

MERLIN[®]

TECHNOLOGY



Duct humidifier

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MERLIN[®] FORTE

Easily integrated into each system.

The duct humidification system MERLIN[®] FORTE can easily be integrated into each ventilation and air-conditioning system. It works on the basis of the ultrasonic principle and humidifies the air with aerosols of 1μ . For generating 1 kg moisture merely 52 W/h of energy is used. Compared to isothermal systems e.g. steam humidifiers up to 93 % of energy costs are therefore saved.

Industrial sectors and fields of application

- electrical industry and EDP-rooms,
- clean room technology and laboratories,
- hospitals,
- printing houses,
- dairies,
- museums and commercial buildings,
- leather and textile industry.

Your MERLIN sales engineer will be pleased to advise you on further application possibilities in the individual case

Functional principle

Water is atomized by ultrasonic vibrations of 1.7 MHz into aerosols of 1μ . By means of the existing ventilation or air-conditioning systems they are released into the environment. The aerosol mist (cold vapour) mixes with the ambient air, evaporates completely and is distributed in the room absolutely evenly.

 Air humidification

Better Business Conditions.

Device description

- Corrosion-free stainless steel V2A
- Dry run, thermal and overflow protection
- Oscillator of ceramic-piezoelectric material
- Mains filter for protection against voltage peaks
- Hygiene management AquaDrain®
- Disinfection programme Contra-Keim®

Controlling

- Hygrostat control
- Constantly by integrated signal adapter
- Proportional control
- Potential-free output

Optional accessories

- Duct hydrostat
- Control cabinet including room humidity transmitter
- Various reverse osmosis systems
- Online-conductance measuring
- Various transformers

Operating conditions

Max. air humidity	< 90% relative humidity
Air temperature	5°C to 45°C
Pure water pressure	min: > 1 bar dynamic max: < 6 bar static
Pure water quality	Totally desalinated
Conductance value pure water	< 20 µS/cm³
Low voltage	48 VAC – 50 Hz

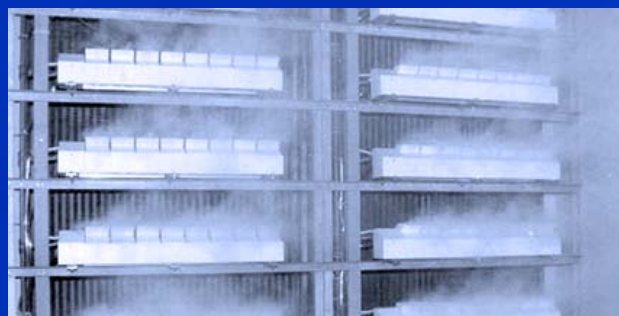
Technical data

Type	Humidification capacity Kg/h	Capacity VA	Voltage V/Hz	Weight kg	Length mm	Height mm	Depth mm
FORTE 6	3,6	185	48V/50Hz	6,0	285	202	261
FORTE 12	7,2	375	48V/50Hz	7,7	435	202	261
FORTE 18	11,8	555	48V/50Hz	9,5	585	202	261
FORTE 24	14,4	735	48V/50Hz	11,7	735	202	261
FORTE 30	18,0	915	48V/50Hz	13,7	885	202	261
FORTE 36	21,6	1095	48V/50Hz	15,2	1035	202	261
FORTE 42	25,2	1.275	48V/50Hz	17,2	1185	202	261

Application examples



MERLIN® FORTE integrated in air-conditioning unit.



MERLIN® FORTE interior view of an air-handling system.