



## QUADRUPLEX STACK MOUNTED "L" SERIES INSTRUMENT AIR PLANTS WITH DESICCANT AIR DRYERS, 7.5 THROUGH 15 HP

The EMSE Corporation Instrument Air Plant is a completely packaged NFPA 99 and NEC compliant assembly featuring extreme duty pressure lubricated air compressors, U.L. listed control cabinet, an ASME receiver, dual desiccant air dryers with purge control, dual 0.5 micron pre-filters, dual charcoal absorbers, dual 0.01 micron after-filters, line pressure regulating valves, dew point monitor and all accessories required to meet and exceed the current code requirements. All components are piped and wired to single-point service connections. The only field connections are 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. The entire system is stack mounted on a common structural steel base.

The high pressure instrument air compressors are a pressure lubricated, reciprocating, air-cooled design. Connecting rod and crankshaft bearings are pressure lubricated for extended life. Lubricant to all critical parts of the compressor is provided by an oil pump.

Compressors are V-belt driven by 3 phase, 60 cycle, 1750 RPM, NEMA design B motors. Slide bases for belt tension adjustment and totally enclosed OSHA approved belt guards are provided.

The system includes an ASME corrosion resistant receiver rated for 300 PSI MWP service. The tank is equipped with a pressure gauge, safety relief valve, 3 way by-pass, gauge glass and automatic electronic tank drain with manual override.

Also included are intake filters, check valves, safety relief valves, discharge flexible connectors, isolation valves, 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. Disconnect switches for the air dryers are included.

The panel is equipped with a plug-in type programmable controller with removable terminals to allow quick and easy replacement in the field. The system is designed to function even if the programmable controller fails. If one of the compressors is out of service the system control will omit the compressor from the alternating cycle, automatically alternating between the remaining compressors only. The system will revert to normal alternation automatically when the condition is corrected. In addition to



standard automatic alternation, the system is equipped with forced time alternation in the event that one compressor is unable to satisfy the demand in 30 minutes. The system is also equipped with a flashing light pump failure alarm/shutdown at any of the following conditions: motor overload tripped, main disconnect is off, blown fuse, control transformer failure, starter coil failure, H-O-A is off.

Local audible and visual alarms are provided per NFPA 99 for compressor "Backup in use" and high dewpoint. The alarms include indicating lights and a horn. 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 195 PSIG and 218 PSIG, the lag 1 compressor between 190 PSIG and 215 PSIG and the lag 2 compressor between 185 PSIG and 210 PSIG. The stand-by compressor will automatically start at 180 PSIG if one of the other compressors fails to operate.

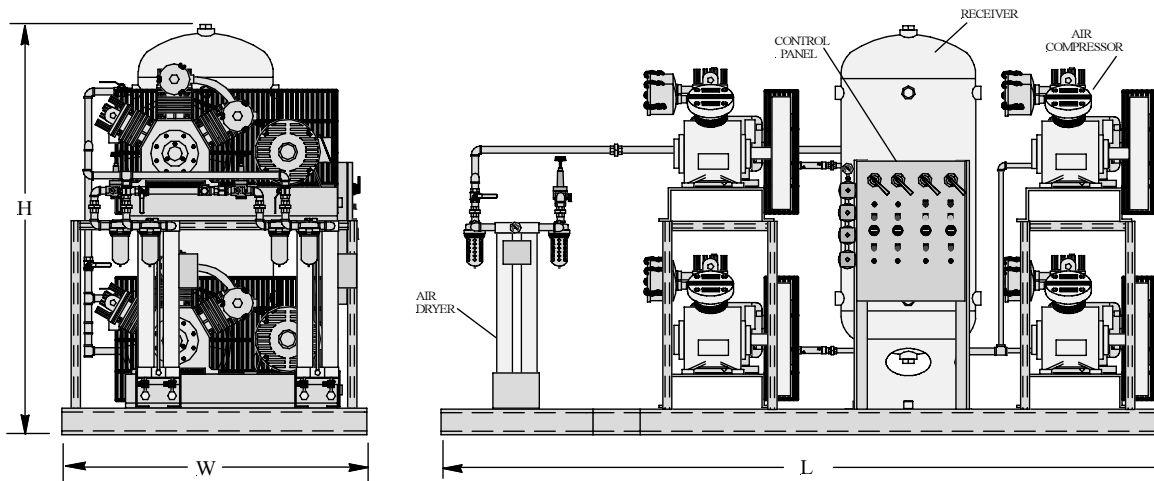
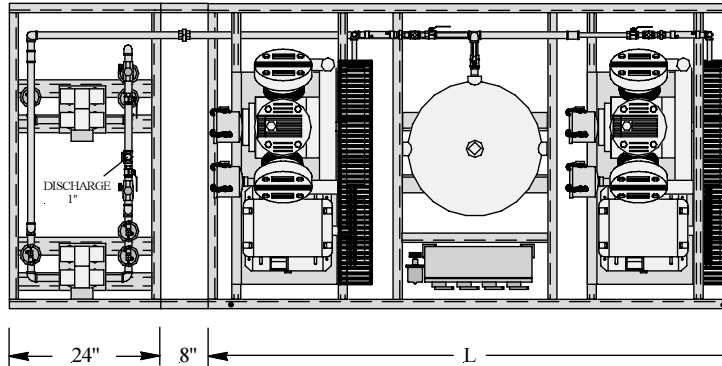
The Instrument Air Plant is guaranteed by the manufacturer for a period of 12 months from the date of start-up or 18 months from the date of shipment (whichever comes first) against defects in design, materials, or construction.

### Optional System Accessories

(only checked options will be supplied)

- Rust protection receiver lining
- Thermal malfunction shut-down with manual reset and alarm lights

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LAYOUT AND PERFORMANCE TABLE**



System Model Number	Horsepower		Capacity SCFM (Each Pump)		Disch. Tank Conn. (Gal.)	Dimensions, In.			Weight Lbs.	
	Each	Total	180 PSIG	200 PSIG		L	W	H		
3QLC7.5HPS200D	7.5	30	25.8	24.3	1"	200	134	62	88	3830
3QLC10PS200D	10	40	34.8	32.3	1"	200	134	62	88	4270
3QLC15PS200D	15	60	49.0	44.8	1"	200	142	68	88	4380

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