



HydrLogic panel

WATERCHILLED
RAISED FLOOR PANEL



HydroLogic panel



The soaring demand for data services is challenging many hosters and data center operators to ensure the economic operation of their data centers, especially at high packing densities per rack.

Weiss Doppelbodensysteme GmbH now bears this challenge with the development of the system "HydroLogic Panel".

In this system water is used as a medium for heat dissipation. Water is channeled through the raised floor in the cold and hot aisle.

High-performance fans ensure the demand-oriented air flow, by sucking in the air from the hot aisle and blow it out in the cold aisle, in each case through the heat exchanger.

The respective elements are designed for the size 600 x 600 mm and thus fit exactly into the existing pitch of the raised floor in the data center. Special sizes can be realized on customer request.

At a water supply temperature of 12°C and a discharge temperature of 18°C, a heat dissipation of 10 kW per plate is achieved.

HydroLogic panels can be placed in front and behind the rack for maximum heat dissipation up to 20 kW per rack.

Both, closed circuits from one rack and open circuits for multiple racks can be created.



TECHNICAL DATA

Panel

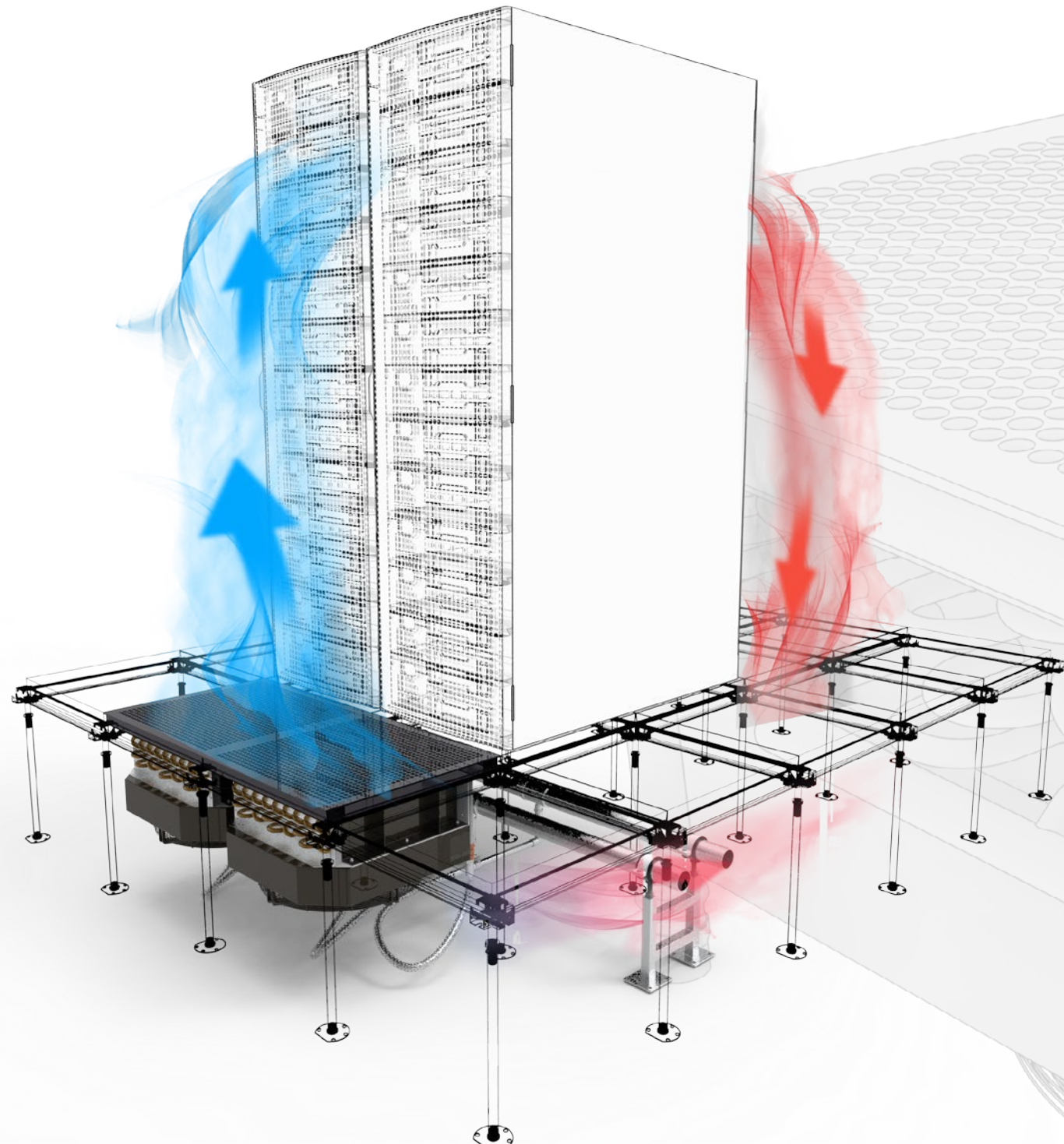
Admeasurement	600 x 600 mm
Thickness	350 mm, without cover
Topside	PVC, HPL, rubber
Bottomside	EC-fan
Weight	36 kg
Material	steel, powder coated
Building Material class	A1
Free air outlet	39%
Resistance to ground	10^8 Ohm (depends on covering)

Load bearing capacity

Point load	3 kN
Ultimate load	> 6 kN
Finish floor heights	450 - 2000 mm

Performance

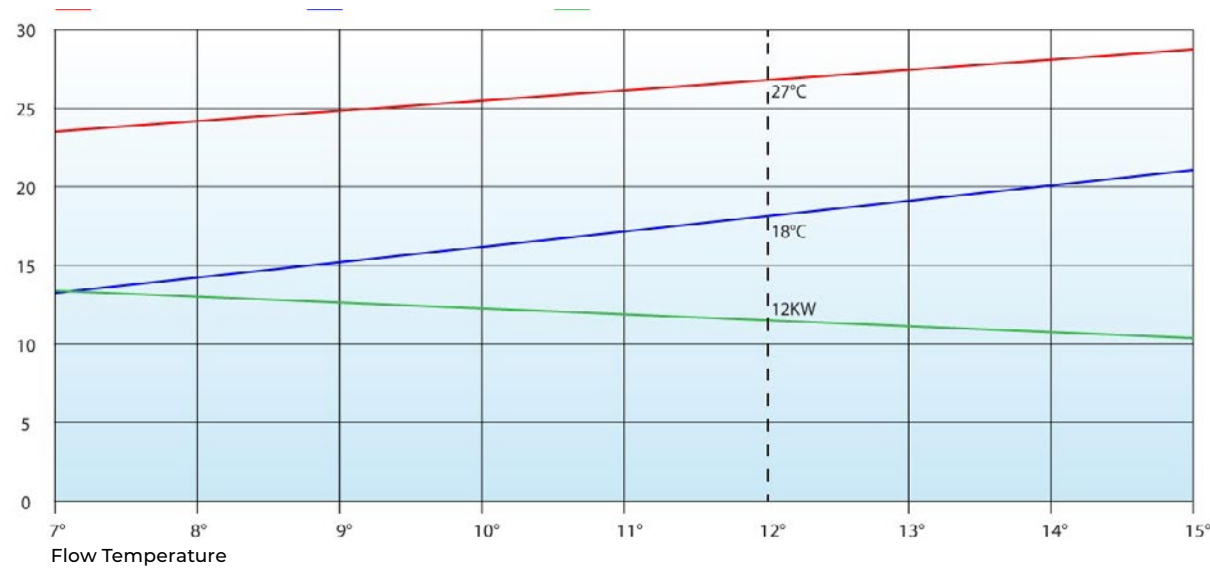
Voltage	230 V
Power consumption	140W
	400w XL Version
Spread water	12°C / 18°C
Water volume	1,43 m ³ /h
Air supply temprature	21° - 30°C
Water connector	3 / 4"
Max Pressure	10 bar
Pressure loss	1 bar max
Cooling media	Water- or glycole-water mix



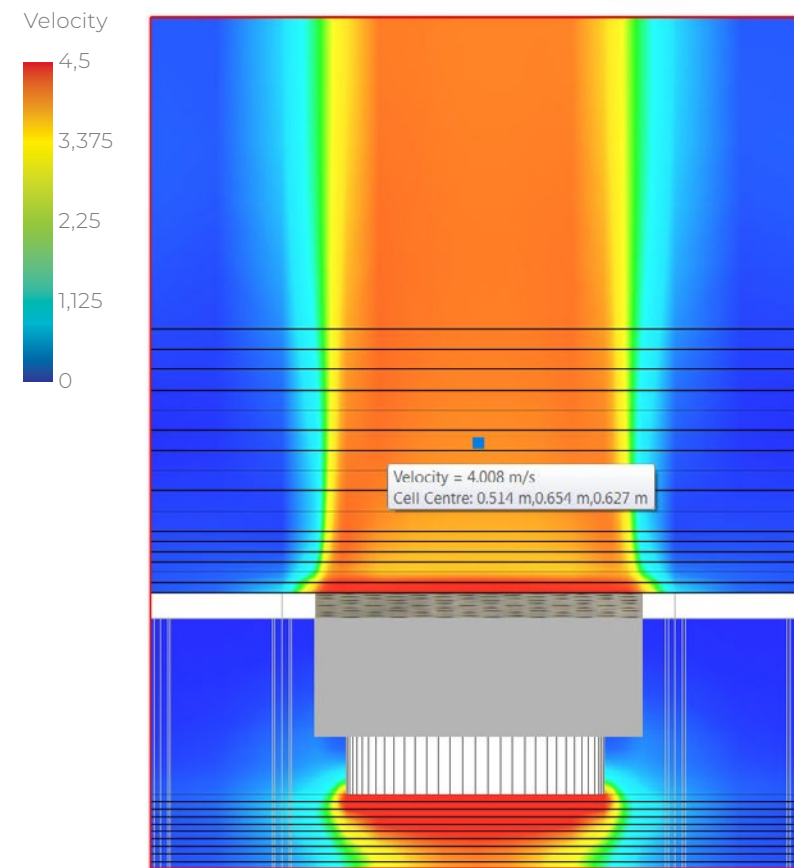
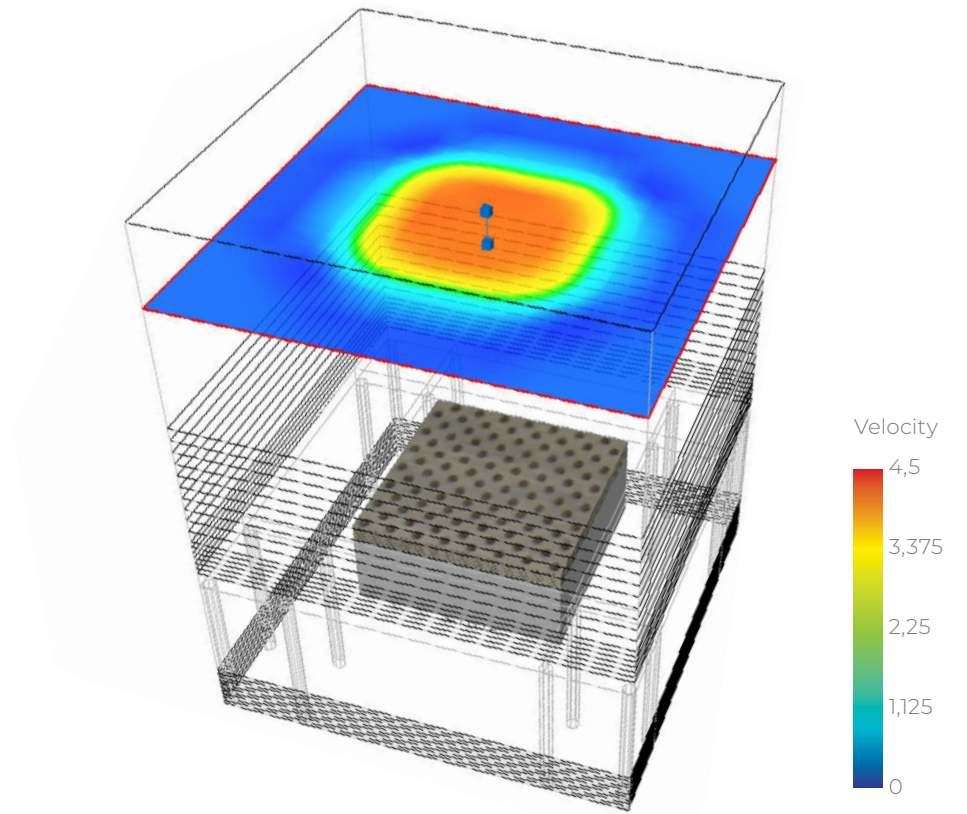
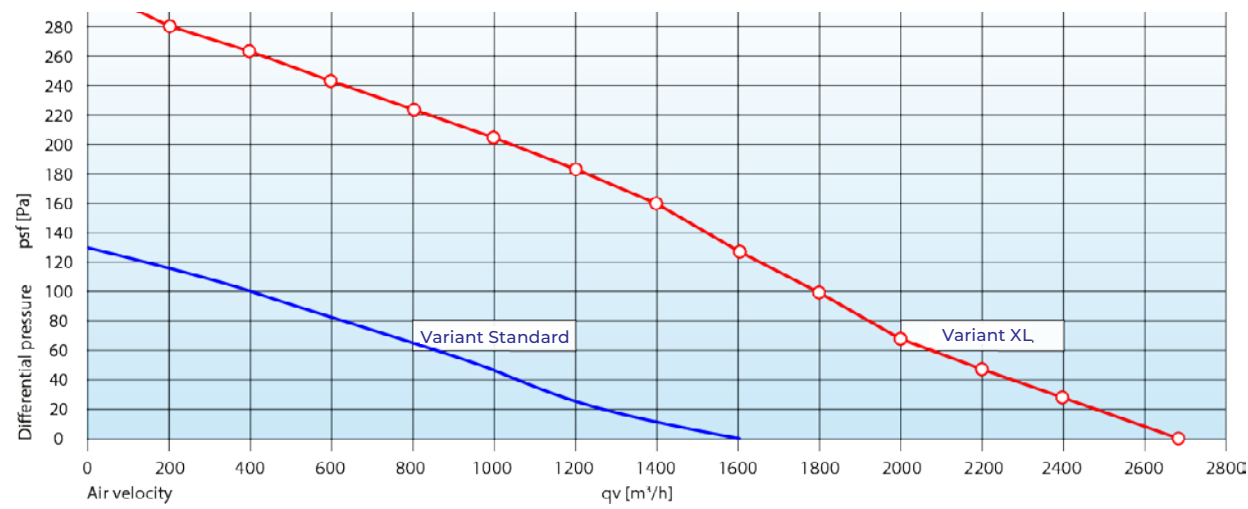
MEASUREMENTS

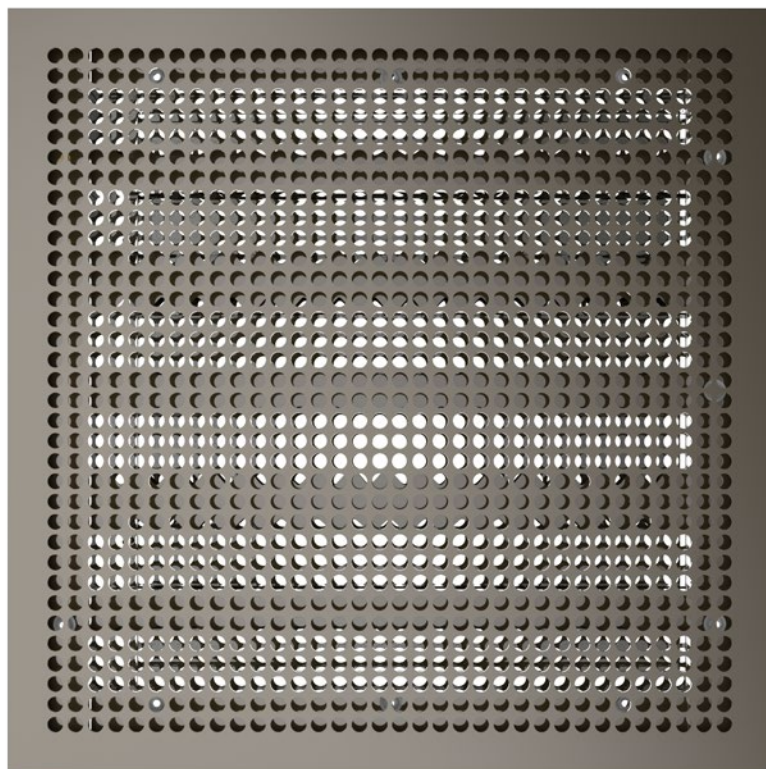
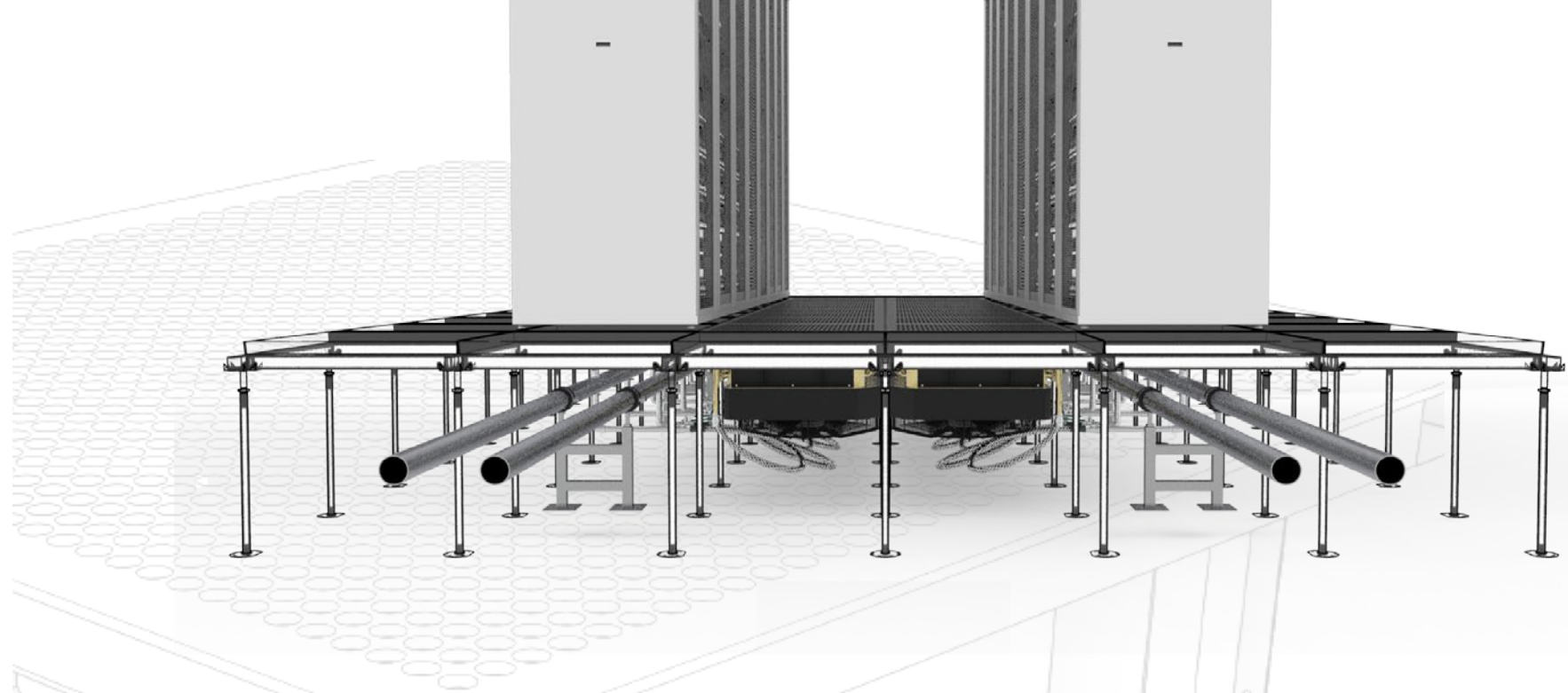
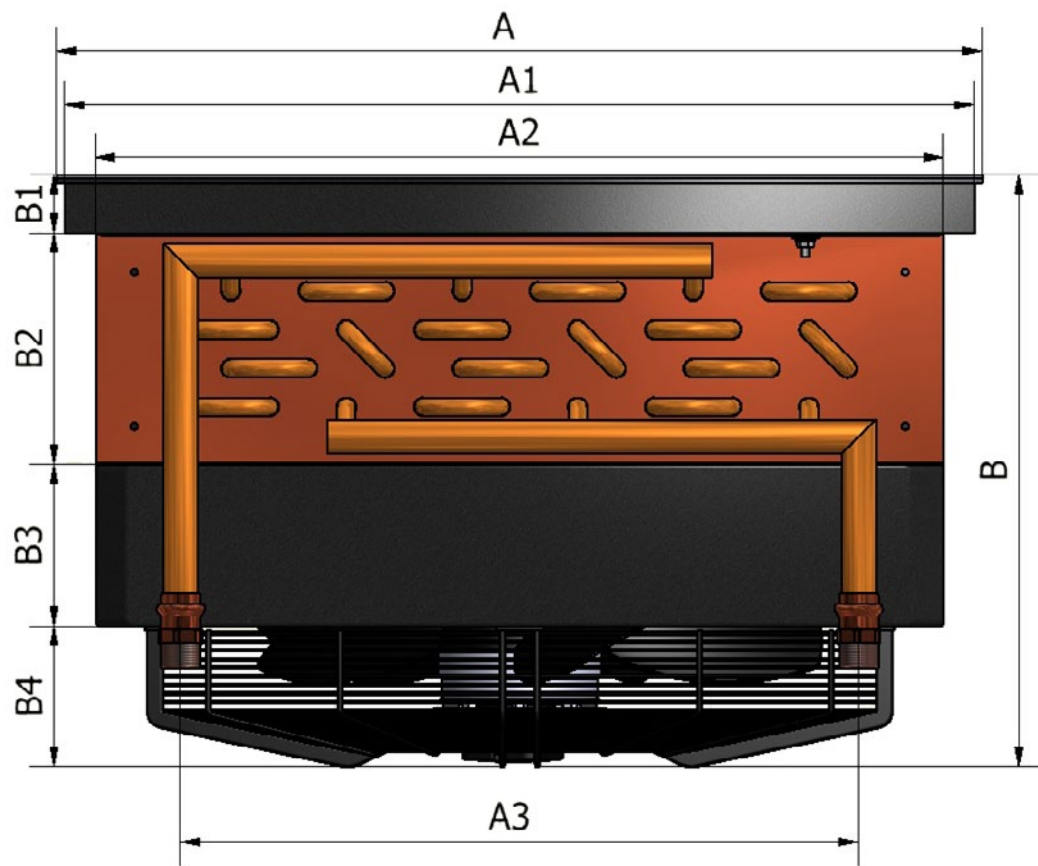
CFD SIMULATION

Water feed temperature

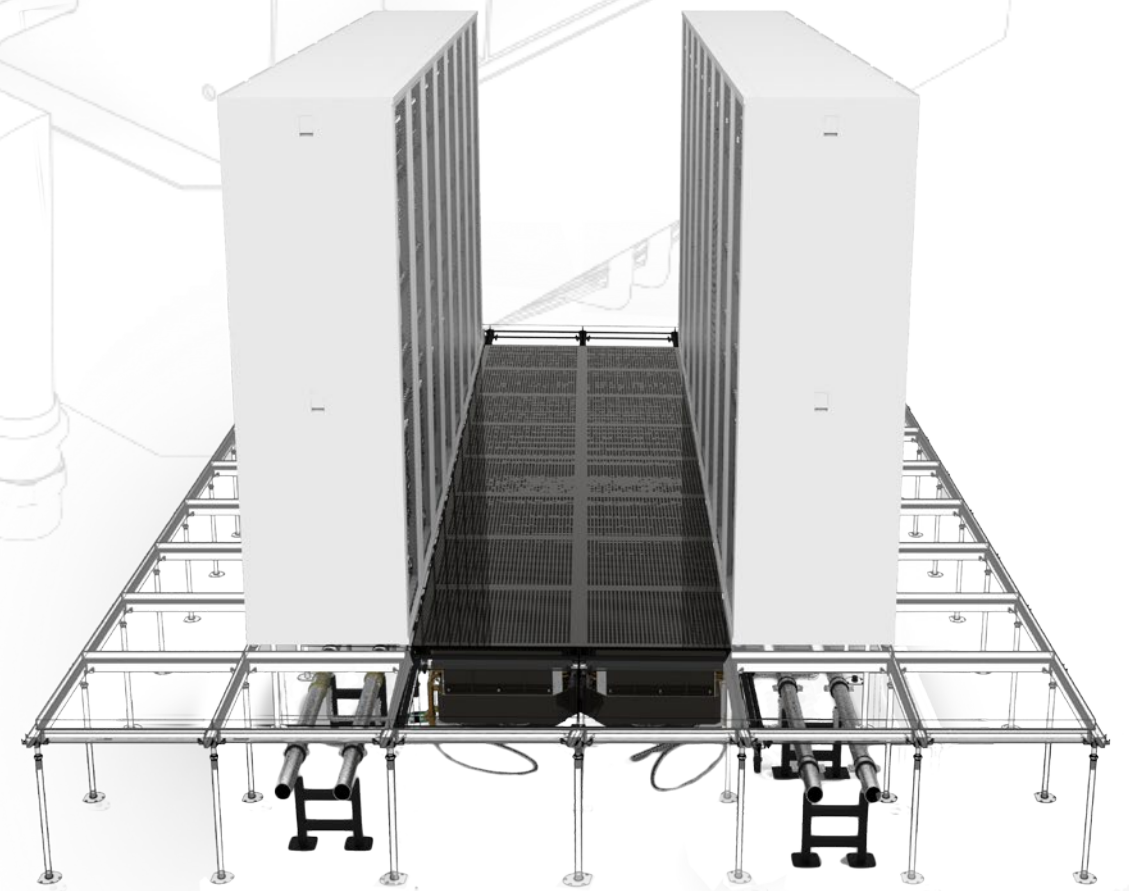


Air output





A	600 mm
A1	590 mm
A2	550 mm
A3	440 mm
B	350 mm
B1	38 mm
B2	150 mm
B3	105 mm
B4	57 mm



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