Gardner Denver®

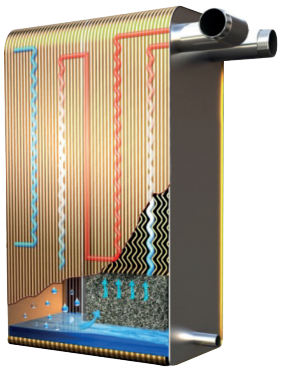
7–1200 SCFM | NON-CYCLING DRYER

RGDA Series

Refrigerated Global Design

RGDA series refrigerated air dryers offer the perfect balance between technology and simplicity to dry compressed air systems to a stable ISO 8573-1 Air Quality, Class 5-6 pressure dew points. They combine advanced control and environmentally responsible R513A refrigerant to deliver reliable, energy-efficient performance across a wide range of industrial applications.

Copper “Tube-on-Tube” Heat Exchanger



Stainless Steel Demister/Separator

Design Features

RGDA 7–15 SCFM

- Smooth bore, copper tube-on-tube heat exchangers
- Static condenser design provides trouble free, quiet operation
- Electronic drain valve

RGDA 25–50 SCFM

- Microprocessor Controller, with alarm display and record history
- Compact three-in-one heat exchanger
- Electronic drain valve with controller test capabilities

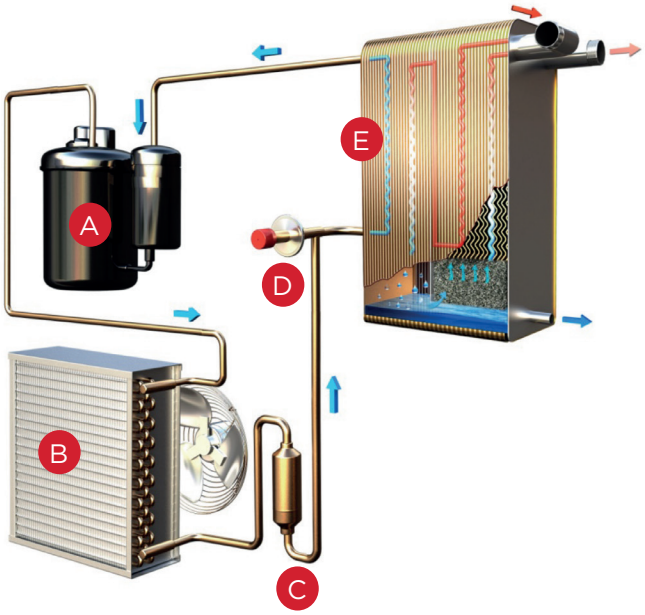
RGDA 75–1200 SCFM

- Stainless steel, cross flow heat exchangers optimize heat transfer and service life
- Compact design saves floor space
- Stainless steel inlet/outlet connections to prevent corrosion
- Timed electric condensate drain
- Integral demister/separator

How it Works

Refrigeration Circuit

A hermetically sealed refrigerant compressor (A) takes in evaporated refrigerant and compresses it to a higher pressure. The air cooled condenser (B) turns the high pressure gas into a high pressure refrigerant. An in-line filter dryer (C) removes contaminants from the high pressure refrigerant gas. A constant pressure valve (D) reduces the pressure and regulates the flow of refrigerant into the heat exchanger (E).

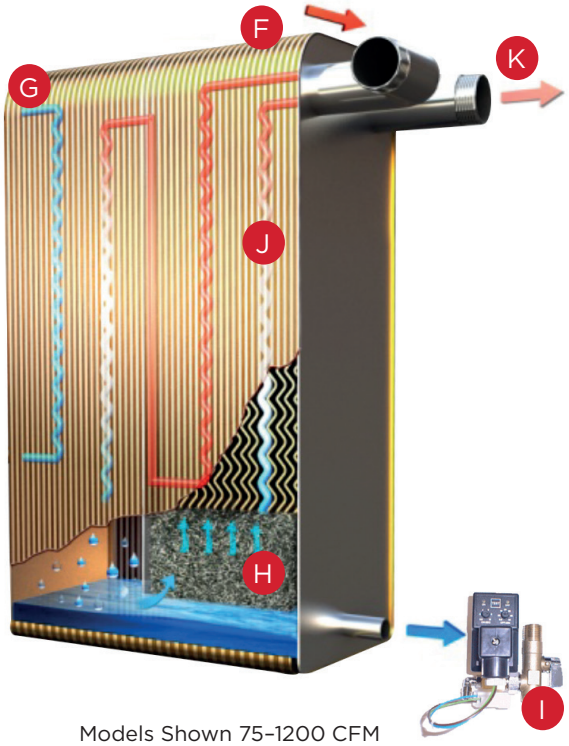


Models Shown 75–1200 CFM

Refrigerant is continuously circulated through the system

Air Circuit

Warm, saturated compressed air enters the air to air heat exchanger (F) and is cooled by the exiting air. The precooled air (G) then enters the air to refrigerant heat exchangers and is further chilled causing water vapor to condense. Condensed moisture is collected from the air stream by an integral separator (H) with stainless steel demister. Liquid condensate is removed from the separator by a (I) high performance drain. Cold air is then reheated in the air-to-air heat exchanger (J) to eliminate pipe line sweat. Clean dry air exits (K) the dryer and is now conditioned for use.



Models Shown 75–1200 CFM

Safety First – Environmentally Friendly

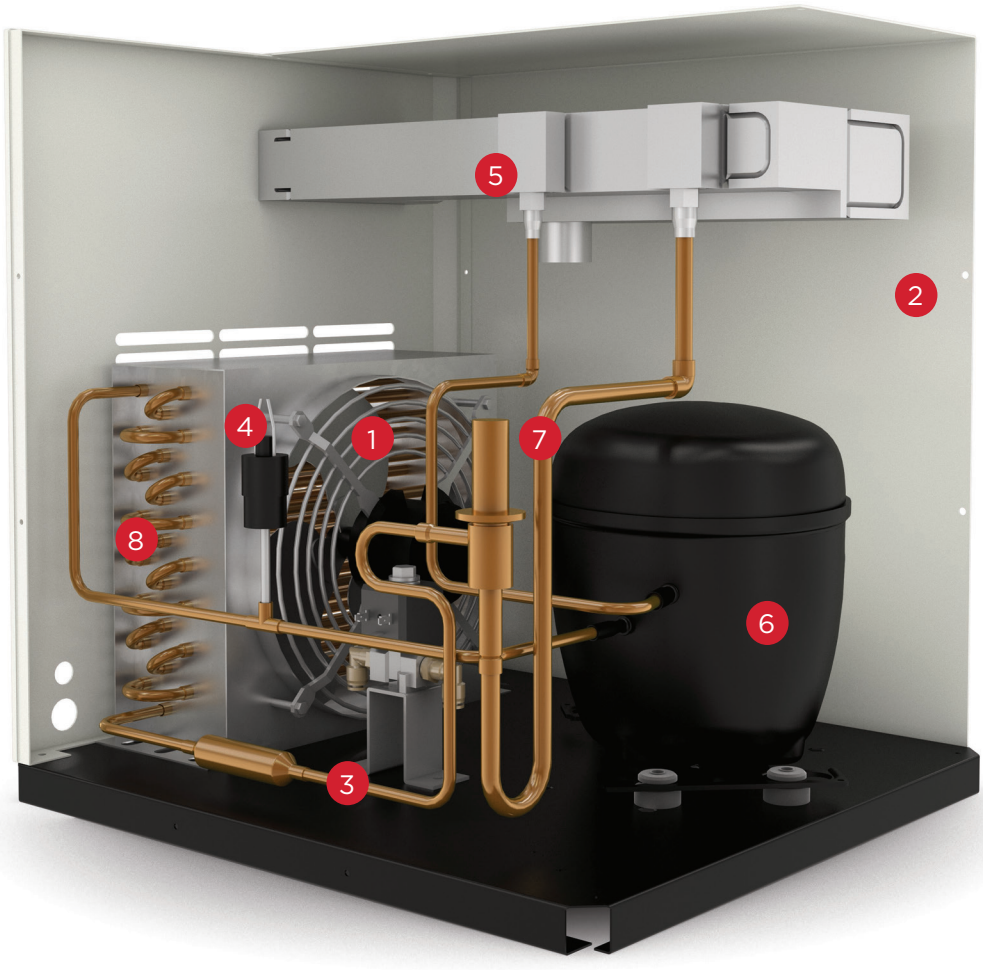
- All models 7-1200 scfm are using R513A refrigerant
- Performance Testing: ISO Guidelines
- Electrical: Listed to UL 60335-1 & 60335-2-40

Value at its Best

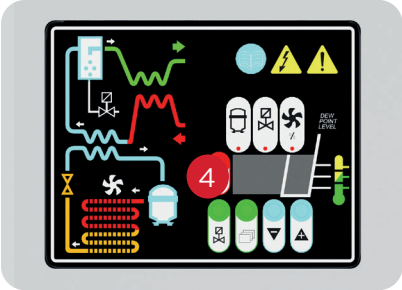
Efficient Condensate Management

- Increased calming zone and integral demister/separator captures liquid condensate and solid particles
  - Effectively removes condensate from 0–100% flow conditions without moisture carry-over
- Furnished with condensate drain
  - Electronic or timed electric (dependent on scfm range).

1. Fan motor and blade assembly
2. Epoxy powder-coated sheet steel cabinet
3. Condensate drain area
4. Stainless steel cross-flow heat exchanger
5. Integral demister separator
6. Refrigerant compressor
7. Refrigerant circuit tubing
8. Air-cooled condenser core

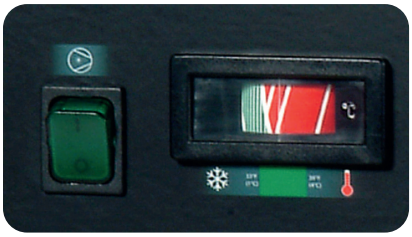


Take Control



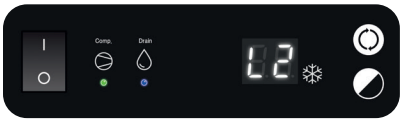
Models 25–50 SCFM

- LED Indicator for refrigerant compressor, drain, and fan power
- Drain Test Button
- Alarm Display & History Record



Models 75–150 SCFM

- Illuminated on/off switch
- Dew point temperature display to monitor inlet load conditions



Models 200–1200 SCFM

- Illuminated on/off switch
- Digital Control Board
- Dewpoint Level Monitoring
- Drain Timer Control

International Air Quality Class Standards

ISO 8573-1, the international standard for compressed air quality, defines the amount of contamination permissible in compressed air. The ISO standard identifies three primary forms of contamination: solid particles, water and oil contaminants. These forms are classified and assigned to a quality class, ranging from Class 0 being the highest purity level to a Class 6, which is the most relaxed level.

Gardner Denver's RGDA series refrigerated air dryers provide dry compressed air at a stable ISO 8573-1 Air Quality Class 4 to 5 pressure dew point.

Pre-Filtration Option

FIL Series—Grade C Filtration removes solids and oil contaminants from the air stream before entering the dryer.

ISO Air Quality Class

- Solids – Class 2
- Remaining Oil – Class 4
- Removes solids 1.0 micron & larger
- Remaining oil content 2.0 mg/m^3

After-Filtration Option

FIL Series—Grade E Filtration provides high efficiency oil removal protecting downstream equipment.

ISO Air Quality Class

- Solids – Class 1
- Remaining Oil – Class 1
- Removes 99.999+% of solids ≥ 0.01 micron
- Remaining oil content < 0.01 mg/m^3

RGDA SPECIFICATIONS

MODEL	INLET FLOW		PRESSURE DROP	VOLTAGES	IN/OUT AIR CONNECT SIZE	POWER CONSUMPTION	REFRIGERANT	OVERALL DIMENSIONS						SHIP WEIGHT
								HEIGHT		WIDTH		DEPTH		
	SCFM	NM^3/H	PSID			KW		IN.	MM	IN.	MM	IN.	MM	LBS.
RGDA7A1	7	11.9	3.5	115/1/60	⅜" MNPT	0.15	R513A	15.3	388.6	12.6	320.0	12.6	320.0	45
RGDA11A1	11	18.7	6.0	115/1/60	⅜" MNPT	0.16	R513A	15.3	388.6	12.6	320.0	12.6	320.0	45
RGDA15A1	15	25.5	8.5	115/1/60	⅜" MNPT	0.16	R513A	15.3	388.6	12.6	320.0	12.6	320.0	45
RGDA25A1	25	42.5	0.5	115/1/60	½" FNPT	0.27	R513A	17.5	444.5	15.4	391.2	16.9	429.3	58
RGDA32A1	32	54.4	0.6	115/1/60	½" FNPT	0.27	R513A	17.5	444.5	15.4	391.2	16.9	429.3	58
RGDA42A1	42	71.4	1.0	115/1/60	½" FNPT	0.51	R513A	17.5	444.5	15.4	391.2	16.9	429.3	69
RGDA50A1	50	85.0	1.3	115/1/60	½" FNPT	0.52	R513A	17.5	444.5	15.4	391.2	16.9	429.3	69
RGDA75A1	75	127.4	3.3	115/1/60	1"	0.48	R513A	32.3	820.4	19.3	490.2	37.2	944.9	123
RGDA100A1	100	169.9	4.1	115/1/60	1"	0.61	R513A	32.3	820.4	19.3	490.2	37.2	944.9	129
RGDA125A1	125	212.4	4.7	115/1/60	1"	0.97	R513A	32.3	820.4	19.3	490.2	37.2	944.9	135
RGDA150A1	150	254.9	5.7	115/1/60	1"	1.12	R513A	32.3	820.4	19.3	490.2	37.2	944.9	152
RGDA200A4	200	339.8	2.5	460/3/60	2"	1.49	R513A	36.3	922.0	24.4	619.8	41.5	1054.1	196
RGDA250A4	250	424.8	2.4	460/3/60	2"	1.51	R513A	36.3	922.0	24.4	619.8	41.5	1054.1	204
RGDA300A4	300	509.7	1.77	460/3/60	2"	1.87	R513A	38.2	970.3	24.4	619.8	48.7	1237.0	252
RGDA400A4	400	679.6	2.38	460/3/60	2"	1.99	R513A	38.2	970.3	24.4	619.8	48.7	1237.0	279
RGDA500A4	500	849.5	2.77	460/3/60	2"	2.7	R513A	38.2	970.3	24.4	619.8	48.7	1237.0	328
RGDA600A4	600	1019.4	3.05	460/3/60	2"	3.01	R513A	38.5	977.9	26.1	662.9	48.7	1237.0	467
RGDA800A4	800	1359.2	3.02	460/3/60	3"	4.18	R513A	64.6	1640.8	34.9	886.5	49.2	1249.7	836
RGDA1000A4	1000	1699	3.54	460/3/60	4"	5.73	R513A	68.9	1750.1	34.9	886.5	49.2	1249.7	889
RGDA1200A4	1200	2038.8	4.3	460/3/60	4"	6.69	R513A	68.9	1750.1	34.9	886.5	53.1	1348.7	961

Maximum Inlet Air Temperature: 120°F (49°C) Maximum Operating Pressure: 250 psig (Models RGDA25–50), 232 psig (Models RGD75–500).
Above conditions tested at 100°F inlet air temperature, 100% saturated inlet air, 100 psig operating pressure and 100°F ambient air temperature.

OPERATING CONDITIONS

MODEL	MAX INLET AIR PRESSURE		MIN INLET AIR PRESSURE		MAX INLET AIR TEMPERATURE		MIN INLET AIR TEMPERATURE		MAX AMBIENT AIR TEMPERATURE		MIN AMBIENT AIR TEMPERATURE	
SCFM	PSIG	BARG	PSIG	BARG	°F	°C	°F	°C	°F	°C	°F	°C
5–10 to 50	250	17	30	2	120	49	40	4	110	43	45	7
75–500	232	16	10	1	120	49	40	4	110	43	45	7
600–1200	232	16	43	3	120	49	45	7	110	43	34	1

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by continuously improving all business processes

with a focus on innovation and velocity

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