STULZ

CLIMATE. CUSTOMIZED.

# AirBooster 2

**More efficient cooling of server racks thanks to airflow management for targeted cooling of hot spots**

# The complete range of air conditioning technology – from one source.

**For over 50 years, the STULZ family-run company has been synonymous with precision air conditioning at the highest level.**

**Our solutions for the air conditioning of business-critical applications and sensitive systems have made us a leading company in our industry.**

Whether for data centers, industry or communication technology, the STULZ portfolio has a tailor-made cooling solution to suit your requirements.

We guarantee adherence to our uncompromisingly high requirements and quality standards both at our factory in Hamburg and all our production sites around the globe. Moreover, we work hard not only to satisfy our customers' individual wishes, but also to make sure our air conditioning solutions offer maximum energy efficiency and a minimal $CO_2$ footprint.

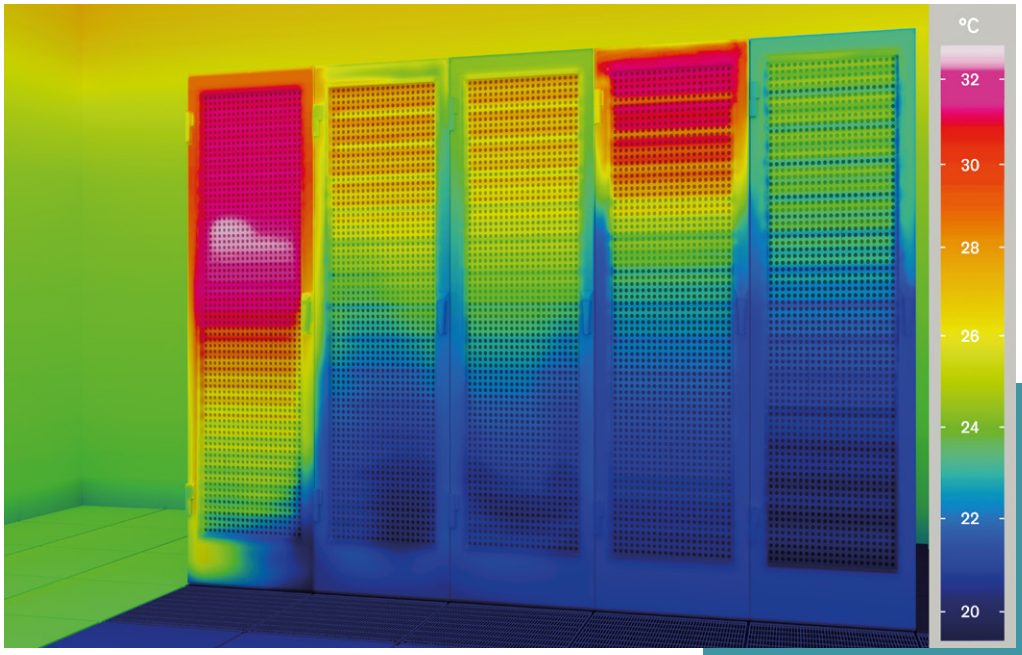
Our portfolio extends from traditional room cooling and High Density Cooling to chillers, air handling units and container modules, all the way to micro data centers, service, and our self-developed monitoring software. An all-embracing quality assurance system monitors all the details in development, production, implementation, and service.

Today, STULZ has a presence in more than 140 countries. STULZ GmbH has 23 subsidiaries and eleven production sites in Europe, India, China, and North and South America. We also have partner agreements with numerous sales and service partners on every continent. Our network of highly qualified specialists is a reliable guarantee of the highest standards.

The combined wealth of our experience, values, performance and service is what defines us and is especially valued by our customers. Air conditioning solutions – custom tailored and from one source: **ONE STULZ. ONE SOURCE.**

**ONE** STULZ. **ONE** SOURCE.

# Airflow management for data centers




A thermographic image renders hot and cold zones in the data center visible. This is how you can recognize critical zones in your server racks.

Server racks deployed in a data center feature different heat loads according to the application. In this era of server virtualization and cloud technologies, changing utilization is a matter that has to be addressed.

It results in the over or undersupply of cold air to your servers, which can lead to increased operating costs or even overheating with subsequent server failure.

If you operate a data center with traditional closed-circuit air conditioning and want to cool your servers based on need, STULZ has the ideal airflow management solution for you.

In just a few simple steps, the AirBooster 2 units from STULZ can be installed in the existing raised floor directly in front of the server rack, where they immediately ensure optimum air conduction and hot spot prevention.

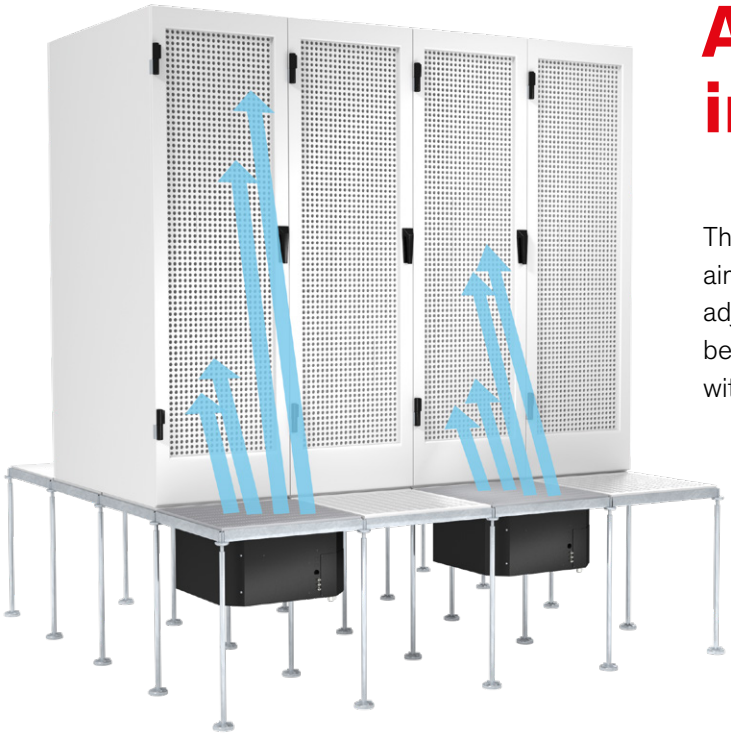
## Benefits at a glance

- Control based on cooling needs for an efficient and reliable air supply
- Easy installation, operational in minimal time
- UL and CE compliant
- Can be connected to BMS systems
- Grills available in two designs for individual requirements
- Perfect fit for standard raised floor systems with grid size 600 mm x 600 mm
- Low height allows installation under the raised floor (400 mm)
- Service available worldwide

# AirBooster 2 – For targeted cooling of hot spots

Do you want cooling precisely targeted at hot spots in your data center? The AirBooster 2's manually adjustable air conduction fins are designed to provide just this kind of pinpoint accuracy. The fins are precisely positioned to target locations that require increased cooling. This way, a concentrated flow of air acts on hot spots. The result is ideal supply air conditions without complicated and expensive installations and enclosures.


1. Microcontroller
2. EC fan
3. Adjustable air conduction fins



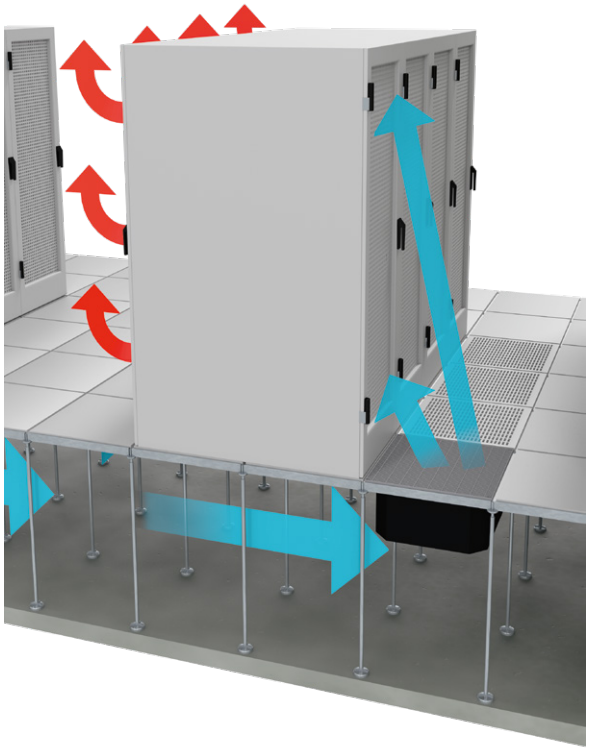
# Air conduction in two zones

The air stream from the AirBooster 2 units can be aimed at two zones per server rack. The manually adjustable air conduction fins allow the airflow to be directed to the most heat-stressed areas, in line with server load.

The units are fitted with a variable-speed EC fan, a controller and several temperature sensors. These sensors, which are affixed to the server at different heights, measure the temperature of the air at the server inlet. The controller regulates the fan speed based on the measured temperature values and a configurable setpoint. If the server inlet temperature rises, the fan speed is increased to guarantee sufficient cooling of servers.

## Benefits at a glance

- High precision cooling of hot spots in server racks
- Easy installation, operational in minimal time
- Adjustable air conduction fins for targeted air conduction in two zones
- EC fan for pinpoint accuracy of airflow supply
- Airflow of up to 4,360 m³/h
- Temperature measurement by three sensors
- Optional pressure control
- Low power consumption in rated operation
- No enclosure required



# Optimum operating conditions thanks to smart control

**For units with integrated control**

- User-friendly interface and display
- RS485 interface for BMS
- RTU Modbus protocol
- Connection terminals for remote control On/Off
- Auxiliary contact for general alarm signals
- Three temperature sensors
- Unit of measurement on temperature display: °C or °F
- Illuminated On/Off switch
- LED status light

# Grills in two designs

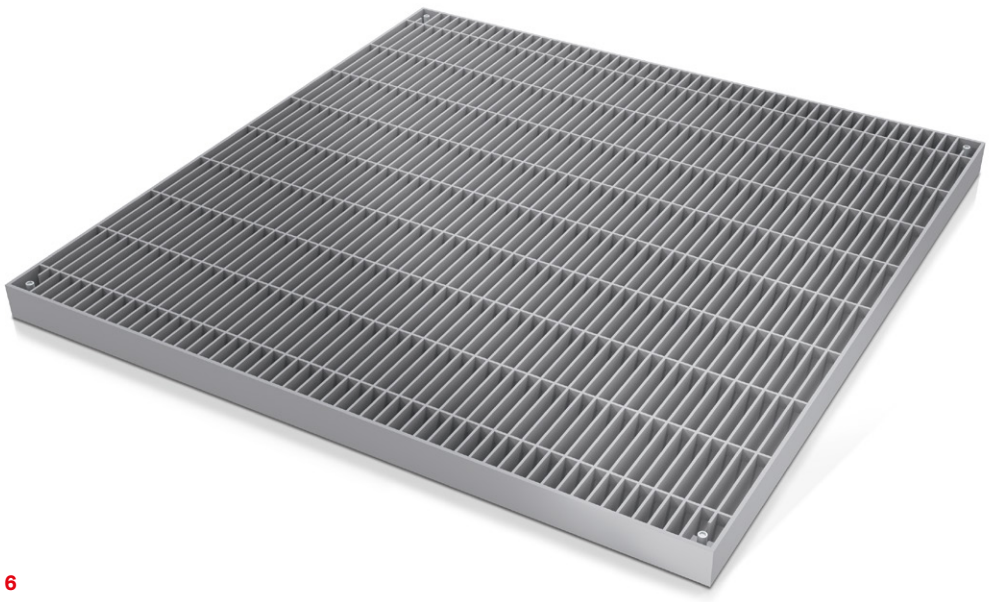
Airflow management units are supplied with either a light-duty or a heavy-duty grill, depending on requirements.

**Light-duty grill for optimum air conduction**

- Flow-optimized grill for small pressure drops
- BS EN 13264:2001 classification
  - Distributed load 33 kN/m²
  - Point load 1.5 kN over 25 mm × 25 mm surface area
- Dimensions (width x length x depth): 598 mm x 598 mm x 20 mm
- Can be adjusted to various raised floor grill thicknesses: 23–44 mm
- Color: RAL 7047

**Heavy-duty grill for protection against mechanical stress**

- Available as an option
- Protects the units against loads relating to lift trucks
- BS EN 13264:2001 classification
- Point load 4.5 kN over 25 mm × 25 mm surface area
- Dimensions (width x length x depth): 598 mm × 598 mm × 30 mm
- Can be adjusted to various raised floor grill thicknesses: 33–44 mm
- Color: RAL 7047



# Technical data

| | | Airflow 2,900 m³/h | Airflow 4,360 m³/h |
|---|---|---|---|
| **Dimensions** | | | |
| Width, length | mm | 598 × 598 | 598 × 598 |
| Depth | mm | 260 + grille | 260 + grille |
| **Power consumption** | W | 75 | 474 |
| **Cooling capacity** | | | |
| Delta T[1] 10 K | kW | 10 | 15 |
| Delta T[1] 15 K | kW | 15 | 22 |
| Delta T[1] 20 K | kW | 19 | 29 |

**Remark:**

[1] Delta T: Difference in air temperature between the server inlet and server outlet

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SOUTH AFRICA
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THAILAND
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**+ 150 PARTNERS WORLDWIDE**

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