

MD

REFRIGERATION DRYERS



REFRIGERATION DRYERS MD

About us



Ing. **Enea Mattei SpA** is an Italian company that has been producing air compressors since 1919. Over the years, the company has continually evolved and is today one of the world's foremost companies in the compressed air sector and the leader in the production of rotary vane compressors.

Behind the success of Mattei are the choices the company has made in terms of design, production and marketing, driven by the results of its continual and in-depth research and development programmes.

During these years of continual change, Mattei has been able to adapt to the requirements of the market and through the results of its research has created products that are always innovative and technologically advanced.



Certified quality

Quality as an integral part of all company functions and constant improvement of all production processes so as to always guarantee the maximum level of reliability and satisfaction. This, in brief, is the value and the meaning of **Mattei's** operational philosophy. A way of approaching the market and customers that makes **Mattei** an absolute point of reference in the compressed air sector.

Since 1994, **Mattei** has been operating with a Quality System certified by the DNV Institute under UNI EN ISO 9001 regulations.



MD refrigerant dryers

Compressed air is used in industrial productive processes, as it is a clean and convenient energy source.

However, to optimise the efficiency of the system, this important resource needs to be properly treated to assure top efficiency. The ambient air intaken by a compressor always contains the water vapour, the value of which depends on the temperature and the relative humidity degree.

When the air is compressed, the volume decreases proportionally but all the exhausted water vapour still remains in the air. Condensate corrodes piping, solenoid valve, pneumatic tooling and the user is then obliged to stand expensive repair interventions; especially the expensive "down times" cannot be controlled very easily.

In case the compressed air is used as "process air" **the installation of a Mattei dryer** is essential to eliminate the condensate polluting the production cycle.



ELECTRICAL ENERGY SAVING: a reduced pressure drop through the dryer has a direct effect on reducing the running costs of the compressed air system of between 5 and 8%.

CONTROL PANEL: guarantee consistent performance also in intermittent working conditions.

CONDENSER: ensures maximum performance of the refrigerant circuit and the ability to operate with changes in the ambient conditions.

ALU-DRY MODULE: has a direct effect on reducing energy consumption.

CONDENSATE DRAIN: adjustable electronic condensate drain with timer.



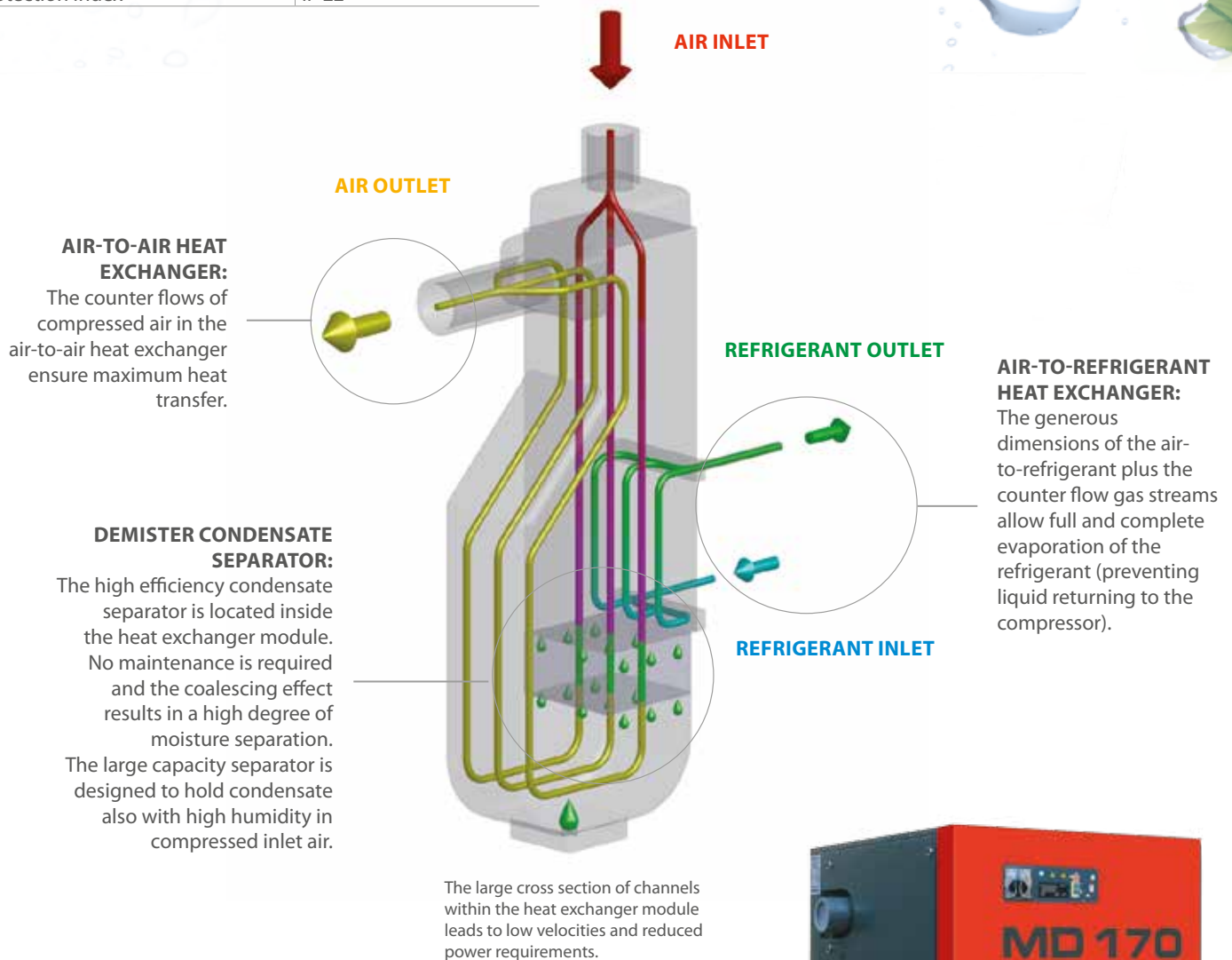
OPTIONAL:



**"HOT GAS" BY PASS
VALVE DETAILS**

prevents the formation
of ice inside the evaporator.

Refrigerant	R134a up to MD25 model R407C from MD38 model
Compressed Air Inlet Temperature	+35°C
Working Pressure	7 bar
Maximum Working Pressure	14 bar
Pressure Dewpoint	+3°C
Protection Index	IP 22



Environment protection

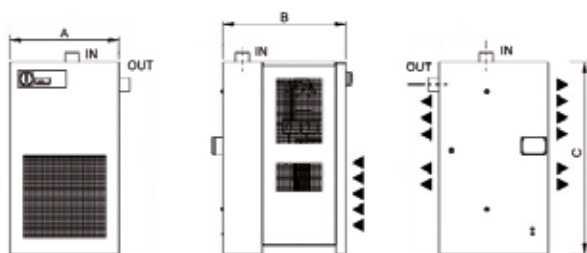
MD dryers use only very efficient and environmentfriendly gases according to the existing regulations and to the laws in force. R134a refrigerant for MD 6-25 series and R404A refrigerant for MD 38-810 series.



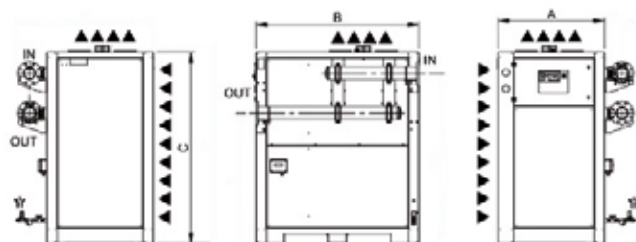
																
									DIMENSIONS (MM)							
MODEL	FLOW-RATE		INSTALLED POWER		REFRIGERANT	POWER SUPPLY	SOUND LEVEL	CONNECTIONS	LENGTH		WIDTH		HEIGHT		WEIGHT	
MD	m³/min	cfm	KW (nom.)	FLA A.	Tipo	V/Hz/ph	dB(A)	Inch (IN-OUT)	mm	inch	mm	inch	mm	inch	kg	lbs
MD 6	0,6	21,2	0,16	1,4	R134a	230-240/50-60/1	<70	G 1/2" BSP-F	420	16,5	345	13,6	740	29,2	30	66
MD 9	0,9	31,8	0,18	1,5	R134a	230-240/50-60/1	<70	G 1/2" BSP-F	420	16,5	345	13,6	740	29,2	30	66
MD 15	1,5	53	0,23	2,3	R134a	230-240/50-60/1	<70	G 1/2" BSP-F	420	16,5	350	13,8	740	29,2	35	77
MD 20	2	70,6	0,31	3,1	R134a	230-240/50-60/1	<70	G 1" BSP-F	420	16,5	350	13,8	740	29,2	40	88
MD 25	2,5	88,3	0,46	3,5	R134a	230-240/50/1	<70	G 1" BSP-F	420	16,5	350	13,8	740	29,2	40	88
MD 38	3,8	134,2	0,69	5,3	R407C	230-240/50/1	<70	G 1 1/4" BSP-F	460	18,1	490	19,3	830	32,7	50	110
MD 49	4,9	173	0,75	5,9	R407C	230-240/50/1	<70	G 1 1/4" BSP-F	460	18,1	490	19,3	830	32,7	50	110
MD 68	6,8	240,1	0,7	8,8	R407C	230-240/50/1	<70	G 1 1/2" BSP-F	580	22,9	560	22,1	890	35,1	55	121
MD 83	8,3	293,1	0,84	8,9	R407C	230-240/50/1	<70	G 1 1/2" BSP-F	580	22,9	560	22,1	890	35,1	65	143
MD 110	11	388,4	1,1	9	R407C	230-240/50/1	<70	G 2" BSP-F	630	24,8	560	22,1	980	38,6	95	209
MD 150	15	529,7	1,45	11,2	R407C	230-240/50/1	<70	G 2 1/2" BSP-F	730	28,8	670	26,4	1110	43,7	145	319
MD 170	17	600,3	1,73	14,3	R407C	230-240/50/1	<70	G 2 1/2" BSP-F	730	28,8	670	26,4	1110	43,7	165	363
MD 185	18,5	653,2	2,2	6,8	R407C	400-415/50/1	<75	DN80-PN 16	1000	39,4	790	31,1	1470	57,9	240	528
MD 250	25	882,8	3	7,1	R407C	400-415/50/3	<75	DN80-PN 16	1000	39,4	790	31,1	1470	57,9	245	539
MD 350	35	1235,9	3,6	10,2	R407C	400-415/50/3	<75	DN80-PN 16	1000	39,4	790	31,1	1470	57,9	280	616
MD 410	41	1447,7	3,9	11,2	R407C	400-415/50/3	<75	DN80-PN 16	1000	39,4	790	31,1	1470	57,9	315	693
MD 480	48	1694,9	5,2	14,5	R407C	400-415/50/3	<80	DN100-PN 16	1210	47,7	1140	44,9	1750	69	465	1023
MD 620	62	2189,3	5,9	15,9	R407C	400-415/50/3	<80	DN100-PN 16	1210	47,7	1140	44,9	1750	69	540	1188
MD 810	81	2860,2	7,1	22,4	R407C	400-415/50/3	<80	DN100-PN 16	1210	47,7	1140	44,9	1750	69	620	1364
MD 900	90	3178	8,4	30,1	R407C	400-415/50/3	<80	DN150-PN16	1750	69	1300	51,2	1810	71,3	830	1826
MD 1200	120	4237,3	11,3	38,8	R407C	400-415/50/3	<85	DN200-PN16	2200	86,7	1400	55,2	1870	73,7	1055	2321
MD 1500	147,2	5197,7	16,8	47,8	R407C	400-415/50/3	<85	DN200-PN16	2200	86,7	1400	55,2	1870	73,7	1200	2640

Data refers to the following nominal conditions: Ambient temperature of 25 °C, with inlet air at 7 bar and 35 °C and 3 °C pressure Dew Point (-22 °C atmospheric pressure Dew Point).
Max. working conditions: Ambient temperature 45 °C, inlet air temperature 55 °C and inlet air pressure 14 bar.

MD 6 ÷ 410



MD 480 ÷ 1500



CORRECTION FACTOR FOR OPERATING PRESSURE CHANGES

Inlet Air Pressure	barg	4	5	7	8	10	12	14
Factor		0,77	0,85	1	1,06	1,15	1,21	1,25

CORRECTION FACTOR FOR AMBIENT TEMPERATURE CHANGES

Ambient Temperatur	°C	≤ 25	30	35	40	45
Factor		1	0,98	0,95	0,90	0,80

CORRECTION FACTOR FOR INLET AIR TEMPERATURE CHANGES

Air Temperature	°C	≤ 30	35	40	45	50	55
Factor		1,2	1	0,85	0,75	0,61	0,49

CORRECTION FACTOR FOR DEW POINT CHANGES

Dew Point	°C	3	5	7	10
Factor		1	1,09	1,18	1,38



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