



## QUADRUPLEX MODULAR STACK MOUNTED "Q" SERIES MEDICAL AIR SYSTEMS 7.5 THROUGH 20 HP

The EMSE CORPORATION continuous duty Medical Air system is a modular stack mounted, NFPA 99 and NEC compliant assembly featuring oil-less air compressors, U.L. listed control cabinet, ASME receiver and all the accessories required to meet and exceed the current code requirements. All components are pre-piped and pre-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.

**After testing the system will be separated into 34" modules for ease of installation.**

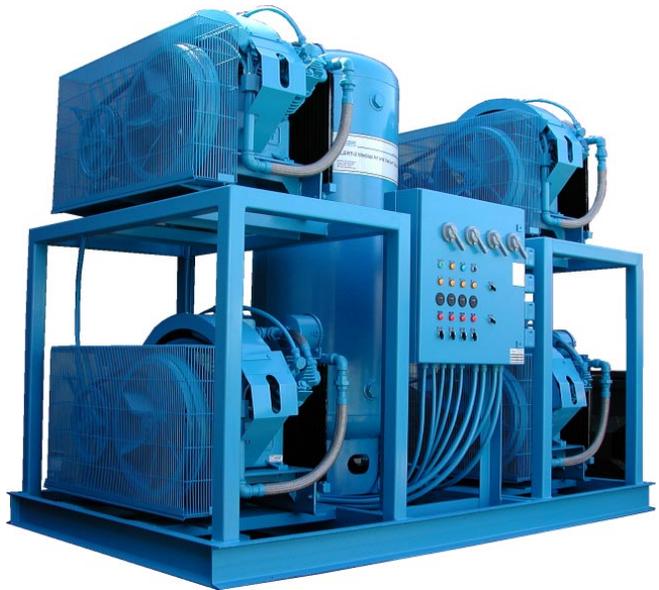
The medical air compressors are an oil-less, reciprocating, air-cooled design. The air compressors have a cast iron crankcase, teflon-composite compression and rider rings, sealed bearings, stainless steel reed valves and non-asbestos gaskets. **No oil is used in operation of the compressors. The discharge air is 100% oil-free.** Cooling is provided by a fan compressor pulley with air shroud.

Compressors are V-belt driven by 3 phase, 60 cycle, 1750 RPM, NEMA design B motors.

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

Also include are discharge check valves, safety relief valves, intake and discharge flexible connectors, solenoid unloaders, isolation valves, high discharge temperature shut-down switches, pressure switches and a shut-off cock for gauge and switches.

The system includes a UL listed control panel in a NEMA 12 enclosure. The panel includes the following for **each** pump: externally operable circuit breaker with a door interlock, control circuit transformer with fused primary and secondary coils, H-O-A switch, run light, hour meter and magnetic starter with 3 leg overload protection and reset switch. A plug-in type programmable controller with removable terminals allows quick and easy replacement in the field. The system is designed to function if the PLC fails. If one of the compressors is out of service, the system control shall omit that unit from the alternating cycle, automatically alternating between the remaining compressors. The system shall revert to normal automatic alternation when the condition is corrected. The system is supplied with forced time alternation in the event a compressor is unable to satisfy the demand in 30 minutes.



Local audible and visual alarms are provided per NFPA 99 for compressor thermal malfunction and "Backup in use". The alarms include indicating lights and a horn. The thermal malfunction shut-down is provided with a manual reset. The audible alarm can be cancelled with the "Silence" button. The visual alarm remains energized until the problem is corrected. Each alarm function includes dry contacts for connection to the master alarm. All control and alarm functions remain energized while any compressor remains on-line.

Field adjustable pressure switches are pre-set to operate the lead compressor between 80 PSIG and 100 PSIG, the lag 1 compressor between 75 PSIG and 100 PSIG and the lag 2 compressor between 70 PSIG and 100 PSIG. The stand-by compressor will automatically start at 65 PSIG if one of the other compressors fails to operate.

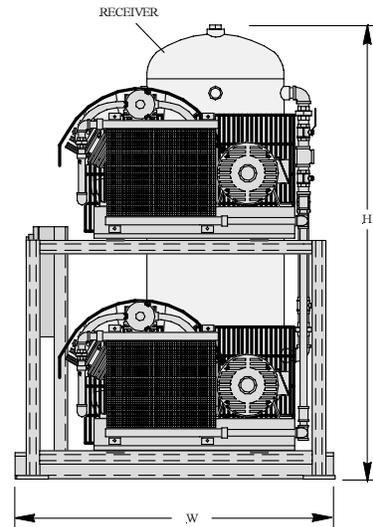
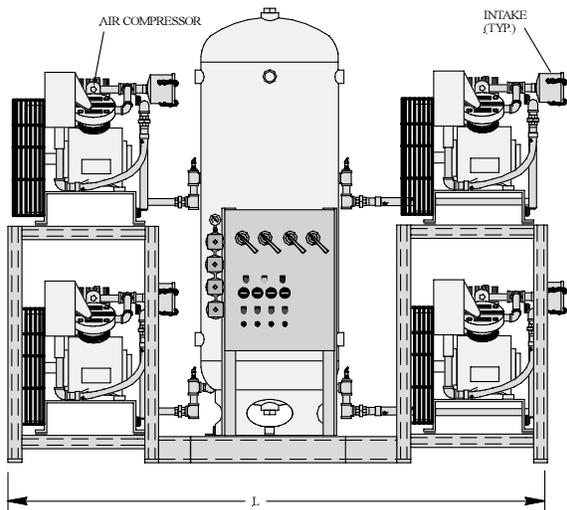
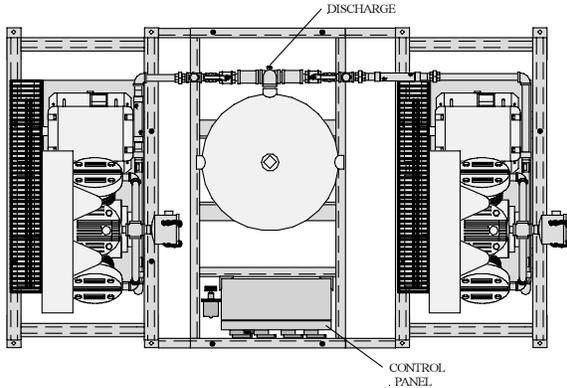
The Medical Air system is guaranteed by the manufacturer for a period of 12 months from the date of start-up or 18 months from the date of shipment (whichever comes first) against defects in design, materials, or construction.

### Optional System Accessories

(only checked options will be supplied)

- "Dura-coat" rust protection receiver lining
- Galvanized receiver
- Air-cooled aftercoolers
- Dual medical air treatment system with refrigerated air dryers
- Dual medical air treatment system with desiccant air dryers

# QUADRUPLEX MODULAR STACK MOUNTED "Q" SERIES MEDICAL AIR SYSTEMS 7.5 THROUGH 20 HP LAYOUT AND PERFORMANCE TABLE



System Model Number	Horsepower		Capacity SCFM (Each Pump)		Disch. Conn.	Tank (Gal.)	Dimensions, In.			Weight Lbs.
	Each	Total	50 PSIG	100 PSIG			L	W	H	
3QOQ7.5MS240	7.5	30	32.5	28.5	1.5"	240	118	70	98	4740
3QOQ10MS240	10	40	40.8	36.3	1.5"	240	118	70	98	4860
3QOQ15MS240	15	60	58.3	51.0	2"	240	118	70	98	5760
3QOQ20MS240	20	80	75.0	65.1	2"	240	118	70	98	6040

**Note:** Maximum ambient temperature: 100°F. For higher ambient temperatures consult factory.

### Power Requirements:

(Four) \_\_\_\_\_ HP Motors, 3 Phase 60 Hertz     208 v     230 v     460 v