

Oil-Free Scroll Compressor Plus with Enclosure, Graphic Controller, Integrated Desiccant Dryer and 71G Tank (3 - 7.5 Hp)

SPECIFICATION

Enclosed Scroll Compressor

The oil-free scroll air compressor plus package is tank mounted and enclosed in a steel, sound-insulated canopy. The package is equipped with an integrated refrigerated dryer and desiccant dryer, and mounted upon a 71 gallon receiver tank. The compressor is designed and supplied as a complete package with all necessary equipment, including but not limited to the following components:

- Inlet filter
- Air compressor element
- Drive motor
- Aftercooler
- Starter and regulation system
- Control panel

All compressor components are mounted within a common six-sided low sound enclosure with solid base frame.

The enclosed scroll package provides air quality that qualifies to be in the category "Class 0" in terms of oil content as defined by standard ISO 8573-1:2001 Part 1.

Compressor Unit

Compressor Module: The compressor package is made up of one compressor module consisting of a compressor element belt driven by an electric motor, and radial fan. The module is equipped with a temperature sensor to monitor the element housing temperature.

Compression Element: The compressor element consists of a fixed scroll housing and an orbiting scroll rotor. The element and housing are pressure die cast aluminum. The crankshaft and pulley are cast iron. The element is V-belt driven using belts with XPZ profile. Bolts for adjusting belt tension are easily accessible via removable panels.

Drive Motor: The compressor module is belt driven by an IE3 NEMA Premium Efficiency, Totally Enclosed Fan Cooled motor for optimum performance and reliability. The motor insulation is Class F. The motor bearings are greased for life and do not require special attention.

Cooling System: The compressor element is cooled by an integrated radial fan. The compressed air is cooled by an aluminum block aftercooler and an axial fan fitted on the motor shaft provides cooling for the aftercooler. A separate fan delivers cooling air for the dryer.

Starter: The compressor is factory equipped with a direct on line starter. The starter is mounted and wired within the UL listed compressor control cubicle.

Compressor Control: The compressor package has a microprocessor controller with graphic display. The regulator maintains the net pressure between programmable limits by automatically starting and stopping the compressor. The regulator stops the compressor whenever possible to reduce the power consumption and restarts it automatically when the net pressure decreases.

The compressor is equipped with auxiliary contacts for external indication of run status, automatic or manual run control, general warning and general shutdown conditions.

The control system has the capability to control and monitor the following functions:

- Delivery air pressure
- Element outlet temperature
- Compressor status
- Motor overload status
- Delivery air temperature
- Running hours
- Regulator hours

Compressor Protection: The microprocessor provides service requirement indication, warning and shutdown indication and alarms. Additional protective functions include emergency stop, element outlet temperature, drive overload, and service warnings.

Inlet Air Filter

A paper cartridge type filter is provided and factory installed. The filter eliminates dust and particles down to 1 µm.

Compressor Enclosure

The compressor module is enclosed in a steel, soundinsulated canopy with removable panels to provide access for maintenance. The sound insulating material is a flame retardant polyurethane.

Integrated Refrigerated Dryer

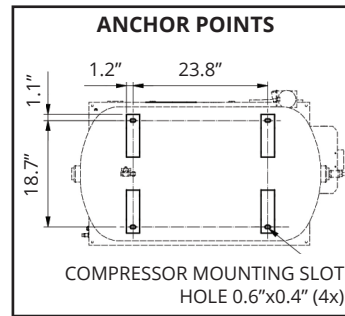
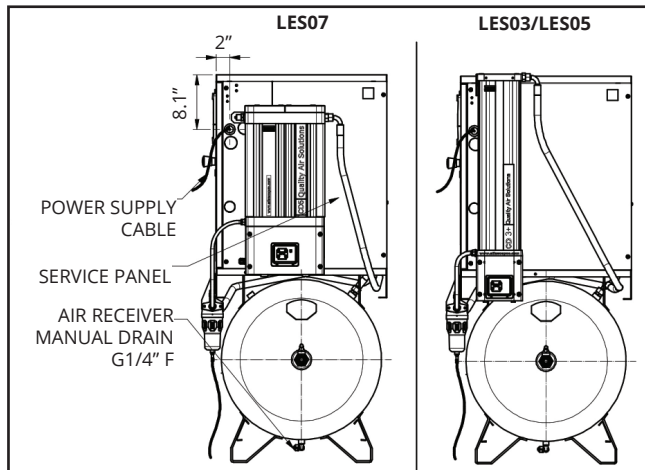
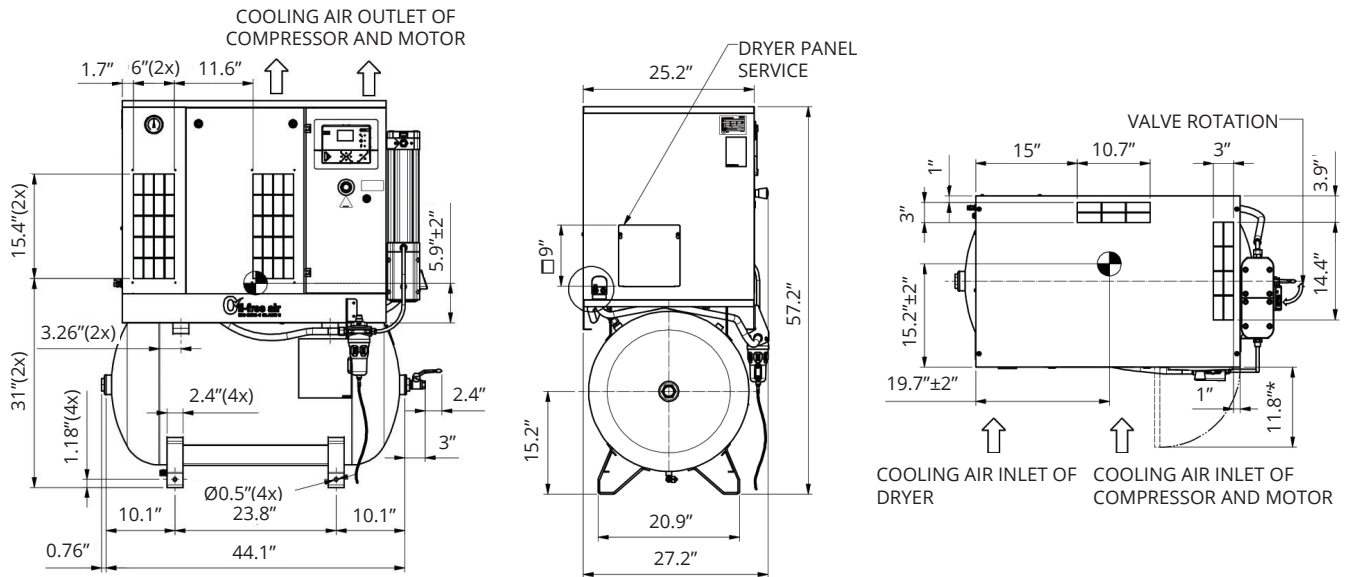
The compressor is fitted with an integrated refrigerated dryer, pre-wired to the compressor power supply. The dryer is integrated inside the canopy and is controlled by the compressor's primary controller. The dryer uses R134A refrigerant. The refrigerant compressor is a hermetic piston type design. The dryer includes an air-to-air heat exchanger to pre-cool the incoming compressed air and reheat the exiting compressed air. Water is removed via the integrated water separator and the electronic condensate drain.


Integrated Desiccant Dryer

The compressor is fitted with a desiccant dryer, mounted onto the canopy. The operation of the dryer is repetitive and is controlled by a factory set timer. The dryer is used in conjunction with the refrigerant dryer to achieve a lower dew point, down to -40° C. The heatless adsorption dryer consists of two cylinders (towers), each containing adsorption material (desiccant).

Receiver Tank

The compressor is mounted upon an internally coated 71 gallon (270 liter) horizontal receiver. The receiver is provided with an electronic condensate drain.


Notes:

-  Center of Gravity
- * Door Fully Open

Scroll Compressor Package Specifications

Package Model No.	HP	Working Pressure	Capacity FAD ¹	Noise Level ²	System FLA			Weight (lbs)
					208V	230V	460V	
LES03+115-RD-071-DD-GR	3	101.5	8.9	56	16.3	14.8	7.4	580
LES03+145-RD-071-DD-GR	3	141.4	7.2	56	16.3	14.8	7.4	580
LES05+115-RD-071-DD-GR	5	101.5	14.0	58	23.1	20.9	10.4	580
LES05+145-RD-071-DD-GR	5	141.4	12.5	58	21.2	19.1	9.6	580
LES07+115-RD-071-DD-GR	7.5	101.5	20.8	59	32.2	29.1	14.6	632
LES07+145-RD-071-DD-GR	7.5	141.4	16.1	59	29.3	26.5	13.3	632

- Notes:**
- Unit performance measured according to ISO 1217, Annex C, latest edition. Reference conditions: Absolute inlet pressure 14.5 psig; Intake air temperature 68°F. Capacity FAD does not include purge losses, approximately 15%.
 - Noise level measured at a distance of 1m according to Pneurol/Cagi PN8NTC2 test code.