

OPT- TAVOR® - Compressed Air Atomizer

- Dry Fog 2-4µm droplets
- Low energy consumption.
- Capacity from 6 to 360kg/h.
- Low compressed air pressure required 6.0bar.
- Original patented venturi TAVOR® atomizer.
- Non clogging large orifice.
- Accepts untreated water.
- Static atomizer no moving parts.
- Maintenance free atomizer.
- Operates at very low temperatures.
- High accuracy +/-1%RH.
- High humidity: up to 96%RH.
- Electronic Controller handling 1 or 2 zones/spaces or more.
- 3 years warranty*



PATENTED

OPTIGUIDE
Controlled Humidity

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Condition: (*) start-up report without default done by authorized Optiguide local representative.

OPT-TAVOR® - Compressed Air Atomizer

OPT-TAVOR® dry fog atomizer is a compressed air assist atomizer.

The **patented** acceleration chamber creates an airflow pattern reaching supersonic speeds 2.4 mach. The airflow sucks in water from a venturi column. The impact between the supersonic flow of air and the water generates shock waves, which produce the micro-droplets.

The "solid cone" jet of micro droplets forms a uniform "dry fog" which evaporates quickly into the air.

OPT-TAVOR® atomizing systems include atomizers for duct installation or directly in space.

Electronic controller is controlling up to 2 zones/spaces, RH% and temperature transmitter.

TAVOR® atomizer producing a very fine mist 2 to 4µm is the ideal humidification solution for **cold storage** as droplets are not freezing up even at very low temperature such as 0°C (32°F).

The adiabatic **cooling effect** of process using heat transfer from surrounding air is making the

OPT-TAVOR® a perfect solution for **Data centers** or **pre-cooling** of gas turbine or HVAC dry coolers.

TAVOR® atomizer is robust and can accept untreated water up to 100ppm TDS or RO treated water.

Typical applications

Cold storage for fruit & vegetables, Ripening chambers, humidifying at low temperature



Wineries, Tobacco storage, or other storage of product susceptible to dry-out.



Green house, cooling of green houses, using the cooling effect in space.



Data center, server rooms, electronic plant, using cooling effect in duct.



Textile, woodworking, plant or other dusty area, to reduce the lint and dust in the air.



Food processing disinfection, product cleaning or other sanitation application.



Very fine mist



Due to the very fine mist of water droplets 2 to 4 μ m **TAVOR**[®] atomizer is suitable for any humidification applications at low temperature and close to saturation (96%RH max.).

TAVOR[®] atomizer patented venturi design makes it the most robust atomizer on the market with large non-clogging orifice.

TAVOR[®] atomizer is static without moving parts and maintenance free.

- No need of orifice cleaning,
- Able to accept untreated water (up to 100ppm TDS).

Direct in-room atomizing

OPT-TAVOR[®] atomizing system is available for direct in-room installation.

In-room humidification system has the following components:

- Atomizing Plug & Play unit with 2, 4 or 6 atomizers 12-36 liter/h, user friendly installation.
- Electronic controller.
- RH% and temperature sensors.
- Optional Reverse Osmosis water treatment system.



In-duct atomizing

OPT-TAVOR[®] atomizing system is also offered for in-duct installation.

AHU or in-duct installation will provide the most efficient solution for application in Data centers.

In this configuration **TAVOR**[®] atomizers will be pre- installed on a ramp at the factory.

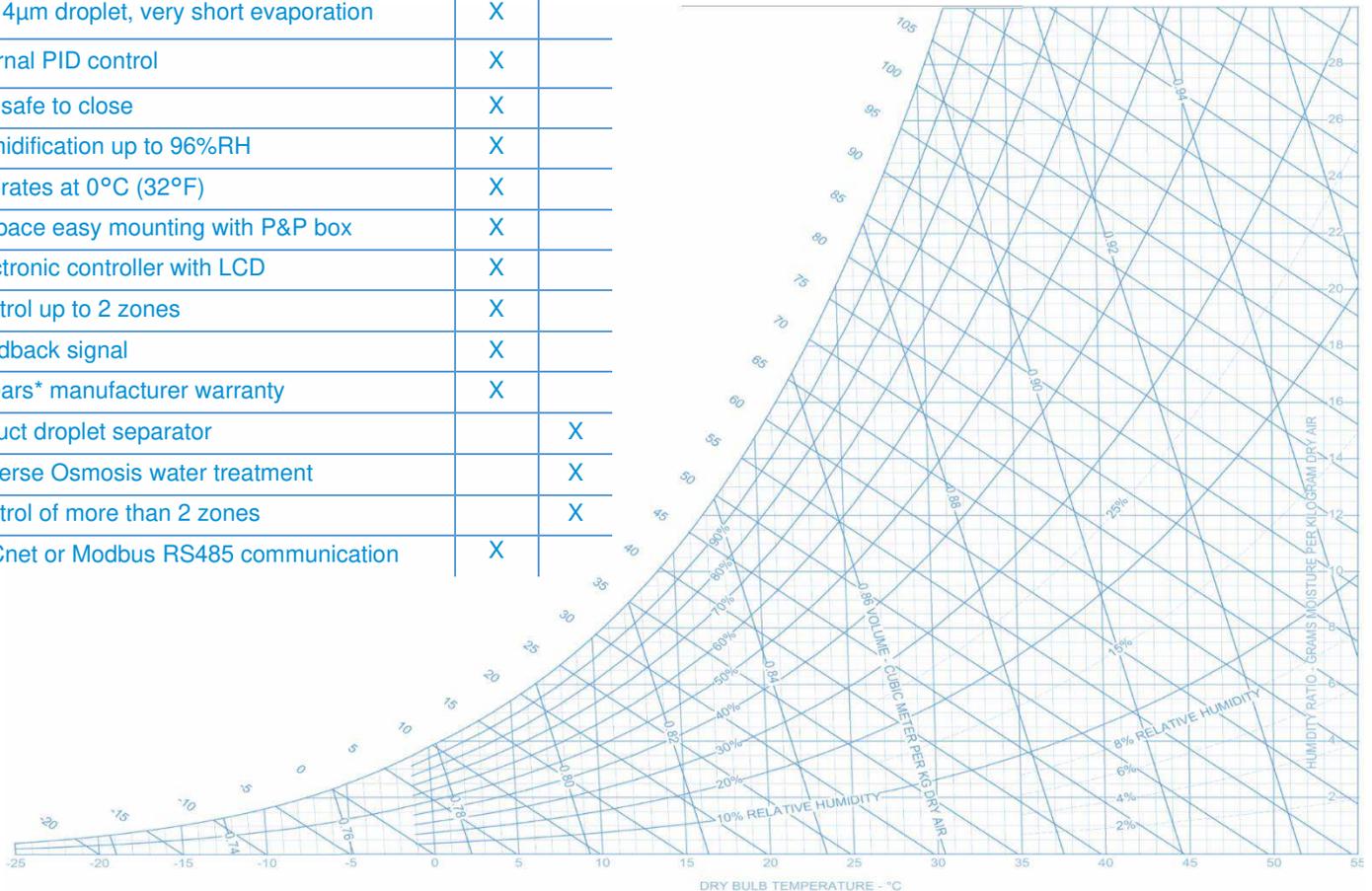


- Atomizing ramp made up to the width of the duct,
- Number and grid configuration of atomizer will depend on the application,
- A wet duct section should be provided,
- Droplet separator available as option.
- Electronic controller.
- Optional Reverse Osmosis water treatment system.

Technical data

Model		OPT-A2	OPT-A4	OPT-A6	OPT-DUCT
Capacity	[kg/h]	12	24	36	36-468
Air pressure	[bar]	6-7	6-7	6-7	6-7
Air consumption	[lit/m]	120	240	360	360-4,680
Water pressure	[bar]	Up to 4	Up to 4	Up to 4	Up to 4
Total Dissolved Solids	[ppm]	100 max	100 max	100 max	100 max
Solenoid Voltage		24Vac/dc	24Vac/dc	24Vac/dc	24Vac/dc
Power	[W]	15	30	45	--
Dispersion angle		180°	180°/360°	360°	--

Features	Std	Opt
Stainless steel calibrated TAVOR® atomizer	X	
Water supply with tap, soft or RO water	X	
2 to 4µm droplet, very short evaporation	X	
Internal PID control	X	
Fail safe to close	X	
Humidification up to 96%RH	X	
Operates at 0°C (32°F)	X	
In space easy mounting with P&P box	X	
Electronic controller with LCD	X	
Control up to 2 zones	X	
Feedback signal	X	
3 years* manufacturer warranty	X	
In duct droplet separator		X
Reverse Osmosis water treatment		X
Control of more than 2 zones		X
BACnet or Modbus RS485 communication	X	



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