



mikropor

Manufacturing Forward

Compressed Air Systems

2015

General Catalogue





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Manufacturing Forward

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Company Introduction

Mikropor

Founded in 1987 and headquartered in Ankara, Turkey, Mikropor serves industrial filtration markets including air compressor equipment, compressed air purification, power generation, gas turbines, dust collection, clean room, transportation and HVAC.

Originally focused on manufacturing the best Air/Oil Separators for the compressor market, Mikropor has since extended into new dimensions of the filtration market and is now recognized around the world as a true industry leader. Mikropor has become the leading provider of quality filtration and purification products for air, gas and liquid applications.

Mikropor Products

- Air/Oil Separators for Screw Compressors
- Refrigerated and Desiccant Air Dryers
- Compressed Air Filters
- In-line Element Replacements
- Oil Filters
- Air/Intake Filters for Compressors
- Air/Intake Filters for HVAC Applications
- Air/Intake Filters for Gas Turbines
- HEPA/ULPA High Efficiency Filters
for Clean rooms
- Liquid and Process Filters

Quality, Availability, Competitiveness...

Mikropor is ISO certified, technology-driven and committed to engineering innovations that satisfy customer expectations for quality products, reliable filtration performance and extreme value.

Through continued investment and innovation Mikropor has delivered a steady stream of new products, services, proprietary manufacturing processes and new technologies that provides continuing value for our customers.



Factory 1



Factory 2



Factory 3



Factory 4

AIR FILTERS

Air Filters for Air Compressors



Mikropor Air Filters

Mikropor Air Filters are the first line of defense for a compressor and have a significant impact on the service life of the compressor, lubricant, air/oil separators and oil filters. Mikropor offers the highest efficiency air intake filters in the market, outperforming the competition and delivering more value to customers.

EQUAL SPACE SYSTEM



Micro-glass and Mini-pleat System in Air Filters

Our Micro-glass Mini-Pleated Air Filters reach a 99.99 % efficiency faster than cellulose air filters and provides better protection by allowing fewer contaminants to pass through the media.

Mikropor Nano Media holds up to five (5) times more contaminants than conventional cellulose air filters, making them ideal for extended maintenance periods.



Micro-glass fiber at X500 magnification



Cellulose fiber at X500 magnification

Mikropor Micro-glass fibers are very fine nano scale fibers and are Eighty (80) times smaller in diameter than cellulose fiber. This results in extremely high initial efficiency and protects the air compressor better than any filter available in the market. The Mikropor Mini-Pleat system guarantees equal space between each filter pleat and maintains "V" pleated geometry throughout the service life of the filter. As a result, 100% of the surface area performs equally and delivers the expected protection, while minimizing pressure drops.

Air Intake Filters for Air Compressors (Mikroline Series)

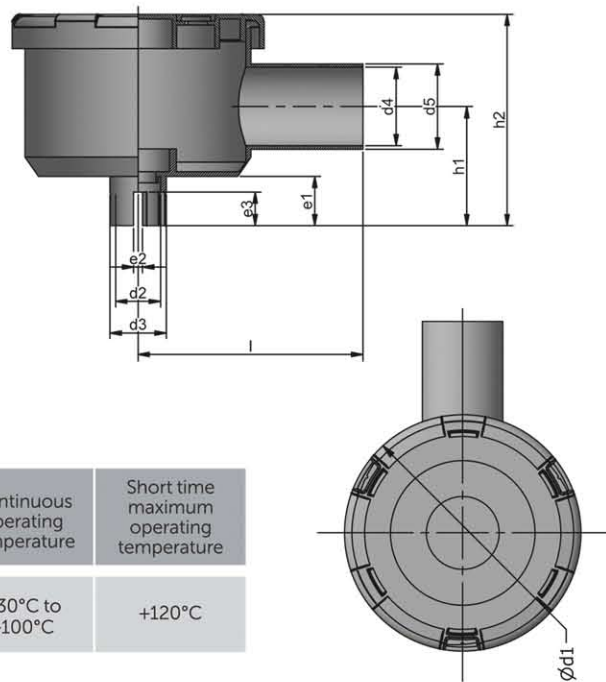


Mikroline Series

Mikropor's air intake elements are designed for the removal of dust or particulate in the air intake systems of compressors, machines, pumps, blowers, etc. Based on the density of the dust load, Mikropor offers two series with different sizes and capacities : Mikroline and Makroline.

Applications

Mikroline Air Intake Filters are well suited for applications with low dust loads such as power generators, piston compressors, as well as air cleaner ventilation of gear units and the filtration of liquid tanks.



General working conditions

Type	Overall design	Volumetric flow range (m ³ /min)	Continuous operating temperature	Short time maximum operating temperature
Mikroline Air Intake Filters	Highly reliable plastic air cleaner housing with high quality element	1 m ³ /min to 4 m ³ /min	-30°C to +100°C	+120°C

Dimensions

Model	d1	d2	d3	d4	d5	e1	e2	e3	e4	h1	h2	l	Nominal Flow Rate (m ³ /min)	Compressor connection Type
MIFH-0120	112	20	25	35	38	22	4	15	-	53	94	100	1	Internal tightened
MIFH-0130	112	30	35	35	38	22	4	15	-	53	94	100	1	Internal tightened
MIFH-0140	112	40	45	35	38	22	4	15	-	53	94	100	1	Internal tightened
MIFH-0240	140	40	45	35	38	22	4	15	-	67	114	120	2	Internal tightened
MIFH-0252	140	52	57	35	38	22	16.25	15	8.125	67	114	120	2	Internal tightened
MIFH-0260	140	60	65	35	38	22	4	15	-	67	114	120	2	Internal tightened
MIFH-0271	140	71	76	35	38	22	4	15	-	67	114	120	2	Internal tightened
MIFH-0452	181	52	57	58	60	22	16.25	15	8.125	102	164	154.5	4	Internal tightened
MIFH-0460	181	60	65	58	60	22	4	15	-	102	164	154.5	4	Internal tightened
MIFH-0471	181	71	76	58	60	22	4	15	-	102	164	154.5	4	Internal tightened

Note: Measure unit is mm

Air Intake Filters (Makroline Series)



Design

Mikropor Makroline Air Intake Filters are designed to provide maximum performance for those customers with extremely high dust capacity and low pressure drop air intake filter demands. These Makroline filters are also suitable for higher temperature use.

Applications

Mikropor Makroline Air Intake Filters are designed for medium and heavy dust load conditions for applications such as Air Compressors, Construction Machines, Agricultural Machines, Harvesting Machines, etc.

Advantages

The advantages of Makroline Air Intake Filters are:

- Operational reliability
- Long service life because of its highly efficient and reliable filter element replacements
- Low pressure drop
- Impact resistant corrosion free housing polypropylene
- Excellent price/performance ratio

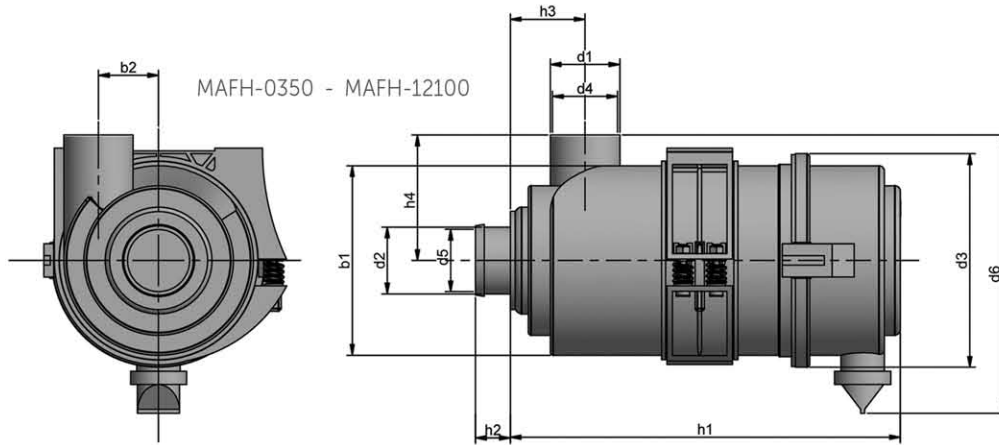
Mikropor Makroline Air Intake Filters' user friendly and flexible bracket system provides the the ability for easy installation. The brackets can be turned in various positions which provides numerous fitting possibilities. Mikropor's versatile production offers these brackets in different sizes.



General working conditions for Makroline Air Intake Filters

Type	Overall design	Volumetric flow range (m ³ /min)	Continuous operating temperature	Short time maximum operating temperature
Makroline Air Intake Filters	Highly reliable plastic air cleaner housing with high quality element, center tube in housing, radial seal	3 m ³ /min to 28 m ³ /min	-30°C to +80°C	+100°C

Easy various mounting possibilities

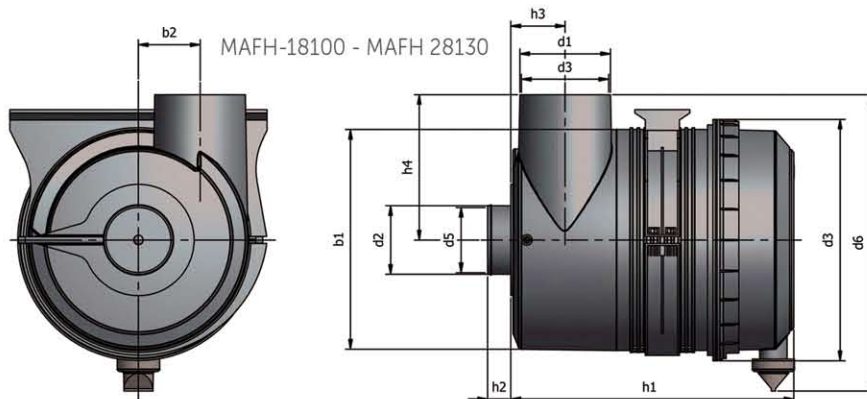


Technical Specifications

Model	b1	b2	d1	d2	d3	d4	d5	d6	h1	h2	h3	h4	Nominal Flow Rate (m ³ /min)	Compressor connection Type
MAFH-0350	142	45	52	50	160	49	47	209	292	26	56	94	3-4	External Clamped
MAFH-0360	142	45	52	60	160	49	57	209	292	26	56	94	3-4	External Clamped
MAFH-0870	200	53	94	70	226	89	64	293	380	30	67	137	8-10	External Clamped
MAFH-08100	200	53	94	100	226	89	94	293	380	30	67	137	8-10	External Clamped
MAFH-1270	200	53	94	70	227	89	64	293	520	30	67	137	12-14	External Clamped
MAFH-12100	200	53	94	100	227	89	94	293	520	30	67	137	12-14	External Clamped

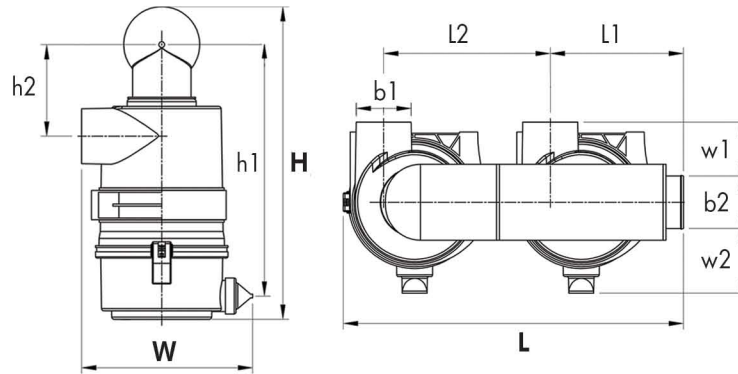
Model	b1	b2	d1	d2	d3	d4	d5	d6	h1	h2	h3	h4	Nominal Flow Rate (m ³ /min)	Compressor connection Type
MAFH-18100	322	90	132	100	352	127	95	432	413	34	79	212	18	External Clamped
MAFH-18110	322	90	132	110	352	127	105	432	413	34	79	212	18	External Clamped
MAFH-18130	322	90	132	130	352	127	125	432	413	34	79	212	18	External Clamped
MAFH-20100	322	90	132	100	352	127	95	432	443	34	79	212	20	External Clamped
MAFH-20110	322	90	132	110	352	127	105	432	443	34	79	212	20	External Clamped
MAFH-20130	322	90	132	130	352	127	125	432	443	34	79	212	20	External Clamped
MAFH-22100	322	90	132	100	352	127	95	432	473	34	79	212	22	External Clamped
MAFH-22110	322	90	132	110	352	127	105	432	473	34	79	212	22	External Clamped
MAFH-22130	322	90	132	130	352	127	125	432	473	34	79	212	22	External Clamped
MAFH-24100	322	90	132	100	352	127	95	432	503	34	79	212	24	External Clamped
MAFH-24110	322	90	132	110	352	127	105	432	503	34	79	212	24	External Clamped
MAFH-24130	322	90	132	130	352	127	125	432	503	34	79	212	24	External Clamped
MAFH-26100	322	90	132	100	352	127	95	432	533	34	79	212	26	External Clamped
MAFH-26110	322	90	132	110	352	127	105	432	533	34	79	212	26	External Clamped
MAFH-26130	322	90	132	130	352	127	125	432	533	34	79	212	26	External Clamped
MAFH-28100	322	90	132	100	352	127	95	432	563	34	79	212	28	External Clamped
MAFH-28110	322	90	132	110	352	127	105	432	563	34	79	212	28	External Clamped
MAFH-28130	322	90	132	130	352	127	125	432	563	34	79	212	28	External Clamped

Note:
The measure unit is " mm "



Air Intake Filters (Makroline Series with Collector)

Model	L	L1	L2	H	h1	h2	W	w1	w2	b1	b2	Nominal Flow Rate (m ³ /min)	Compressor connection Type
MAFHC-2-16130 (MAFH-08100x2)	585	228	285	535	430	157	293	92	113	94	130-150	16	External Clamped
MAFHC-2-24130 (MAFH-12100x2)	585	228	285	680	575	157	293	93	112	94	130-150	24	External Clamped
MAFHC-3-36130 (MAFH-12100x3)	870	228	285	680	575	157	293	93	112	94	130-150	36	External Clamped
MAFHC-4-48130 (MAFH-12100x4)	1155	228	285	680	575	157	293	93	112	94	130-150	48	External Clamped



MAFHC-2-16130
(MAFH-08100 X 2)



MAFHC-2-24130
(MAFH-12100 X 2)



MAFHC-3-36130
(MAFH-12100 X 3)



MAFHC-4-48130
(MAFH-12100 X 4)

AIR/OIL SEPARATORS



Why Mikropor Separators ?

With over 3000 Air/Oil Separator design for compressors, Mikropor offers multiple options for the full range of air flow and performance requirements.



Mikropor Air / Oil Separators

Conventional, pleated, depth construction spin-on and state-of-art "sep-n-sep" design separator allow Mikropor to cover the air/oil separation needs of the entire compressor applications.



Dimensions

Air / Oil Separator overall height (mm)

		150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000		
Air / Oil Separator body diameter (mm)	110	Conventional	1	2	2																
	3S	3	5	5																	
		Sep-n-Sep®																			
	135	Conventional	2	2	3	3	4	5													
		3S	4	5	6	8	8	9													
		Sep-n-Sep®																			
	150	Conventional	2	2,5	3	4	5	5	6	7											
		3S	4	5	7	8	10	11	12	13											
		Sep-n-Sep®																			
	170	Conventional	2	3	4	5	5	6	7	8	9	10									
		3S	4	6	8	10	11,5	13	14	16	17	19									
		Sep-n-Sep®																			
	200	Conventional		3	5	5	7	7	8	9	10	11	12								
		3S		7	9	11	13	15	17	19	21	23	25								
		Sep-n-Sep®																			
	220	Conventional			5	6	7	8	9	11	12	13	14	15	16						
		3S			10	13	15	17	19	22	23	26	28	30	33						
		Sep-n-Sep®																			
	270	Conventional			7	8	9	10	12	13	15	16	17	19	20	22	23	24			
		3S			14	15	18	21	24	27	29	32	35	38	41	44	47	49			
Sep-n-Sep®				21	23	27	31	36	40	44	48	52	56	61	66	70	73				
300	Conventional			8	9	10	12	13	15	17	18	20	21	23	24	26	28	29	31		
	3S			15	18	21	24	27	30	34	37	40	43	46	49	53	57				
	Sep-n-Sep®			24	28	32	37	42	46	53	57	62	66	71	76	82	88				
350	Conventional			10	12	14	16	18	20	22	24	26	28	30	32	34	36	38			
	3S			20	24	28	32	36	40	44	48	52	56	60							
	Sep-n-Sep®			32	38	44	50	56	63	69	75	81	88	94							
375	Conventional			11	13	15	17	19	21	23	25	27	29	31	33	35	37	39			
	3S			22	26	30	34	38	42	46	50	54	58								
	Sep-n-Sep®			34	40	47	54	60	66	72	79	85	91								
400	Conventional				15	17	19	21	23	25	27	29	32	34	36	38	40	42			
	3S				30	34	37	42	46	51	55	59									
	Sep-n-Sep®				47	52	59	67	73	81	88	94									
470	Conventional					20	22	25	27	30	33	35	37	41	43	45	48	51			
	3S					40	45	50	55												
	Sep-n-Sep®					63	71	79	87												
500	Conventional						24	27	30	33	36	39	42	45	48	51	54	56			
	3S						50	55	60												
	Sep-n-Sep®						82	91	100												

Air flow rates of Mikropor Air / Oil Separators (m³/min @ 7 bar working pressure)

Conwrap Separators

Mikropor 'Conwrap' Separators are standard wrapped style separators. These separators are designed for outside to inside flow and can be used with all oil injection Rotary Vane and Rotary Screw Compressors. Conwrap separators operate between 1 to 60 m³/min flow rate at 7 bar with 1 to 3 mg/m³ oil carry over.

'3S' Air / Oil Separators

The revolutionary Mikropor '3S' Separator is designed to fit the smaller separator housings without sacrificing operating performance. The '3S' separator has double to triple capacity when compared to a conventional separator with the same dimensions. The '3S' separator has 1/2 - 1/3 of volume of a conventional separator functioning in the same operating conditions. This increased capacity is achieved with specially designed progressive type, deep bed, coalescing media using an increased number of wraps.



Pleated Air / Oil Separators

Pleated separators increase the media surface area to reach higher capacities and maintain dimensions. Mikropor manufactures dozens of pleated separator designs.



Spin - on type Air / Oil Separators

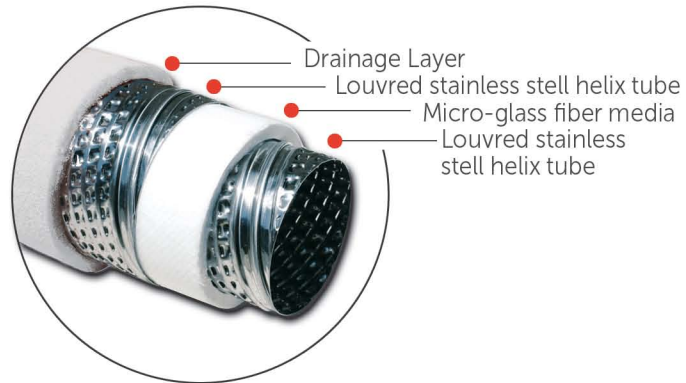
Mikropor Spin-On Type Air / Oil Separators are manufactured as an exchangeable element. Because Spin-Ons do not require a compressor housing, they permit uncomplicated and quick replacement without dismantling the compressor. Spin-On Type Air/Oil Separators are available for 0,6 to 7 m³/min flow rates operating at 7 bar.



AIR FILTER ELEMENTS

Micro - Glass Fiber

High efficiency Micro-Glass nanofiber media (80 times finer than Cellulose Fiber) delivers higher targeted efficiencies, longer service life, wide chemical and synthetic lubricant compatibility even at extreme working temperatures.



Element 4 Levels

Mikropor offers four (4) layers of Superior Protection- from 1 micron to .01 micron. Durable element construction and an efficient drain layer ensures continued performance after optimal element change periods.



Test

With over thirty (30) years of experienced Mikropor manufactures the best performing replacement elements in the industry. Through rigorous testing and validation processes Mikropor assures the customers that the replacement elements are even better performs equal to or better than compared to the original elements. Replacement elements have been designed and tested in the state-of-the art test laboratories.

Mikropor labs are capable of making the following tests ;

- Differential pressure at given flow rates
- Particle efficiency tests
- Oil aerosols measurements
- Pressure dew point

All tests are conducted as per the relevant ISO 12500 test standards.

Helix Tubes for Strength

Mikropor Compressed Air Filters have louvred stainless steel helix tubes providing increased strength and protection against severe pressure drops while improving performance by forcing air to pass diagonally through the element.

Synthetic compatibility and Durable Epoxy

Mikropor Compressed Air Filters are compatible with all synthetic lubricants in the industry. Durable Epoxy securely bonds the robust end caps to the filter tubes and will not be affected by synthetic lubricant in compressed air.



Replacement Elements



- ALMIG
- ATLAS COPCO
- BEA
- COMPAIR
- DELTECH
- DOMNICK HUNTER
- DOMNICK HUNTER
(Evolution Range)
- FAI FILTER
- HANKISON
- HIROSS
- KAESER
- MTA
- OMI
- ULTRA FILTER
- WALKER
- ZANDER



WATER SEPARATORS

Water Separators



Mikropor water separators have been designed for the removal of bulk liquid water and particulate from compressed air and gases. Unique centrifugal action removes contaminants at low-pressure drop for maximum energy savings. Mikropor water separators are available from 1/4" - 3" pipe sizes and for flows up to 2200m³/h (1294 scfm)

Note: While highly efficient, condensate separators will not remove 100% of the oil from the air stream additional coalescing and particulate filters downstream maybe required to remove the fine traces of oil, water and particles..

Note: Automatic drain valves are fitted as standard. All separator bodies are coated with electrostatic powder paint finish both inside and out.



Correction Factor

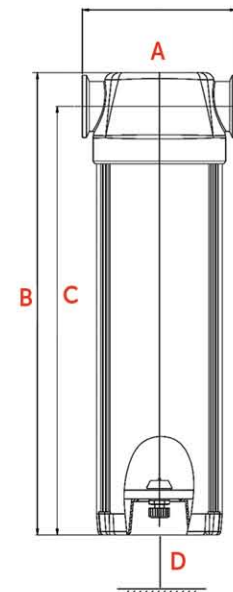
Operating Pressure (barg)	1	3	5	7	9	11	13	15	16
PSIG	15	44	73	100	131	160	189	218	247
Correction Factor	0,5	0,71	0,87	1	1,12	1,22	1,32	1,44	1,57

For maximum flow rate, multiply model flow rate show in the above table by the correction factor corresponding to the working pressure.

Technical Specifications

Model	Connection Size	Flow Rate		Housing Dimensions (mm)			
		(m ³ /h)	(scfm)	A	B	C	D
G25WS	1/4"	25	14	103	257.5	236	160
G100WS	1/2"	100	58	103	257.5	236	210
G200WS	3/4"	200	117	123	304	277	285
G300WS	1"	300	176	123	304	277	380
G600WS	1 1/2"	600	353	123	320	285	470
G1200WS	2"	1200	706	160	484	443	560
G2200WS	3"	2200	1294	193	546	490	610

Maximum Recommended Operating Temperature	80 °C
Minimum Recommended Operating Temperature	1,5 °C
Typical Pressure Loss at Rated Flow	50 mbar
Maximum Working Pressure	16 barg



Flanged Compressed Water Separators



Flanged Water Separators

Mikropor flanged water separators have been designed for the removal of bulk liquid water and particulate from compressed air and gases. Unique centrifugal action removes contaminants at low-pressure drop for maximum energy savings. Mikropor flanged water separators are available from DN80 - DN200 flange sizes and flows up to 14000 m³ (8236 scfm) (For larger sizes please contact the sales team)

Note: While highly efficient, condensate separators will not remove the oil from the air stream additional coalescing and particulate filters downstream maybe required to remove the fine traces of oil, water and particles.

Technical Specifications

Model	Connection Size	Flow Rate		Housing Dimensions (mm)					
		(m ³ /h)	(scfm)	A	B	C	D	E	F
F-2500WS	DN80	2500	1407,5	200	934	450	75	280	1289
F-3200WS	DN100	3200	1882,3	220	964	450	75	280	1319
F-4300WS	DN100	4300	2529,4	220	928	530	75	280	1283
F-6500WS	DN150	6500	3823,5	285	1092	580	75	280	1447
F-8500WS	DN150	8500	5000	285	1091	650	75	280	1446
F-11000WS	DN200	11000	6470,5	340	1168	750	75	280	1523
F-14000WS	DN200	14000	8235,2	340	1201	800	75	280	1556



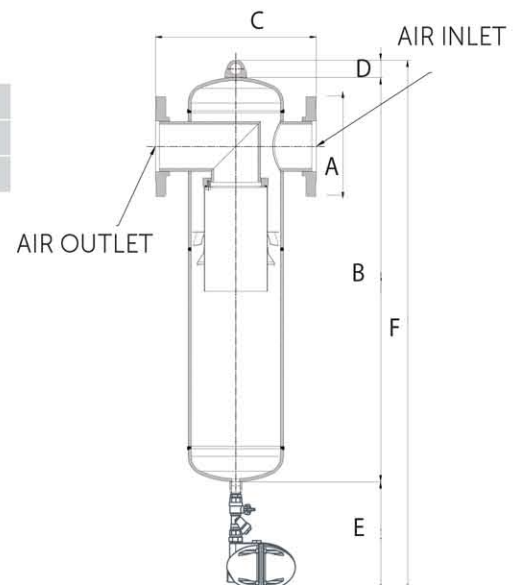
Correction Factor

Operating Pressure (barg)	1	3	5	7	9	11	13	14
PSIG	15	44	73	100	131	160	189	200
Correction Factor	0,5	0,71	0,87	1	1,12	1,22	1,32	1,38

For maximum flow rates, multiply model flow rate show in the above table by the correction factor corresponding to the working pressure.

Maximum Recommended Operating Temperature	80 °C
Minimum Recommended Operating Temperature	1,5 °C
Typical Pressure Loss at Rated Flow	50 mbar
Maximum Working Pressure	14 barg

Note: Egg drain valves fitted as standard.
All separator bodies are electrostatic powder coated



COMPRESSED AIR FILTERS



G Series Compressed Air Filters

Mikropor Compressed Air Filters have been designed to meet all requirements of compressed air filtration world. These air filters provide more comfortable usage for end users an increased endurance, higher efficiency at lower pressure drop and more port size options.

Filtration

Due to the usage of deep pleating technique the filtration area has increased remarkably which leads to a better filtration and higher dirt holding capacity. Mikropor Compressed Air Filters have been designed to remove airborne contamination in compressed air stream, delivering energy efficient operation and reliable performance.

Features

The air filters have four (4) ranges of efficiencies, removing contaminants as small 0.01 micron at up to 235 psi (16barg) - 1/4" to 3" NPT/BSP pipe sizes. A protected auto float drain (2mm orifice) is standard for optimal and reliable removal of liquid contaminants.

These air filters have a zero-porosity aluminum and durable epoxy powder-coat finish, along with a corrosion-resistant internal coating for a long service life. Filter combinations are configured to meet specific application requirements. Filters comply with PED and perform as per related ISO 8573 standards. These filters may be equipped with differential pressure gauges for easy maintenance and energy efficiency. Mikropor compressed air filters are always recommended with this system.

Types of Compressed Air Filters

- P** Pre-Filter / Particulate Filter
(Filter/Element air flow direction is out side to inside)
- X** General Purpose Filter / Water Removal
(Filter/Element air flow direction is inside to outside)
- Y** Coalescing Filter / Oil Removal
(Filter/Element air flow direction is inside to outside)
- A** Activated Carbon Filter / Odor Removal
(Filter/Element air flow direction is outside to inside)



Technical specifications

Model	Connection Size		Flow Rate		Max. working pressure (barg)	Element Model	Housing Dimensions (mm)					
			(m ³ /h)	(scfm)			A	B	C	D	E	
G20	-	1/4"	-	20	12	16	M20	75	45	193	175	100
G40	-	3/8"	-	40	24	16	M40	75	45	193	175	100
G25	1/4"	3/8"	1/2"	25	15	16	M25	102	45	219,5	197,5	125
G50	1/4"	3/8"	1/2"	50	30	16	M50	102	45	219,5	197,5	125
G100	3/8"	1/2"	-	100	58	16	M100	102	45	257,5	235,5	165
G150	1/2"	3/4"	1"	150	88	16	M150	123	45	302,5	275,5	205
G200	3/4"	1"	-	200	117	16	M200	123	45	366,5	339,5	265
G250	3/4"	1"	-	250	147	16	M250	123	45	406,5	379,5	315
G300	1"	1 1/4"	1 1/2"	300	176	16	M300	123	45	463	427,5	365
G500	1 1/4"	1 1/2"	-	500	294	16	M500	123	45	493	457,5	395
G600	1 1/4"	1 1/2"	-	600	353	16	M600	123	45	538	502,5	440
G851	1 1/4"	1 1/2"	2"	851	500	16	M851	160	45	625,5	583,8	495
G1210	2"	-	-	1210	712	16	M1210	160	45	695,5	653,8	565
G1520	2"	2 1/2"	3"	1520	930	16	M1520	194	45	730	672	445
G1820	2 1/2"	3"	-	1820	1140	16	M1820	194	45	870	813	565
G2220	3"	-	-	2220	1380	16	M2220	194	45	924	867	615
G2620	3"	-	-	2620	1541	16	M2620	194	45	1068	1011	695

Specifications	Pre Filtering	General Purpose	Oil Removal	Activated Carbon
Grade	P	X	Y	A
Particle Removal (Micron)	5	1	0,01	0,01
Max. Oil carryover at 21°C (mg/m ³)	5	0,5	0,01	0,003
Max. working temperature (°C)	80	80	80	25
Initial pressure loss (mbar)	40	80	100	80
Pressure loss for element change (mbar)	700	700	700	700
Element colour code	WHITE	WHITE	WHITE	METAL SS

INDICATOR TYPE
Gauge with or without electrical contact

DRAIN TYPE
Electro - adjustable
External float type
Zero-loss Drain
Manual

Correction Factor

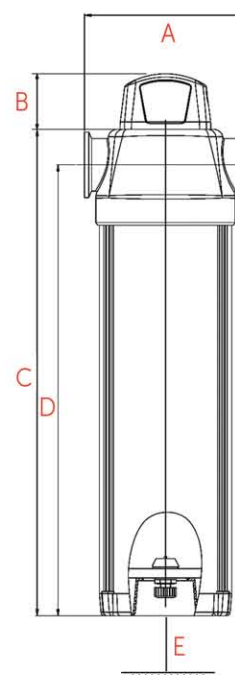
Operating Pressure (barg)	1	3	5	7	9	11	13	15	16
PSIG	15	44	73	100	131	160	189	218	247
Correction Factor	0,5	0,71	0,87	1	1,12	1,22	1,32	1,44	1,57

For maximum flow rate, multiply model flow rate show in the above table by the correction factor corresponding to the working pressure.

NOTES:

- 1) Grade A must not operate in oil saturated conditions.
- 2) Grade A elements should be replaced periodically to suit the applications but must be changed at least every six months.
- 3) Grade A will not remove certain gases including carbon monoxide and carbon dioxide. Please refer to works if in doubt.
- 4) Flow rates are based on a 7 bar operating pressure, for flows at other pressures use correction factor given above.
- 5) All filters are suitable for use with mineral and synthetic oils.
- 6) Gauge type pressure indicators are fitted to models G20 to G2620 as standard.
- 7) All filters are in conformity with the Pressure Equipment Directive (97/23/EC)

ORDERING: The complete filter model number contains the size and grade, example - 1" general purpose filter model G250MX with replacement filter element model M250X. 250 Represent 250m³ /h capacity and x represents the general purpose element.



GO Series Compressed Air Filters

GO Series

New additional to our G series, Mikropor "GO" series compressed air filters are designed for easy element replacement for "zero clearance" ability.

Features

The air filters have four (4) ranges of efficiencies, removing contaminants as small as 0.01 micron at up to 235 psi (16 barg) - 1/4" to 3" NPT/BSP pipe sizes. A protected auto float drain (2mm orifice) is standard for optimal and reliable removal of liquid contaminants.

These air filters have zero-porosity aluminum and durable epoxy powder-coat finish, along with a corrosion resistant internal coating for a long service life.

Filter combinations are configured to meet specific application requirements.

Filter comply with PED and perform as per related ISO 8573 standards.

These filters may be equipped with differential pressure gauges for easy maintenance and energy efficiency. Mikropor compressed air filters are always recommended with this system.



NEW
for OEM use

Element Features

Mikropor offers Superior protection - from 1 micron to 0,01 micron.

Durable element construction and efficient drain layer ensures continued performance after optimal element change. Elements are also easy to replace with the head clips.



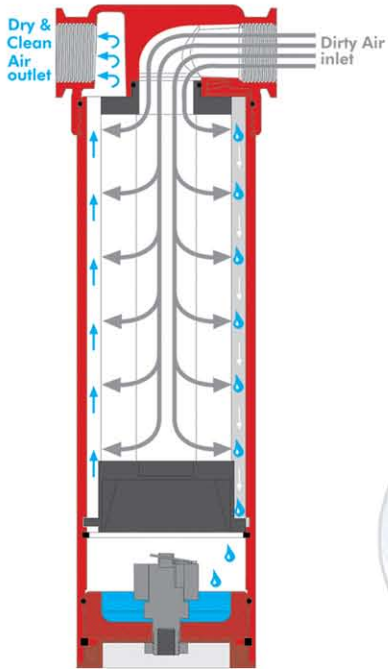
**TO REMOVE THE ELEMENT
TWIST CLOCKWISE**



**MIKROPOR ELEMENTS
HAVE BEEN DESIGNED
FOR EASY HANDLING**



- 1- Deep pleating also enables a lower pressure drop
- 2- Supreme collapse resistance due to usage of fluted stainless tube provides strength against pressure drops while improving the performance by passing air diagonally through the element.
- 3- PVC impregnated foam favours Water / Oil drainage

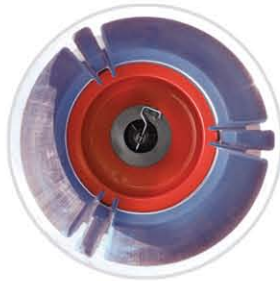


Head Clamping

Head Clamping provides serial connection of filters without any extra piping

Drainage Ribs

Drainage Ribs favors the humidity flow.



Zero Clearance

A major innovation for end user is the zero clearance design Provides for an easier bowl removal without using tool

Anodising

Anodising provides supreme corrosion resistance. Anodised surface treatment is proved to be better than other surface treatment methods such as Alocrome coating. Contact Mikropor to get Comparison Test results between Competitor Filters with Alocrome coating and Mikropor Filters with Anodising treatment.



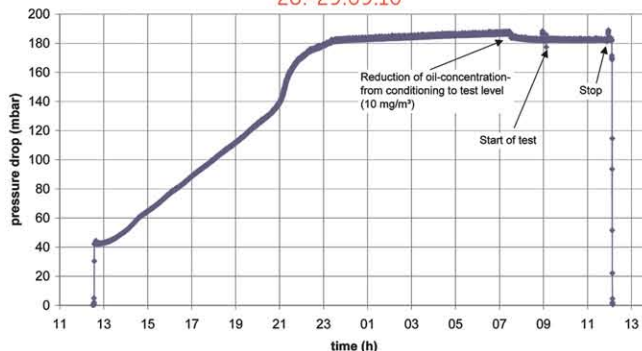
With Anodising

Without Anodising

Independent test report as per ISO12500 - 1

Filterelement:	M50Y		
Element	002		
Standard parameters and measuring results			
Measuring parameters	unit	standard	Test
Calendar date of test			28./29.09.10
Inlet temperature	°C	20 ± 5	18,5 ± 0,5
Inlet pressure	bar (e)	7	7
Ambient temperature	°C	20 ± 5	17,5 ± 0,5
Inlet dew point	°C	≤ 10 °C	0 - 4
Main flow through the test filter	m³/h		50
Partial flow	m³/h		5,1
Time of conditioning	h		20,38
Measuring time	h		2,75
Inlet oil concentration at conditioning	mg/m³		23 ± 1
Inlet oil concentration at test	mg/m³	10 ± 10%	10 ± 1
Residual oil concentration	mg/m³		0,01
Pressure drop filter element	mbar		183
Remarks	mouth of probe oil-free		
Test carried out by			
Signature			

Mikropor M50Y-2 at 50m³/h ANR - 7 bar(e)
28.-29.09.10



Technical Specifications

Model	Connection Size			Flow Rate		Max. working pressure (barg)	Element Model	Housing Dimensions (mm)				
				(m ³ /h)	(scfm)			A	B	C	D	E
GO20	-	1/4"	-	20	12	16	MO20	75	45	193	175	100
GO40	-	3/8"	-	40	24	16	MO40	75	45	193	175	100
GO25	1/4"	3/8"	1/2"	25	15	16	MO25	102	45	214,5	192,5	125
GO50	1/4"	3/8"	1/2"	50	30	16	MO50	102	45	214,5	192,5	125
GO100	3/8"	1/2"	-	100	58	16	MO100	102	45	252,5	230,5	165
GO150	1/2"	3/4"	1"	150	88	16	MO150	123	45	297,5	270,5	205
GO200	3/4"	1"	-	200	117	16	MO200	123	45	361,5	334,5	265
GO250	3/4"	1"	-	250	147	16	MO250	123	45	401,5	374,5	315
GO300	1"	1 1/4"	1 1/2"	300	176	16	MO300	123	45	458	422,5	365
GO500	1 1/4"	1 1/2"	-	500	294	16	MO500	123	45	488	452,5	395
GO600	1 1/4"	1 1/2"	-	600	353	16	MO600	123	45	533	497,5	440
GO851	1 1/4"	1 1/2"	2"	851	500	16	MO851	160	45	622,5	581	495
GO1210	2"	-	-	1210	712	16	MO1210	160	45	692,5	651	565
GO1520	2"	2 1/2"	3"	1520	930	16	MO1520	194	45	725,5	669	445
GO1820	2 1/2"	3"	-	1820	1140	16	MO1820	194	45	865	808	565
GO2220	3"	-	-	2220	1380	16	MO2220	194	45	919,5	863	615
GO2700	3"	-	-	2700	1541	16	MO2700	194	45	1063,5	1007	695

Specifications	Pre Filtering	General Purpose	Oil Removal	Activated Carbon
Grade	P	X	Y	A
Particle Removal (Micron)	5	1	0,01	0,01
Max. Oil carryover at 21°C (mg/m ³)	5	0,5	0,01	0,003
Max. working temperature (°C)	80	80	80	25
Initial pressure loss (mbar)	40	80	100	80
Pressure loss for element change (mbar)	700	700	700	700
Element colour code	WHITE	WHITE	WHITE	METAL SS

INDICATOR TYPE
Gauge with or without electrical contact

DRAIN TYPE
Electro - adjustable
External float type
Zero-loss Drain
Manual

Correction Factor

Operating Pressure (barg)	1	3	5	7	9	11	13	15	16
PSIG	15	44	73	100	131	160	189	218	247
Correction Factor	0,5	0,71	0,87	1	1,12	1,22	1,32	1,44	1,57

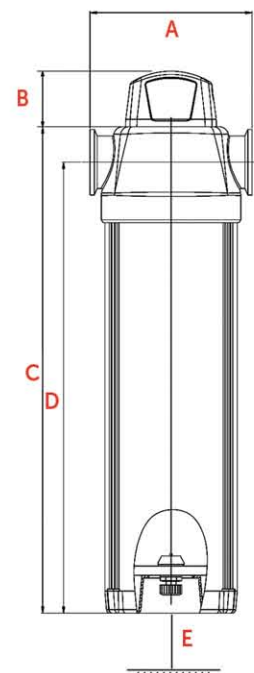
For maximum flow rate, multiply model flow rate show in the above table by the correction factor corresponding to the working pressure.

NOTES:

- Grade A must not operate in oil saturated conditions.
- Grade A elements should be replaced periodically to suit the applications but must be changed at least every six months.
- Grade A will not remove certain gases including carbon monoxide and carbon dioxide. Please refer to works if in doubt.
- Flow rates are based on a 7 bar operating pressure, for flows at other pressures use correction factor given above.
- All filters are suitable for use with mineral and synthetic oils.
- Gauge type pressure indicators are fitted to models GO25 to GO2700 as standard.
- All filters are in conformity with the Pressure Equipment Directive (97/23/EC)

ORDERING: The complete filter model number contains the size and grade, example - 1" general purpose filter model GO250MX with replacement filter element model MO250X.

250 Represent 250m³ /h capacity and x represents the general purpose element.



Flanged Compressed Air Filters



High Performance Elements inside

Features

- Elements are assembled by the help of a tie rod system
- Two external float drains for maximum drainage
- Unique design for pre-separation zone
- Strong welded design
- CE and ASME tanks available
- Design for easy element change from top flange

External Float Drain

Mikropor external drainis designed to remove liquid condensation from collection points in a Compressed Air System. Durable epoxy powder-coat finish and corrosion resistant internal anodised coating for longer service life.



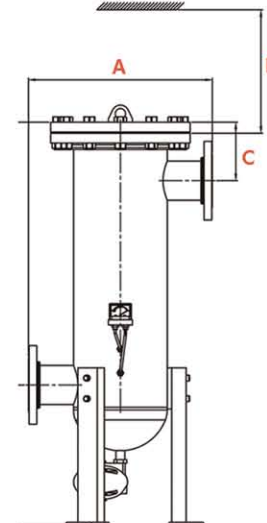
Technical Specifications

Model	Drain Port Size	Inlet/Outlet Port Size	Flow Rate		Max. working pressure (barg)	Element Model	Number of Elements	Housing Dimensions (mm)				
			(m ³ /h)	(scfm)				A	B	C	D	E
F2500	1/2"	DN80	2500	1470	14	M1200	2	450	1287	277	747	650
F3200	1/2"	DN100	3200	1880	14	M1200	3	450	1317	277	767	650
F4300	1/2"	DN100	4300	2530	14	M1200	4	530	1344	279	769	650
F6500	1/2"	DN150	6500	3825	14	M1200	6	580	1425	331	796	650
F8500	1/2"	DN150	8500	5000	14	M1200	8	650	1439	333	798	650
F11000	1/2"	DN200	11000	6470	14	M1200	10	750	1504	365	825	650
F14000	1/2"	DN200	14000	8235	14	M1200	14	800	1545	383	833	650
F17000	1/2"	DN250	17000	10000	14	M1200	16	850	1583	417	862	650
F21000	1/2"	DN300	21000	12350	14	M1200	17	850	1680	447	887	650
F25500	1/2"	DN350	25500	15000	14	M1200	23	850	1778	487	917	650
F30000	1/2"	DN350	30000	17650	14	M1200	28	850	1778	487	917	650

Specifications	Pre Filtering	General Purpose	Oil Removal	Activated Carbon
Grade	P	X	Y	A
Particle Removal (Micron)	5	1	0,01	0,01
Max. Oil carryover at 21°C (mg/m ³)	5	0,5	0,01	0,003
Max. working temperature (°C)	80	80	80	25
Initial pressure loss (mbar)	40	80	100	80
Pressure loss for element change (mbar)	700	700	700	700
Element colour code	WHITE	WHITE	WHITE	METAL SS

DRAIN TYPE
Electro - adjustable
External float type
Zero-loss Drain
Manual

Minimum clearance for element change



Correction Factor

Operating Pressure (barg)	1	3	5	7	9	11	13	14
PSIG	15	44	73	100	131	160	189	200
Correction Factor	0,5	0,71	0,87	1	1,12	1,22	1,32	1,38

For maximum flow rate, multiply model flow rate show in the above table by the correction factor corresponding to the working pressure.

NOTES:

- 1) Grade A must not operate in oil saturated conditions.
- 2) Grade A elements should be replaced periodically to suit the applications but must be changed at least every six months.
- 3) Grade A will not remove certain gases including carbon monoxide and carbon dioxide. Please refer to works if in doubt.
- 4) Flow rates are based on a 7 bar operating pressure, for flows at other pressures use correction factor given above.
- 5) All filters are suitable for use with mineral and synthetic oils.
- 6) Other standards for flanged connections are available.
- 7) Direction of air flow, inside to out, through filter element

ORDERING:

The complete filter model number contains the size and grade, Example - pipe size NW100 oil removal filter with model filter 3200MY replacement filter element model M1200Y.

Mist Eliminator Compressed Air Filters



Applications include

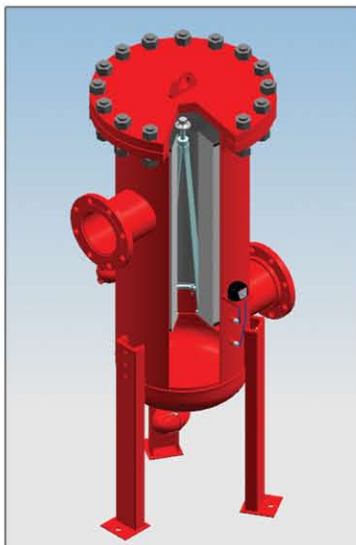
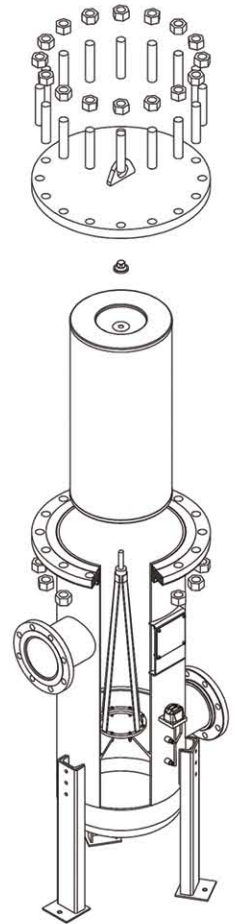
- Capturing oil fog, mist, or smoke from exhaust and pressure unloading vents on oil flooded compressors, vacuum pumps and blowers
- Any application requiring Low Delta P coalescing of large air volumes
- Vacuum Freeze Drying
- Vacuum Out - Gasing
- Vacuum Coating
- Food Processing
- Nailers/Staplers
- Industrial Vacuum Processes
- Cement & Paper Processing

Design

- Mist Eliminators are designed to meet the demand for:
- Efficient removal of oil-mist carryover from piston or oil flooded rotary compressors
 - Long service life
 - Strength to withstand strenuous operating conditions
 - Protection from oil slugs or compressor Air/ Oil separator failure

Features

- Very Low pressure drop
- Large oil catching efficiency
- Easy field cleaning
- Positive sealing O-rings
- Temperature (continuous)
4°C (40°F) min. 80°C (176°F) max.
- Auto Float Drain is Standard
- Multiple drain Style Options Available
- Pressure Rating of 14 barg (200 psig)
- Removal of particles down to 0.01 micron including coalesced liquid water and oil providing a maximum remaining oil aerosol content of 0.01 ppm
- Increased surface area in a given volume allows low velocity separation of ultra fine oil mist
- Elements are grounded to canister minimizing static electricity problems



Technical specifications

Model	Drain Port Size	Inlet/Outlet Port Size	Flow Rate		Max. working pressure (barg)	Housing Dimensions (mm)							
			(m ³ /h)	(scfm)		A	B	C	D	ØE	ØF	G	H
ELM-150	1/2"	DN50	255	150	14	500	1003	209	459	203	103	305	330
ELM300	1/2"	DN50	510	300	14	500	1105	209	559	203	103	407	435
ELM-600	1/2"	DN50	1020	600	14	500	1461	209	916	203	103	762	790
ELM-800	1/2"	DN80	1360	800	14	500	1655	279	1084	203	103	915	950
ELM-1200	1/2"	DN80	2040	1200	14	600	1520	281	931	254	103	762	790
ELM-1600	1/2"	DN80	2720	1600	14	600	1671	281	1086	254	103	915	950
ELM-2100	1/2"	DN100	3570	2100	14	700	1575	335	953	300	129	762	790
ELM-2750	1/2"	DN100	4675	2750	14	700	1726	335	1100	300	129	915	950
ELM-4200	1/2"	DN150	7140	4200	14	800	1670	393	983	365	181	762	790
ELM-6000	1/2"	DN150	10200	6000	14	800	1925	393	1238	365	181	950	1045
ELM-8000	1/2"	DN200	13600	8000	14	850	2020	417	1277	386	233	1016	1045
ELM-10000	1/2"	DN250	17000	10000	14	1000	2118	417	1307	407	337	1016	1045
ELM-12000	1/2"	DN300	20400	12000	14	1000	2688	497	1847	437	337	1524	1550

Correction Factor

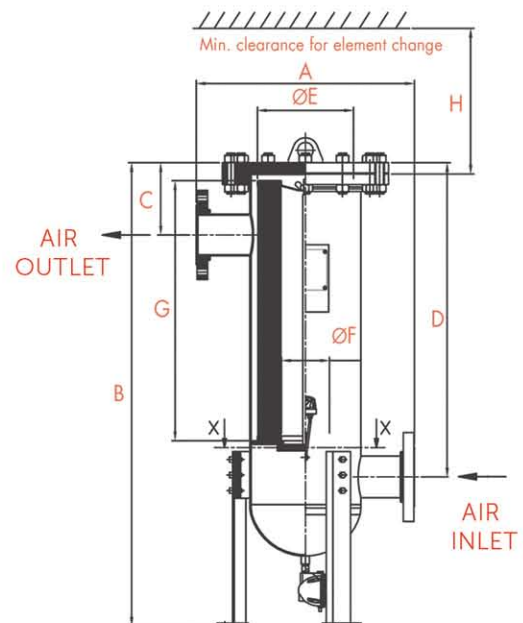
Operating Pressure (barg)	1	3	5	7	9	11	13	14
PSIG	15	44	73	100	131	160	189	200
Correction Factor	0,5	0,71	0,87	1	1,12	1,22	1,32	1,38

For maximum flow rate, multiply model flow rate show in the above table by the correction factor corresponding to the working pressure.

DRAIN TYPE
Electro - adjustable
External float type
Zero-loss Drain
Manual

Mist Eliminator Element

- Ultra low pressure drop reduces energy costs.
- Positive gasket seals eliminate media bypass
- Filter change out differential 2.5 psig (170 mbar)
- True Air / Oil Separator
- Long service life



High Pressure Compressed Air Filters



High Pressure
High Performance

Features

Mikropor manufactures a line of High Performance Compressed Air Filters, Moisture Separators in two different range **50 bar** range made of Aluminum, no welding, strong and reliable design. **350 bar** range made of Steel, no welding, and designed for reliability at very high pressure applications.

Anodised Aluminum Design with High Performance

Mikropor High Pressure Range Compressed Air Filters are NO weld design. These filters are built with a very thick wall thickness and as a result are extremely robust. An-state of art. In-house high pressure test facilities assure the performance.

In addition, all inner and outer surfaces of **50 bar** aluminum design filters are Anodised, and our **350 bar** Carbon Steel design filters are epoxy electro powder coated.



50 bar



Anodised Design



Technical Specifications

Model	Drain Port Size	Flow Rate at 50 bar		Max. working pressure (barg)	Element Model	Housing Dimensions (mm)			
		(m ³ /h)	(scfm)			A	B	C	D
HG100	1/4"	71	42	50	M25	113,4	115,4	25,75	155
HG300	1/2"	212	125	50	M50	113,4	115,4	25,75	158,5
HG600	3/4"	425	250	50	M100	109,4	115,4	32,25	207
HG850	1"	595	350	50	M150	133	138	37,35	250
HG1200	1"	850	500	50	M200	133	138	37,35	314
HG1600	1 1/2"	1600	940	50	M250	128	138	44,4	368
HG2500	2"	2500	1470	50	M2500	145	158	51,5	393
HG3000	2 1/2"	3000	1765	50	M3000	160	178	57,6	386

Model	Drain Port Size	Flow Rate at 350 bar		Max. working pressure (barg)	Element Model	Housing Dimensions (mm)			
		(m ³ /h)	(scfm)			A	B	C	D
HGH100	1/4"	102	60	350	M25	113,4	115,4	25,75	155
HGH300	1/2"	298	175	350	M50	113,4	115,4	25,75	158,5
HGH600	3/4"	595	350	350	M100	109,4	115,4	32,25	207
HGH850	1"	850	500	350	M150	133	138	37,35	250
HGH1200	1"	1190	700	350	M200	133	138	37,35	314
HGH1600	1 1/2"	2240	1317	350	M250	128	138	44,4	368
HGH2500	2"	3500	2058	350	M2500	145	158	51,5	393
HGH3000	2 1/2"	4200	2470	350	M3000	160	178	57,6	386

Specifications	Pre Filtering	General Purpose	Oil Removal	Activated Carbon
Grade	P	X	Y	A
Particle Removal (Micron)	5	1	0,01	0,01
Max. Oil carryover at 21°C (mg/m ³)	5	0,5	0,01	0,003
Max. working temperature (°C)	80	80	80	25
Initial pressure loss (mbar)	40	80	100	80
Pressure loss for element change (mbar)	700	700	700	700
Element colour code	WHITE	WHITE	WHITE	METAL SS

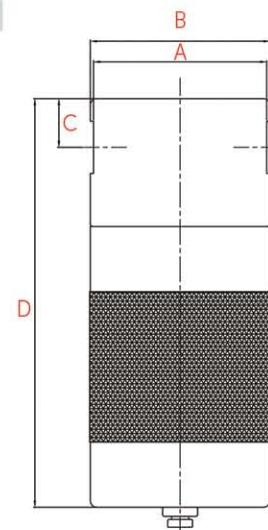
DRAIN TYPE
HG - Manual Brass Drain
HGH - Manual Brass Drain

NOTES:

- Grade A must not operate in oil saturated conditions.
- Grade A elements should be replaced periodically to suit the applications but must be changed at least every six months.
- Grade A will not remove certain gases including carbon monoxide and carbon dioxide. Please refer to works if in doubt.
- All filters are suitable for use with mineral and synthetic oils.
- The above housings require only one filter element.
- Direction of air flow, inside to out, through filter element. Except grade A
- Manual drain is standard. Electronic timer is optional.

ORDERING:

The complete filter model number contains the size and grade, Example - 1/4" general purpose filter model HG100MX with replacement filter element model M100X.



Activated Carbon Tower



Activated Carbon Tower

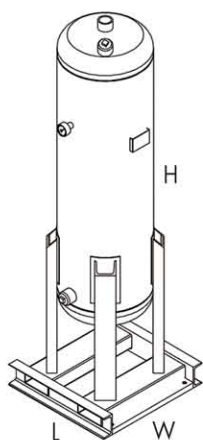
Many industries such as the electronic and hospital industries, pharmaceutical industries, food and beverage industries require the removal of the residual oil vapors and odors from the compressed air. Mikropor's solution for this application is the MCT Series activated carbon towers. With standard pre and after filters such as particulate filters, water coalecers and oil coalecers the oil content inside the compressed air can be reduced to 0.01 mg/m³ (0.01 ppm) For applications of EXTREME air quality such as hospital, pharmaceutical industries, or food and beverage industries, the residual oil content may need to be reduced to 0.003 mg/m³ (0.003 ppm). MCT filters such as Mikropor activated carbon G series, GO series, F series filters or MCT activated carbon towers are a must for such kind of applications.

Correction Factor

Operating Pressure (barg)	1	3	5	7	9	10
PSIG	15	44	73	100	131	145
Correction Factor	0,5	0,71	0,87	1	1,12	1,15

Maximum Recommended Operating Temperature	25 °C
Maximum Oil carryover at 21 °C (mg/m ³)	0.003
Maximum Working Pressure	10 barg

Technical Specifications



Model	Connection Size	Flow Rate (m ³ /h)	Max. working pressure (barg)	Active carbon (kg)	Housing Dimensions (mm)		
					Length	Height	Width
MCT130	1"	130	10	14	347	450	1172
MCT185	1"	185	10	20	450	563	1413
MCT250	1"	250	10	28	430	601	1370
MCT300	1 1/2"	300	10	37	500	649	1336
MCT360	1 1/2"	360	10	37	500	649	1336
MCT440	1 1/2"	440	10	46	500	648	1536
MCT575	1 1/2"	575	10	56	469	604	1733
MCT680	2"	680	10	74	550	540	1936
MCT850	2"	850	10	97	580	600	1957
MCT1000	2"	1000	10	128	657	638	1617
MCT1250	DN80	1250	10	149	708	880	2400
MCT1500	DN80	1500	10	167	708	880	2558
MCT1800	DN80	1800	10	210	810	980	2423
MCT2200	DN80	2200	10	262	810	1100	2600
MCT2700	DN80	2700	10	320	910	1100	2758
MCT3200	DN100	3200	10	356	866	1050	3023
MCT3600	DN100	3600	10	400	866	1050	3237
MCT4400	DN100	4400	10	537	1130	1250	2914
MCT5000	DN150	5000	10	624	1130	1310	3420
MCT6300	DN150	6300	10	754	1230	1410	3365
MCT7200	DN150	7200	10	845	1430	1575	3075
MCT8800	DN150	8800	10	1009	1430	1575	3369
MCT10800	DN200	10800	10	1148	1430	1650	3863

COMPRESSED AIR DRYERS

MKE Economy Series

Mikropor Air Dryers

Mikropor knows the importance of high quality compressed air and guarantees to provide our customers with the highest available quality air in the market. Using clean, dry air is extremely important for all kinds of air powered applications. Moisture or contamination in the air which will come from the standard compressor outlet will cause complicated system errors. These complications will decrease productivity and may affect the production quality of final products.

Advantages

- Low pressure drop saves compressor power
- Quick start and reaction time provides additional production time
- Every dryer is specially designed according to its flow with the right components to consume lowest energy
- The highly energy-efficient R134a refrigerant is a standard across all models
- A state of the art heat exchanger provides the highest cost saving one in the industry
- Best in class refrigerant compressors consume less energy against competitor dryers
- Pressure switches control the condenser's fan motor for saving energy and letting the system operate at desired conditions



Applications

Mikropor provides an entire range of products for filtration and air purification applications at a cost effective price.

Applications include: Food production, dairies, breweries, clean conveying air, chemical plants, pure air and clean room technology, Pharmaceutical industry, weaving machines, photo labs, paint spraying, powder coating, packaging, control and instrument air, sand and/or Shot blasting, general air works, Microchip production, optics, process air as well as many other markets.

The MKE - MKP Series Refrigerant Circuit and Insulation

Mikropor only uses environmentally friendly R134a refrigerant gas in the dryers. This refrigerant is suitable for both low and high temperature applications. R-134a has excellent thermodynamic properties and can operate at very low pressure compared to other refrigerants. This will in turn increase the compressors and service life. With R-134a the Mikropor dryers can operate at very high ambient temperatures.

Mikropor engineers add extra power to the heat exchangers with our excellent and extraordinary no loss insulation system. Mikropor dryers supply constant dewpoint at all flow ranges. This perfect insulation idea continues on the refrigeration circuit side as well. With this insulation concept and oversized condensers (even for ultra-high ambient temperatures) Mikropor Refrigerated Air Dryers offer the highest technology with its custom solutions.

MKE Economy Series



Dew point indicator is standard

Dew point indicator is standard on control panel MKE 23 - MKE 5085 and MKE 5850 up to MKE 12500 has as a standard Digital Cycling capabilities.

Electrical wires are separated from Refrigerant side

There are very few electrical wires inside the refrigerant side of the dryer. Electrical box has an external cover with access from the outside of the dryer. Therefore there is no need to open dryer panels electrical access



Compact Design

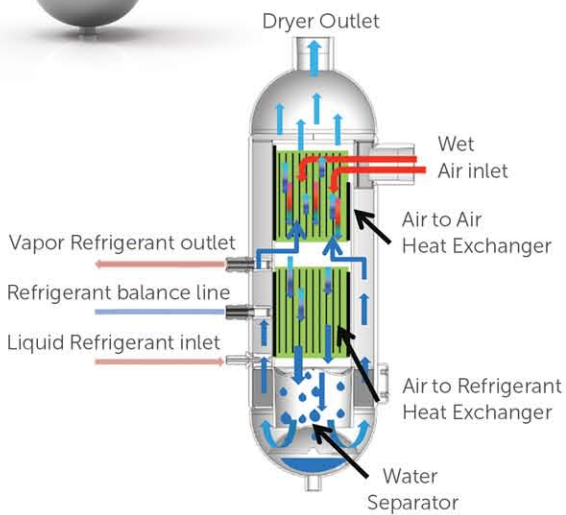
Mikropor dryers are highly reliable, efficient, have small space demands and offer low cost ownership. Mikropor Refrigerated Air Dryers are suitable for the smallest installation spaces. Having two filters integrated into the dryer frame offers a huge advantage to the service techs and end users. The integrated filters save labor time, piping cost and space at the facilities where the Mikropor Dryer is used. The compact size also offers flexibility and economy during their transport.





Aluminum Plate Heat Exchanger is standard

- Very Low Pressure Drop
- Thin Aluminum Plate Thickness
- High Heat Transfer Surface Area
- Strong Due to External Thick Cylindrical Wall
- Water Separator is Optimized for Best Performance



Scroll Compressors

Scroll Compressors are energy efficient and strong against liquid shocks. For energy saving scroll compressors are used for 400 Nm³/h and above MKE and MKP Dryers.



Easy Access

Easy access in to the cooling components in seconds by the help of screw free panels and plastic handles. Easy for Service and more working space. Service techs save time by not having to remove fasteners.



MKE Economy Series



Zero Clearance Compressed Air Filters with High Performance Elements

Compressed Air Filter kit is standard on the Mikropor Dryers. The filter with X Element (coalescing filter for water removal) is used for up to 1 micron particules and the Filter with Y Element (coalescing filter for oil removal) is used to remove oil down to 0.01 ppm Zero clearance design helps service technicians to replace the element in minutes. Mikropor Refrigeranted Air Dryers are designed by engineers who had received all of the design feedback from field engineers and service technicians. This service friendly design makes Mikropor dryers very unique in the industry. Dryer Filter kit which has 2 elements, 2 automatic drains and 2 viton o-rings helps the customers to operate the dryers at its best performance until next planned maintenance. Replacing drains on the filters is very critical when replacing elements. Because drains may get clogged with dirt and oil over time.





Grooved couplings and fittings

On Compressed Air lines, Grooved couplings and fittings are commonly used in the industry. These couplings increase flexibility on connections, help the service technician to dismantle and assemble pipes easily and quickly



Pressure Drop Alarm Sensor

Pressure drop is a huge concern in compressed air. In many applications high pressure drops will cause a decrease in the pressure at the point of use. Sometimes this low pressure is not enough for the machines or processes to operate correctly. In addition dirt particles and oil in the compressed air system may block the filters quickly. It is important for the end users and service technicians to recognize if there is a problem in the system. On the Mikropor dryers a Pressure Drop Alarm Sensor is located on the inlet filter measures the pressure drop on the inlet filter element. This creates a signal when pressure drop is higher than the set value and triggers an alarm on the front panel. When that alarm goes off the filter elements and auto drains are to be replaced.

Excessive Water Droplet Drains

Liquid water droplets coming from the line to the inlet of the dryer is separated by the inlet filter and drained. Filter auto drain have manual valves on it. This allows the system to be depressurized when these filters go to service.



MKP Premium Series

Premium Series Features

- 3°C Pressure dew point
- Very Low Pressure Drop
- Designed for extreme tropical conditions
- Dryer easily runs with rated flow at 60°C Max. Inlet Temperature and 55°C Ambient Temperature due to R134a refrigerant (All through the range) and oversized condenser.



Energy Saving Device ESD

Mikropor Refrigerated Air dryers with Digital Controller and Energy Saving Device (ESD) with a lot of economy features and alarm capabilities is standard for all 3Ph dryers (MKP Series) Refrigeration dryers are usually the most efficient dryer solution for the compressed air applications.

With the help of the highly engineered ESD Mikropor Refrigerated Air dryers will reduce your energy consumption. ESD helps the service techs to monitor many useful parameters on the dryer and guides them to troubleshoot any problem very easily.



ESD is very useful when there is no air coming in to the dryer when the dryer is running. Especially during the nights, weekends and holidays many companies do not stop their dryers although they do not run compressed air. ESD saves a huge amount of money by simply shutting the dryer down automatically when it is not in use.

MKE Technical Specifications

Model	Capacity (m ³ /h)	Voltage	Connection Size	Filter Quantity and Type	Element Type	Pressure Drop (mbar)	Control Type	Max. Working Pressure (bars)	Max. Ambient Temp. (°C)	Max. Inlet Temp. (°C)
MKE-23	23	230/1/50	1/2"	1 * GKO50X + 1 * GKO50Y	MKO50 KIT	150	-	16	45	50
MKE-38	38	230/1/50	1/2"	1 * GKO50X + 1 * GKO50Y	MKO50 KIT	220	-	16	45	50
MKE-53	53	230/1/50	1/2"	1 * GKO50X + 1 * GKO50Y	MKO50 KIT	350	-	16	45	50
MKE-100	100	230/1/50	3/4"	1 * GKO150X + 1 * GKO150Y	MKO150 KIT	100	-	16	45	50
MKE-155	155	230/1/50	3/4"	1 * GKO150X + 1 * GKO150Y	MKO150 KIT	220	-	16	45	50
MKE-190	190	230/1/50	3/4"	1 * GKO150X + 1 * GKO150Y	MKO150 KIT	320	-	16	45	50
MKE-210	210	230/1/50	1 1/2"	1 * GKO500X + 1 * GKO500Y	MKO500 KIT	220	-	16	45	50
MKE-305	305	230/1/50	1 1/2"	1 * GKO500X + 1 * GKO500Y	MKO500 KIT	320	-	16	45	50
MKE-375	375	230/1/50	1 1/2"	1 * GKO500X + 1 * GKO500Y	MKO500 KIT	200	-	16	45	50
MKE-495	495	230/1/50	2"	1 * GKO851X + 1 * GKO851Y	MKO851 KIT	310	-	16	45	50
MKE-623	623	230/1/50	2"	1 * GKO1210X + 1 * GKO1210Y	MKO1210 KIT	240	-	16	45	50
MKE-930	930	230/1/50	2"	1 * GKO1210X + 1 * GKO1210Y	MKO1210 KIT	150	-	16	45	50
MKE-1200	1200	230/1/50	2"	1 * GKO1210X + 1 * GKO1210Y	MKO1210 KIT	190	-	16	45	50
MKE-1388	1388	400/3/50	3"	1 * GKO1820X + 1 * GKO1820Y	MKO1820 KIT	350	-	16	45	50
MKE-1800	1800	400/3/50	3"	1 * GKO1820X + 1 * GKO1820Y	MKO1820 KIT	290	-	16	45	50
MKE-2500	2500	400/3/50	3"	1 * GKO2700X + 1 * GKO2700Y	MKO2700 KIT	190	-	16	45	50
MKE-2775	2775	400/3/50	3"	1 * GKO2700X + 1 * GKO2700Y	MKO2700 KIT	350	-	16	45	50
MKE-3330	3330	400/3/50	DN100	Not Included	Not Included	270	-	16	45	50
MKE-3915	3915	400/3/50	DN100	Not Included	Not Included	380	-	16	45	50
MKE-5085	5085	400/3/50	DN100	Not Included	Not Included	320	ESD-3	16	45	50
MKE-5850	5850	400/3/50	DN100	Not Included	Not Included	350	ESD-3	16	45	50
MKE-6975	6975	400/3/50	DN150	Not Included	Not Included	320	ESD-3	16	45	50
MKE-7875	7875	400/3/50	DN150	Not Included	Not Included	350	ESD-3	16	45	50
MKE-9000	9000	400/3/50	DN150	Not Included	Not Included	350	ESD-3	16	45	50
MKE-10500	10500	400/3/50	DN200	Not Included	Not Included	350	ESD-3	16	45	50
MKE-12500	12500	400/3/50	DN200	Not Included	Not Included	350	ESD-3	16	45	50

MKP Technical Specifications

Model	Capacity (m ³ /h)	Voltage	Connection Size	Filter Quantity and Type	Element Type	Pressure Drop (mbar)	Control Type	Max. Working Pressure (bars)	Max. Ambient Temp. (°C)	Max. Inlet Temp. (°C)
MKP-18	18	230/1/50	1/2"	1 * GKO50X + 1 * GKO50Y	MKO50 KIT	100	ESD-1	16	50	60
MKP-30	30	230/1/50	1/2"	1 * GKO50X + 1 * GKO50Y	MKO50 KIT	140	ESD-1	16	50	60
MKP-42	42	230/1/50	1/2"	1 * GKO50X + 1 * GKO50Y	MKO50 KIT	220	ESD-1	16	50	60
MKP-66	66	230/1/50	3/4"	1 * GKO150X + 1 * GKO150Y	MKO150 KIT	50	ESD-1	16	50	60
MKP-96	96	230/1/50	3/4"	1 * GKO150X + 1 * GKO150Y	MKO150 KIT	100	ESD-1	16	50	60
MKP-130	130	230/1/50	3/4"	1 * GKO150X + 1 * GKO150Y	MKO150 KIT	150	ESD-1	16	50	60
MKP-168	168	230/1/50	1 1/2"	1 * GKO500X + 1 * GKO500Y	MKO500 KIT	100	ESD-1	16	50	60
MKP-240	240	230/1/50	1 1/2"	1 * GKO500X + 1 * GKO500Y	MKO500 KIT	150	ESD-1	16	50	60
MKP-300	300	230/1/50	1 1/2"	1 * GKO500X + 1 * GKO500Y	MKO500 KIT	80	ESD-1	16	50	60
MKP-396	396	230/1/50	2"	1 * GKO851X + 1 * GKO851Y	MKO851 KIT	120	ESD-1	16	50	60
MKP-498	498	230/1/50	2"	1 * GKO1210X + 1 * GKO1210Y	MKO1210 KIT	100	ESD-1	16	50	60
MKP-660	660	230/1/50	2"	1 * GKO1210X + 1 * GKO1210Y	MKO1210 KIT	100	ESD-1	16	50	60
MKP-870	870	230/1/50	2"	1 * GKO1210X + 1 * GKO1210Y	MKO1210 KIT	120	ESD-1	16	50	60
MKP-1110	1110	400/3/50	3"	1 * GKO1820X + 1 * GKO1820Y	MKO1820 KIT	220	ESD-3	16	50	60
MKP-1380	1380	400/3/50	3"	1 * GKO1820X + 1 * GKO1820Y	MKO1820 KIT	180	ESD-3	16	50	60
MKP-1710	1710	400/3/50	3"	1 * GKO2700X + 1 * GKO2700Y	MKO2700 KIT	120	ESD-3	16	50	60
MKP-2220	2220	400/3/50	3"	1 * GKO2700X + 1 * GKO2700Y	MKO2700 KIT	220	ESD-3	16	50	60
MKP-2664	2664	400/3/50	DN100	Not Included	Not Included	170	ESD-3	16	50	60
MKP-3132	3132	400/3/50	DN100	Not Included	Not Included	250	ESD-3	16	50	60
MKP-4068	4068	400/3/50	DN100	Not Included	Not Included	200	ESD-3	16	50	60
MKP-4680	4680	400/3/50	DN100	Not Included	Not Included	220	ESD-3	16	50	60
MKP-5580	5580	400/3/50	DN150	Not Included	Not Included	200	ESD-3	16	50	60
MKP-6300	6300	400/3/50	DN150	Not Included	Not Included	230	ESD-3	16	50	60
MKP-7200	7200	400/3/50	DN150	Not Included	Not Included	220	ESD-3	16	50	60
MKP-8400	8400	400/3/50	DN200	Not Included	Not Included	220	ESD-3	16	50	60
MKP-10000	10000	400/3/50	DN200	Not Included	Not Included	220	ESD-3	16	50	60

Example for choosing the correct Dryer:

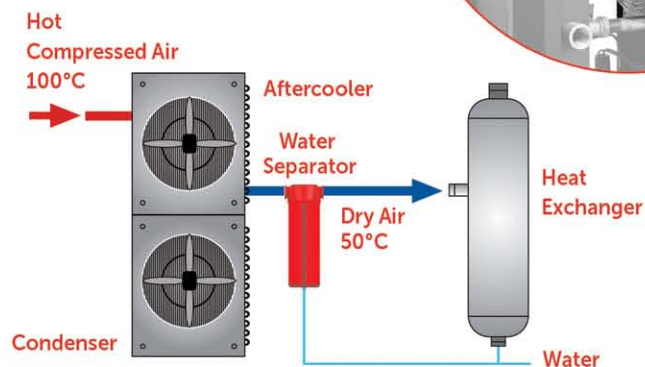
If an air compressor delivers 200 m³/h at 6 bars the dryer inlet temperature is 40°C and ambient temperature is 30°C Please choose your dryer as follows;
 $200 / 0.94 / 0.92 / 0.98 = 236 \text{ m}^3/\text{h}$
 The correct dryer for this application is MKP240 or MKE305

CORRECTION FACTORS FOR MKE AND MKP AIR DRYERS									
Inlet Temperature (°C)	30	35	40	45	50	60	-	-	-
F1	1.29	1	0.92	0.78	0.65	0.45	-	-	-
Ambient Temperature (°C)	20	25	30	35	40	50	-	-	-
F2	1.05	1	0.98	0.93	0.84	0.7	-	-	-
Pressure (Bar)	4	6	7	8	10	12	14	16	-
F3	0.80	0.94	1	1.04	1.11	1.16	1.22	1.25	-

High Temperature Air Dryer



Most of compressor manufacturers do not use aftercooler on their piston type compressors. Therefore compressed air exits the compressor at about 100°C temperature. Mikropor High Temperature Dryer has an aftercooler to reduce the inlet temperature.



Model	Capacity (m ³ /h)	Voltage	Connection Size	Refrigerant Gas	Dimensions (mm)			Max. Working Pressure (bars)	Max. Ambient Temp. (°C)	Max. Inlet Temp. (°C)
					Width	Length	Height			
MH31	31	230/1/50	1 1/2"	R-134a	445	445	955	16	45	104
MH52	52	230/1/50	1 1/2"	R-134a	445	445	955	16	45	104
MH75	75	230/1/50	1 1/2"	R-134a	445	445	955	16	45	104
MH106	106	230/1/50	3/4"	R-134a	445	445	955	16	45	104
MH160	160	230/1/50	3/4"	R-134a	510	625	910	16	45	104
MH212	212	230/1/50	3/4"	R-134a	510	625	910	16	45	104

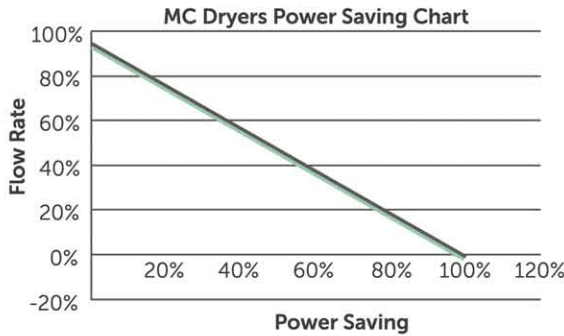
CORRECTION FACTORS FOR MH AIR DRYERS

Pressure (Bar)	4.1	5	6	7	7.9	8.5	10	11	12	13	14	16
Factor Pressure : F1	0.70	0.75	0.80	0.83	0.86	0.90	0.93	0.96	1.00	1.10	1.12	1.15
Ambient Temperature (°C)	4	10	16	24	29	35	38	40	46	49	-	-
Factor Ambient : F2	1.10	1.10	1.10	1.10	1.07	1.03	1.00	0.96	0.82	0.55	-	-
Inlet Temperature (°C)	4	10	16	21	26	32	38	65	82	93	98	104
Factor Inlet : F3	1.40	1.40	1.40	1.40	1.35	1.30	1.27	1.06	1.00	0.85	0.78	0.75
Dewpoint (°C)	3.3	5.0	7.2	10.0	12.8	15.5						
Factor Dewpoint : F4	0.65	0.73	0.80	1.00	1.10	1.22						

Cycling (Thermal Mass) Air Dryer

Save the ENERGY

Mikropor Cycling Dryers cool a special liquid and stores it in a cold tank having 1°C temperature. This liquid is cycled in the dryer to cool down compressed air. This technology helps the customers to consume much less ENERGY when the dryer gets 5-95% air flow. The Mikropor Cycling dryer non-cycling or frequency driven dryers when energy consumption is concerned.



All components that are exposed to water-glycol mixture are either stainless steel (Heat exchanger, Tank, Pump) or Aluminum (Dryer heat exchanger) Therefore there is no risk of rust.



Technical Specifications

Model	Capacity (m³/h)	Voltage	Connection Size	Refrigerant Gas	Dimensions (mm)			Max. Working Pressure (bars)	Max. Ambient Temp. (°C)	Max. Inlet Temp. (°C)
					Width	Length	Height			
MC318	318	230/1/50	1 1/2"	R-134a	590	710	1215	16	45	50
MC370	370	230/1/50	1 1/2"	R-134a	590	710	1215	16	45	50
MC425	425	230/1/50	1 1/2"	R-134a	590	710	1215	16	45	50
MC530	530	400/3/50	1 1/2"	R-134a	845	745	1270	16	45	50
MC690	690	400/3/50	2"	R-134a	845	745	1270	16	45	50
MC850	850	400/3/50	2"	R-134a	845	745	1270	16	45	50
MC1060	1060	400/3/50	2"	R-134a	1165	810	1490	16	45	50
MC1487	1487	400/3/50	3"	R-134a	1165	810	1490	16	45	50
MC1805	1805	400/3/50	3"	R-134a	1165	810	1490	16	45	50
MC2125	2125	400/3/50	3"	R-134a	1165	445	1885	16	45	50
MC2550	2550	400/3/50	3"	R-134a	1165	445	1885	16	45	50
MC3400	3400	400/3/50	DN100	R-134a	1165	1570	1985	16	45	50
MC4250	4250	400/3/50	DN100	R-134a	1165	1570	1985	16	45	50
MC5100	5100	400/3/50	DN150	R-134a	1225	2000	1985	16	45	50
MC6375	6375	400/3/50	DN150	R-134a	1225	2190	1985	16	45	50

Example for choosing the correct Dryer:

If an air compressor delivers 200 m³/h at 5 bars the dryer inlet temperature is 40°C and ambient temperature is 30°C Please choose your Dryer as follows; $200 / 0.85 / 0.93 / 0.85 = 297 \text{ m}^3/\text{h}$ The correct Dryer for this application is MC318

CORRECTION FACTORS FOR MC AIR DRYERS								
Inlet Temperature (°C)	30	35	40	45	50	60	65	-
F1	0.75	0.77	0.85	1.00	1.10	1.16	1.25	1.30
Ambient Temperature (°C)	22	25	30	35	40	50	-	-
F2	1.09	1.00	0.93	0.88	0.74	0.66	-	-
Pressure (Bar)	3.5	4.1	5	7	8.5	10	12	14
F3	1.18	1.00	0.85	0.72	0.54	0.47	0.38	-

High Pressure Series



Mikropor has manufactured unique and patented Refrigerated Air Dryers since 2001. Durable, compact and efficient Mikropor dryers are quickly becoming the global standard for performance.

Heat Exchanger design is unique and patented.

The Mono-Block Heat Exchanges are constructed with thick, steel tubes specially treated to resist corrosion.

HIGH PRESSURE 40 Bar

VT33HP-VT2923HP HIGH PRESSURE SERIES

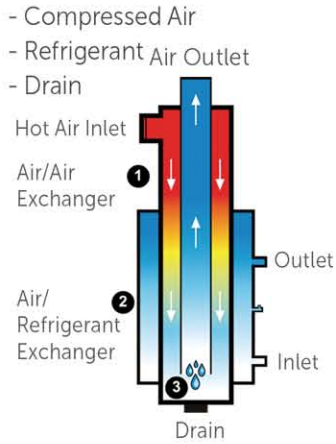
The heavy-duty steel construction makes it the most reliable, long lasting heat exchanger available. Specially designed louvered copper pleats are welded to the steel tubes with a proprietary technology. This design achieves a hyper-efficient 100% contact between the air and refrigerant circuits delivering state-of-art performance and great cooling efficiency.

The state-of-art Mono-Block design features very low differential pressure delivering significant energy savings. The Mono-Block Heat-Exchanger is compact and allows the dryer to be smaller and reduces the space required for the dryer.

Mikropor offers a variety of Mono-Block dryers equipped with the Mono-Block Heat-Exchanger to meet a full range of capacity and power requirements.



**Standard
3 IN 1 Mono block
Steel Heat Exchanger**



**PISTON
COMPRESSOR**



Fin Exchanger

- High surface of exchange from 10 to 20 times larger than the competition
- Direct transfer of the cold from the refrigerant to the compressed air
- No exterior connection between economizer and separator
- Strong and robust built heat exchanger
- Special anti-corrosion treatment
- Perfect thermal insulation
- Small volume of refrigerant

The Separator Efficiency

- Double centrifugation due to the bottom fin
- Reserved direction for the compressed air
- Gravity effect to the condensed water
- Special anti-return system
- Separator integrated to the system



**5 Year
Heat Exchanger
Guarantee**

Frigorific Circuit

- Two valve regulation system (thermal and by-pass), allowing to fill properly the exchanger and giving then a max. temperature to the exchanger
- High quality security test of potential leakage
- Use of Tecumseh hermetic compressor as standard
- High quality, long lasting components
- Quick start and reaction time



**Digital
controller
is optional**

SCROLL COMPRESSOR

- Better coefficient of power
- Less energy consumption
- Higher resistance to liquid shocks



**Micro processor
is optional**

**OPTIONAL DIGITAL
SCROLL COMPRESSOR**

- Due to the variable speed controllers, is efficient at 10 - 100 % power
- HIGH ENERGY SAVINGS



Drain

- Standard electronic timed drain
- Prefilter to protect the drain valve
- Pneumatic assistance on tri-phased dryers
- Easy access and maintenance



High Pressure Series

Model	Capacity		Condenser Air Flow (m ³ /h)	Fittings (BSP)	Voltage	Power (kw)	Pressure Drop (Bar)	Dimensions (mm)		
	(m ³ /h)	(scfm)						Width	Length	Height
VT 33HP	33	19	100	3/8"	230/1/50	0.25	0.01	570	440	490
VT 38HP	38	22	370	3/8"	230/1/50	0.25	0.02	570	440	490
VT 54HP	54	32	340	3/8"	230/1/50	0.25	0.03	570	440	490
VT 87HP	87	51	370	3/4"	230/1/50	0.28	0.02	760	490	530
VT 135HP	135	79	340	3/4"	230/1/50	0.35	0.05	760	490	530
VT 190HP	190	112	410	3/4"	230/1/50	0.58	0.06	760	490	530
VT 218HP	218	128	800	3/4"	230/1/50	0.66	0.08	760	490	530
VT 256HP	256	151	980	1"	230/1/50	0.8	0.13	780	575	730
VT 355HP	355	209	980	1"	230/1/50	1.1	0.16	780	575	730
VT 412HP	412	242	980	1"	230/1/50	1.3	0.22	780	575	730

NOTE: 115V/1/60 Hz. is Optional

Model	Capacity		Condenser Air Flow (m ³ /h)	Fittings (BSP)	Voltage	Power (kw)	Dimensions (mm)		
	(m ³ /h)	(scfm)					Width	Length	Height
VT 461HP	461	271	980	1 1/2"	230/1/50	1.1	620	730	1040
VT 577HP	577	339	980	1 1/2"	230/1/50	1.3	810	760	1300
VT 705HP	705	415	980	1 1/2"	230/1/50	1.4	810	760	1300
VT 904HP	904	532	2250	1 1/2"	230/1/50	1.9	810	760	1300

NOTE: 115V/1/60 Hz. or 400-440V/3/50 - 60 Hz. is Optional

Model	Capacity		Condenser Air Flow (m ³ /h)	Fittings (BSP)	Voltage	Power (kw)	Dimensions (mm)		
	(m ³ /h)	(scfm)					Width	Length	Height
VT 1149HP	1149	676	2250	2 1/2"	400-440/3/50-60	2.4	870	770	1500
VT 1305HP	1305	768	2250	2 1/2"	400-440/3/50-60	2.6	870	770	1500
VT 1648HP	1648	969	2250	2 1/2"	400-440/3/50-60	2.6	870	770	1500
VT 1873HP	1873	1102	5000	2 1/2"	400-440/3/50-60	3	1180	1070	1600
VT 2309HP	2309	1358	4800	2 1/2"	400-440/3/50-60	4.3	1180	1070	1600
VT 2444HP	2444	1438	7000	2 1/2"	400-440/3/50-60	5	1180	1070	1600
VT 2932HP	2932	1725	7000	DN60	400-440/3/50-60	5.6	1180	1070	1600

REFRIGERANT: R134a Flow given at atmospheric pressure at 20°C (ISO 1217) in accordance with normes ISO 7183 - 8573-1 and Pneurop 6611 - Class 4-7 bar -35°C IN -25°C ambient

Correction Factor

(Bar)	20	25	30	35	40	45	50	-	-	-	-
Factor Pressure F1	1.19	1.10	1.07	1.04	1.02	1	0.98	-	-	-	-
Ambient Temp. (°C)	-	-	-	-	20	25	30	35	40	42	-
Factor R134a F2	-	-	-	-	0.93	1	1.07	1.15	1.22	1.27	-
Inlet Temp. (°C)	-	-	-	-	30	35	40	45	50	55	60
Factor Inlet F3	-	-	-	-	0.83	1	1.18	1.38	1.59	1.83	2.04

Maximum Pressure (50 Bar)
Nominal Working Pressure (40 Bar)

Automatic Drain
Pneumatic operated membrane valve

CD	: Condensate drain
SI	: Ambient temperature until -20°C
HDD	: Ambient temperature until +60°C
REP	: Alarm report
E	: Water condenser
DC	: Digital controller
MCP	: Micro processor
BEKO	: Zero loss drain

OPTIONS: Just put following suffix requested after the reference number of the dryer.
Example: VT1648HPDC

ISO Standards

AIR LINE DESIGN	AIR LINE DESIGN 1	APPLICATION	ISO 8573.1: 2010 CLASS
<p>COMPRESSOR AFTER-COOLER MOISTURE SEPARATOR RECEIVER TANK EXTERNAL AUTO DRAIN</p>	<p>COMPRESSED AIR FILTERS</p>	SIMPLE	2.-3
	<p>COMPRESSED AIR FILTERS REFRIGERANT AIR DRYER COMPRESSED AIR FILTERS</p>	GENERAL PURPOSE	1.4.1
	<p>COMPRESSED AIR FILTERS REFRIGERANT AIR DRYER COMPRESSED AIR FILTERS</p>	ODORLESS	1.4.1
	<p>COMPRESSED AIR FILTERS DESICCANT DRYER COMPRESSED AIR FILTERS</p>	CRITICAL	1.2.1 (-40 °C) 1.1.1 (-70 °C)

PURITY CLASS	ISO8573.1 : 2010 COMPRESSED AIR QUALITY STANDARD							
	SOLID PARTICULATE				WATER		OIL	
	Max. Number of Particles per m ³			Particle Size (micron)	Concentration (mg/m ³)	Vapour Pressure Dewpoint	Liquid (g/m ³)	Total oil (Aerosol, Liquid and Vapour) (mg/m ³)
	0.1- 0.5 micron	0.5 - 1 micron	1.0 - 5 micron					
0	As specified and determined by equipment user and supplier							
1	≤20000	≤400	≤10	-	-	≤-70°C	-	≤0.01
2	≤400000	≤6000	≤100	-	-	≤-40°C	-	≤0.1
3	-	≤900000	≤1000	-	-	≤-20°C	-	≤1
4	-	-	≤10000	-	-	≤+3°C	-	≤5
5	-	-	≤100000	-	-	≤+7°C	-	-
6	-	-	-	5	5	≤+10°C	-	-
7	-	-	-	40	10	-	0.5	-
8	-	-	-	-	-	-	5	-
9	-	-	-	-	-	-	10	-

For Solid Particles	For Oil	For Water
P - Class 3	P - Class 4	Mikropor Air Dryers are Class 3
X - Class 3	X - Class 3	
Y - Class 1	Y - Class 1	Mikropor Desiccant Air Dryers are A - Class 1
A - Class 1	A - Class 1	

Heatless Desiccant Air Dryers

Heatless Desiccant Air Dryers

Mikropor MDA Heatless Desiccant Air Dryers provide constant $-40\text{ }^{\circ}\text{C}$ ($-70\text{ }^{\circ}\text{C}$ 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 design so the dryer operates perfectly through the service life of the dryer. 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.

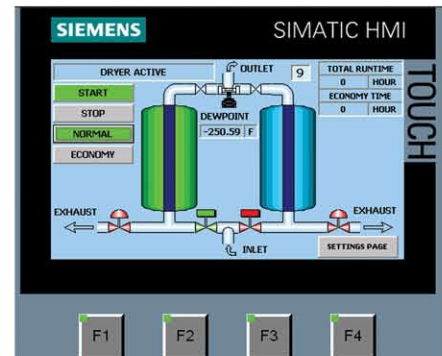


This saves
ENERGY
and helps
the world
become
more
"GREEN"



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 dewpoint) The super dry air flows in a counter direction through the wet bed, sweeping all the water vapour 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 take place. Purge flow and de-pressurization are in downward direction, counter flow to the drying air flow.



PLC is standard

MDA Desiccant Dryers has an extremely reliable electronic controller for optimal performance over the lifetime of the dryers. Touch screen PLC is capable of showing the cycles as well as the valves which operate in real time. This is also capable of showing dewpoint. User friendly multi-lingual PLC. PLC helps the end users understand the operation system and issues easily.



Activated Alumina

In order to achieve consistent dewpoint, 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.

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)	(scfm)						Length	Width	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	125	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

EFFICIENCY RATING	X PRE FILTER	Y PRE FILTER	P AFTER FILTER	For special requirements please contact our Technical Department
		1 micron particle removal and 0.5 mg/m ³ oil removal	0.01 micron particle removal and 0.01 mg/m ³ oil removal	

Correction Factor

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

All desiccant dryers are designed according to Pneurop conditions as per ISO7183

Pressure dewpoint	-40 °C / -70 °C (optional)
Nominal inlet temperature	35 °C
Nominal working pressure	7 bar
Maximum inlet temperature	50 °C
Maximum working pressure	10 bar
Maximum ambient temperature	50 °C

ORDERING:

If a compressor delivers 850 Nm³/h at 9 barg pressure and 45°C inlet temperatures please choose your dryer as follows; $850/1.25/0.73 = 931 \text{ Nm}^3/\text{h}$
The correct Dryer for this is MDA1000

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. As 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.

Heated Desiccant Air Dryers



Heated Desiccant Air Dryers

A centrifugal blower and high efficiency heater eliminates the use of valuable compressed air to be used 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 dryers.

Pressure dewpoint	-40 °C
Nominal inlet temperature	35 °C
Nominal working pressure	7 bar
Maximum inlet temperature	45 °C
Maximum working pressure	10 bar
Maximum ambient temperature	40 °C

Correction Factor

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

Technical Specifications

Model	Capacity (m ³ /h)	Connection Size	Pressure Drop (mbar)	Max. working pressure (bar)	Voltage	Average Power (kw)	Fuse Amper (kw)	Activated Alumina (Kg)	Dimensions (mm)		
									Width	Length	Height
MBP 850	850	2"	- 130	10	400/3/50	8.75	40	264	1290	1180	2299
MBP 1000	1000	2"	- 130	10	400/3/50	8.75	40	357	1200	1310	2415
MBP 1250	1250	DN80	- 130	10	400/3/50	10.25	50	404	1610	1270	2468
MBP 1500	1500	DN80	- 130	10	400/3/50	10.25	50	454	1610	1270	2563
MBP 1800	1800	DN80	- 130	10	400/3/50	11.75	63	566	1563	1515	2479
MBP 2200	2200	DN80	- 130	10	400/3/50	14.75	63	708	1563	1455	2789
MBP 2700	2700	DN80	- 130	10	400/3/50	17	100	852	1615	1514	2836
MBP 3200	3200	DN100	- 130	10	400/3/50	17	100	954	1710	1660	3054
MBP 3600	3600	DN100	- 130	10	400/3/50	26.4	125	1070	1710	1660	3268
MBP4400	4400	DN100	- 130	10	400/3/50	26.4	125	1436	1975	2492	2910
MBP 5000	5000	DN125	- 130	10	400/3/50	28.25	160	1670	2045	2560	3382
MBP 6300	6300	DN150	- 130	10	400/3/50	43.25	200	2016	2090	2963	3328
MBP 7200	7200	DN150	- 130	10	400/3/50	47	200	2446	2020	3363	3047
MBP 8800	8800	DN150	- 130	10	400/3/50	50.75	260	2906	2020	3363	3341
MBP 10800	10800	DN200	- 130	10	400/3/50	69.50	320	3354	2492	3481	3765

Modular Desiccant Air Dryers

Modular Desiccant Air Dryers

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

Mikropor's new Modular Desiccant Dryers are less than the half 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 and nice environments with being an eye sore. Offered in a 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 Aluminum construction
- Hassle-free, reliable electronic controls
- Can be floor, bench or wall mounted
- Quite 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.



Technical Specifications

Model	Capacity		Connection Size	Max. working pressure (bar)	Voltage	Weight (Kg)	Dimensions (mm)		
	(m³/h)	(scfm)					Width	Length	Height
MMD3	5	3	1/2"	16	115-240V/50-60Hz.	17	320	336	558
MMD5	10	5	1/2"	16	115-240V/50-60Hz.	19	320	320	633
MMD10	20	10	1/2"	16	115-240V/50-60Hz.	27	320	320	908
MMD15	25	15	1/2"	16	115-240V/50-60Hz.	31	370	350	808
MMD20	35	20	1/2"	16	115-240V/50-60Hz.	42	370	350	1108
MMD25	45	25	1/2"	16	115-240V/50-60Hz.	48	370	350	1258
MMD30	50	30	1/2"	16	115-240V/50-60Hz.	54	370	350	1508
MMD40	70	40	1 1/2"	16	115-240V/50-60Hz.	71	410	495	1250
MMD50	85	50	1 1/2"	16	115-240V/50-60Hz.	78	410	495	1400
MMD60	100	60	1 1/2"	16	115-240V/50-60Hz.	92	410	495	1750
MMD75	130	75	1 1/2"	16	115-240V/50-60Hz.	120	430	622	1300
MMD100	170	100	1 1/2"	16	115-240V/50-60Hz.	133	430	622	1450
MMD120	200	120	1 1/2"	16	115-240V/50-60Hz.	152	430	622	1750
MMD180	300	180	1 1/2"	16	115-240V/50-60Hz.	186	410	734	1499
MMD240	400	240	1 1/2"	16	115-240V/50-60Hz.	235	410	889	1497

Various application options

Modular Desiccant Air Dryers can be mounted to the wall by with easily to use mounting brackets to win more space and also can be applied to the ground very easily.



PLC Monitor

The mini PLC is very 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.



Correction Factor

(Bar)	4.5	5	6	7	8	9	10	11	12	13	14	15	16
Factor Pressure F1	0.69	0.75	0.88	1	1.12	1.25	1.37	1.50	1.62	1.74	1.87	1.99	2.11
Inlet Temp. (°C)	20	25	30	35	40	45	50	-	-	-	-	-	-
Factor Inlet F2	1	1	1	1	0.80	0.73	0.59	-	-	-	-	-	-

Pressure dewpoint	-40 °C / -70 °C (opt.)
Nominal inlet temperature	35 °C
Nominal working pressure	7 bar
Maximum inlet temperature	50 °C
Maximum working pressure	16 bar
Maximum ambient temperature	50 °C



Deliquescent Dryer

Deliquescent Dryer

There are some applications which need dry air but there is no electricity available such as sand blasting the iron bridges. The compressed air is generally generated by portable compressors. Mikropor Deliquescent Dryer first cools hot and wet air discharged from the compressor by the help of the integrated pneumatic aftercooler. Cooling forces a substantial quantity of entrained moisture to condense. But even after exiting the aftercooler, the air is saturated with vapor (100% relative humidity). The majority of this water is drained by the help of a centrifugal moisture separator. The compressed air then passes through the drying vessel, which contains specially formulated desiccant. The desiccant cuts the humidity of the air roughly in half. Air finally flows through an particle filter to trap any fine particles in the air flow.

Applications

- Plant air back up
- Oil and gas drying
- Blasting and coating mobile paint booths
- Applications which has explosive gases in the environment
- Sawmills, lumber yards, asphalt plants, ready mix concrete



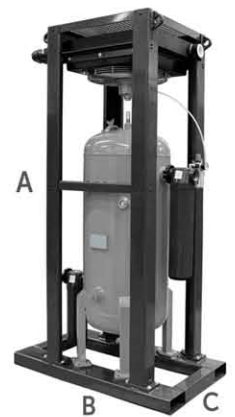
Technical Specifications

Model	Capacity		Connection Size	Max. working pressure (bar)	Air Motor Consumption (m³/h)	Desiccant material Qty. Per Unit (Kg)	Weight (Kg)	Dimensions (mm)		
	(m³/h)	(scfm)						A Height	B Length	C Width
MDEL-425	425	250	1 1/2"	10	16	114	300	2050	1200	690
MDEL-680	680	400	2"	10	24	181	345	2050	1200	690
MDEL-1360	1360	800	2 1/2"	10	35.5	227	525	2200	1200	840
MDEL-2040	2040	1200	2 1/2" (in) 3" (out)	10	42.5	340	690	2350	1500	840
MDEL-2720	2720	1600	3"	10	120	453	850	2450	1750	1100

Model	Maximum Capacities (m³/h)				
	4 Bar	6 Bar	7 Bar	9 Bar	10 Bar
MDEL-425	262	380	425	540	595
MDEL-680	435	600	680	865	950
MDEL-1360	870	1210	1360	1730	1900
MDEL-2040	1300	1815	2040	2590	2850
MDEL-2720	1735	2420	2720	3455	3800

Equipments

- Air motor for aftercooler
- Open frame fork lift skid
- Four point lifting lugs
- 5 micron particulate after-filter
- Initial fill of special desiccant
- PED / ASME Code dryer vessel
- Filter Regulator Lubricator
- Safety Relief valve
- Manual drain valve
- Pressure gauge
- Protective screen above aftercooler
- Temperature gauge kit (optional)
- Internal epoxy coating for long vessel life
- Two dryer sight windows for desiccant viewing



Compressed Air Systems

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