

Mikropor Air Dryers

Mikropor knows the importance of high quality compressed air and guarantees to provide 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
- Highly energy-efficient R134a refrigerant is standard across all models
- A state of the art heat exchanger design provides the highest cost saving one in the industry
- Best in class refrigerant compressors consume less energy against competition 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 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 refrigerant compressor's service life.

With R-134a Mikropor dryers can operate at very high ambient temperatures.

Mikropor engineers add extra power to the heat exchangers with 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.





Digital Controller (Digi-Pro)

Digi-Pro Digital controller is standard on MKP18-MKP870
ESD Digital controller is standard on MKP1110-MKP10000



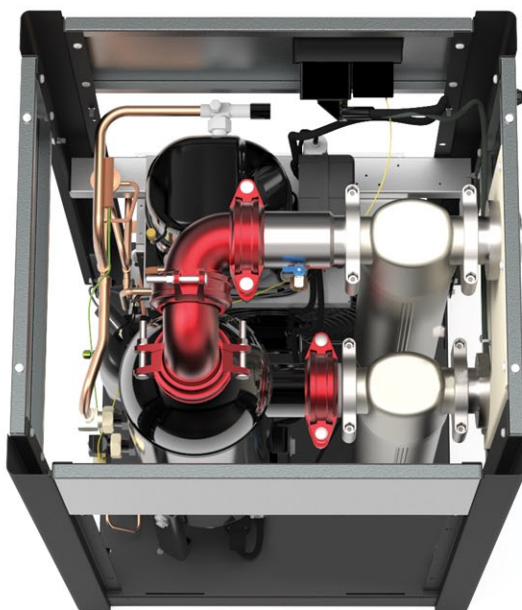
Electrical wires are separated from Refrigerant side

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.

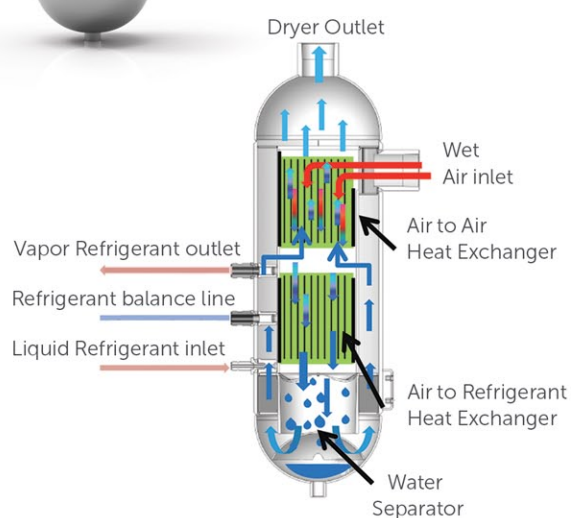
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Aluminum Plate Heat Exchanger is standard

- 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



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 removing fasteners.



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.





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 particles 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.

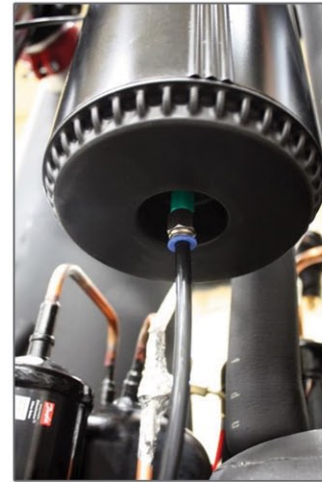
Mikropor Refrigerated Air Dryers are designed by engineers who had received all of the design feedback from field engineers and service technicians. This service friendly design makes Mikropor dryers very unique in the industry. Dryer Filter kit which has 2 elements, 2 automatic drains and 2 viton o-rings 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



Replacement Filter Element

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. The performance of the filters directly affects the pressure drop and system performance. Therefore, it is very important that the filter elements are changed at the filter service time. An alarm / warning indicating that the filters are changed periodically is provided by a digital controller on the Mikropor Air Dryer. When this alarm triggers, the filter must be changed to avoid loss of performance and pressure drop.

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.

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Digital Controller (Digi-Pro)

Mikropor beginning to produce a new generation of air dryers with Digi-Pro series controller. With the Digi-Pro series controllers, air dryers have outstanding technology for both functionality and dynamism, as well as appearance.

New controller design offers to users adjustments with one finger so easier accessibility. Design and dynamism senior technology reaches a top level with touch keys.

The multi-functional display provides an accurate digital dew point display as well as coded alarm monitoring of the refrigerant dryer.

Digital controller with embedded features,

- Digital dew point monitoring
- Energy-saving mode display
- Periodic maintenance interval display
- Status report
- Hours run meter
- Fahrenheit and Centigrade selection



Premium Series Features

- Digi-Pro Digital controller is standard on MKP18-MKP870
- ESD Digital controller is standard on MKP1110-MKP10000
- 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.



ESD Digital Controller

Mikropor Refrigerated Air dryers with ESD Digital controller has a lot of economy features and alarm capabilities. 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.



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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.

MKP Technical Specifications

Model	Capacity (m³/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 * GKO45X + 1 * GKO45Y	MKO45 KIT	105	Digi-Pro	16	50	60
MKP-30	30	230/1/50	1/2"	1 * GKO45X + 1 * GKO45Y	MKO45 KIT	135	Digi-Pro	16	50	60
MKP-42	42	230/1/50	1/2"	1 * GKO45X + 1 * GKO45Y	MKO45 KIT	195	Digi-Pro	16	50	60
MKP-55	55	230/1/50	1/2"	1 * GKO70X + 1 * GKO70Y	MKO70 KIT	200	Digi-Pro	16	50	60
MKP-66	66	230/1/50	3/4"	1 * GKO150X + 1 * GKO150Y	MKO150 KIT	100	Digi-Pro	16	50	60
MKP-96	96	230/1/50	3/4"	1 * GKO150X + 1 * GKO150Y	MKO150 KIT	50	Digi-Pro	16	50	60
MKP-130	130	230/1/50	3/4"	1 * GKO150X + 1 * GKO150Y	MKO150 KIT	80	Digi-Pro	16	50	60
MKP-168	168	230/1/50	1 1/2"	1 * GKO500X + 1 * GKO500Y	MKO500 KIT	100	Digi-Pro	16	50	60
MKP-240	240	230/1/50	1 1/2"	1 * GKO500X + 1 * GKO500Y	MKO500 KIT	120	Digi-Pro	16	50	60
MKP-300	300	230/1/50	1 1/2"	1 * GKO500X + 1 * GKO500Y	MKO500 KIT	80	Digi-Pro	16	50	60
MKP-396	396	230/1/50	2"	1 * GKO851X + 1 * GKO851Y	MKO851 KIT	120	Digi-Pro	16	50	60
MKP-498	498	230/1/50	2"	1 * GKO1210X + 1 * GKO1210Y	MKO1210 KIT	80	Digi-Pro	16	50	60
MKP-660	660	230/1/50	2"	1 * GKO1210X + 1 * GKO1210Y	MKO1210 KIT	100	Digi-Pro	16	50	60
MKP-870	870	230/1/50	2"	1 * GKO1210X + 1 * GKO1210Y	MKO1210 KIT	120	Digi-Pro	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