

Reciprocating Air Compressor System



Control Panel Specifications

- UL listed control panel has a NEMA 12 enclosure.
- Externally operable circuit breakers with door interlocks, control circuit transformers with fused primary and secondary circuits, H-O-A switches and magnetic starters with three leg overload protection.
- Touch screen monitor displays the hours of operation of each pump, setting of the system and indicates any faults.
- Lighting on the H-O-A switches indicates which pump is running.
- Audible and visual local alarms are included for compressor temperature malfunction and reserve compressor in use.
- Manual reset for thermal malfunction shutdown is available.
- Signal contacts control dryer purge.

- All control and alarm functions shall remain energized while any compressor in the system remains electrically online.
- The lag compressor shall be able to start automatically if the lead compressor fails to operate.
- Digital dew point monitor is located within the control panel with alarm contacts set at +39°F and the CO monitor at 10 ppm.
- The dew point (either in °F or °C) and CO in ppm will be digitally displayed on the monitor.
- An isolation valve for maintenance is included as per NFPA 99 for each sensor.
- Alarm contacts are provided for remote annunciation for all alarm points.
- Alarm logging within the control panel PLC (premium only)
- Ethernet connection for remote panel control (premium only)



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Air Compressor System Specifications

- Meets or exceeds the requirements of NFPA 99.
- Package contains: oil-less reciprocating air compressors, associated equipment, one ASME air receiver, desiccant air dryer package and one control panel.
- System intake, discharge, and power connection at the control panel are the only field connections required.
- All components are completely pre-piped and prewired to a single point service connection.
- All interconnecting piping and wiring shall be completed and operationally tested prior to shipment.
- Liquid tight conduit, fittings and junction boxes for all control and power wiring are provided.
- The system shall include individual compressor inline intake filters, discharge check valves of bronze construction, safety relief valves, stainless steel intake and discharge flexible connectors, isolation valves, air cooled aftercoolers for each compressor, high discharge temperature shutdown switches, pressure control switches as well as poly tubing with DISS fittings for gauges and switches.

Air Compressor

- The compressors shall be belt driven oil-less reciprocating, single stage, air-cooled construction with absolutely no oil needed for operation.
- Each compressor will be equipped with isolation valve, check valve, safety valve, electric motor, belts, belt guard, aftercooler with separator and T.M.P.D. (Thermal Malfunction Protection Device).

Compressor Motor

- NEMA, open drip proof, 1800 RPM, continuous duty.
- 208 V or 230-460 V, 60 Hz, 3 phase electrical service.

Vibration Isolation System

The compressor and motor are fully isolated from the package base by means of spring isolators (5 Hp and larger).

Air Receiver

- AMSE construction.
- Inside of the tank shall be coated for rust protection.
- Rated for a minimum 200 psig MWP service
- Equipped with pressure gauge, safety relief valve, 3 way bypass, gauge glass and automatic electronic tank drain with manual override.

Dryer/Filter/Regulator System

- NFPA 99 compliant dual desiccant air dryers with an integral, demand based, purge saving control system
- Equipped with dual pre-filters, after-filters, pressure regulator valves, dew point monitor, CO monitor and system safety valves.
- It is required to meet and exceed the current code requirements shall be mounted on the compressor system base.
- Completely pre-piped and pre-wired to single point service connections.
- There shall be two identical banks of air treatment equipment, piped in parallel and provided with valves to bypass either filter set for element replacement, maintenance and repair work while still treating medical compressed air through the other set.
- Each bank consists of three stages:
 - 1st stage: prime efficiency coalescer with filtered differential pressure gauge and electric solenoid auto drain valve.
 - 2nd stage: desiccant heatless air dryer equipped with purge control.
 - 3rd stage: prime efficiency particulate afterfilter with differential pressure gauge and manual drain.

The service of a factory trained representative shall be made available at job site to check installation and start up as well as train operating personnel in proper operation and maintenance procedures.