

Backcooler

iQdata cooling



Product description

The backcooler is mounted directly on the rear wall panel of the IS-1 cabinet, preventing warm server exhaust air from entering the installation room.

The thermal energy from the IT components is taken up by the backcooler without any additional fans and can be conveyed to the re-cooling system by means of the cold water contained in it.

The elimination of the fans and the especially low hydraulic pressure loss on the air side makes the backcooler especially energy efficient.

The backcooler replaces the server cabinet rear door and can be opened to 180 °.

Special water-carrying hinges prevent the connecting supply lines from becoming twisted. The cold water flow resistance on the water side is extremely low.

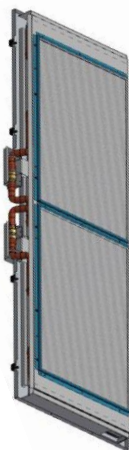
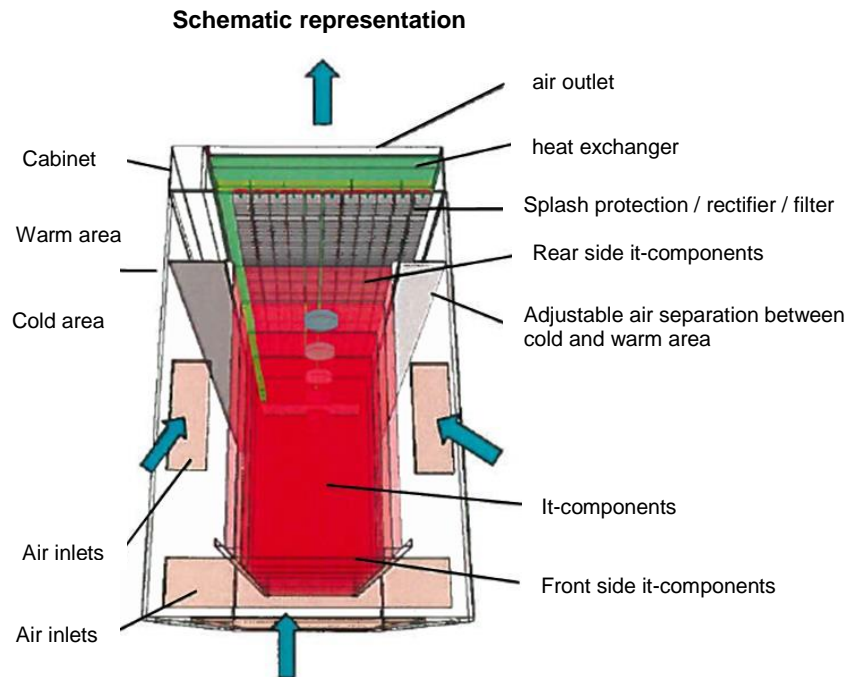
A rectifier guarantees that air flow through the heat exchanger is even.

The rectifier is equipped with a filter class G3 air filtering function in acc. with DIN EN 779.

Separation of the warm and cold sections of IS-1 cabinets takes place in the rear section containing the IT components. Thus, the IT components are located in the cold section of the rack and no thermal energy can be transmitted back to the server or blades. Switches can be installed in the cabinets without any additional effort (AirTube). Due to the very small area containing warm air, thermal energy radiating out into the installation room is prevented.

Customer benefits:

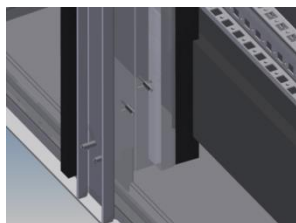
- No additional thermal load in the room
- Cold room concept, i.e., the room temperature remains cool
- No warm areas in the server room
- Low space requirement



The cold water connection is made via a special pipe assembly, in which water-carrying swivel joints are integrated.

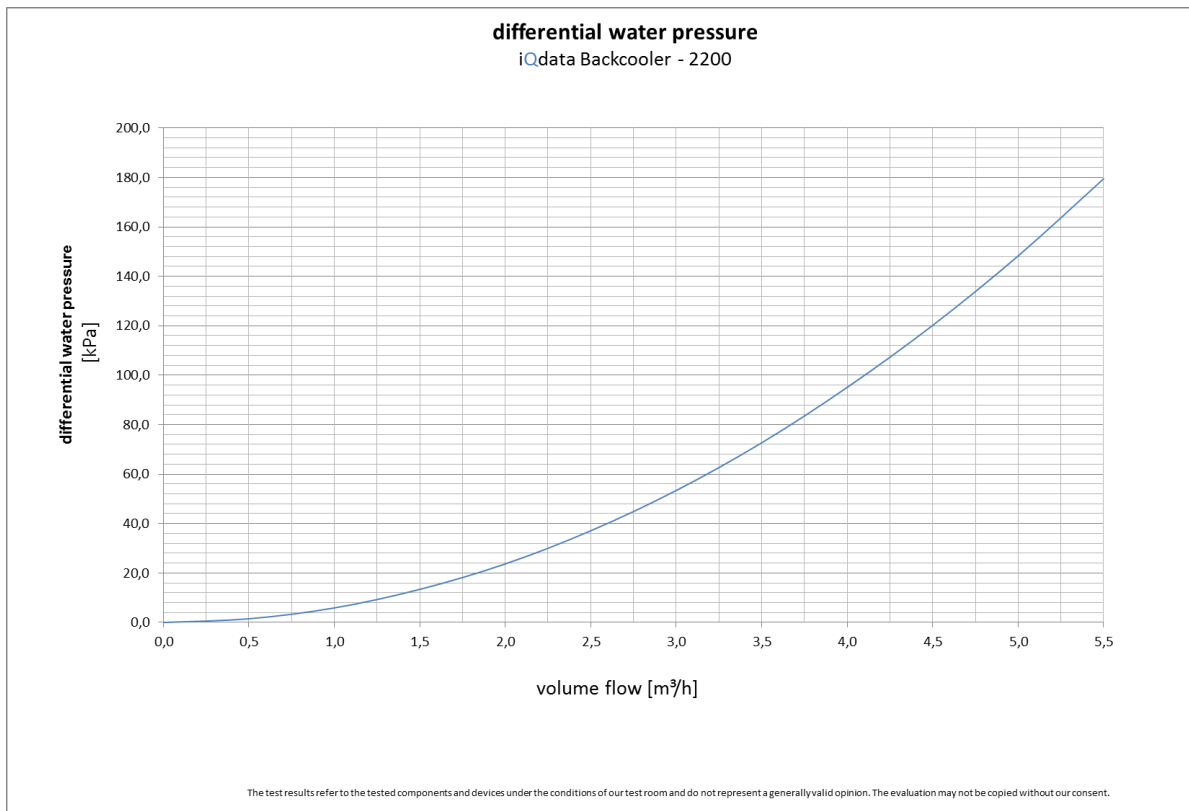
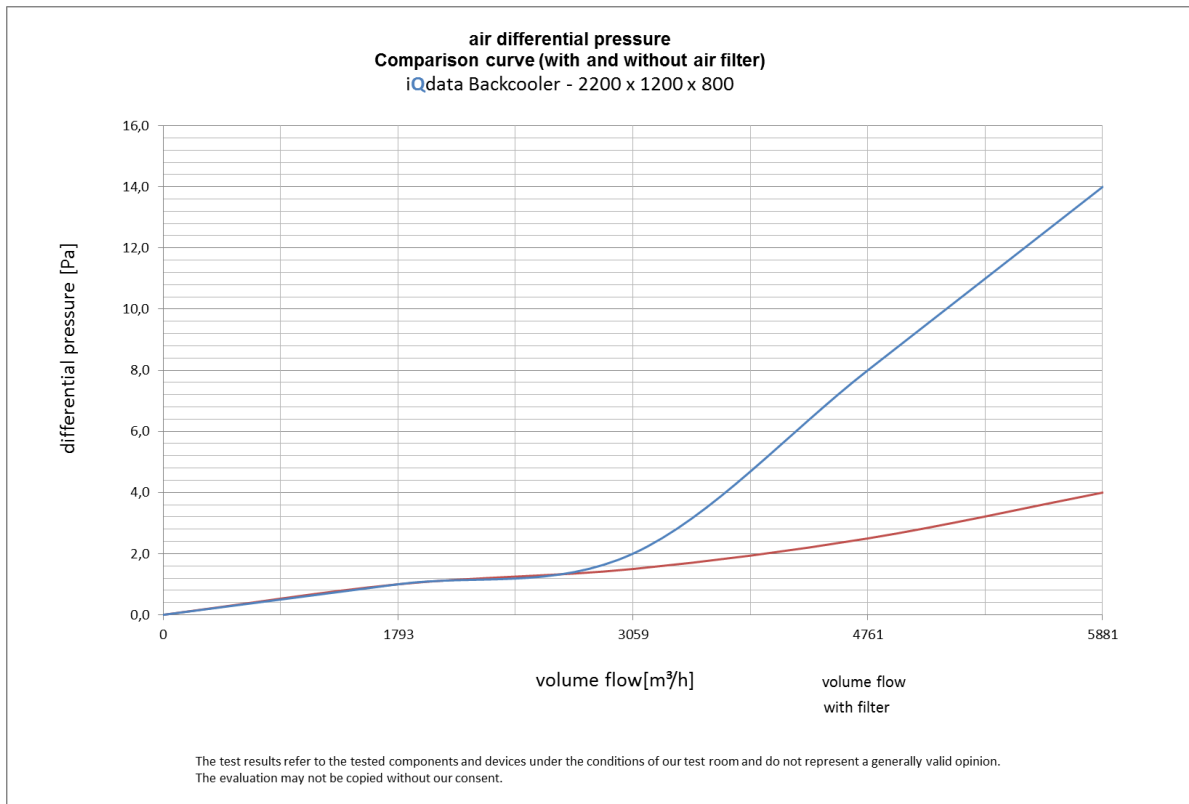
User benefits:

- No cross-over of cold water flow and cold water return
- Very low installation depth (90 mm)



- The adjustable air separation panels can be adapted to the respective IT components.
- Special brush strips provide the sealing

A very large hydrophilic heat exchanger surface enables high chilled water flow temperatures with a low pressure drop on the air side.



Technical data:

Cooling air

Housing:	Sheet steel, coated
Rack dimensions	
Height	2200 mm
Width	800 mm
Depth of the backcooler	90 mm (hinge section 120 mm)
Temperature range, air side:	Room temperature 25 °C
Max. room air humidity:	8 g/kg tr. air (operation above dew point necessary)
Outflow temperature from heat exch.:	25 °C
Air temperature difference:	25 K
Cooling capacity:	30 kW

Cooling water:

Cooling water flow:	18 °C
Cooling water outlet:	24 °C
Cooling water volume flow	4.3 m ³ /h
Maximum operating pressure:	10 bar
Connection to building network:	1" flat sealing external thread
Cooling water flow:	18 °C

The values are dependent on the servers that are installed in the racks and thus may deviate accordingly.