

# **SPECIFICATION**

74o-23-155-PDS

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# NFPA 99 Compliant Duplex Oil-Less Claw Medical Vacuum Package – "O<sub>2</sub> Safe" 15 HP Base Mounted Single Point Connection

# Vacuum Package

- Fully compliant with the latest edition of NFPA 99
- Two oil-less rotary claw type vacuum pumps with inlet filter and isolation valve for each
- Two motors
- ASME coded vacuum receiver with bypass and manual drain
- Duplex 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

- 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 duplex control system
- NEMA 12 and U.L. 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
- Automatic alternation of both vacuum pumps based on a firston/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<sup>™</sup> 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.

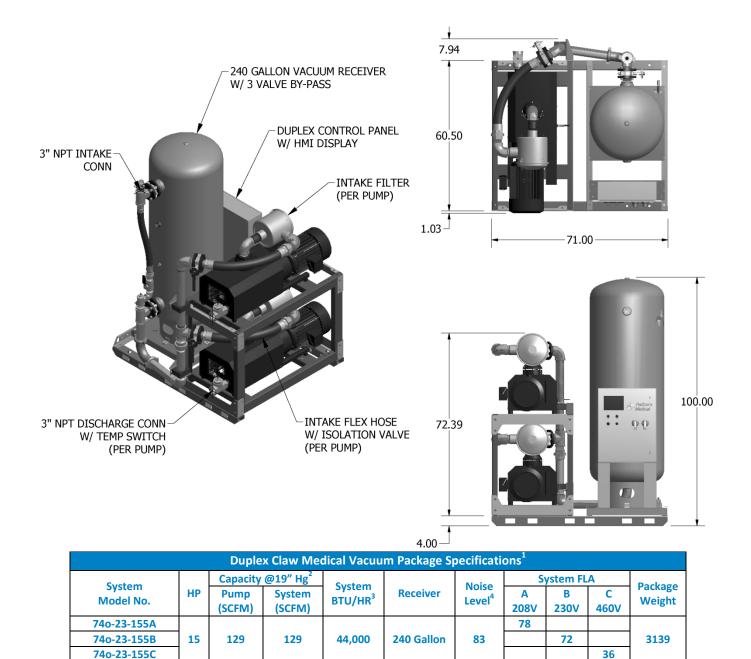
#### Oxygen Compatibility

- Safe for all WAGD applications
- Capable of operating safely at 100% oxygen content
- All parts and surfaces in contact with the flow stream are cleaned with oxygen compatible cleaner
- Pump is assembled and tested in a clean room with dedicated tools
- Fiberglass inlet filter media insures there is no fuel to ignite in the compression chamber
- Gear casing lubricant is of a special oxygen compatible formula





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#### Notes:

Assembly Diagram 74o-23-154-ASM Installation Diagram 74o-23-154-INT Piping Diagram 74o-23-154-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.

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

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

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

<sup>&</sup>lt;sup>4</sup> Noise levels are shown in dB(A) and reflect one pump running.