# Refrigerant dryer

Removal of moisture from compressed air



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### Advantages ALM-RD



# Advantages

- Compact Design
- Easy to access to all installed components
   (Screw free connectors and plastic handles on the panels allow to access the refrigerant components in a few seconds)
- Integrated Filters
   (Including alarm for filter change)
- Reliable Performance
- High cost savings due to a state-of-the-art heat exchanger design



### Overview ALM-RD



### Overview

Pressure dew point: + 3 °C

**Operating pressure:** 16 bar

**Desiccant:** R134a





# Overview

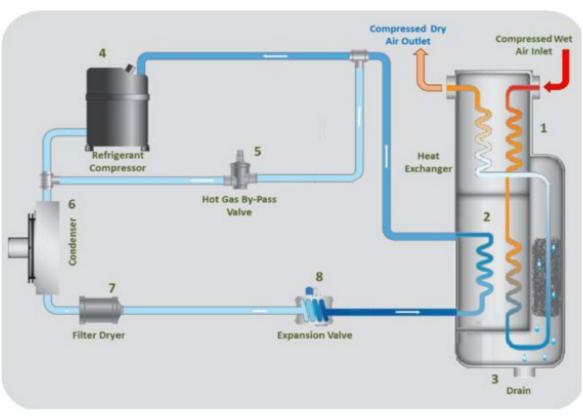
<b>RD-25</b>	<b>RD-200</b>	<b>RD-990</b>	<b>RD-3540</b>	
<b>RD-40</b>	<b>RD-225</b>	<b>RD-1280</b>	<b>RD-4160</b>	<b>RD-9580</b>
<b>RD-56</b>	<b>RD-325</b>	<b>RD-1480</b>	<b>RD-5400</b>	<b>RD-11200</b>
<b>RD-75</b>	<b>RD-400</b>	<b>RD-1920</b>	<b>RD-6200</b>	RD-13300
<b>RD-110</b>	<b>RD-525</b>	<b>RD-2660</b>	<b>RD-7420</b>	
<b>RD-165</b>	<b>RD-660</b>	<b>RD-2950</b>	<b>RD-8380</b>	

23 m<sup>3</sup>/h Volume flow 12500 m<sup>3</sup>/h

### Function



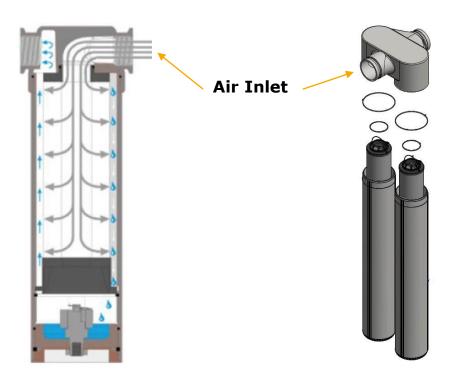
# Function



#### The Air Circuit (in the Heat Exchanger)

- 1. Compressed air enters the air-to-air heat exchanger
- In the air-refrigerant heat exchanger, the air is cooled by the refrigerant to the required dew point. The water vapour condenses into water droplets.
- 3. The integrated water separator directs the resulting condensate out of the system through a condensate drain

# Function



#### The Air Circuit (after the Heat Exchanger)

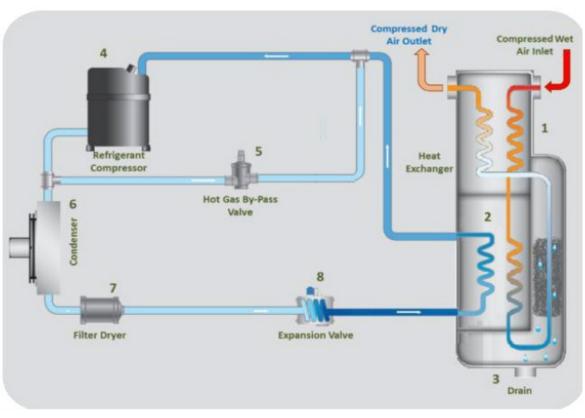
Each refrigeration dryer has two integrated filters.

The integrated filters are used to remove oil and water from the compressed air.

After filtration, the compressed air is fed into the pipeline.

No extra filtration is necessary.

# Function



#### The Refrigerant Circuit

4.

The refrigerant compressor will compress the refrigerant to a higher pressure.

5.

The hot gas bypass valve prevents the dryer from freezing when the load is too low.

6.

The refrigerant condenser cools the gaseous refrigerant so that it liquefies again.

7.

The refrigerant filter protects the expansion valve from damaging particles

8.

The thermostatic expansion valve is used to increase the pressure and further cool the refrigerant.

### **Technical Data**



### **Technical Data**

Refrigeration dryer ALM-RD										
Туре	Max, Volume flow*	Cooling air requirement	Compressed air connection	Power consumption**	Length	Width	Height	Weight		
	m³/h	m³/h		kW		mm	mm	kg		
25	23	180	1/2"	0,34	372	369	707	32		
40	38	180	1/2"	0,34	372	369	707	32		
56	53	180	1/2"	0,37	372	369	707	32		
75	70	180	1/2"	0,38	372	369	707	32		
110	100	180	3/4"	0,39	473	454	832	51		
165	155	700	3/4"	0,59	473	453	832	53		
200	190	700	3/4"	0,68	473	453	832	55		
225	210	700	1 1/2"	0,82	556	506	874	78		
325	305	700	1 1/2"	1,07	556	506	874	83		
400	375	700	1 1/2"	1,19	556	506	874	86		
525	495	1100	2"	1,23	678	648	1157	160		
660	623	1100	2"	1,32	678	648	1157	165		
990	930	1350	2"	2,01	948	728	1370	220		
1280	1200	1350	2"	2,59	948	728	1370	230		
1480	1388	2800	3"	2,80	948	798	1460	270		
1920	1800	2800	3"	3,21	948	798	1460	285		
2660	2500	5000	3"	4,10	1163	778	1725	392		
2950	2775	5000	3"	4,74	1163	778	1725	410		
3540	3300	7000	DN100 Flange	5,74	1577	993	1906	690		
4160	3915	7000	DN100 Flange	6,50	1577	993	1906	710		
5400	5085	8500	DN100 Flange	8,25	1647	1077	2005	825		
6220	5850	8500	DN100 Flange	9,55	1647	993	1959	835		
7420	6975	8500	DN150 Flange	11,95	2188	1062	2024	900		
8380	7875	12750	DN150 Flange	12,88	2188	1062	2024	925		
9580	9000	12750	DN150 Flange	15,40	2247	1200	2043	975		
11200	10500	12750	DN200 Flange	15,53	2247	1200	2043	1100		
13300	12500	25500	DN200 Flange	20,70	2550	1550	2100	1400		





### Warranty



#### **Warranty**

### **AirCare**

#### Certified warranty, covered by ALMiG

**ALMiG AirCare** offers you a free 5-year warranty extension.

- The use of ALMiG original parts protects your investment.
- Best service by authorized partners
- Full warranty for:
  - ALMiG Compressors



- ALMiG Heat recovery modules
- ALMiG Refrigerant Dryer
- ALMiG Adsorption dryer
- ALMiG Oil-water separator
- ALMiG Condensate drain
- ALMiG Filter





# THANK YOU FOR YOUR ATTENTION!

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