



Diphusair ASC[®]

Heat Exchange
humidification system
using superheated water





Characteristics



(*) For deionized water, the filling valve is a float valve, there is no solenoid filling valve, the draining valve is manual and the level control is by means of a buoy detector.

ASC series DIPHUSAIR air humidifiers work using a spiral heat exchanger. Superheated boiler water circulates through the coil to provide the heat required to generate clean steam from drinking/decalcified or deionized water. The heat transmission process works by conduction and convection in nucleate boiling phase.

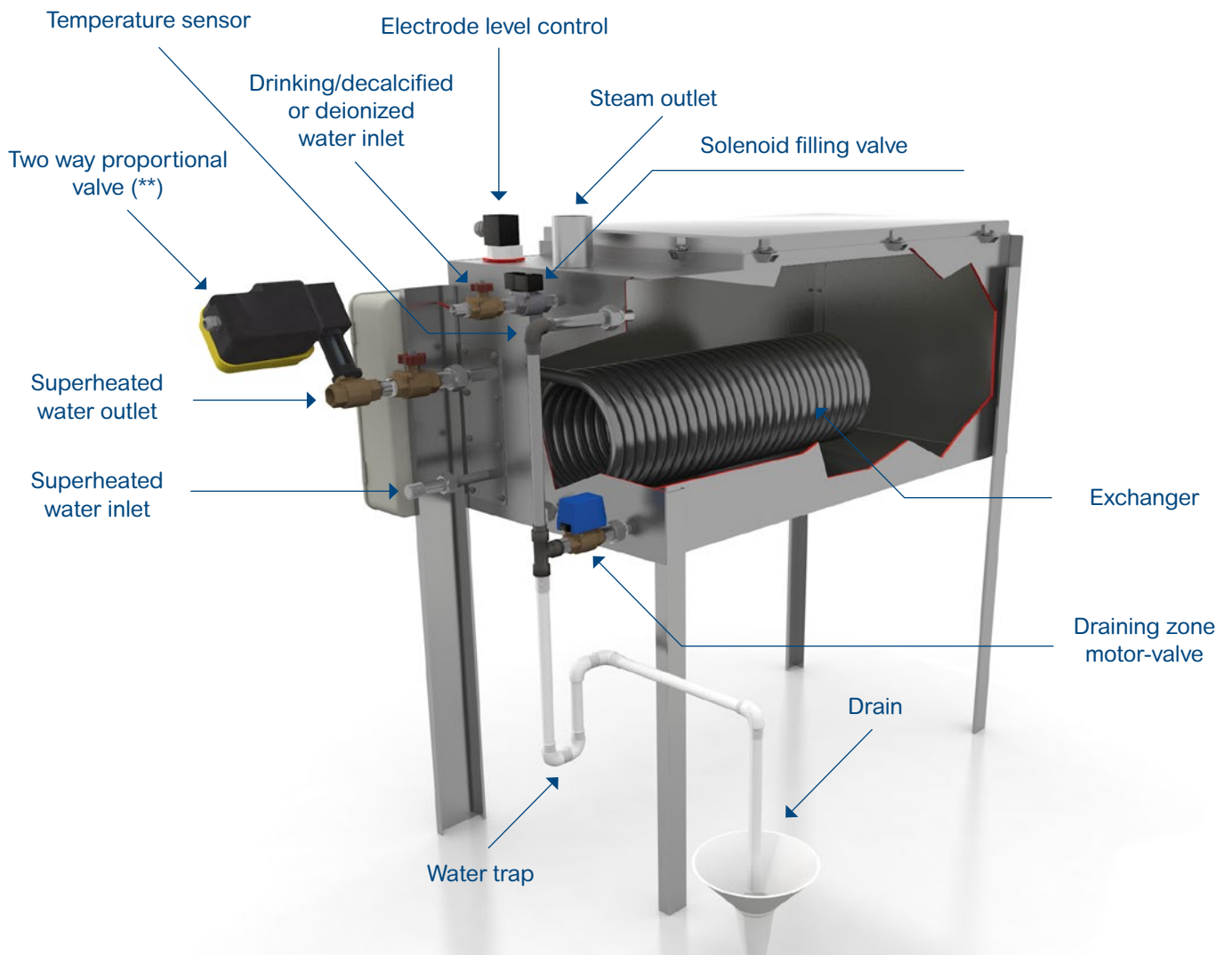
The special machining of the heating coil, from a copper pipe in compliance with standard EN1057:2007, made from a single piece with no welding, makes this the most effective kind of exchanger, and also prevents the contamination and contact of the drinking water with the superheated water.

The outer nickel-plating of the spiral heat exchanger further enhances the already noteworthy corrosion resistance of the copper (Cu).

A specific DIPHUSAIR-ASC humidifier is chosen for each application to ensure the desired humidity level is obtained easily, reliably and permanently, and for very reasonable operating costs.

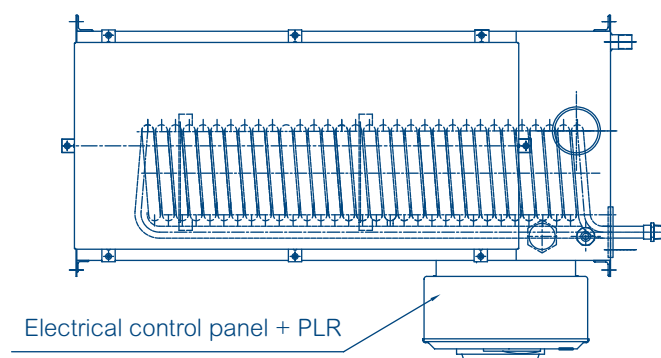
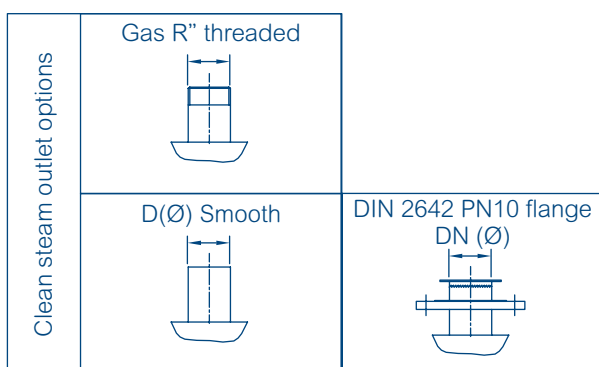
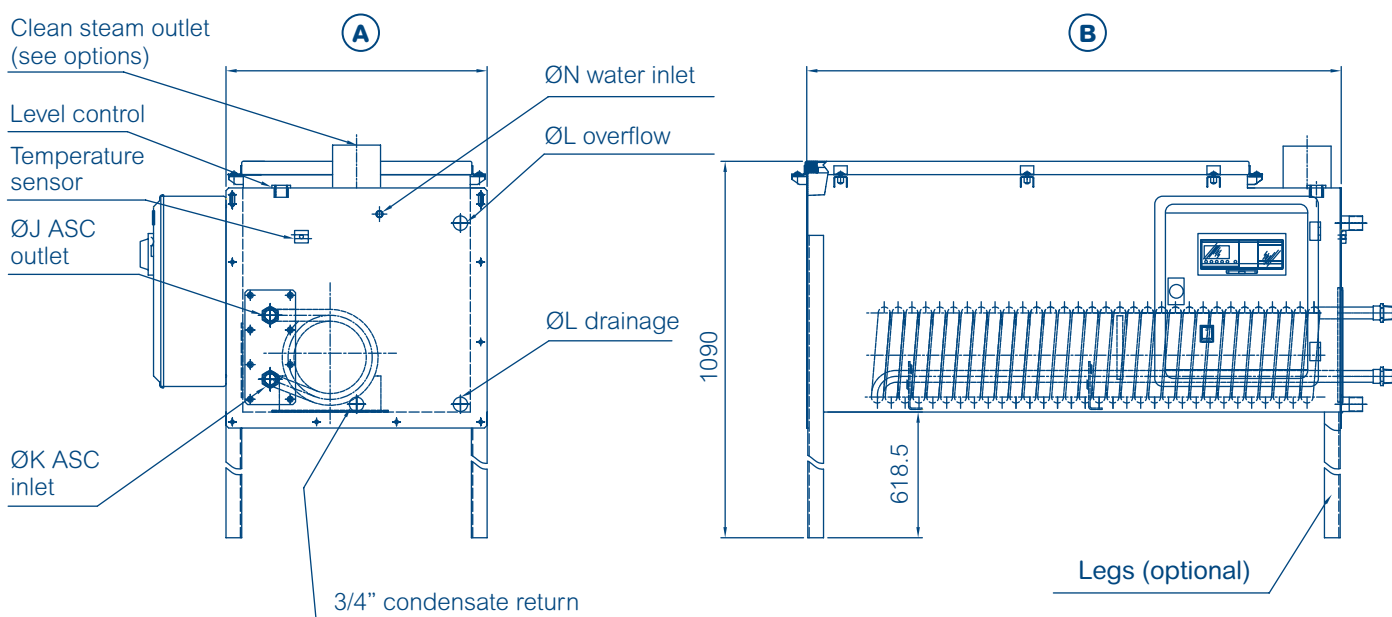
ASC for drinking/decalcified water (*)

(**) A three way valve can also be used depending on the general circuit.

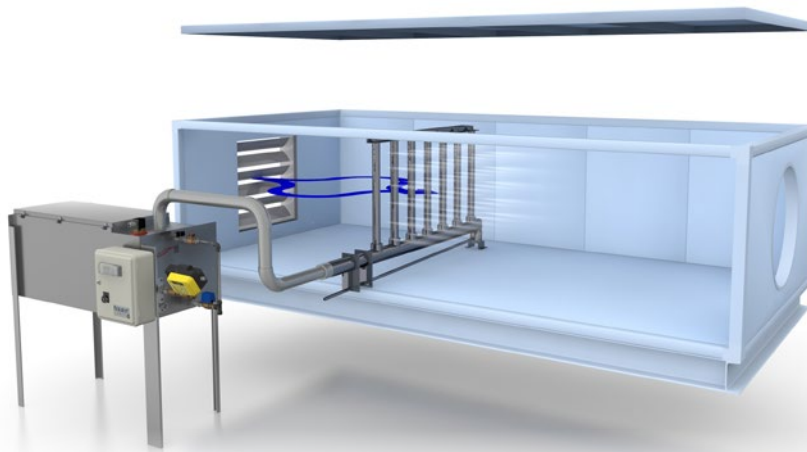


External dimensions and components of the humidifier

Diphusair ASC



Name	Superheated water		A mm	B mm	ØL OUTLET Overflow/ draining	ØN INLET Network water	APPROX. WEIGHT (Empty/Operational) Kg
	ØK INLET	ØJ OUTLET					
ASC-75	3/4 "BSP	3/4 "BSP	375	603	3/4 "BSP	1/4 "BSP	45/80
ASC-115	3/4 "BSP	3/4 "BSP	490	1003			65/160



Diphusair ASC connection with Diphusair MT1 steam disperser in the AHU

Diphusair ASC steam humidifier technical data

Modelo		ASC-75	ASC-115
Superheated water maximum pressure	kPa (G)	415,7	
Total electrical power	[W]	75	
Mains electrical connection		230V / I+N / 50Hz	
Steam pressure	kPa (G)	<4	
Maximum superheated water temperature	[°C]	145	
Maximum chassis temperature	[°C]	98	

Capacities and pressure drop of Diphusair ASC steam humidifiers

Model	Tasc: 125 °C				Tasc: 135 °C				Tasc: 145 °C			
	Q int [L/min]	Mext [kg/h]	ΔP [kPa]	ΔT int [°C]	Q int [L/min]	Mext [kg/h]	ΔP [kPa]	ΔT int [°C]	Q int [L/min]	Mext [kg/h]	ΔP [kPa]	ΔT int [°C]
ASC-75	26	20	13	7	27	28	13	10	27	44	13	15
	31	23	15		31	33	15		32	52	15	
	35	26	16		36	38	16		37	60	17	
	45	33	20		44	47	19		45	71	20	
	54	40	24		50	53	22		47	75	21	
ASC-115	42	31	25	7	40	42	23	10	42	66	24	15
	47	35	30		45	48	28		48	76	30	
	54	40	38		50	53	33		54	86	38	
	66	49	57		59	63	46		64	102	53	
	75	56	77		64	68	55		69	110	64	

Q int.: Superheated water flow | **M ext.:** Clean steam production | **ΔP:** Superheated water pressure drop

ΔT int.: Superheated water thermal gap | **Tasc:** Superheated water temperature

(*) Request the corresponding capacities for other operating conditions.

The manufacturer reserves the right to change specifications without prior notification.