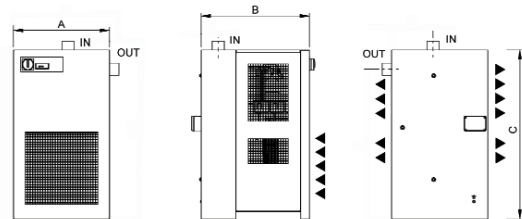


# TECHNICAL FEATURES

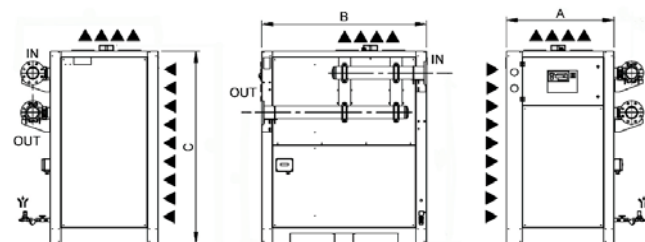
Model	Flow-rate m³/min	Installed Power		Refrigerant Tipo	Power Supply V/Ph/Hz	Sound Level dB(A)	Connections Ø (IN-OUT)	Dimensions (mm)			Weight kg
		kW (nom.)	kW (max.)					A	B	C	
6	0,6	0,15	0,2	R134a	230/1/50-60	< 70	G ½" BSP-F	350	420	740	30
9	0,9	0,18	0,22	R134a	230/1/50-60	< 70	G ½" BSP-F	350	420	740	30
15	1,5	0,3	0,35	R134a	230/1/50-60	< 70	G ½" BSP-F	350	420	740	35
20	2	0,43	0,54	R134a	230/1/50-60	< 70	G 1" BSP-F	350	420	740	40
25	2,5	0,46	0,67	R134a	230/1/50	< 70	G 1" BSP-F	350	420	740	40
38	3,8	0,69	0,95	R404A	230/1/50	< 70	G 1 ¼" BSP-F	490	460	830	50
49	4,9	0,79	1,10	R404A	230/1/50	< 70	G 1 ¼" BSP-F	490	460	830	50
68	6,8	0,82	1,15	R404A	230/1/50	< 70	G 1 ½" BSP-F	560	580	890	55
83	8,3	0,92	1,4	R404A	230/1/50	< 70	G 1 ½" BSP-F	560	580	890	65
110	11	1,15	1,7	R404A	230/1/50	< 70	G 2" BSP-F	560	630	980	95
150	15	1,38	2,4	R404A	230/1/50	< 70	G 2 ½" BSP-F	670	730	1110	145
170	17	1,53	2,9	R404A	230/1/50	< 70	G 2 ½" BSP-F	670	730	1110	165
185	18,5	3,35	4,7	R404A	400/3/50	< 70	DN80-PN 16	790	950	1410	235
250	25	3,5	5,4	R404A	400/3/50	< 75	DN80-PN 16	790	950	1410	245
350	35	4,4	5,7	R404A	400/3/50	< 75	DN80-PN 16	790	950	1410	280
410	41	5	6,5	R404A	400/3/50	< 75	DN80-PN 16	790	1040	1410	305
480	48	6,5	8,6	R404A	400/3/50	< 80	DN100-PN 16	1004	1540	1790	530
620	62	6,7	8,9	R404A	400/3/50	< 80	DN100-PN 16	1004	1540	1790	580
810	81	8,5	11	R404A	400/3/50	< 80	DN125-PN 16	1004	1540	1790	700
900	90	11,5	14,8	R404A	400/3/50	< 80	DN150-PN 16	1004	1860	1790	840
1200	120	16,2	21	R404A	400/3/50	< 85	DN150-PN 16	1004	2070	1790	1080
1500	147,2	23,1	30	R404A	400/3/50	< 85	DN200-PN 16	1004	2740	1790	1370

Data refer 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	bar	4	5	6	7	8	9	10	11	12	13	14
Factor		0.77	0.85	0.93	1.00	1.06	1.1	1.15	1.18	1.21	1.23	1.25

**CORRECTION FACTOR FOR AMBIENT TEMPERATURE CHANGES**

Ambient Temperature	°C	25	30	35	40	45
Factor		1.00	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		1.20	1.00	0.85	0.75	0.61	0.49

**CORRECTION FACTOR FOR DEW POINT CHANGES**

Dew Point	°C	3	5	7	10
Factor		1.00	1.09	1.18	1.38

Ing. Enea Mattei SpA reserves the right to change the data contained in this catalogue at any moment and without notice.

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# MD DRYERS

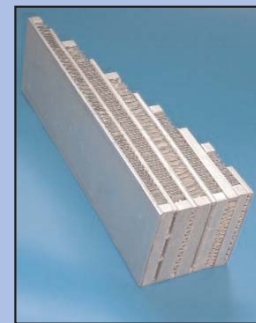


# MD REFRIGERANT DRYERS

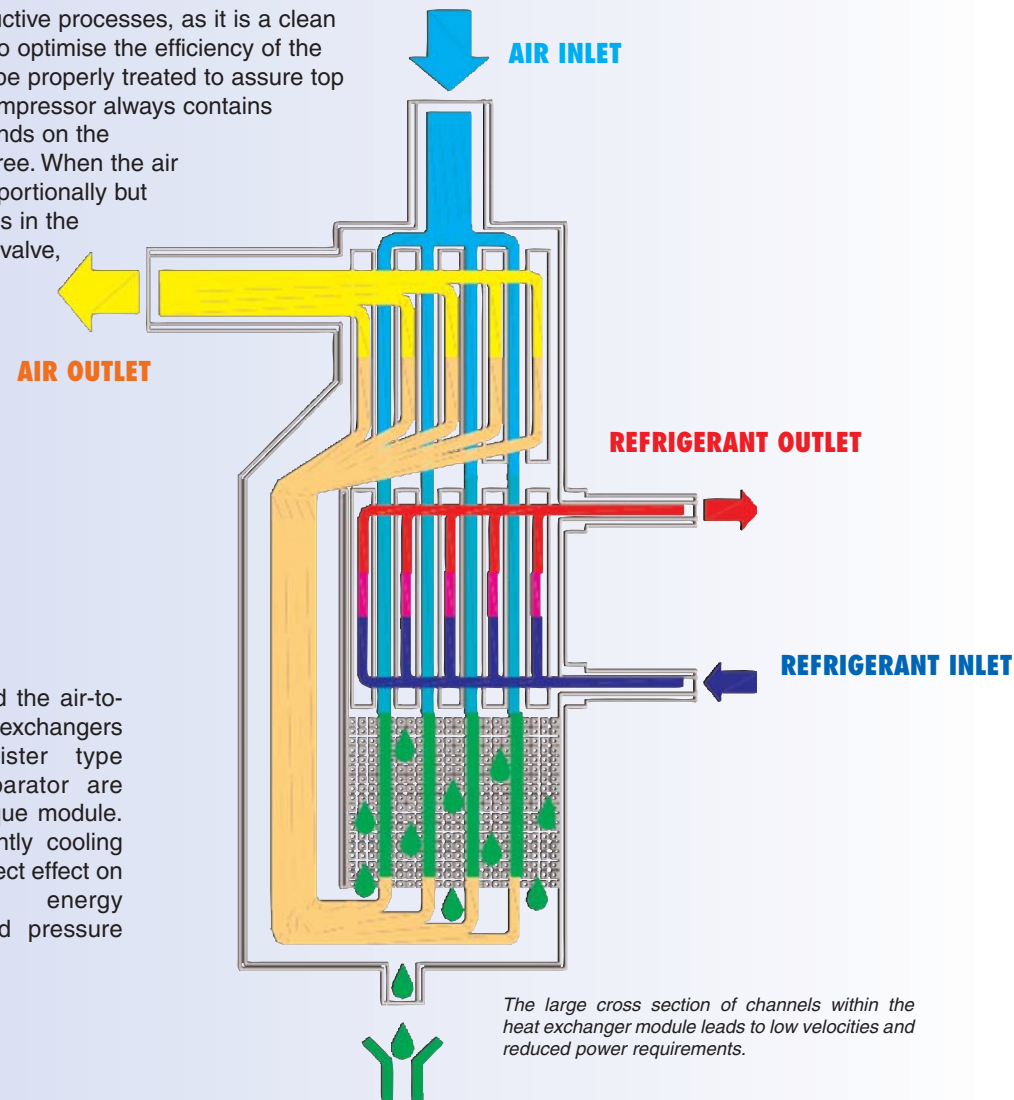
## COMPRESSED AIR: A SAFE AND CONVENIENT FORM OF ENERGY

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.

## ALU-DRY MODULE



The air-to-air and the air-to-refrigerant heat exchangers plus the demister type condensate separator are housed in a unique module. This high efficiently cooling module has a direct effect on reducing energy consumption and pressure drop.



The large cross section of channels within the heat exchanger module leads to low velocities and reduced power requirements.

## ENERGY SAVING DRYERS

The pressure drop through the dryer has a direct effect on the running costs of the compressed air system: reducing the pressure drop in the compressed air treatment is the same as reducing the compressor work. Installing an MD dryer, an electrical energy savings between 5 and 8% is possible.

## CONTROL PANEL

The electronic control panel is able to guarantee constant performances also in discontinuous working conditions.

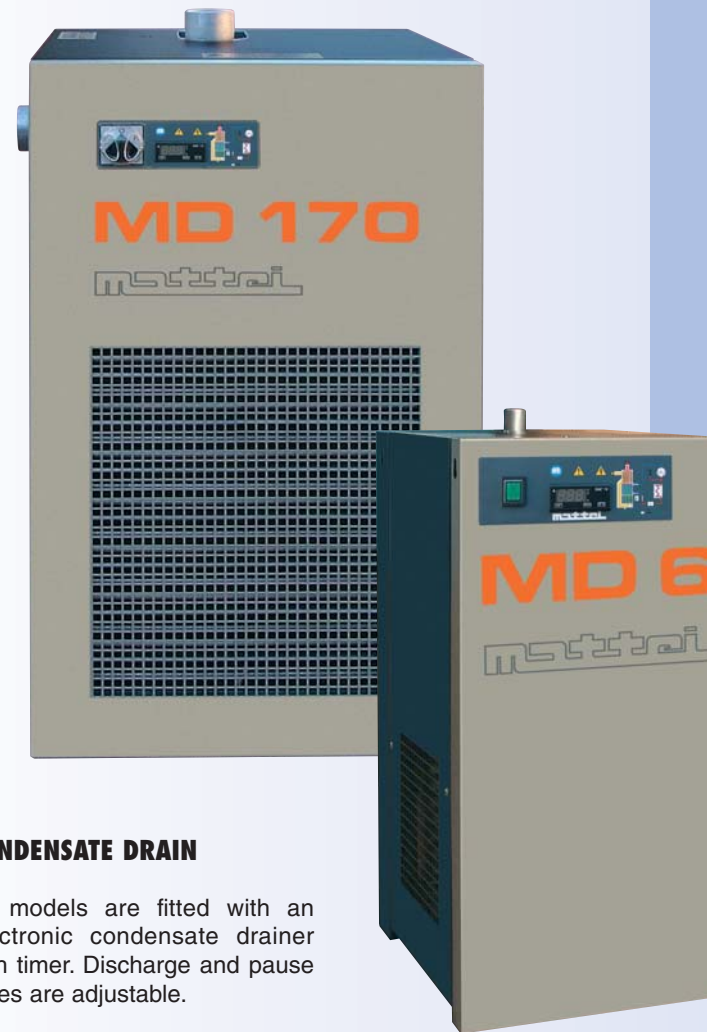
## CONDENSER

Generous sizing of the condenser ensures maximum performance of the refrigerant circuit and the ability to operate with changes in the ambient conditions.

## ENVIRONMENT PROTECTION



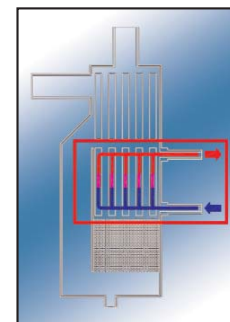
MD dryers use only very efficient and environment-friendly gases according to the existing regulations and to the laws in force. R134a refrigerant for MD 6-25 series and R404A refrigerant for MD 38-810 series.



## CONDENSATE DRAIN

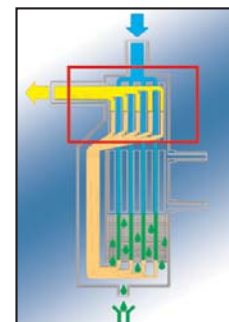
All models are fitted with an electronic condensate drainer with timer. Discharge and pause times are adjustable.

## AIR-TO-REFRIGERANT HEAT EXCHANGER



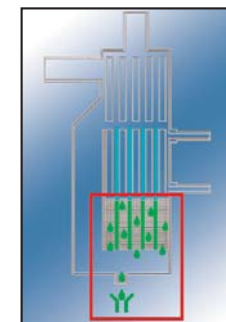
The generous dimensions of the air-to-refrigerant plus the counter flow gas streams allow full and complete evaporation of the refrigerant (preventing liquid returning to the compressor).

## AIR-TO-AIR HEAT EXCHANGER



The counter flows of compressed air in the air-to-air heat exchanger ensure maximum heat transfer.

## DEMISTER CONDENSATE SEPARATOR



The high efficiency condensate separator is located inside the heat exchanger module. No maintenance is required and the coalescing effect results in a high degree of moisture separation. The large capacity separator is designed to hold condensate also with high humidity in compressed inlet air.

## "HOT GAS" BY PASS VALVE DETAILS



The hot gas by-pass valve prevents the formation of ice inside the evaporator at any load condition. The valve is set during final test and no further adjustments are necessary.