



mikropor

Manufacturing Forward

COMPRESSED AIR SYSTEMS

PRODUCT CATALOG





Mikropor began its journey in 1987 with a passion to create tomorrow's technology and has become one of the leading manufacturers of atmospheric air filtration solutions and compressed air systems for a variety of industries.

As the company continues to create its own technology and shapes the industry with its innovative approach, Mikropor's "Best in Class" products and solutions are appreciated by customers in more than 140 countries.

The company's sustainable growth has been provided by its passion for innovation and commitment to quality, as well as its dedication to its people. The philosophy of producing the future from today has been adapted in all processes that make up the company; from production to human resources management, from research and development to logistics systems.

Mikropor's motto, "Manufacturing Forward" predicates that the company strives to carry the same philosophy into the future with its environmentally friendly manufacturing principles that contribute to a cleaner and healthier planet.

The light weight modular design desiccant dryer series brings a new concept in compressed air technology, offering total installation flexibility to meet specific needs.

Mikropor's Modular Desiccant Dryers are less than half the weight and size of a traditional twin tower design, allowing even the largest models to be easily moved through a standard doorway. Mikropor's innovative Modular Air Dryers make it easier and more affordable than ever to deliver high-quality compressed air for virtually wherever it's needed.

Mikropor Modular Desiccant Dryers have cosmetic beauty and can be located in clean, pleasant environments eyesore. Offered in sizes from 5 m³/h to 400 m³/h with dew point of -40°C to -70°C (optional) these dryers are equipped with everything you need, requiring only air inlet/outlet connections.

Using a highly engineered inlet and purge manifold design, Mikropor proudly offers one of the lowest pressure drop desiccant dryer in the industry.

- Small footprint, lightweight, advanced compact design
- Corrosion protected Aluminium construction
- Hassle-free, reliable electronic controls
- Can be floor, bench or wall mounted
- Quiet enough to be placed in any work environment
- Easy installation, easy maintenance

The new Modular Desiccant Dryers combine proven traditional dryer principles with the latest technology to provide unsurpassed efficiency, flexibility and world-renowned Mikropor reliability for your critical dry air applications.

Various Application Options

Modular Desiccant Air Dryers can be mounted to the wall with easy-to-use mounting brackets to free up additional space and can also be secured to the ground very easily.



Technical Specifications

Model	Capacity		Voltage	Connection Size	Max. Working Pressure (bar)	Dimensions			
	(m ³ /h)	(cfm)				Width (mm)	Length (mm)	Height (mm)	Weight (kg)
MMD3	5	3	115-240V/50-60 Hz.	1/2"	16	320	336	558	17
MMD5	10	5	115-240V/50-60 Hz.	1/2"	16	320	320	633	19
MMD10	20	10	115-240V/50-60 Hz.	1/2"	16	320	320	908	27
MMD15	25	15	115-240V/50-60 Hz.	1/2"	16	370	350	808	31
MMD20	35	20	115-240V/50-60 Hz.	1/2"	16	370	350	1108	42
MMD25	45	25	115-240V/50-60 Hz.	1/2"	16	370	350	1258	48
MMD30	50	30	115-240V/50-60 Hz.	1/2"	16	370	350	1508	54
MMD40	70	40	115-240V/50-60 Hz.	1 1/2"	16	410	495	1250	71
MMD50	85	50	115-240V/50-60 Hz.	1 1/2"	16	410	495	1400	78
MMD60	100	60	115-240V/50-60 Hz.	1 1/2"	16	410	495	1750	92
MMD75	130	75	115-240V/50-60 Hz.	1 1/2"	16	430	622	1300	120
MMD100	170	100	115-240V/50-60 Hz.	1 1/2"	16	430	622	1450	133
MMD120	200	120	115-240V/50-60 Hz.	1 1/2"	16	430	622	1750	152
MMD180	300	180	115-240V/50-60 Hz.	1 1/2"	16	410	734	1499	186
MMD240	400	240	115-240V/50-60 Hz.	1 1/2"	16	410	889	1497	235

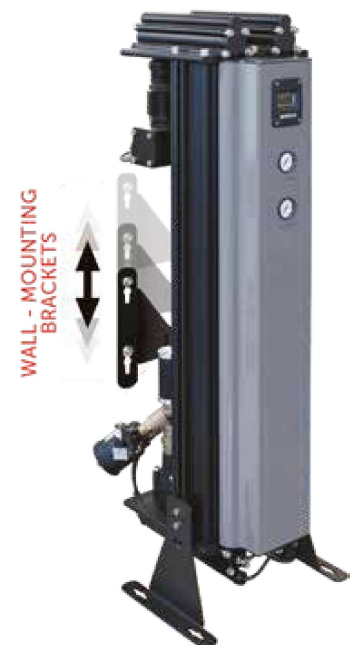
Pressure Dew Point	Nominal Inlet Temperature	Nominal Working Pressure	Maximum Inlet Temperature	Maximum Working Pressure	Maximum Ambient Temperature
40°C / 70°C (opt)	35°C	7 bar	50°C	16 bar	50°C

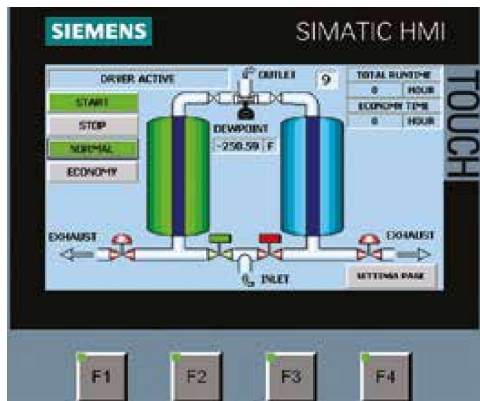
Correction Factor

Pressure (bar)	F1	Inlet Temp. (°C)	F2
4.5	0.69	20	1
5	0.75	25	1
6	0.88	30	1
7	1	35	1
8	1.12	40	0.80
9	1.25	45	0.73
10	1.25	50	0.59
11	1.50	-	-
12	1.62	-	-
13	1.74	-	-
14	1.87	-	-
15	1.99	-	-
16	2.11	-	-

PLC Monitor

The mini PLC is user friendly and shows the working action simultaneously. It is possible to get an alarm signal or remote control thanks to an easy access plug below the dryer. Dew point control and monitoring is possible with a dew point sensor.





PLC is Standard

MDA Desiccant Dryers have an extremely reliable electronic controller for optimal performance over the lifetime of the dryers. The touch screen PLC is capable of showing the cycles as well as the valves as they operate in real time. This is also capable of showing dew points. User friendly multi-lingual PLC helps the end users understand the operation of the system and identify any issues easily.



Correction Factor

Pressure (bar)	F1	Inlet Temp. (°C)	F2
4.5	0.69	20	1
5	0.75	25	1
6	0.88	30	1
7	1	35	1
8	1.12	40	0.80
9	1.25	45	0.73
10	1.37	50	0.59



Activated Alumina

In order to achieve consistent dew point, Mikropor uses a mixture of adsorption media in its heatless range of desiccant dryers. Activated Alumina, Molecular Sieve and Silica Gel are used in varying ratios depending on the application.

All desiccant dryers are designed according to Pneurop conditions as per ISO 7183.

Ordering

If a compressor delivers 850 m³/h at 9 bar pressure and 45°C inlet temperatures please choose your dryer as follows; 850/1.25/0.73 = 931 m³/h the correct dryer for this is MDA1000

Technical Specifications

Model	Connection Size	Inlet Flow Rate		Voltage	Max. Working Pressure (bar)	Pressure Drop (mbar)	Total Weight (Packed) (kg)	Active Alumina (kg)	Dimensions (mm)		
		(m ³ /h)	(cfm)						Width	Length	Height
MDA 130	1"	130	80	230/1/50-60	10	≤130	160	40	600	814	1312
MDA 185	1"	185	100	230/1/50-60	10	≤130	180	54	600	808	1566
MDA 250	1"	250	150	230/1/50-60	10	≤130	200	75	760	772	1580
MDA 300	1 1/2"	300	200	230/1/50-60	10	≤130	250	100	690	900	1558
MDA 360	1 1/2"	360	215	230/1/50-60	10	≤130	250	100	690	900	1558
MDA 440	1 1/2"	440	250	230/1/50-60	10	≤130	340	1250	698	900	1759
MDA 575	1 1/2"	575	300	230/1/50-60	10	≤130	500	151	680	900	1991
MDA 680	2"	680	400	230/1/50-60	10	≤130	535	202	680	960	2216
MDA 850	2"	850	500	230/1/50-60	10	≤130	750	264	857	1016	2277
MDA 1000	2"	1000	600	230/1/50-60	10	≤130	755	357	1010	1075	2386
MDA 1250	DN80/PN16	1250	700	230/1/50-60	10	≤130	1000	404	1100	1294	2413
MDA 1500	DN80/PN16	1500	800	230/1/50-60	10	≤130	1050	454	1010	1300	2547
MDA 1800	DN80/PN16	1800	1000	230/1/50-60	10	≤130	1215	566	1110	1513	2479
MDA 2200	DN80/PN16	2200	1250	230/1/50-60	10	≤130	1550	708	1110	1460	2793
MDA 2700	DN80/PN16	2700	1500	230/1/50-60	10	≤130	1890	852	1252	1533	2831
MDA 3200	DN100/PN16	3200	1750	230/1/50-60	10	≤130	2240	954	1212	1653	3054
MDA 3600	DN100/PN16	3600	2000	230/1/50-60	10	≤130	2330	1070	1210	1653	3268
MDA 4400	DN100/PN16	4400	2500	230/1/50-60	10	≤130	3000	1436	1535	1905	2910
MDA 5000	DN150/PN16	5000	3000	230/1/50-60	10	≤130	3180	1670	1714	1843	3382
MDA 6300	DN150/PN16	6300	4000	230/1/50-60	10	≤130	3450	2016	1693	2114	3328
MDA 7200	DN150/PN16	7200	4500	230/1/50-60	10	≤130	3600	2446	1795	2518	3047
MDA 8800	DN150/PN16	8800	5000	230/1/50-60	10	≤130	3850	2906	1795	2518	3341
MDA 10800	DN200/PN16	10800	6000	230/1/50-60	10	≤130	4200	3354	1875	2583	3747
MDA 12500	DN200/PN16	12500	7360	230/1/50-60	10	≤130	6470	3894	1935	2545	4175

Efficiency Rating	X Pre Filter	Y Pre Filter	P After Filter
		1 micron particle removal and 0.5 mg/m ³ oil removal	0.01 micron particle removal and 0.1 mg/m ³ oil removal

*For special requirements please contact our Technical Department.

Pressure Dew Point	Nominal Inlet Temperature	Nominal Working Pressure	Maximum Inlet Temperature	Maximum Working Pressure	Maximum Ambient Temperature
-40°C / -70°C (opt)	35°C	7 bar	50°C	10 bar	50°C

Mikropor MDA Heatless Desiccant Air Dryers provide constant -40°C (-70°C is optional) pressure dew point. These dryers are designed to supply clean and dry compressed air for critical applications. Pre and after-filters are supplied along with Mikropor Heatless Air Dryers to keep the air stream clean and maintain the integrity of the desiccant medium.

Mikropor MDA Heatless Desiccant Air Dryers provide constant -40°C (-70°C Optional) pressure dew point. These dryers are designed to supply clean and very dry compressed air for critical applications. Pre-filters and after-filters are standard on all Mikropor Heatless Air Dryers to keep the air stream clean and maintain the integrity of the desiccant medium. A very reliable electronic controller is utilised so the dryer operates perfectly through its service life. MDA Heatless Desiccant Dryers are equipped with special valves and high quality desiccants in order to assure performance and provide the lowest pressure drops available in the market.

Principle of Operation

The twin tower design allows for continuous adsorption of water vapor from compressed air by using the hygroscopic desiccant with high crush strength and a high surface/volume ratio. Drying is accomplished by passing compressed air through one desiccant bed adsorbing moisture while the other is being simultaneously regenerated with the expanded purge air.

Regeneration of desiccant is accomplished without the use of heat. The wet bed is dried by diverting a small portion of the super-dry air from the outlet at near atmospheric pressure. The purge flow rate is adjustable to suit the specific outlet conditions (desired dew point). The super dry air flows in a counter direction through the wet bed, sweeping all the water vapor previously absorbed by the desiccant. MDA ensures pressure equalization in the twin towers prior to switching.

This prevents line surge and minimizes desiccant attrition. The tower being reactivated will be gradually re-pressurized at the end of its reactivation cycle before switch over takes place. Purge flow and de-pressurization are in downward direction, counter to the drying air flow.



This saves ENERGY and helps the world become more "GREEN"



A centrifugal blower and high efficiency heater eliminate the use of valuable compressed air for desiccant regeneration. The completely automatic drying system uses blower to pull ambient air and pass it through the heater. This hot air stream flows opposite to drying flow direction. Hot air above 200°C regenerates the moisture inside desiccant bed and strips it completely of all moisture. The advanced control system monitors the dew point and adjusts the heating/regeneration accordingly thereby providing valuable energy savings.

- Dew point monitoring and control
- Computer Control-Display Status
- Display Alarms-Display Pressure
- Remote Start/Stop-Low Pressure Alarm
- Minimum pressure monitoring valve
- High pressure switches and alarms
- Externally heated or heatless dryer functions integrated to the MBP

Correction Factor

Pressure (bar)	F1	Inlet Temp. (°C)	F2
4.5	0.69	20	1
5	0.75	25	1
6	0.88	30	1
7	1	35	1
8	1.12	40	0.80
9	1.25	45	0.73
10	1.37	-	-



Technical Specifications

Model	Capacity (m ³ /h)	Connection Size	Max. Working Pressure (bar)	Pressure Drop (mbar)	Voltage	Average Power (kw)	Fuse Amp.	Active Alumina (kg)	Dimensions (mm)		
									Width	Length	Height
MBP 850	850	2"	10	≤130	400/3/50	9,4	36	264	1290	1180	2299
MBP 1000	1000	2"	10	≤130	400/3/50	9,4	36	357	1200	1310	2415
MBP 1250	1250	DN80	10	≤130	400/3/50	12	50	404	1610	1270	2468
MBP 1500	1500	DN80	10	≤130	400/3/50	12	50	454	1610	1270	2563
MBP 1800	1800	DN80	10	≤130	400/3/50	14,5	65	566	1563	1515	2479
MBP 2200	2200	DN80	10	≤130	400/3/50	17,5	70	708	1563	1455	2789
MBP 2700	2700	DN80	10	≤130	400/3/50	21,4	87	852	1615	1514	2836
MBP 3200	3200	DN100	10	≤130	400/3/50	21,4	87	954	1710	1660	3054
MBP 3600	3600	DN100	10	≤130	400/3/50	31,1	121	1070	1710	1660	3268
MBP 4400	4400	DN100	10	≤130	400/3/50	36,1	121	1436	1975	2492	2910
MBP 5000	5000	DN125	10	≤130	400/3/50	39,4	136	1670	2045	2560	3382
MBP 6300	6300	DN150	10	≤130	400/3/50	49,4	170	2016	2090	2963	3328
MBP 7200	7200	DN150	10	≤130	400/3/50	49,4	170	2446	2020	3363	3047
MBP 8800	8800	DN150	10	≤130	400/3/50	72,3	250	2906	2020	3363	3341
MBP 10800	10800	DN200	10	≤130	400/3/50	78,7	280	3354	2492	3481	3765

Pressure Dew Point	Nominal Inlet Temperature	Nominal Working Pressure	Maximum Inlet Temperature	Maximum Working Pressure	Maximum Ambient Temperature
-40°C	35°C	7 bar	45°C	10 bar	40°C



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