



MKC SERIES AIR COOLER

Manufacturing Forward





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 treatment systems for a variety of industries.

By closely following the latest developments in technology, Mikropor’s “Best in Class” products and solutions are appreciated by customers in more than 150 countries.

The company’s sustainable growth has been provided by its passion for innovation and commitment to quality, as well as its dedication to technology. Mikropor is an environmentally conscious company that values people, while developing products that extend the needs and expectations of customers.

With this mission, Mikropor continues to become one of the most recognized brands in the world by expanding its global penetration in the field of technological filtration and contributes to a healthier planet.

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The temperature of atmospheric air increases when it is pressurized by a compressor. The hot air can damage the equipment in the production line, hurt employees, or can lower the quality of the end product.

In industrial applications like injection molding, 80 % of the time is spent on the cooling procedure and it can lower the production rate. This causes a loss of time. For avoiding such a slow production procedure compressed air cooler can be used in the line. The cooling machine can work with water or using refrigerant gas in its system. Water cooling can be beneficial in facilities that have a water source in their production place. However, it could also cause corrosion in the equipment in time. A cooler system that uses refrigerant gas is better for eliminating the corrosion problem.

Mikropor Air Cooler MKC is designed to cool down the compressed air down to 20°C-25°C temperature levels to be used in the processes. yazalım.



Properties

- Compressed air outlet at 20°C -25°C for standard range
- Optional ranges for down to 3°C - 5°C outlet
- User friendly digital controller
- Alarm display
- Easy installation and operation procedure
- Hassle-free maintenance



Correction Factors

Inlet Temp. (°C)	F1	Ambient Temperature (bar)	F2	Pressure (bar)	F3
30	1,29	20	1,05	4	0,80
35	1	25	1	6	0,94
40	0,92	30	0,98	7	1
45	0,78	35	0,93	8	1,04
50	0,65	40	0,84	10	1,11
60	0,45	45	0,76	12	1,16
-	-	50	0,7	14	1,22
-	-	-	-	16	1,25

** Not integrated and not included in standard package.

Nominal Working Pressure	7 bar	Nominal Outlet Temperature	20-25°C
Maximum Working Pressure	16 bar	Nominal Ambient Temperature	25°C
Minimum Working Pressure	4 bar	Maximum Ambient Temperature	50°C
Nominal Inlet Temperature	35°C	Minimum Ambient Temperature	5°C
Maximum Inlet Temperature	60°C	Refrigerant	R134A
Minimum Inlet Temperature	5°C		

To determine the correct model, the cooler flow rate should be divided by multiplication of the related F1, F2, and F3 values.

Correct Model = (Cooler Flow Rate) / [(F1) . (F2). (F3)]

Example for Choosing the Correct Cooler

If a compressor delivers 600 m³/h at 10 bar, the inlet temperature is 35°C and the ambient temperature is 45°C. Please choose your dryer as follows.

$$600 / (1,11 * 1 * 0,76) = 711,24 \text{ m}^3/\text{h}$$

So, the correct cooler for this application is MKC-930.

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Model	Capacity (m³/h)	Voltage	Connection Size	Filter Quantity and Type (Integrated)	
				Filter Model (Inlet)	Replacement Element Model (Inlet)
MKC-100	100	230V / 1 Ph / 50 Hz	3/4"	1*GKON155 MX	MKON155 MX
MKC-155	155	230V / 1 Ph / 50 Hz	3/4"	1*GKON155 MX	MKON155 MX
MKC-190	190	230V / 1 Ph / 50 Hz	3/4"	1*GKON155 MX	MKON155 MX
MKC-210	210	230V / 1 Ph / 50 Hz	1 1/2"	1*GKON405 MX	MKON405 MX
MKC-305	305	230V / 1 Ph / 50 Hz	1 1/2"	1*GKON405 MX	MKON405 MX
MKC-375	375	230V / 1 Ph / 50 Hz	1 1/2"	1*GKON405 MX	MKON405 MX
MKC-495	495	230V / 1 Ph / 50 Hz	2"	1*GKON805 MX	MKON805 MX
MKC-623	623	230V / 1 Ph / 50 Hz	2"	1*GKON805 MX	MKON805 MX
MKC-930	930	230V / 1 Ph / 50 Hz	2"	1*GKON1205 MX	MKON1205 MX
MKC-1200	1200	230V / 1 Ph / 50 Hz	2"	1*GKON1205 MX	MKON1205 MX
MKC-1388	1388	400V / 3 Ph / 50 Hz	3"	1*GKON-HC-1805 MX	MKON-HC-1805 MX
MKC-1800	1800	400V / 3 Ph / 50 Hz	3"	1*GKON-HC-1805 MX	MKON-HC-1805 MX
MKC-2500	2500	400V / 3 Ph / 50 Hz	3"	1*GKON-HC-2775 MX	MKON-HC-2775 MX
MKC-2775	2775	400V / 3 Ph / 50 Hz	3"	1*GKON-HC-2775 MX	MKON-HC-2775 MX
MKC-3330	3330	400V / 3 Ph / 50 Hz	DN100 Flange	1*GKO5850 MX	MKO 2700 MX
MKC-3915	3915	400V / 3 Ph / 50 Hz	DN100 Flange	1*GKO5850 MX	MKO 2700 MX
MKC-5085	5085	400V / 3 Ph / 50 Hz	DN100 Flange	1*GKO5850 MX	MKO 2700 MX
MKC-5850	5850	400V / 3 Ph / 50 Hz	DN100 Flange	1*GKO5850 MX	MKO 2700 MX
MKC-6975	6875	400V / 3 Ph / 50 Hz	DN150 Flange	F6500 X / Y	6*M1200
MKC-7875	7875	400V / 3 Ph / 50 Hz	DN150 Flange	F8500 X / Y	8*M1200
MKC-9000	9000	400V / 3 Ph / 50 Hz	DN150 Flange	F11000 X / Y	10*M1200
MKC-10500	10500	400V / 3 Ph / 50 Hz	DN200 Flange	F11000 X / Y	10*M1200
MKC-12500	12500	400V / 3 Ph / 50 Hz	DN200 Flange	F14000 X / Y	14*M1200

Model	Filter Quantity and Type (Externally Connected)		Pressure Drop (mbar)	Control Type	Dimensions		
	Filter Model (Outlet)	Replacement Element Model (Outlet)			Length (mm)	Width (mm)	Height (mm)
MKC-100	1*GKON155 MY	MKON155 MY	100	Digi-Pro	454	473	832
MKC-155	1*GKON155 MY	MKON155 MY	220	Digi-Pro	453	473	832
MKC-190	1*GKON155 MY	MKON155 MY	320	Digi-Pro	453	473	832
MKC-210	1*GKON405 MY	MKON405 MY	220	Digi-Pro	506	556	875
MKC-305	1*GKON405 MY	MKON405 MY	320	Digi-Pro	506	556	875
MKC-375	1*GKON405 MY	MKON405 MY	200	Digi-Pro	506	556	875
MKC-495	1*GKON805 MY	MKON805 MY	310	Digi-Pro	648	678	1157
MKC-623	1*GKON805 MY	MKON805 MY	240	Digi-Pro	648	678	1157
MKC-930	1*GKON1205 MY	MKON1205 MY	150	Digi-Pro	947	727	1369
MKC-1200	1*GKON1205 MY	MKON1205 MY	190	Digi-Pro	947	727	1369
MKC-1388	1*GKON-HC-1805 MY	MKON-HC-1805 MY	350	Digi-Pro	948	798	1459
MKC-1800	1*GKON-HC-1805 MY	MKON-HC-1805 MY	290	Digi-Pro	948	798	1459
MKC-2500	1*GKON-HC-2775 MY	MKON-HC-2775 MY	190	Digi-Pro	1163	778	1722
MKC-2775	1*GKON-HC-2775 MY	MKON-HC-2775 MY	250	Digi-Pro	1163	778	1722
MKC-3330	1*GKO5850 MY	MKO 2700 MY	270	Digi-Pro	1577	993	1906
MKC-3915	1*GKO5850 MY	MKO 2700 MY	380	Digi-Pro	1577	993	1906
MKC-5085	1*GKO5850 MY	MKO 2700 MY	320	ESD-3	1647	1077	2005
MKC-5850	1*GKO5850 MY	MKO 2700 MY	350	ESD-3	1647	1077	2005
MKC-6975	F6500 X / Y	6*M1200	320	ESD-3	2188	1062	2024
MKC-7875	F8500 X / Y	8*M1200	350	ESD-3	2188	1062	2024
MKC-9000	F11000 X / Y	10*M1200	350	ESD-3	2247	1200	2044
MKC-10500	F11000 X / Y	10*M1200	350	ESD-3	2247	1200	2044
MKC-12500	F14000 X / Y	14*M1200	350	ESD-3	2550	1550	2100

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