

# **SPECIFICATION**

68L-22-032-PDS

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# Duplex "Oil-Less" Scroll Lab Air Package 3 HP Vertical Tank Mounted with Single Point Connection and Desiccant Dryers

#### **Air Compressor Package**

- Two "oil-less" scroll air compressors with inlet filter
- Two motors
- ASME coded corrosion resistant air receiver with bypass
- Duplex desiccant air dryer system with purge control and piped with duplex pre-filters, after filters and regulators
- Duplex control panel with HMI control monitoring system
- All discharge air piping and fittings ASTM B-819 copper tubing, brass and/or stainless steel
- All brazed joints are per NFPA 99
- All discharge flex connectors braided, 304 stainless steel
- Individual compressor isolation valve
- All components completely pre-piped and pre-wired to single point service connections
- All interconnecting piping and wiring is completed and operationally tested prior to shipment
- Liquid tight conduit, fittings and junction boxes for all control and power wiring

#### **Air Compressor Module**

- Continuous duty rated with permanently lubricated, sealed bearings
- Air-cooled single stage scroll type
- Constructed of one fixed and one orbiting scroll sealed with PTFE tip seals between the scroll halves
- Rated for 120 psig discharge pressure
- Protected from dust or contamination with a two part face seal
- Orbiting bearings grease filled
- Drive Bearings Grease filled and lip sealed
- Drive bearing maintenance interval 10,000 hours
- Scroll housing constructed of die cast aluminum
- Integral cooling fan and air ducting for maximum heat dissipation
- Air-cooled aftercoolers for each compressor module with maximum approach temperature of 15° F and automatic solenoid drain valves
- V-belt drive with means of adjustment
- OSHA approved, totally enclosed belt guard
- High discharge air temperature shutdown switch wired to the compressor control system for each compressor
- Discharge line valve for load-less starting
- Each compressor discharge line equipped with a safety relief valve, a check valve, isolation valve, and flex connector

#### **Compressor Motor**

- NEMA rated Open drip proof
- 3600 RPM, with 1.15 service factor
- 208 or 230/460V

## **Vibration Isolation System**

- Compressor 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

#### **Air Receiver**

- Galvanized and integrally mounted with 3-valve bypass
- ASME Code stamped and National Board Certified
- Rated for a minimum 200 PSIG design pressure
- · Liquid level sight glass
- Safety relief valve
- Manual drain
- · Automatic timed solenoid drain valve

#### Dryer/Filter/Regulator System

- Dual desiccant air dryer with an integral demand based purge saving control system
- Each dryer individually sized for peak calculated demand and capable of producing a 10° F (-12° C) pressure dew point
- High efficiency coalescing pre-filter rated for 0.01 micron on each dryer with automatic drain and element change indicator
- Particulate final line filters rated for 0.01 micron on each dryer with element change indicator
- Final line regulators and safety relief valves on each dryer
- Isolation valves to permit servicing without shutting down the lab air system
- Air sample port

### **Dew Point Hygrometer**

- Dew point hygrometer monitor wired and includes remote alarm contacts
- Hygrometer sensor ceramic type
- Accuracy minimum of ± 2° F for dew point
- Dew point alarm factory set at 36° F (2° C)
- Both set points field adjustable
- High dew point indicated with visual/audible alarms

#### **Control System**

- Mounted and wired duplex 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
- Hand-off-auto selector switches for reliable back-up
- Automatic alternation of compressors based on a first-on/firstoff 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<sup>™</sup> touch screen gateway

#### Standard Screen Displays

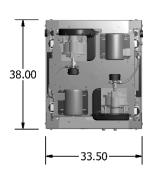
- + Air level/Runtime
- + Replacement parts
- + Alarm history
- + Troubleshooting guidelines
- + Service indicator
- + Historical Trending of system status
- + Maintenance schedule
- + 7" Wide TFT Graphic Touch Screen with Motion Actuated Backlit LED and Bright 65,536 (16-bit) Colors
- + Downloadable 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
- + Share data between HMI and Building Management systems with no additional software to implement

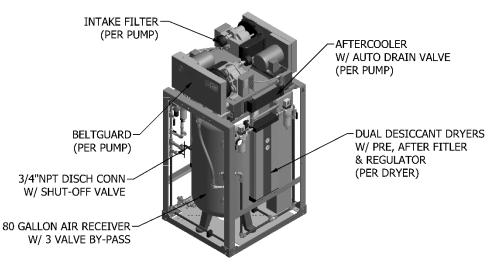


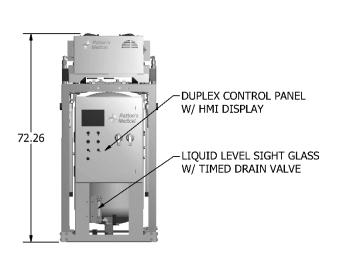
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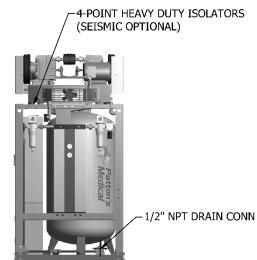
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Duplex Scroll Lab Air Package Specifications <sup>1</sup>									
Complete Package Model No.		System Capacity <sup>2</sup>		Package <sup>3</sup>	Noise	System FLA			Package
	HP	50 psig	100 psig	BTU/HR	Level <sup>4</sup>	208V	230V	460V	Weight
68L-22-032A		20.8	19.2	13,490	69	19.8			1246
68L-22-032B	3						17.8		
68L-22-032C								9	

#### Notes

## **Statement of Warranty**

Patton's Medical warrants all Lab 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.

<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 with all pumps running and are shown in Inlet Cubic Feet per Minute (ICFM).

<sup>&</sup>lt;sup>3</sup> Package BTU/HR are shown with all pumps running.

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