

Great Lakes Air



39°F DEWPOINT

BUILT IN AFTERCOOL

80°F INLET TEMPER

ENSION VA

ONIC D

0 FREEZ

STANDARD ELECTRONIC DRAIN

180°F INLET TEMPERATURE

BUILT IN AFTER COOLER

39°F DEWPOINT

SS TEXV

High Inlet Temperature Refrigeration Dryers

Features and Benefits

5-2-1 Product Warranty

The Great Lakes EDR series refrigerated air dryer is manufactured to the highest quality standard. In an effort to express this quality standard and distinguish our products from competitors, we offer as standard our 5-2-1 product warranty.

- 5 - Year Warranty, covers heat exchangers.
- 2 - Year Warranty, covers all the independent components of the dryer omitting only maintenance items.
- 1 - Year Warranty, covers labor required to repair or replace warranty items.

With continuous improvement of quality standards, along with engineering improvements that are moving with technology, you can be assured that Great Lakes Air Products will provide you with a quality product for years of uninterrupted service.

For detailed warranty coverage and requirements consult EDR warranty publication.

Low Pressure Drops

The EDR series compressed air dryers manufactured by Great Lakes Air are designed for ultra low pressure drops that range from 1.2 to 2.6 PSID. Competitive products can deliver pressure drops as high as 6.5 PSID. Additional pressure drop can substantially increase the operating cost of your dryer, each pound (PSI) raises the required compressor horsepower by 0.5%. If a facility is required to raise discharge pressure by 3 PSI to overcome component restriction (Pressure Drop), 1.5% additional compressor HP is required.

Assuming a facility operates a 25 HP compressor and has an average electricity cost of \$0.06 kW/H. Adding 3 PSI of pressure drop would needlessly increase annual electrical cost by approximately \$147.00.

Environmental Refrigerants

Great Lakes Air utilizes only environmentally friendly refrigerants, the EDR series utilize HFC (R134A) refrigerant. These non-ozone depleting products have enabled a global transition away from environmentally destructive CFC refrigerants. Optional refrigerant types are available consult your representative for details.

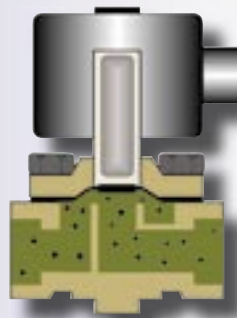
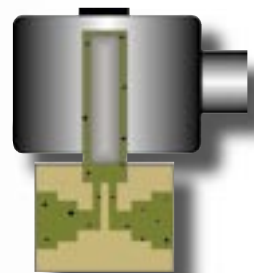


Made With Pride in the U.S.A.

Great Lakes Air manufacturers all of its compressed air dryers in a suburb of Detroit, Michigan. We offer our customers a steady stream of reasonably priced high quality industrial products with a proven history of performance. Readily available replacement components and maintenance items are locally available through the Great Lakes distribution system, or the national network of wholesale refrigeration supply houses. Base your equipment purchase on the quality and durability of American made products.

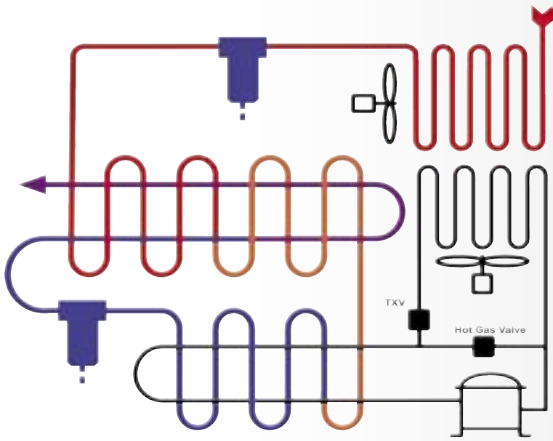
Smart Design Solenoid Drain

Great Lakes Air uses only diaphragm type solenoid valves for the electronic timed condensate drains. Diaphragm valves keep the main stream of condensate away from the internal moveable piston.



If particulate contaminant in the condensate stream fouls and restricts movement of the piston, the valve will fail. Diaphragm valves have much larger orifices and flow paths than the industry standard direct acting valves. A larger orifice in conjunction with a strainer virtually eliminates the possibility of clogging a condensate drain valve.

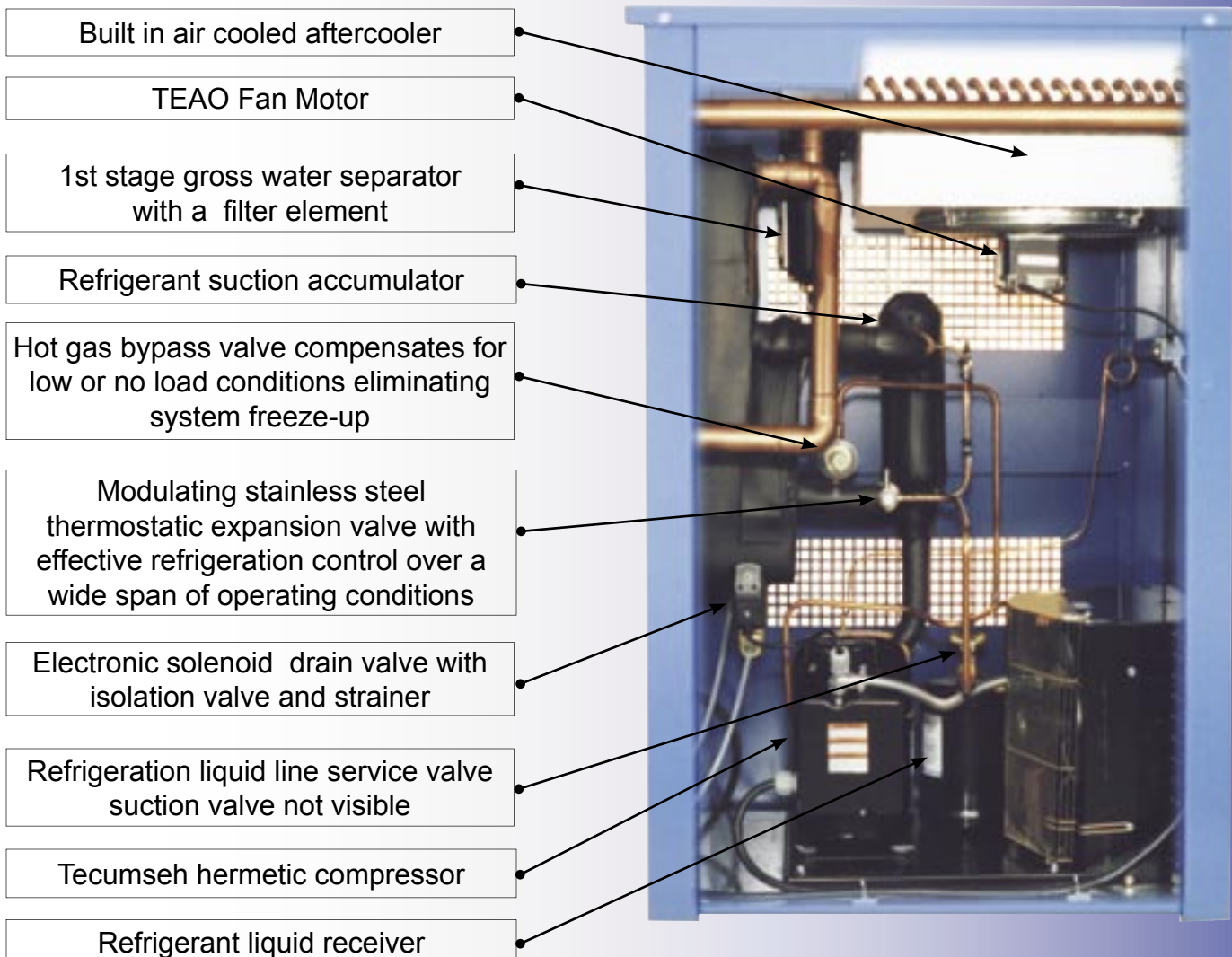
Cycle of Operation



The EDR Series air dryer takes hot saturated compressed air into an air cooled heat exchanger, which cools the air, and a gross water separator removes the condensed liquid. The air then enters the Air-Air exchanger where it is pre-cooled by the air discharged from the Air-Refrigeration exchanger. The final cooling is accomplished in the Air-Refrigerant exchanger where it is further cooled to the specified dewpoint, and additional condensed moisture is separated from the air stream. The cool dry air enters the Air-Air exchanger where it acts as the cooling medium for the previous pre-cooling stage. It also reheats the discharge air to increase volume and prevent the compressed air piping from sweating.

39°F Pressure Dewpoints

The Great Lakes EDR series refrigeration dryer delivers pressure dewpoints of 39°F. Many other high inlet temperature dryers offer only a 50°F dewpoint, which can prove insufficient in many manufacturing processes. The EDR series can be rated for 39°F or 50°F pressure dewpoints.



This unit is representative of the EDR B and C series dryer

Non Standard Condition Capacity Correction

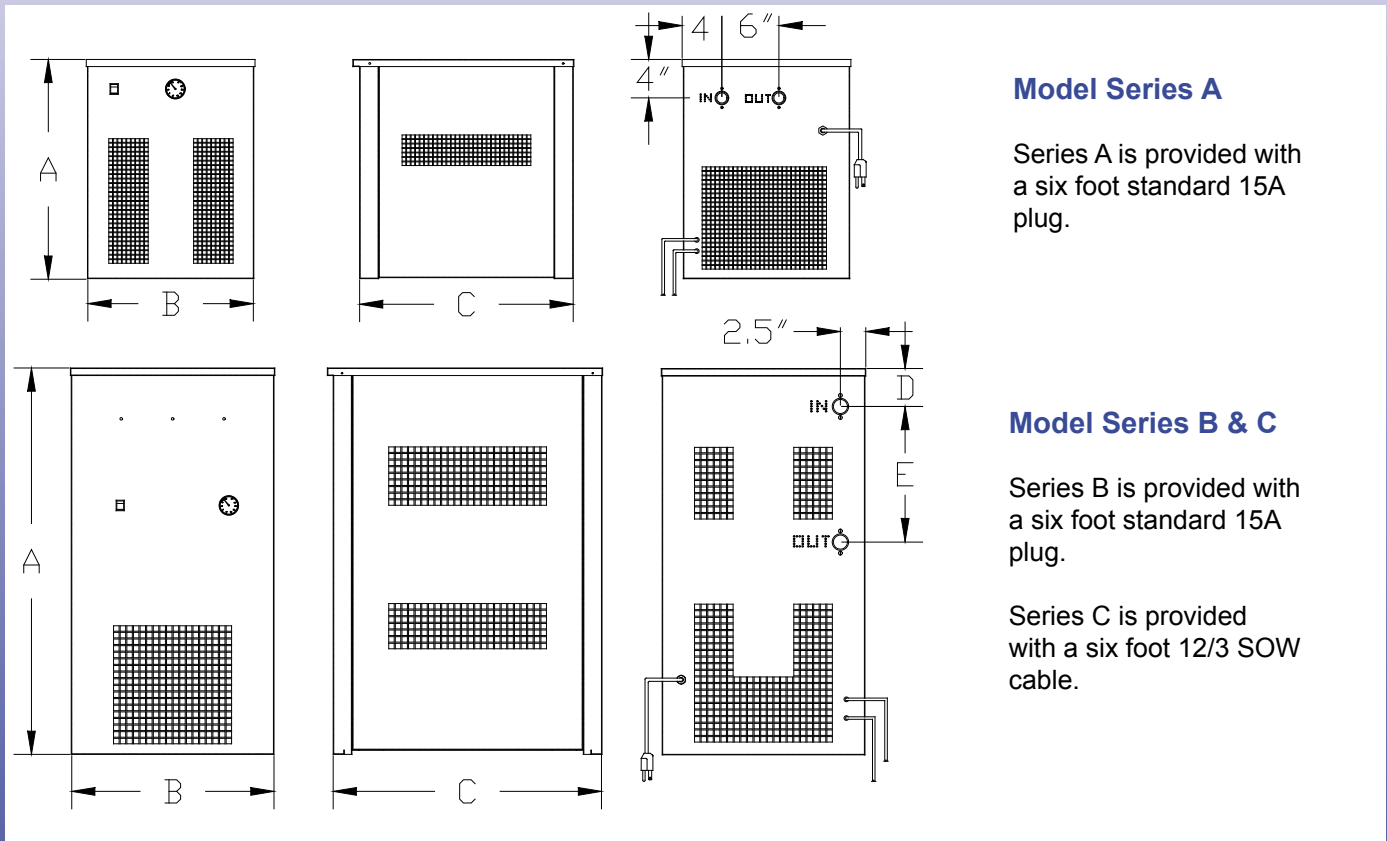
Capacity Correction		Inlet Temperature		
		125°F	150°F	180°F
Ambient °F	100°F	1.18	1.10	1.00
	105°F	1.07	1.00	0.91
	110°F	0.97	0.90	0.82

To obtain flow capacities at conditions other than standard, locate the multiplier at the interception of actual operating conditions. Multiply the rated capacity of the selected dryer by the selected multiplier, the result is the corrected flow capacity. Capacity corrected flows in excess of standard operating conditions will increase pressure drop.

Specifications & Dimensions

Model Number	Capacity in SCFM @				Refrigeration System		Available Voltage	In / Out Ports	Max. Inlet Pressure	Dimensions in Inches					Shipping Weight (Lbs)	
	50°F PDP		39°F PDP		HP	Watts				A	B	C	D	E		
	120 PSIG	100 PSIG	120 PSIG	100 PSIG												
EDR-A1-116	28	24	23	20	1/5	376	120-1-60	N/A	230 PSIG	3/4	23	18	23	N/A	N/A	117
EDR-A2-116	36	30	30	25	1/4	451				3/4	23	18	23	N/A	N/A	120
EDR-B1-116	50	43	42	36	1/3	576	230-1-60	3/4		35	19	23	2.7	15.3	175	
EDR-B2-□	80	67	66	56	1/2	776		3/4		35	19	23	2.7	15.3	185	
EDR-C1-□	102	86	85	72	5/8	1045	230-1-60	1		42	22	29	4	14.5	275	
EDR-C2-□	155	132	129	110	3/4	1135		1-1/2		42	22	29	4	14.5	288	

- Notes: 1. Capacity reflects a maximum 180°F inlet temperature and 100°F ambient
 2. The symbol "□" represents a missing voltage designation 116 = 120-1-60 and 216 = 230-1-60
 3. Dimensions and specifications are subject to change without notice



Model Series A

Series A is provided with a six foot standard 15A plug.

Model Series B & C

Series B is provided with a six foot standard 15A plug.

Series C is provided with a six foot 12/3 SOW cable.