

ADM DRYERS



ADM ADSORPTION AND COLD REGENERATION DRYERS

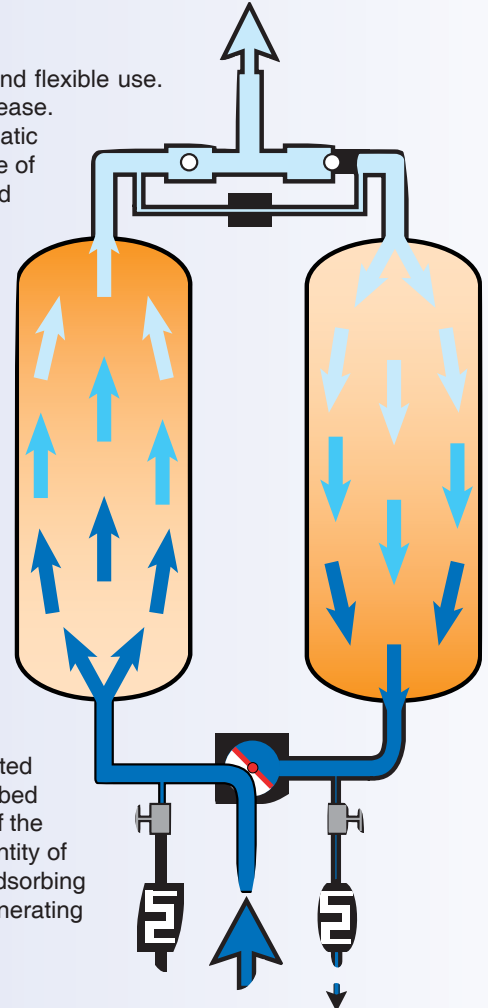
COMPRESSED AIR: A GREAT RESOURCE TO KNOW

Compressed air is a point of strength for modern industry, due to its easy and flexible use. However, when the air is compressed, moisture and other contaminants increase. If not removed from the air system, this corrosive mixture damages the pneumatic tools, resulting in expensive down times, product deterioration and reduced life of the equipments. The water vapour contained in the intake air is condensed inside the after coolers, due to temperature lowering, and then it enters the air distribution system, causing damages to the machines using compressed air and to pneumatic systems.

In those cases where dry and clean compressed air is required, like food, pharmaceutical and hospital industries, galvanic systems or applications where a dewpoint down to $-40\text{ }^{\circ}\text{C}$ is required, **installation of a Mattei ADM dryer** is the perfect choice to obtain the best product quality.

TECHNOLOGY

The adsorption dryer, composed of two twin columns charged with adsorbing material, will supply continually dried compressed air, by connecting cyclically the first or the second column. As the compressed air passes through one of the two columns, the particles of water vapour are attracted by the adsorbing material up to saturation of the column. While the adsorbing bed of the first column is working and adsorbs humidity from the inlet air, the bed of the second column is regenerating. The regeneration occurs through a small quantity of dried air drawn from the outlet main flow and removing moisture from the adsorbing material in order to expel it in the atmosphere. This alternative drying and regenerating cycle assures continuity and constancy of the adsorbing material.



EASY INSTALLATION



The dryer is supplied ready for use, already filled with adsorbing material. Once placed in position only the electrical and air connections need to be arranged.

ELECTRONIC CONTROL SYSTEM



An electronic control system regulates the regeneration and pressurizing times in the best way. Setting of the regeneration air percentage allows to reach top performances and remarkable energy savings.



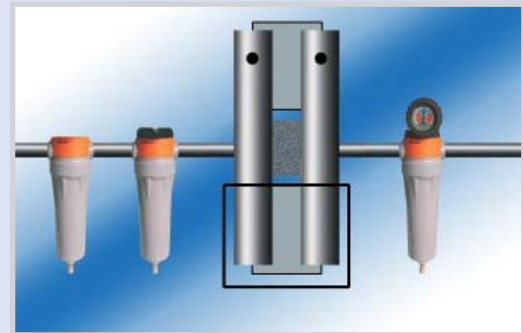
ADVANTAGES

Designed for completely automatic, cyclic, continuous operation and with low operating costs, the dryer assures quality compressed air, with pressure dewpoints until -40°C . Versions with pressure dewpoints until -70°C are available upon request.

- Low dewpoints
- Reduced downtimes
- Low energy consumptions
- High reliability

PREFILTERING

The adsorbing bed should be protected by installing Mattei "FM" coalescing oil removing filters grade "C2" and "C1", complete with automatic drainer at the dryer inlet. Downstream of the dryer the installation of a "C3" grade filter to remove any dust released by the adsorbing bed is suggested.



PERFORMANCES AND EFFICIENCY



The whole range of ADM dryers is equipped with gauges, for suitable operation of the system. All models also include the dewpoint visual indicator, which is essential to detect operating faults.

SAFETY AND RELIABILITY



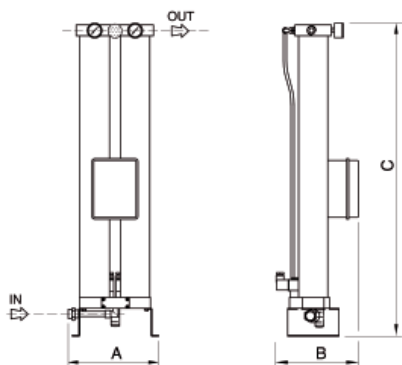
The special air inlet valves fitted on ADM dryers are designed to remain open in case of failure, ensuring in such a way the air passage.

TECHNICAL FEATURES

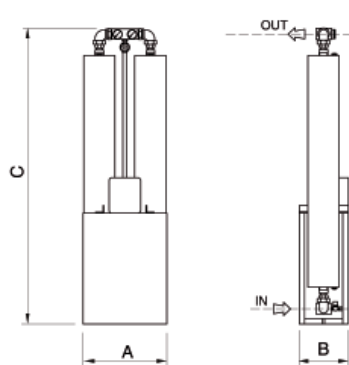
Model	Flow-rate m ³ /min		Power Supply	Sound Pressure Level	Absorbed Power	Connections	Dimensions (mm)			Weight
	7 bar	10 bar					A	B	C	
ADM			V/Ph/Hz	dB(A)	kW	Ø (IN-OUT)				
08	0,08	0,1	230/1/50-60	< 70	0,1	½" F	240	230	480	10
1	0,17	0,22	230/1/50-60	< 70	0,1	½" F	240	230	680	15
3	0,33	0,43	230/1/50-60	< 70	0,1	½" F	240	230	1180	20
5	0,50	0,65	230/1/50-60	< 70	0,1	½" F	240	230	1180	25
6	0,67	0,87	230/1/50-60	< 70	0,1	½" F	240	230	1480	30
10	1,0	1,3	230/1/50-60	< 70	0,1	½" F	450	240	1200	60
16	1,67	2,17	230/1/50-60	< 70	0,1	½" F	450	270	1250	110
23	2,33	3,03	230/1/50-60	< 70	0,1	1" F	450	270	1590	180
30	3,0	3,9	230/1/50-60	< 70	0,1	1" F	470	270	1690	220
43	4,33	5,63	230/1/50-60	< 70	0,1	1" F	800	450	2000	280
58	5,83	7,58	230/1/50-60	< 70	0,1	1 ½" F	880	440	2170	300
75	7,5	9,75	230/1/50-60	< 70	0,1	1 ½" F	880	440	2470	350
100	10,0	13	230/1/50-60	< 70	0,1	2" F	1000	530	2330	450
133	13,33	17,33	230/1/50-60	< 70	0,1	2" F	1000	530	2730	650
200	20,0	26	230/1/50-60	< 70	0,1	2 ½" F	1400	630	2550	760
250	25,0	32,5	230/1/50-60	< 70	0,1	2 ½" F	1400	630	2750	1050

Data refer to 20°C, 1 bar (a) at following operating conditions: intake air 25°C, 60% relative humidity, working pressure 7 bar g, pressure dewpoint -40°C, compressed air inlet temperature 35°C. Electrical supply 230V/1ph/50Hz (different kinds of electricity supply are available upon request). Hot regeneration dryers are available upon request, with flow rates from 600 to 7800 m³/h. (the installation of Mattei prefilters is essential.)

ADM 08 ÷ 6



ADM 10 ÷ 250



CORRECTION FACTOR FOR WORKING PRESSURE CHANGES

Working pressure	bar	4	5	6	7	8	9	10
Factor		0,6	0,74	0,86	1	1,1	1,2	1,3

CORRECTION FACTOR FOR INLET AIR TEMPERATURE CHANGES

Air Temperature	°C	25	30	35	40	45	50
Factor		1,1	1,05	1	0,9	0,7	0,6

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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