

“D” Series Scroll Enclosure Engineering Specification

General Provisions:

As a world class manufacturer of oil-less scroll compressors, Coaire’s scroll enclosures are designed and constructed for optimal performance and clean, oil-less compressed air. The scroll enclosures shall be manufactured and assembled in an ISO 9001 facility.

Scroll Enclosure:

The scroll enclosure shall include all necessary equipment for the unit to operate and function properly without the need for field assembly. The unit shall have an inlet filter for the compressor, (1) outlet connection, as well as only needing (1) incoming electrical connection. The enclosure shall be constructed of a heavy steel panel structure on a steel base. The enclosure shall be powder coated to ensure robust durability. The enclosure panels shall be able to be easily removed for maintenance. The panels shall include proper venting to facilitate heat dissipation. Inside each enclosure shall be a fan to ensure proper air flow inside of the enclosure. Units that do not include a fan in the enclosure shall not be accepted.

Scroll Compressor / Motor Assembly:

The compressor shall be an air cooled, single stage, oil-less scroll compressor and shall operate without the need for intake or exhaust valves. Each compressor shall be belt driven utilizing a pivot motor base for ease of belt adjusting. The discharge air after cooler and connecting fittings shall be made with non-ferrous materials. After cooler assemblies made with ferrous materials shall not be accepted. The compressors shall utilize external bearings which can be greased. Bearing shall be greased every 10,000 hours (5,000 hours for the high pressure scrolls). Tip seals shall be made of a PTFE composite material and rated for 10,000 hours (5,000 hours for the high pressure scrolls). Each compressor shall have an integral cooling fan. The compressor shall also include a 10 micron inlet filter.

The compressor shall be driven by a NEMA rated, 1750 RPM, ODP motor. The motor shall be EISA compliant. Each compressor / motor assembly shall utilize an OSHA compliant belt guard. Units that do not include OSHA compliant belt guards for each compressor / motor assembly shall not be accepted.

Dryer / Air Receiver:

The scroll enclosure shall include a built-in refrigerated dryer and an ASME rated 10 gallon, stainless steel air receiver. The air dryer shall be an air cooled, non-cycling type and have a separate on/off switch and a float style moisture drain. The refrigerated dryer shall dry the air to approximately 50° F dew point. The stainless air receiver shall include an ASME rated safety relief valve and a ball valve to drain moisture.

Electrical Controls:

The enclosure shall include a soft-touch microprocessor controller. Electrical components shall be UL listed. The controls shall include a start/stop button, power “on” and “run” lights, digital pressure and temperature gauge, and digital hour meter. The unit shall shut down upon high discharge air temperature or an over current draw. The panel shall display error codes for various alarm conditions as well as a time indication when the alarm occurred. The panel shall include a dry contact for remote alarm wiring.

Low Pressure Units

Model	HP	Outlet Connection	SCFM @ 100 psi	Max Pressure	dB(A)	L (inch)	W (inch)	H (inch)	Net Weight (lbs.)
CSOF-D3PL	3	1/2" npt	8.5	115 psi	49	27.6	29.1	58.5	408
CSOF-D5PL	5	1/2" npt	14.1	115 psi	50	27.6	29.1	58.5	430

High Pressure Units

Model	HP	Outlet Connection	SCFM @ 135 psi	Max Pressure	dB(A)	L (inch)	W (inch)	H (inch)	Net Weight (lbs.)
CSOF-D3PH	3	1/2" npt	7.2	140	49	27.6	29.1	58.5	408
CSOF-D5PH	5	1/2" npt	12	140	50	27.6	29.1	58.5	430