DUPLEX STACK MOUNTED SCROLL MEDICAL AIR PLANTS WITH DESICCANT AIR DRYERS 10 AND 15 HP

The EMSE CORPORATION continuous duty Medical Air Plant is stack mounted, completely packaged, NFPA 99 and NEC compliant assembly with 100% oil-less, rotary scroll air compressors, U.L. listed control cabinet, an ASME receiver, dual desiccant air dryers with purge control, dual 0.5 micron pre-filters, dual 0.5 micron after-filters, dual line pressure regulators, dew point monitor, CO monitor and all accessories required to meet and exceed the current code.

All components are piped and wired to single-point service connections. The only field connections are air intake, air discharge and power at the control panel.

All interconnecting piping and wiring is complete and operationally tested prior to shipment. Liquid tight conduit, fittings and junction boxes are provided for all control and power wiring.

AIR COMPRESSORS

The medical air compressors are rotary oil-less scroll, air-cooled design. They are dynamically balanced for very low noise levels and little vibration. **No oil is used in operation of the compressors, so the discharge air is 100% oil-free.** Cooling is provided with an integral radial fan.

Compressors are V-belt driven by 3 phase, 60 cycle, 3550 RPM, NEMA design B motors. Included are slide bases for belt tension adjustment and totally enclosed OSHA approved belt guards.

Standard equipment includes air cooled aftercoolers, compressor discharge check valves, safety relief valves, intake and discharge flexible connectors, solenoid drain valves, isolation valves, high discharge temperature shut-down switches, pressure control switches, a shut-off cock for gauge and switches.

RECEIVER

The system includes a corrosion resistant receiver of ASME construction rated for 200 PSI MWP service. The tank includes a pressure gauge, safety relief valve, 3 way by-pass, gauge glass and an automatic electronic drain with manual override.

AIR TREATMENT

The dryer assembly consists of two identical banks of air treatment equipment, piped in parallel and provided with valves to by-pass either bank without sacrificing air quality. Each desiccant air dryer is sized for 100% of the system NFPA capacity.

The dryer is designed to provide a maximum dew point below +32^{o}F per NFPA 99. Built-in purge saver control automatically minimizes the amount of purge air to match the variable air flow.

Each dryer is equipped with a 0.5 micron pre-filter with electronic drain and element change indicator, 0.5 micron after-filter with element change indicator and a pressure regulator.

Digital dew point and CO monitors with alarm set points at 39^{0}F and 10 PPM are provided. A "demand check" for maintenance is included per current NFPA 99 for each instrument.

NEMA 12 UL listed control panel features short circuit, single phase and thermal overload protection. Externally operable circuit breakers with a door interlock, control circuit transformers with fused primary and secondary coils, compressor HOA switches, magnetic starters with 3 leg overload protection and reset switches are standard. Also included are individual dual-mode 3-position selector switches for air dryers.

The Programmable Logic Controller provides automatic alternation and lead-lag control with the option to select either one of the pumps as a permanent lead for periods of pump maintenance. Human Machine Interface (HMI) display includes compressor run indication, accumulated run time and alarm conditions.

CONTROL PANEL (continued)
The following audible and visual local alarms are provided per NFPA 99: compressor thermal malfunction, "Backup in use", high dew point and high CO. The audible alarm can be acknowledged with the "Silence" button. All controls and alarms will function even if one of the compressors is shut down for maintenance or repairs.

The panel includes dry contacts for connection to the master alarms for the following: system malfunction (including compressor thermal malfunction and "Backup in use"), high dew point level, high carbon monoxide level and individual monitor signals in case of power loss.

Field adjustable control switches are pre-set to operate the lead compressor module between 100 PSIG and 120 PSIG. The stand-by compressor will automatically start at 95 PSIG if the lead compressor fails to operate.

WARRANTY
The Medical Air Plant is guaranteed by the manufacturer for a period of 12 months from the date of start-up or 18 months from the date of shipment (whichever comes first) against defects in design, materials, or construction. In addition, the compressors are guaranteed for 36 months from the date of shipment.

Option (only checked options will be supplied)

☐ Touch screen interface with ethernet connectivity, embedded web page for remote monitoring and electronic notifications of alarms and warnings

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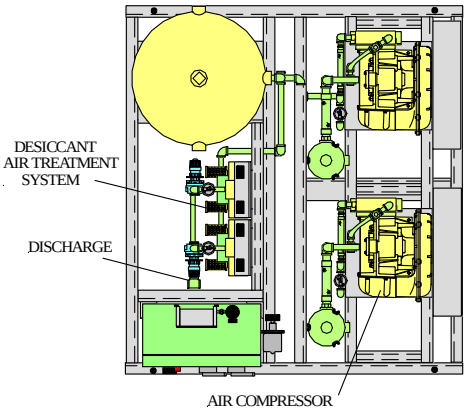
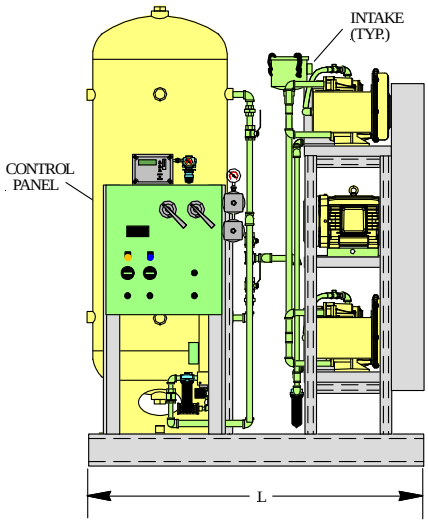
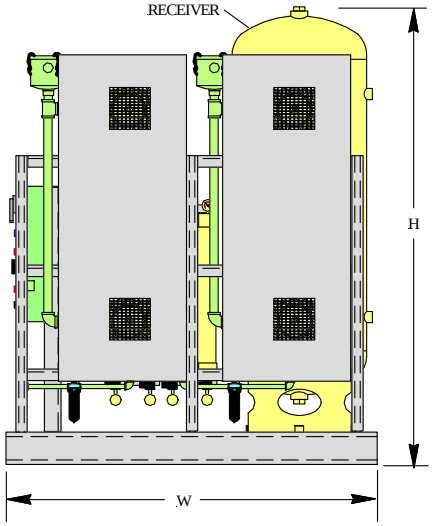
LAYOUT AND PERFORMANCE TABLE







System Model Number	Horsepower Each	Horsepower Total	System Capacity ICFM[1] 50 PSIG	System Capacity ICFM[1] 120 PSIG	Disch. Conn.	Tank (Gal.)	Dimensions, In. L	Dimensions, In. W	Dimensions, In. H	Weight Lbs.
3DOHS10PS120D-B	10	20	34.8	32.0	3/4"	120	60	66	84	2390
3DOHS15PS120D-B	15	30	50.4	48.0	3/4"	120	60	66	84	2465

Notes:
1. Capacity shown is NFPA system capacity with reserve compressor on stand-by.
2.Maximum ambient temperature: 100°F. For higher ambient temperatures consult factory.

Power Requirements:

(Two) _____ HP Motors, 3 Phase 60 Hertz ☐ 208 v ☐ 230 v ☐ 460 v