum 200 PSIG design pressure
- Vacuum gauge
- Manual drain

### Control System

- Mounted and wired triplex 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 all vacuum pumps 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

- + Vacuum level/Runtime
- + Alarm history
- + Service indicator
- + Maintenance schedule
- + Replacement parts
- + Troubleshooting guidelines
- + Historical Trending of system status
- + 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 BACnet IP, Ethernet IP, and Modbus TCP/IP
- + Built-in 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 & mobile devices
- + Share data between HMI and Building Management systems with no additional software to implement



| Triplex Lubricated Rotary Vane Medical Vacuum Package Specifications <sup>1</sup> |    |                               |               |                             |          |                          |            |      |      |              |
|---|----|-------------------------------|---------------|-----------------------------|----------|--------------------------|------------|------|------|--------------|
| Complete Package Model No.  | HP | Capacity @19" Hg <sup>2</sup> |               | Package BTU/HR <sup>3</sup> | Receiver | Noise Level <sup>4</sup> | System FLA |      |      | Weight (lbs) |
|   |    | Pump (SCFM)                   | System (SCFM) |                             |          |                          | 208V       | 230V | 460V |              |
| 72-33-204A  | 20 | 137                           | 274           | 102,000                     | 200 Gal. | 87                       | 165        |      |      | 6,858        |
| 72-33-204B  |    |                               |               |                             |          |                          |            | 152  |      |              |
| 72-33-204C  |    |                               |               |                             |          |                          |            |      | 76   |              |

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 one pump running.

**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.