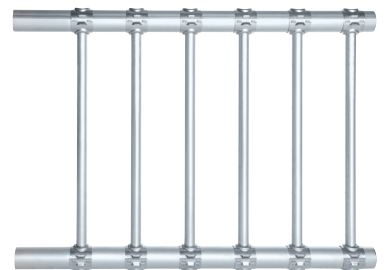




# OPTIMAL DISTRIBUTION!

Multiple steam distribution system  
Condair **OptiSorp**



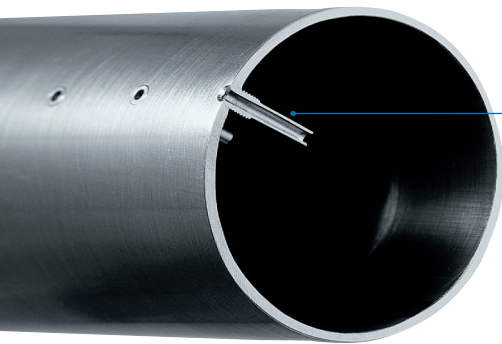
Humidification and evaporative cooling



# SHORTEST HUMIDIFICATION DISTANCES THROUGH HOMOGENEOUS STEAM DISTRIBUTION

## Patented main-flow nozzles facilitate condensate-free steam discharge

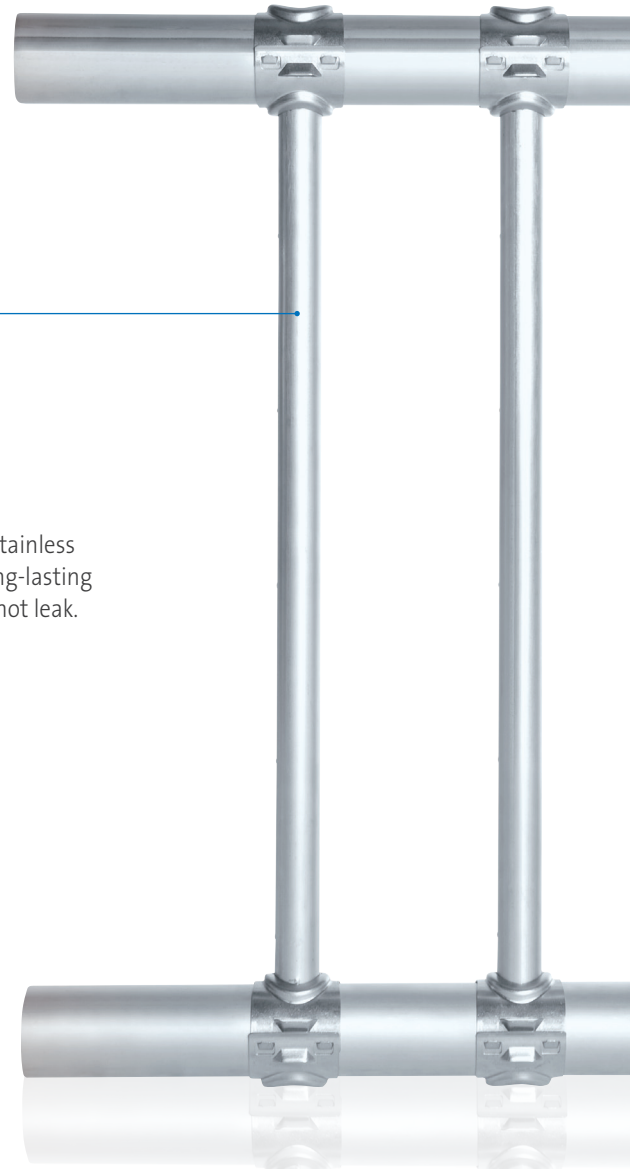
Main-flow nozzles remove steam from the middle of the distribution pipes where it is hot and condensate-free. This ensures that the air hoses behind the distribution system remain dry.



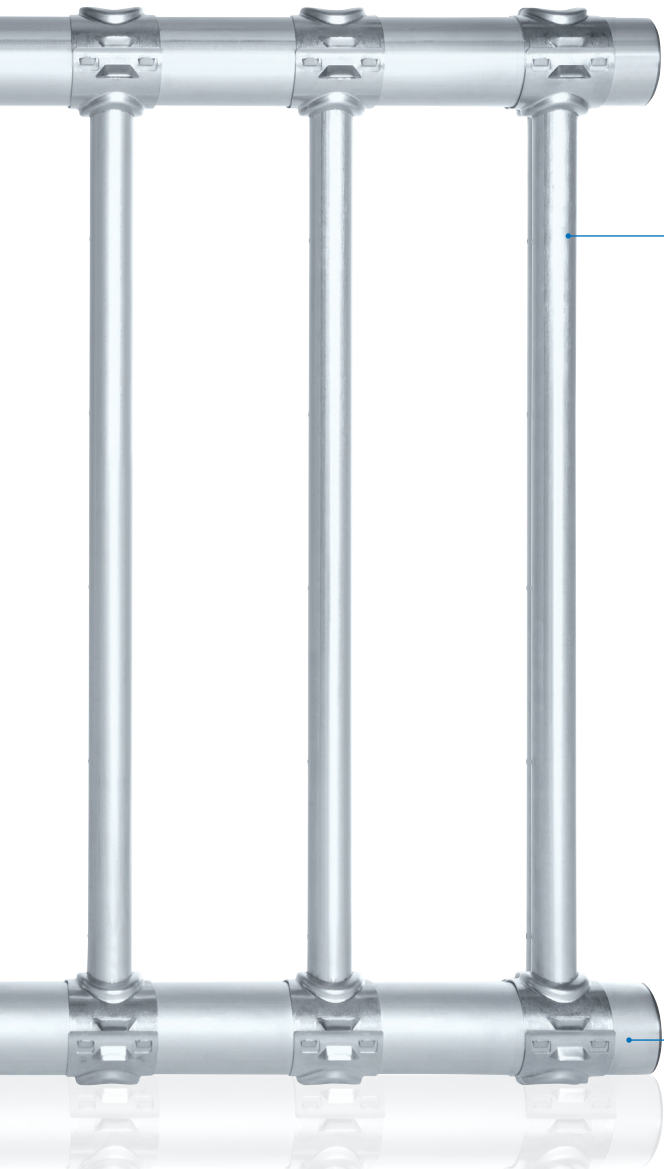
The nozzles are made of solid stainless steel. They work reliably, are long-lasting and resistant to aging, and do not leak.

## Flexible and accurately fitted

OptiSorp systems are individually calculated and adapted to existing cross-sections. Pre-assembled in the factory, they are delivered to the mounting location ready for connection. There the distribution systems can be quickly installed with minimum assembly work.

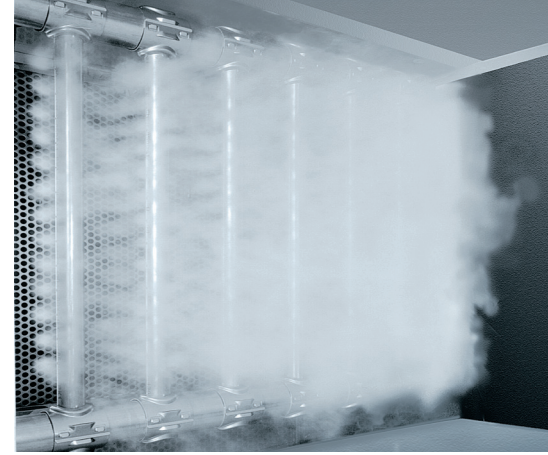






### Uniform humidity profile through optimal distribution

The structural design of the distribution system allows for precise and homogeneous steam discharge over the entire



cross-section surface. Humidity layering that happens over the flow cross-section is effectively counteracted. The injected steam is quickly and evenly absorbed by the air current.

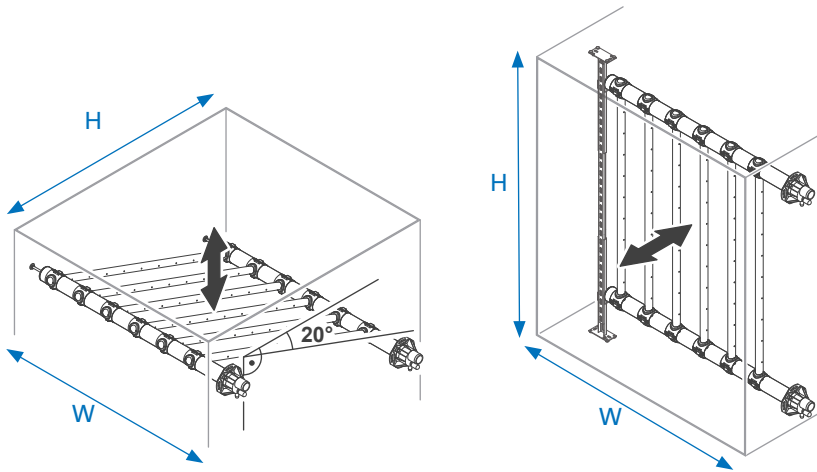
### The steam distribution system is made of solid stainless steel.

This makes it resistant to the effects of temperature and aging. All pipe connections remain continuously watertight and fault-free even after long operation.

Short humidification distances are decisive factors when it is about reliable and hygienic steam humidification. In air conditioning

systems there must be no vapor in air pipe installations. Damp surfaces, corrosion and hygienic risks would be the consequence. With the Condair OptiSorp steam distribution system the humidification distances

can be reduced significantly compared to conventional distribution systems. It allows steam injection even in difficult installation conditions and even then guarantees optimal distribution and the best moisture absorption.



## TABLE OF OUTPUTS

OptiSorp	Steam connections	Steam release	Duct dimensions	
	Quantity	in kg/h	W in mm	H in mm
System 1	1	max. 45	450-2,700	450-1,650
System 2	2	max. 90	450-2,700	450-2,200
System 3	3	max. 135	450-2,700	800-3,200
System 4	4	max. 180	450-2,700	800-3,200

## LENGTH OF HUMIDIFICATION DISTANCE ( $B_N$ in m)

Inlet moisture (% rel. hum.)	Outlet moisture (% rel. hum.)					
	40	50	60	70	80	90
5	0.22	0.28	0.36	0.48	0.66	1.08
10	0.20	0.26	0.34	0.45	0.64	1.04
20	0.16	0.22	0.30	0.41	0.58	0.96
30	0.10	0.17	0.25	0.36	0.52	0.88
40		0.11	0.20	0.30	0.45	0.79
50			0.13	0.24	0.38	0.69
60				0.16	0.30	0.58
70					0.20	0.45

Tabular overview of expected humidification distances. When the specified applications are individually calculated, this usually results in further improved values which are guaranteed.