MISTING, HUMIDIFICATION & DE-ICING SYSTEMS

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Misting, humidification and De-Icing ystems: the technologies

HIGH OR LOW-PRESSURE SYSTEMS

High or low pressure: the M42 misting systems and the De-Icing system from Natural Misting are technological, versatile and made in Italy. They are suitable for the sale and storage of fresh produce in bulk and for controlling the temperature in outdoor areas in a natural way.

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MADE IN ITALY

The devices are controlled by a highly innovative and efficient electronic board that manages the operating cycle and components. They generate a fine shower of microbiologically pure water (droplets size between 16 and 35 microns) which, when sprayed onto fresh produce, partly evaporates by removing heat from the surrounding air and partly humidifies the produce, preventing it from drying out.

The low pressure systems (LP-M42) are equipped internally with a filtering station consisting of mechanical filters and reverse osmosis membrane to further purify the water from the water supply and preserve the system components from the action of limestone. In high pressure appliances (HP-M42) the filter station and the reverse osmosis membrane are offered as an option and are external.

At the end of each nebulization cycle, the water inside the circuit is completely expelled to avoid stagnation.
The type of dispensing can be chosen from multiple solutions: suspended, on the counter, front, rear etc.

DE-ICING

The automatic ice bed melting system is controlled by an electronic board. Connected to the hot water of the refrigeration circuits or to dedicated boilers and mixed with the cold water of the water supply. The water passes through an activated carbon filtering station. With regular dispensing cycles a pump conveys it to the nozzles, generating dense rain that melts the ice. De-Icing can be implemented with a dosing pump to sanitize the counter: after the ice has melted, sprinkle the counter tank with a suitable sanitizing product.

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ULTRASONIC SYSTEMS

Ultrasonic humidification systems are a Contronics product, a Dutch manufacturer for which Natural Misting is the distributor for Italy. They are suitable for the sale and preservation of fresh products in bulk and for many industrial applications.

The operating principle is similar to that of common aerosols: a series of high-performance transducers vibrate the water until it generates a cold and fine mist composed of small drops (from 1 to 2 microns).
The mist with a temperature between 4 and 5 ° C and a relative humidity of up to 99% by evaporating creates a cool and humid environment.
Fog production is continuous, and the operator can vary the speed at which the fog comes out of the dispensers.
The type of dispensing can be chosen from a variety of solutions: perforated ducts, mushroom columns, nozzles, etc.
The HU-O models are equipped with an ozone sanitisation system that automatically sanitises the entire circuit overnight.

CONTRONICS

FILTER STATIONS

To ensure hygiene and technical performance, Natural Misting solutions can be supplemented with the Natural Osmosis mechanical pre-filtration station that removes TSS suspended particles.
Particular characteristics of the water suggest the use of a softener or alternatively of a reverse osmosis membrane, however provided for applications in the food sector.

The reverse osmosis (RO) membrane removes 95-98% of TDS as well as viruses, bacteria and trace elements.
It is therefore highly recommended to install the RO system so that the TDS in the water are reduced to an acceptable level both from the point of view of hygiene and from the point of view of maintenance.

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HUMAN SAFE TECHNOLOGY

naturale, come l'aria e l'acqua

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NM TECHNOLOGIES

Natural Misting is the Top Quality company for misting and humidification systems for fresh foods. Our solutions are highly technological, environmentally-friendly, specially designed to cut down consumptions and tailored to customer needs. Our systems are like a puzzle: they compose themselves one piece at time. Ultrasonic or pressure systems, they maybe equipped with integrated or standalone systems to automatically sanitize the tubing and assure customers' health. Natural Misting systems can be managed independently or connected to remote controllers.
They don't wet floors thus avoiding slipping risks.

Technologies

Ultrasound, low medium or high pressure, the choice of the right technology is a fundamental factor to obtain the best performances. Natural Misting has selected a range of products with different performances to meet the specific needs of customers.

CONTRONICS

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MADE IN ITALY

ADVANTAGES OF NM TECHNOLOGIES

- We are the Top Quality company for misting and humidification systems for fresh food
- Our solutions are tailored to customer needs
- We provide flexible solutions, perfect to be embedded in any furniture design
- We mist products not floor
- Systems designed to minimize water and electricity consumption
- We use only drinking water purified by mechanicals filters and osmosis membrane
- We assist our clients directly with skilled technicians and we revise our equipment with a accurate and reliable prevented maintenance.

Service

From inspection to after-sales service, our skilled technicians team is attentive to every detail. We guarantee a quality service to ensure compliance with regulations and the proper functioning of our solutions. At the end of each installation we provide the necessary training for the proper and profitable use of our systems.

Technical assistance service:
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service@naturalmisting.com

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HUMAN SAFE TECHNOLOGY

Misting systems
Datasheet

Low-pressure system LP-M42

MODEL	LP-M42-2	LP-M42-6	
	Up to 15 metres of misting bars	Up to 30 metres of misting bars	
Required preparations			
Power supply*	230 VAC - 50 Hz		
Water supply	1/2” female tap		
Inlet pressure	30 PSI (2 bar) min		
Inlet pressure	Floor drain or 32/40 mm Ø drain		
Specifications			
Carter	Stainless steel AISI 304 10/10 mm		
Height	22,5 cm - 8,8 inches		
Length	45 cm - 17,7 inches		
Depth	45 cm - 17,7 inches		
Weight	15 kg - 33 lb		
Water pressure manometers	Input, output		
Voltage	230 and 24 Volt		
Pump	Low pressure pump		
Solenoid valve			
Mist	Plastic 3/8” 24V		
Purge	Plastic 3/8” 24V		
Tubi			
	Colour code		
Material	Polyethylene		
Ugelli			
Material	Teflon		
Water consumption	Max per nozzle 0,07 liters/min (4,7 lt/h)		
Cone opening	standard 80° - optionals 120°		
Filtering stations	Mechanical filters + reverse osmosis membrane		
Mechanics	10-micron cartridge		
Reverse osmosis	RO membrane		
Maintenance			
RO membrane	Replacement every 6 months		
10 µm cartridge			

*Power cable with plug other than shuko plug: on request

Misting systems
Datasheet

HP-M42 high-pressure system

MODELLO	HP-M42-2	HP-M42-4	HP-M42-6
Maximum number of nozzles	Up to 20 nozzles 0.2 mm	Up to 40 nozzles 0.2 mm	Up to 60 nozzles 0.2 mm
Required preparations			
Power supply*	230 VAC - 50 Hz		
Water supply	1/2” female tap		
Inlet pressure	30 PSI (2 bars) minimum		
Drain	Floor drain or 32/40 mm Ø drain		
Maintenance			
Motor oil	Oil change every 500 operating hours		
Specifications			
Carter	Stainless steel AISI 304 10/10 mm		
Height	22,5 cm - 8,8 inches		
Length	45 cm - 17,7 inches		
Depth	60 cm - 23,6 inches		
Weight	45 kg - 99 lb		
Water pressure manometers	Input, output		
Voltage	230 and 24 Volt		
Pump	High pressure pump		
Motor	0.55 kw	0.55 kw	1,1 kw
Solenoid valve			
Mist	Brass 1/2” 24V		
Purge	Brass 1/2” 24V		
Tubing			
	Colour code		
Material	Polyethylene		
	high pressure		
Nozzles	Nozzles: stainless steel/brass - Nickel-plated brass connectors		
Water consumption	Max per nozzle 0.1 litres/min (6.0 l/h)		
Material	Stainless steel/brass		
Filtering station	Mechanical filters: standard - Reverse osmosis: optional for Food quality		
Standard	20 micron cartridge		
Reverse osmosis	20, 10, 5 micron cartridge + RO membrane		
Maintenance			
20 µm sediment filter	Replacement every season (every 6 months for Food Quality)		
RO membrane	Replacement every 6 months		
Cartridge 20,10,5 µm			

*Power cable with international plug or 60 Hz power supply: on request

Humidification systems
Datasheet

Ultrasonic humidification system

MODEL	HU-25	HU-45
Required preparations		
Power supply*	230 VAC - 50 Hz	230 VAC - 50 Hz
Water supply	3/4” tap	3/4” tap
Inlet pressure	30 PSI (2 bars) minimum	30 PSI (2 bars) minimum
Specifications		
Carter	Stainless steel AISI 316L	Stainless steel AISI 316L
Height	16 cm (6,3 inches)	21,5 cm (8,5 inches)
Length	27 cm (10,6 inches)	32,5 cm (12,8 inches)
Depth	26 cm (10,2 inches)	26,5 cm (10,4 inches)
Weight	8 kg (18 lb)	11,5 kg (25,3 lb)
Consumption	120 W	250 W
Voltage	230 and 48 Volt	230 and 48 Volt
Maximum capacity	0-1,2 Kg/hour (adjustable)	0-3 Kg/hour (adjustable)
Drop size	1-3 microns	1-3 microns
Maximum H2O input hardness	15°f	15°f
Frequenza trasduttori	1,7 MHz	1,7 MHz
Filtering station	Mechanical filters: standard - Reverse osmosis: optional for Food quality	
Reverse osmosis	20, 10, 5 micron cartridge + RO membrane	
Maintenance		
Mechanical filter cartridges	Replacement every 6 months	
Reverse osmosis membrane	Replacement every 6 months	

*Power cable with international plug or 60 Hz power supply: on request

De-Icing systems
Datasheet

De-Icing systems

MODEL	De-Icing		
Required preparations			
Power supply*	230 VAC - 50 Hz		
Water supply	3/4 “female tap - hot water (max 40 ° C)		
Inlet pressure	30 PSI (2 bar) min		
Specifications			
Carter	Stainless steel AISI 304 10/10 mm		
Height	29 cm (11,40 inches)		
Length	40 cm (15,75 inches)		
Depth	61 cm (24,00 inches)		
Weight	33 kg (66 lb)		
Water pressure gauges	output		
Voltage	230 and 24 Volt		
Pump	Low pressure pump (3 bar)		
Solenoid valve	Plastic 3/8” 24V		
Tubing			
	Color code		
Materials	Polyethylene		
Nozzles			
Material	Stainless steel		
Water consumption	Max per nozzle 3.00 liters / min (180 l / h)		
Cone opening	45°		
Filtering station	Mechanical filters		
Standard	10 µm sediment filter		
Reverse osmosis	no		
Maintenance			
10 µm sediment filter	Replacement every 6 months		

*Power cable with international plug or 60 Hz power supply: on request

Filtering station
Datasheet

Natural Osmosis filtering stations

MODEL	NRO-I	NRO-II	
Water output / hour output	10 liters	20 liters	
Required preparations			
Power supply*	230 VAC - 50 Hz		
Water supply	1/2 ”female tap		
Inlet pressure	30 PSI (2 bar) min		
Drain	Floor drain or 32/40 Ø mm drain		
Specifications			
Carter	Painted metal sheet		
Height	40 cm (16 inches)		
Length	50 cm (20 inches)		
Depth	20 cm (8 inches)		
Weight	4 kg (6,6 lb)		
Water pressure gauges	Input, output		
Voltage	230 and24 Volt		
Pump	High pressure pump		
Solenoid valve			
Input	Plastic 3/8” 24V		
Output	Plastic 3/8” 24V		
Tubing			
	Color code		
Material	Polyethylene		
Water consumption	Variable according to the characteristics of the inlet water		
Maintenance			
5 µm sediment filter	Replacement every season (every 6 months for Food Quality)		
10 µm carbon filter	Replacement every season (every 6 months for Food Quality)		
20 µm sediment filter	Replacement every season (every 6 months for Food Quality)		
Reverse osmosis	Replacement every 6 months		