



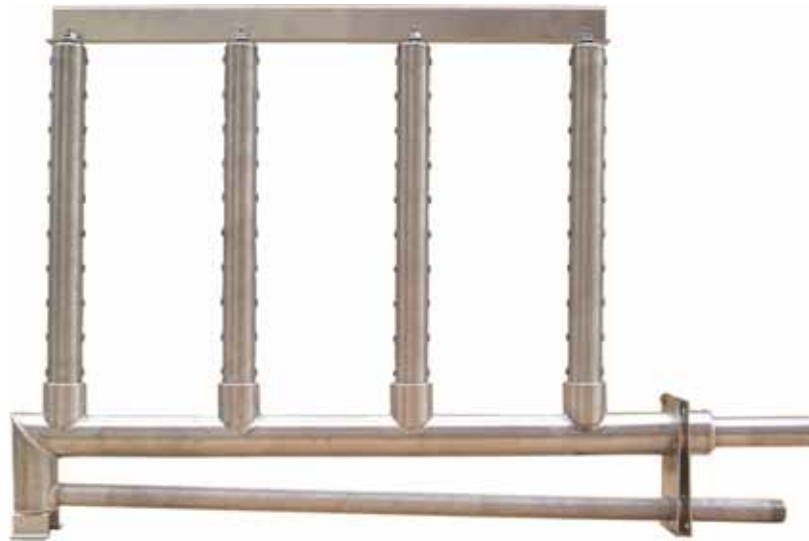
Air Humidity Control

Steam Dispersion System

DIPHUSAIR[®]-MT1

STEAM DISPERSION DIPHUSAIR-MT1 MULTIPLE TUBE SYSTEM

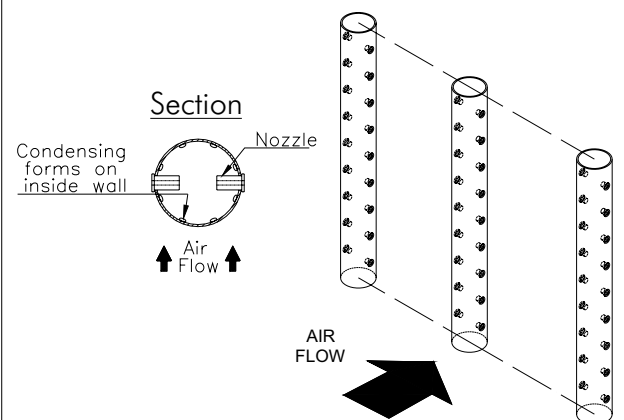
(For minimal absorption distances in ducts & AHU)



FEATURES

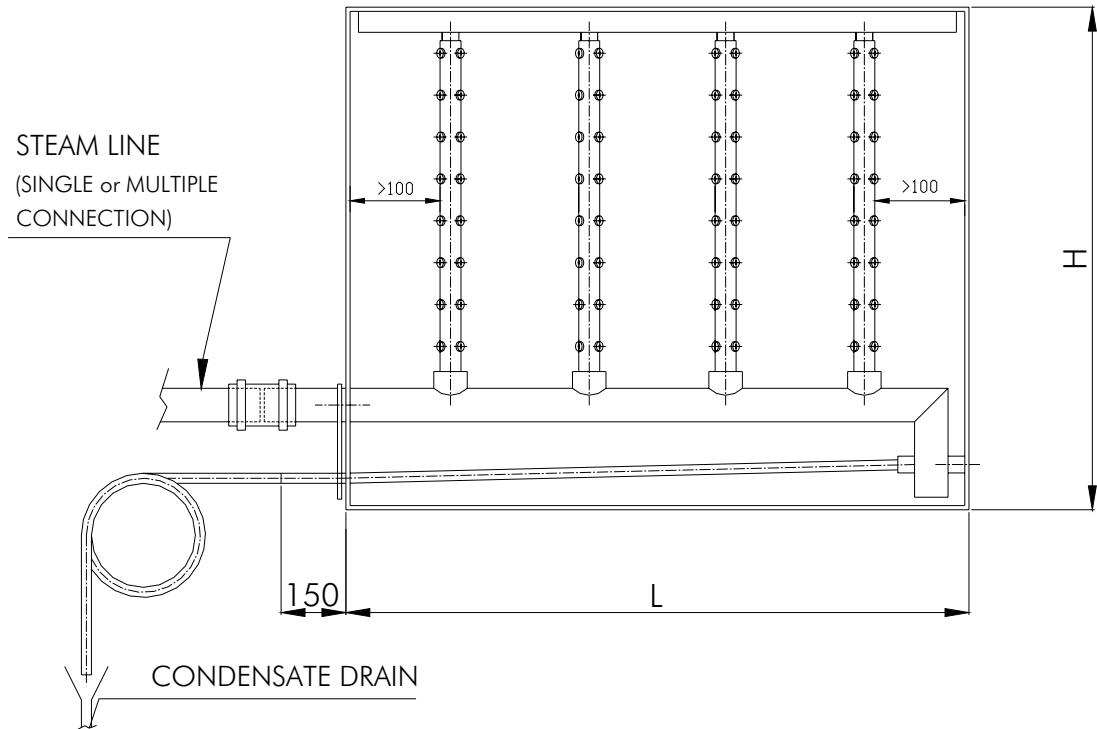
- For autonomous, evaporative steam generators, electric (electrode or resistance) and heat exchanger type.
- Suitable for medium humidification loads.
- No risk of condensation on solid objects downstream from the humidifier (coils, fans, dampers, etc.). Consult us for installation upstream from filter.
- Easy on-site assembly.
- Stainless steel tubes and resin nozzles for virtually unlimited operating life.

DISPERSION TUBES WITH NOZZLES



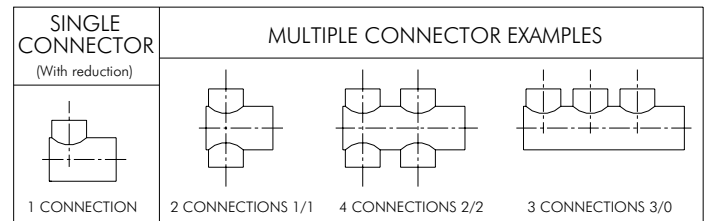
- ❖ The diagram shows the twin outlet steam dispersion system which provides ultra fast absorption with no risk of condensation.
- ❖ The specially sized resin nozzles extend inside the dispersion tubes, ensuring that only “dry” drip-free steam is discharged into the duct/AHU.
- ❖ Any condensate formed adheres to the inside wall of each tube, and flows via gravity to the DIPHUSAIR-MT1 header where it's discharged to drain.

STEAM DISPERSION DIPHUSAIR-MT1 MULTIPLE TUBE SYSTEM (Overall dimensions)



REMARK

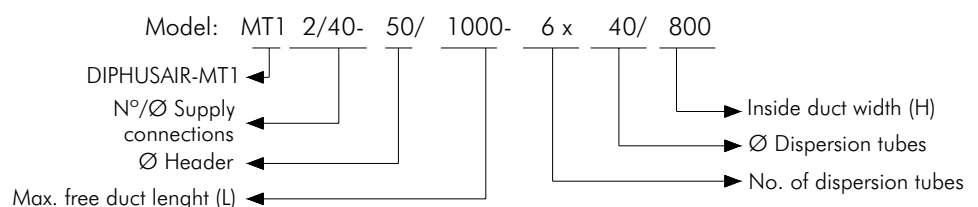
- Header and tubes in SST. AISI-304.
- Size the humidifier for 105%-110% of design load in order to compensate from condensate losses.



Design capacity: supply pipe / header / dispersion tubes			kg/h.
Supply	Ø 25 mm.	≤ 18	
	Ø 40 mm.	$18 < C \leq 40$	
Header	Ø 40 mm.	≤ 45	
	Ø 50 mm.	$46 < C \leq 115$	
	Ø 76 mm.	$116 < C \leq 225$	
Dispersion	Ø 25 mm.	≤ 4	
	Ø 40 mm.	$4 < C \leq 16$	
	Ø 50 mm.	$16 < C \leq 32$	

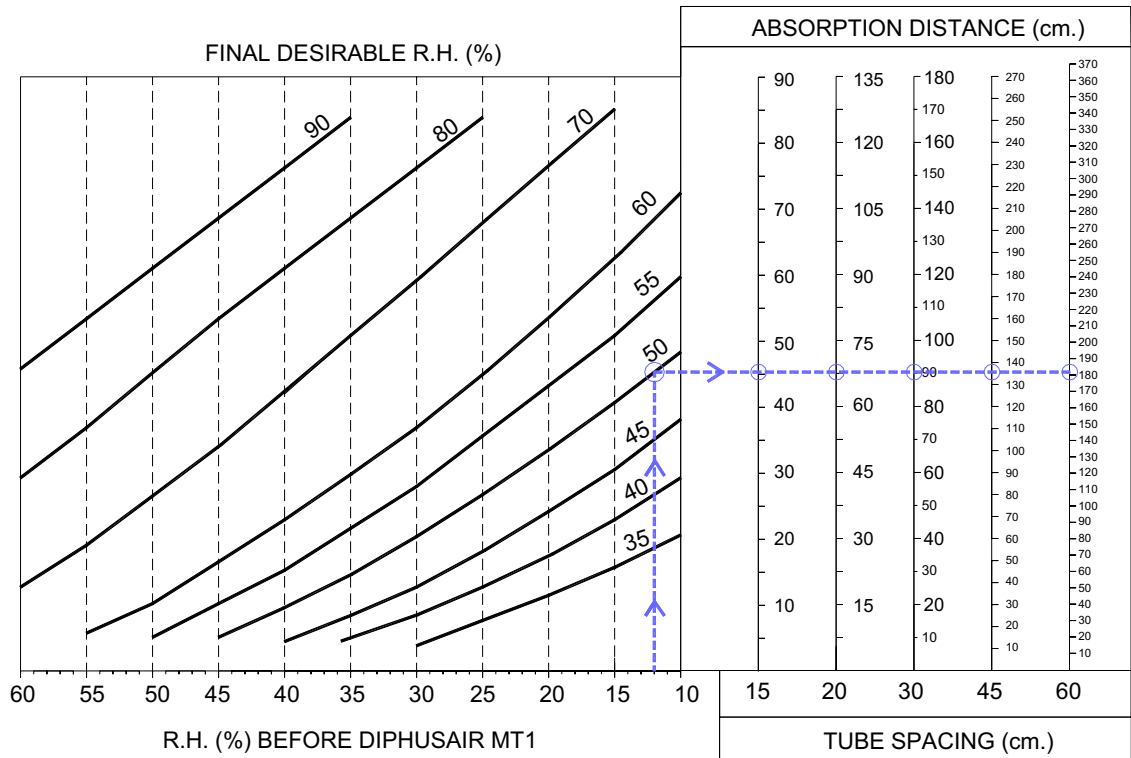
TYPICAL SPECIFICATION

- Capacity of 48 kg/h.
- R.H. rise from 40% to 90%.
- Absorption distance ≤ 700 mm.
- Inside duct/AHU dimensions:
(L) 1000 x (H) 800 mm.

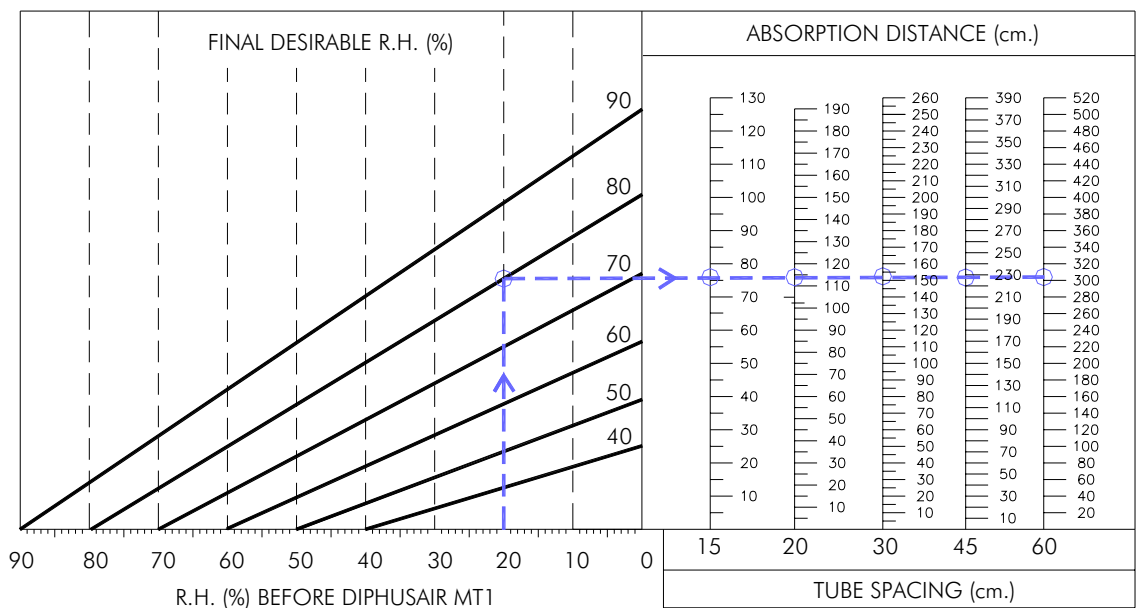


STEAM DISPERSION DIPHUSAIR-MT1 MULTIPLE TUBE SYSTEM (Absorption typical distances chart / condensing free)

ABSORPTION(*) NON-WETTING DISTANCES FOR 22°C



ABSORPTION(*) NON-WETTING DISTANCES FOR 14°C



EXAMPLES.

- 1°) With 14°C: Inlet at (-5°C y 80% H.R.) → (14°C y 20% H.R.) → (14°C y 80% H.R.)
- 2°) With 22°C: Inlet at (-5°C y 80% H.R.) → (22°C y 12% H.R.) → (22°C y 50% H.R.)

(*)Absorption empirical data applicable to air velocities up to 8 m/s.

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