

MX Plus Series Desiccant Dehumidifier

Complete Dehumidification Package

MX Plus



Product Description

The MX 1500 through MX 7600 product line provides the end user with the essential dehumidification function. With the add-on modules, the MX Plus provides additional process air filtration, cooling, heating and mixing functions that many end users require. The add-on modules integrate readily as "bolt on" housings in line with the other process air components. The arrangement is mounted on base frames providing the buyer with a single source, factory assembled package requiring only utility hook-ups, chiller/boiler piping, ductwork connections and sensor/controller tie-ins on site. If a more complete system offering is required, consult Munters early in the specification and design process for assistance in the equipment selection from

either the MX Plus or the Modular Dehumidification system, MDS product lines.

These pre-engineered modules allow for fast and cost effective manufacturing of packaged air processing equipment. Yet the range of individual module selections still provides a great deal of freedom to customize the equipment package. Air streams from 1500 to 7600 cmh. can be accommodated in plenums which house heating or cooling coils 2 to 10 rows deep; filters up to EU7 class; and fans capable of several hundreds of Pascal of external static pressure. The add-on module, or "building block" approach, means a flexible design process with component selection and arrangement defined by end user needs.

Munters Rotor Technology

The desiccant rotor are manufactured from corrugated composite materials that are highly effective at attracting and holding water vapour. Every Munters dehumidifier applies a unique rotor technology. Airflow, air condition, rotor sections, and rotor rotation speed are optimised for specific applications. An innovative control system maximises the unit's energy efficiency.

Characteristics of the MX-series rotor technology are the features to suit high airflow applications. In addition the well-exposed rotor surface has a very hard surface with low friction and effective sealings that provide a precise airflow balance thereby effectively reducing the total power requirement.

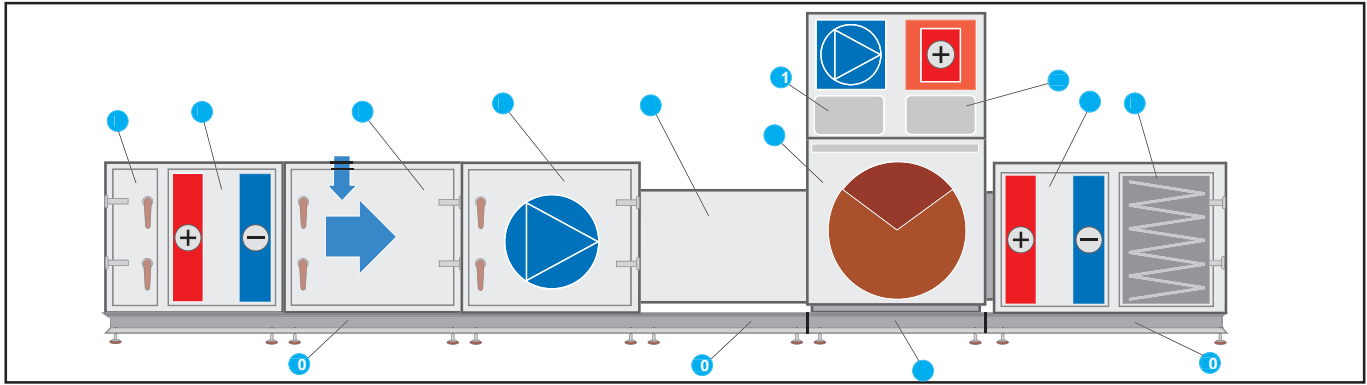
Performance and Reliability

- Desiccant dehumidification
 - high efficiency, even below 0°C
- Rotor configuration option
 - high capacity with very low dewpoints
- Reactivation heater choice
 - economical operating costs
- Rugged Aluzink® frame and panels - corrosion resistant construction
- Efficiently designed electrical system – enhanced reliability

Installation and Operation

- Microprocessor based control
 - system functions and operation status display
- Remote automatic control and display – adaptable to the application
- Pressure and airflow test points
 - built-in confidence
- Easily removed access panels
 - fast installation and service
- Replaceable High Efficiency filter
 - enhances air quality
- Reinforced frame for fork-lifts and cranes – eases installation and service
- Unit requires minimal floor area
 - allows installation in confined spaces
- Duct connections conform to ISO 7807 standards - simplifies air duct installation

Example of MX Dehumidifier with add-on modules



1. Pre Filter Box EU3

A disposable filter of EU3 efficiency has slide rails that provide easy side access for maintenance.

2. Pre-Heat/Cool coil Box

The coil boxes are designed to house a maximum of ten rows of coils, chilled water, hot water, steam or combinations to provide pre cooling or heating. The maximum face velocity is 2,5 m/s for all coils. To avoid carry over of water a mist eliminator is mounted after the precooler.

3. Mixing Box

The mixing box allows incoming air to be mixed with up to four other incoming air streams. Mixing dampers are provided to balance the airflows. The mixed air stream can then be further conditioned by down stream modules.

4. Process Air Fan Box

The process air fan is belt driven with double inlets that can be provided with speed control.

5. Adapterbox

An inbuilt diffuser provides a better air-distribution of air over the rotor surface.

6. DH unit with Face and Bypass damper

The face and bypass damper provides 100% bypass capabilities. Face and bypass dampers of low leakage design are operated by proportional actuators.

7. MX Base Frame

To level the DH unit to the MX Plus boxes.

8. Post-Heat/Cool coil Box

The coil boxes are designed to house a maximum of four rows of coil, chilled water, hot water, steam or combinations to provide post cooling or heating. The maximum face velocity is 2,5 m/s for all coils.

9. Post Filter Box High Efficiency EU7/EU9

A disposable high efficiency filter of up to EU7/EU9 has slide rails that provide easy side access for maintenance.

10. Skid

Every unit is delivered with it's own structural steel skid (H=100 mm) with adjustable feet. The boxes can be moved using a forklift or by lifting lugs.

11. Controller + Dry Tronic (DT)

The DT is an integrated controller: capable of controlling dehumidification capacity, precooler and post cooler coil temperatures.

12. Electric Control board

Prewired electric control board ready for connection to mains is integrated in the dehumidifier.

Option box sizes, Cross section Length (mm)

	Depth & height	Precooler EU3	Mixing box	Process fan	Connection box	D/H	After cooler	After cooler including EU7	EU7	Heater hot water
MX15-27	816x816	918	616	1116	800	800	416	1168	816	See after cooler
MX37-76	1416x816	918	616	1216	800	1000	416	1168	816	See after cooler

Option box weight (kg)

	Precooler EU3	Mixing box	Process fan	Connection box	D/H	After cooler	After cooler including EU7	EU7	Heater hot water
MX15-27	160	49	119	8	400	150	150	62	150
MX37-76	270	49	205	10	800	250	260	85	250

Material specifications

Cooling coils	Copper tubes aluminium fins coils equipped with drip pan.
Fan	Double inlet centrifugal fan with poly-V drive belt.
Filters EU3 & EU7	Bag filters on metal frame.
Boxes	Double wall 50 mm mineral wool insulated. Designed for easy cleaning. Aluminium profile frame.
Baseframe	Powder coated Aluzink panels.
	Frames in section with adjustable feet.



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DH/MEA/PGB-0078-09/01