

# Welcome

**STULZ**

CLIMATE. CUSTOMIZED.





Production, distribution, installation, start-up, service and maintenance of precision air conditioners, chillers and air handlers; sale and maintenance of air humidifiers and comfort air conditioning systems; service and facility management.

- Sales approx. 450 million euros
- Employees worldwide approx. 2,400



montaplast

Development and production of plastic precision parts for the automotive industry.

- Sales approx. 850 million euros
- Employees worldwide approx. 4,800

World leading.

The STULZ logo consists of the word "STULZ" in a bold, white, sans-serif font, centered within a red rectangular box. The box has a thin white border.

**11 production plants**

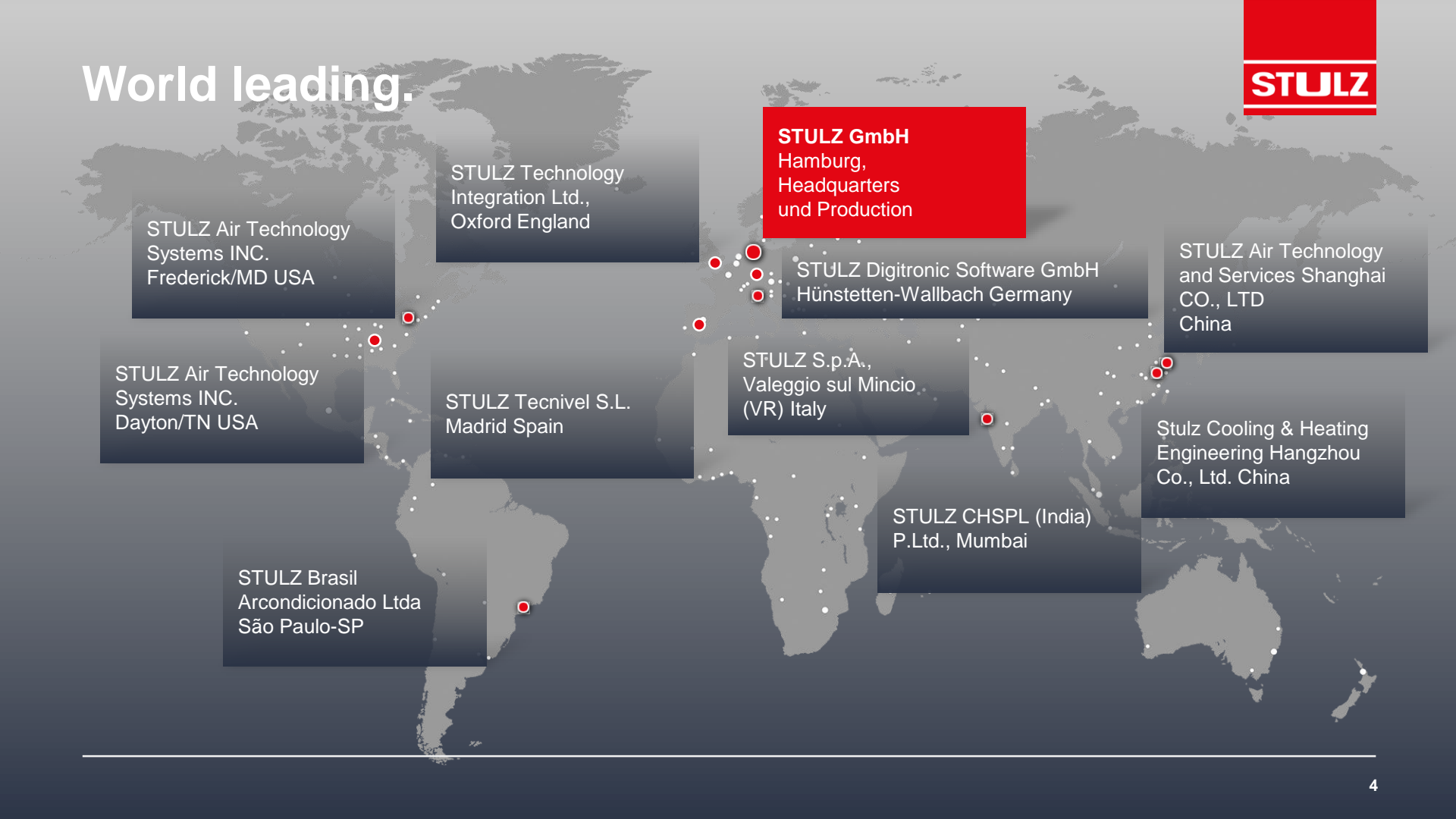
20 subsidiaries

More than 130 partners worldwide

**2,400 employees**

Turnover 450 million euros

# World leading.



STULZ Air Technology  
Systems INC.  
Frederick/MD USA

STULZ Technology  
Integration Ltd.,  
Oxford England

**STULZ GmbH**  
Hamburg,  
Headquarters  
und Production

STULZ Digitronic Software GmbH  
Hünstetten-Wallbach Germany

STULZ Air Technology  
and Services Shanghai  
CO., LTD  
China

STULZ Air Technology  
Systems INC.  
Dayton/TN USA

STULZ Tecnivel S.L.  
Madrid Spain

STULZ S.p.A.,  
Valeggio sul Mincio  
(VR) Italy

Stulz Cooling & Heating  
Engineering Hangzhou  
Co., Ltd. China

STULZ CHSPL (India)  
P.Ltd., Mumbai

STULZ Brasil  
Arcondicionado Ltda  
São Paulo-SP

# STULZ GmbH corporate history in brief

- **1947** Foundation of the ALBERT STULZ Fabrik elektrotechnischer Geräte (ALBERT STULZ Electrical Appliance Factory)
- **1956** Foundation of the first subsidiary
- **1965** STULZ's first air conditioning system
- **1971** Specialization in data center air conditioning
- **1977** Development of modular precision air conditioning systems
- **1980s** Development of the first systems with Indirect Free Cooling and STULZ CompTrol control

The STULZ logo consists of the word "STULZ" in white, bold, uppercase letters, centered within a red rectangular box.

Data center with STULZ  
air conditioning 1980

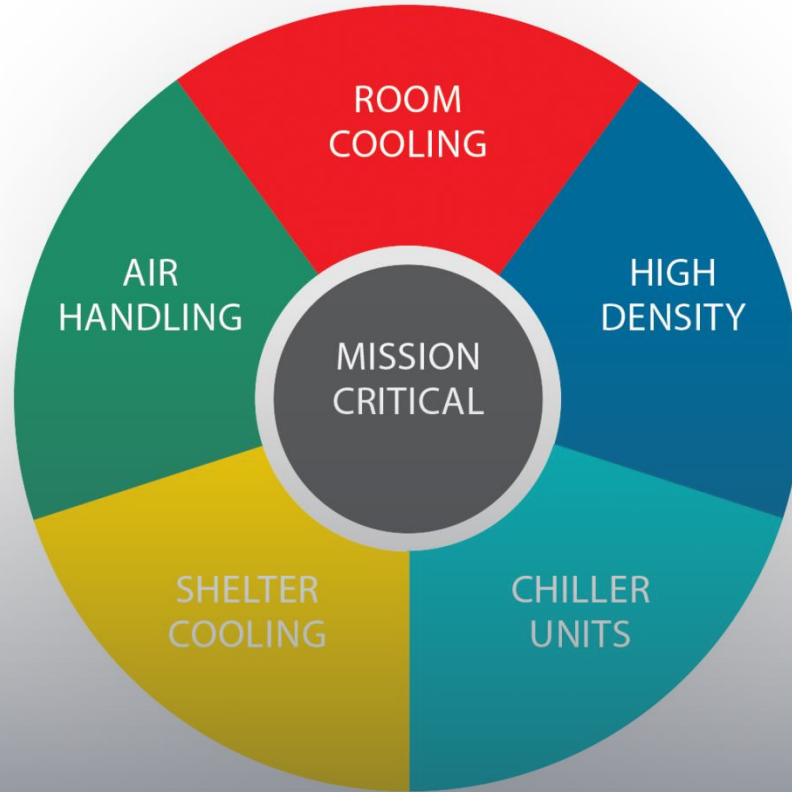
# STULZ GmbH corporate history in brief

- **1990s** Extensive developmental research and improvements to STULZ solutions
- **2004** Launch of CyberAir 1 – The world's first precision air conditioning system to be fitted with EC fans as standard
- **2009** CyberAir air conditioning system with Direct Free Cooling and fold-away heat exchanger
- **2012** Presentation of the CyberCool 2 chiller for data centers
- **2015** Launch of CyberAir 3PRO
- **2016** Launch STULZ Explorer
- **2017** Launch CyberRack



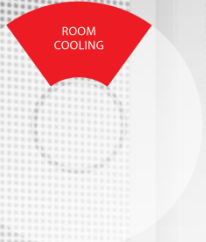
Data center with STULZ  
air conditioning 1980

# Mission Critical Cooling



# CyberAir 3PRO

**STULZ**

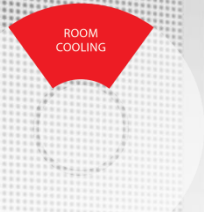


- **Maximum efficiency in cooling capacity**
- **High flexibility in air conduction and cooling system**
- **Use of EC technology for maximum efficiency**





# MiniSpace EC



- For small and modular Data Centers
- For small and modular Data Centers
- EC fans



**STULZ**

# CyberRow



- Targeted high-density cooling
- Can be used with racks from any manufacturer
- Available in 4 different cooling systems



**STULZ**

# CyberRack



HIGH  
DENSITY

- Rack-based CW cooling
- Can be used with racks from any manufacturer
- Individual adapter frame
- No discharge of hot return air in the IT room



STULZ



# AirBooster 2

STULZ

HIGH  
DENSITY

- Pinpoint cooling of hot spots in server racks
- Easy installation, operational in minimal time
- EC fan (AirBooster)

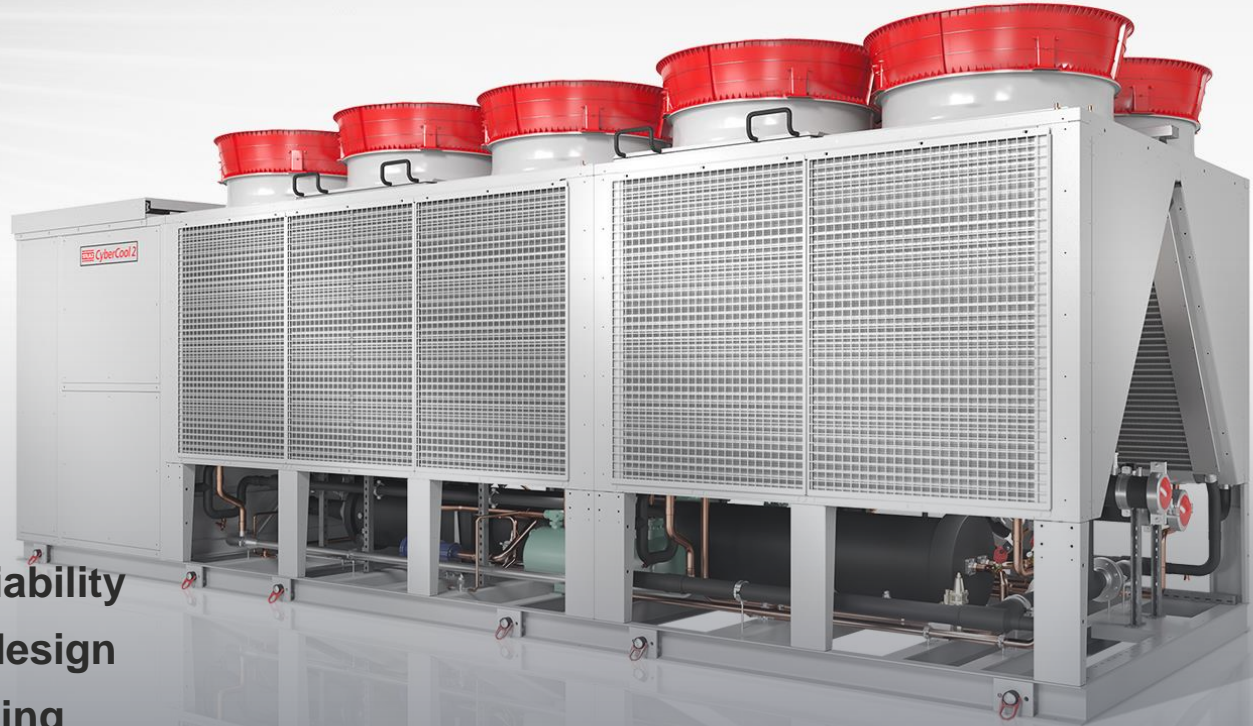


# CyberCool 2 (Air cooled outdoor)

**STULZ**

CHILLER  
UNITS

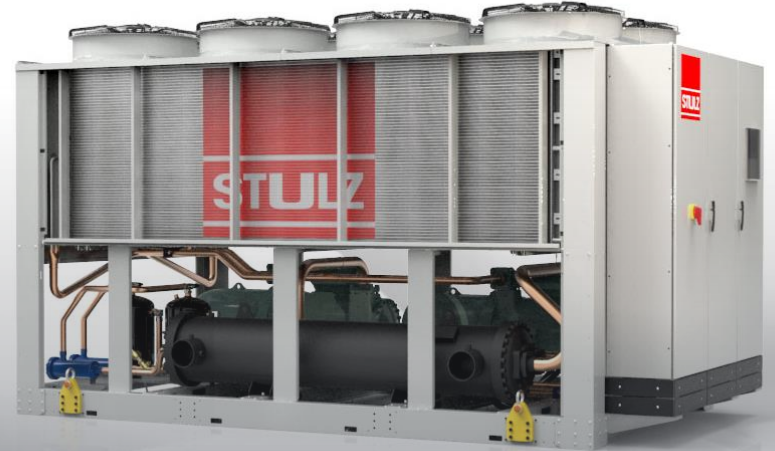
- Made in Germany
- Efficiency and reliability
- Noise-optimized design
- Indirect Free Cooling



# STULZ Explorer (Air cooled outdoor)

**STULZ**

CHILLER  
UNITS



- Compact design
- Standardized components
- Innovative control

# STULZ Explorer (Water cooled indoor)

**STULZ**

CHILLER  
UNITS

- 16 sizes
- Standardized components
- Easy installation



# Tel-Air 2

**STULZ**



- **Direct Free Cooling**
- **Low noise**
- **The units are plug and play and therefore immediately ready for connection and use**



# CyberHandler 2

**STULZ**

AIR  
HANDLING

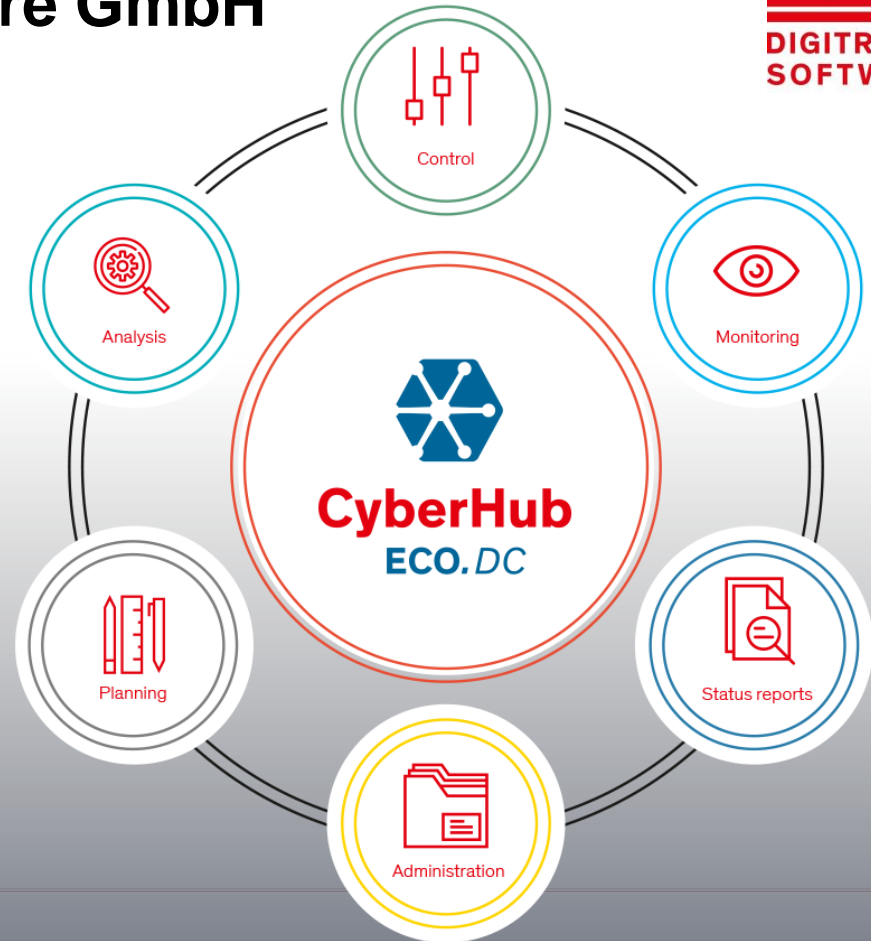


- Designed for the exacting requirements of Data Centers
- 11 standardized sizes
- Ready for roof and wall installation

# STULZ Digitronic Software GmbH

## CyberHub ECO.DC

- CyberHub makes control child's play
- Monitoring 24/7, 365 days a year
- Room planning included



The image shows the interior of a large industrial test chamber. The walls are made of polished stainless steel. On the left, there is a rack of various electrical components, including black cables and orange connectors. In the center, a large blue cabinet is visible, with a metal platform and stairs leading up to it. A large white rectangular panel is mounted above the blue cabinet. The ceiling is equipped with several long, bright fluorescent light fixtures. The floor is a smooth, light-colored surface.

**Leader in quality**

## Leader in quality

- ✓ Highest, globally uniform standards
- ✓ Extensive testing facilities at all sites
- ✓ Certified partner and supplier audits
- ✓ Compliance with (inter)national requirements, standards and laws
- ✓ Superlatively trained service personnel



**STULZ**

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**A company with a sense of family.**

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# A company with a sense of family.

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- ✓ Founded in 1947 by Albert Stulz Sr.
- ✓ Family-run business

## Corporate values:

- ✓ Integrity and loyalty
- ✓ Reliability
- ✓ Dynamism and flexibility
- ✓ Expertise



The STULZ logo is located in the top right corner of the image. It consists of the word "STULZ" in a bold, white, sans-serif font, centered within a red rectangular box. The box has a thin white border on its top and bottom edges.

STULZ

The text "Customer focus." is positioned in the lower-left area of the image. It is written in a white, bold, sans-serif font. Two horizontal white lines are placed above and below the text, extending across the width of the text block.

Customer focus.

## Customer focus

- ✓ The customer is at the heart of all we do
- ✓ Individualization of STULZ air conditioning solutions in line with customers' needs
- ✓ Industry-specific product developments and innovations
- ✓ TCO goal: Minimal overall costs for customers throughout service life
- ✓ Close to you around the world with advice, production and service at 150 sites



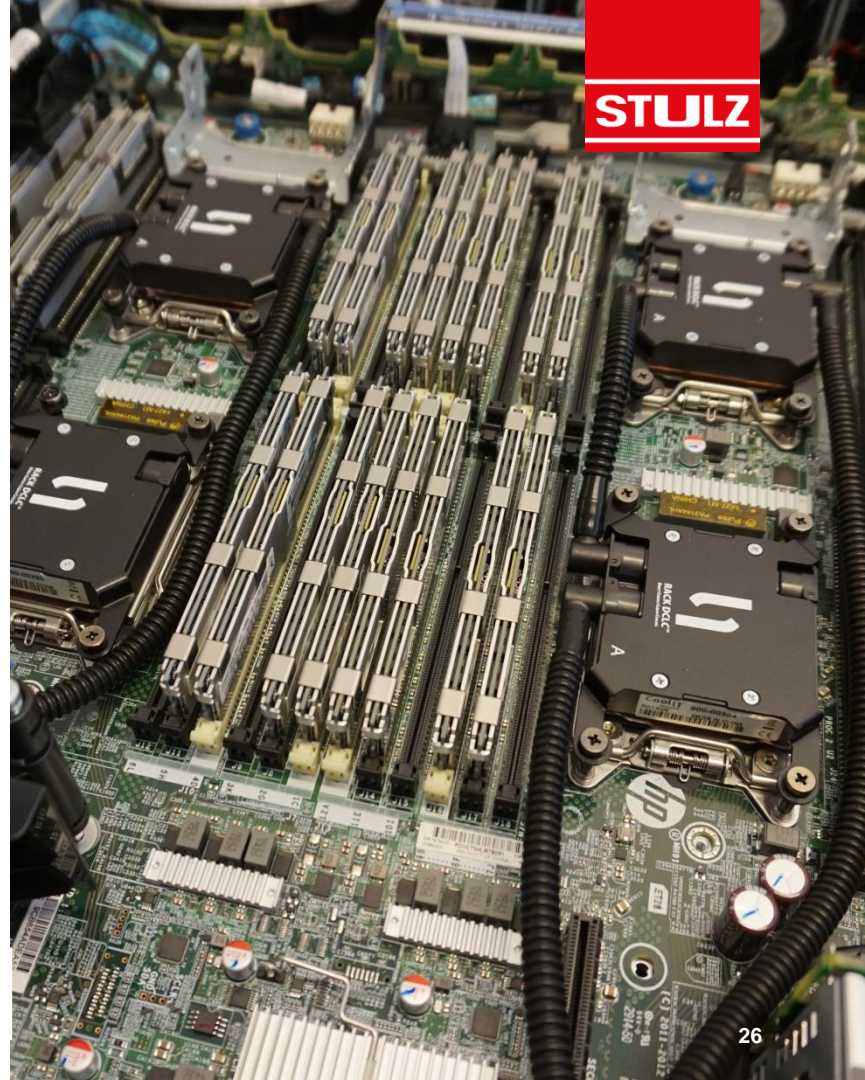
# People Innovation feeds on ideas

STULZ



# Hot topic: Direct Contact Liquid Cooling

- For HPC – High Performance Computing
  - Performance  
Achieve peak performance for higher powered or overclocked processors
  - Efficiency  
Benefit from a significant reduction in overall data center energy consumption
  - Density  
Enable 100% utilization of rack and data center space
- 

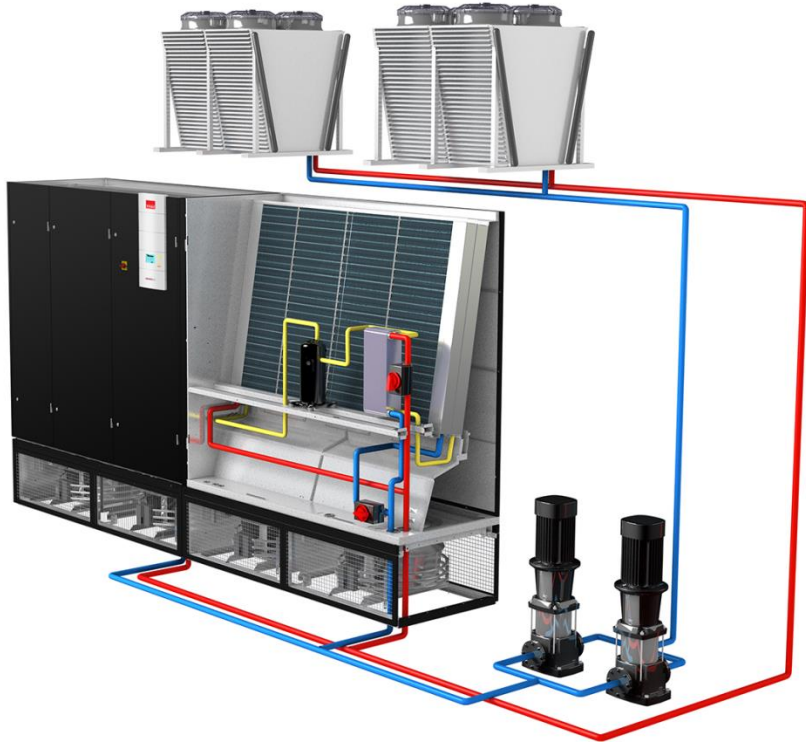


# Hot topic: CyberAir 3 Customizing.

- Specially tailored solution
- Enhanced unit and larger evaporator
- More cooling capacity



# Hot topic: Indirect dynamic free cooling



Up to 60 % savings on running costs with Indirect Dynamic Free Cooling

- The electronically controlled GE refrigeration system combines compressor cooling and Free Cooling in four stages:
  - FC – Free Cooling energy-saving mode
  - EFC – Extended Free Cooling mode
  - Mixed – Compressor and Free Cooling
  - DX – Compressor cooling

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**Sustainability and  
environmental responsibility**

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# Sustainability and environmental responsibility

With our products and solutions, we are leading the way in terms of energy efficiency, and are also part of the solution in the global climate discussion.

Air conditioning systems from STULZ reduce electricity consumption by up to 90 %.

The STULZ logo is located in the top right corner of the slide. It consists of the word "STULZ" in white, uppercase, sans-serif font, centered within a red rectangular box. The box has a thin white border on its top and bottom edges.

**STULZ**

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# Products

**STULZ**

ROOM  
COOLING







## CyberAir 3PRO DX ASR

- Cooling capacity 30 kW – 150 kW
- Reduced fan power consumption thanks to its location in the raised floor
- More sizes of EC compressor
- Increased cooling capacity per footprint
- 2 cooling systems (A, AS, GE, GES)
- 6 sizes, EC technology
- Direct and Indirect Free Cooling
- Many options



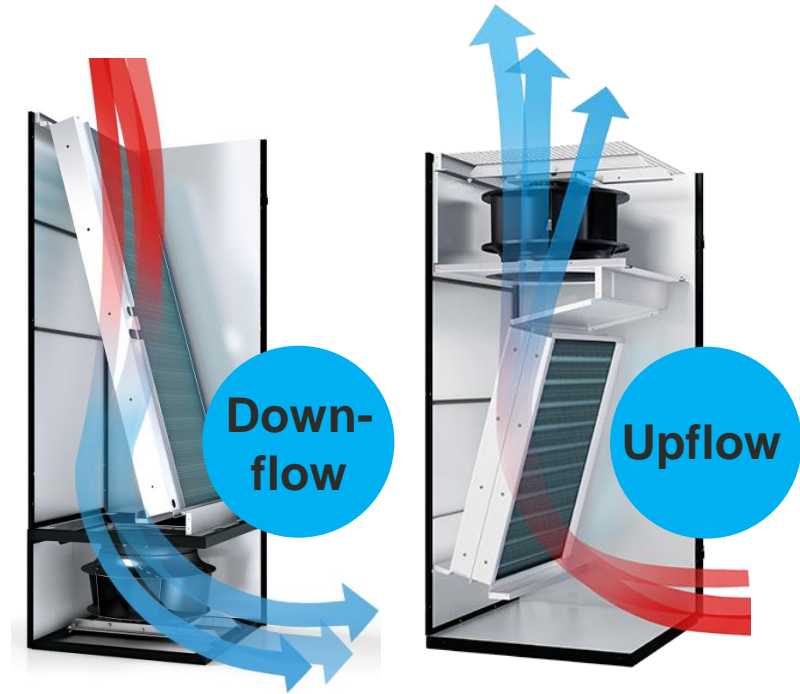
## CyberAir 3

- Cooling capacity 17 kW – 103 kW
- 8 cooling systems
- 5 sizes
- EC technology
- Direct and Indirect Free Cooling
- 3 refrigerants
- Upflow and downflow
- Depending on the system available with redundancy in the unit
- Many options



## CyberAir 3PRO CW

- Cooling capacity 25 kW – 220 kW
- Reduced fan power consumption thanks to its location in the raised floor
- Enlarged filter areas,
- Increased cooling capacity per footprint, 6 sizes
- EC technology
- Uüflow and downflow
- Direct Free Cooling
- Many options



## CyberAir 3PRO CW

- Available with 3 different heat exchangers
- Improved cooling unit geometry
- Reduction in water and air-side pressure drops
- EC fan with 630 mm diameter
- Reduced power consumption and noise
- Increased airflow in each size



## MiniSpace EC

- Cooling capacity 5 kW – 25 kW
- For small and medium-sized IT rooms
- 3 cooling systems (A, G, CW)
- Direct Free Cooling
- Upflow, Downflow, Displacement
- EC fan
- Maximum cooling capacity with a minimal footprint

# Products

**STULZ**

HIGH  
DENSITY





## CyberRow

- Cooling capacity 20 kW – 58 kW
- Direct rack cooling
- Indirect Free Cooling
- Can be used with racks from any manufacturer
- 4 cooling systems A, CW, G, GE
- EC fans
- EC compressor



## CyberRow

- 3 different widths for flexibility (300mm, 400mm, 600mm)
- 2 different depths (1,000mm and 1,200mm)
- Standalone cooling device
- For rooms with and without raised floor (with containment and without containment)
- Precise temperature control with two mutually independent setpoints





## AirBooster 2 & Air Modulator 2

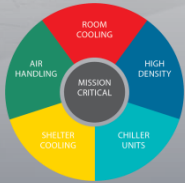
- Easy installation, operational in minimal time
- Pinpoint cooling of hot spots in server racks
- For installation in areas with insufficient air supply
- Specially developed for the standard dimensions of raised floor grills
- EC fan

# Products

**STULZ**

**AIR  
HANDLING**

CyberHandler 2





## CyberHandler 2

- Cooling capacity 30 kW – 520 kW
- Direct and Indirect Free Cooling
- Can be installed directly on top of a building or next to a building
- Modular design
- With adiabatic cooling
- EC fans

# Products



CHILLER  
UNITS

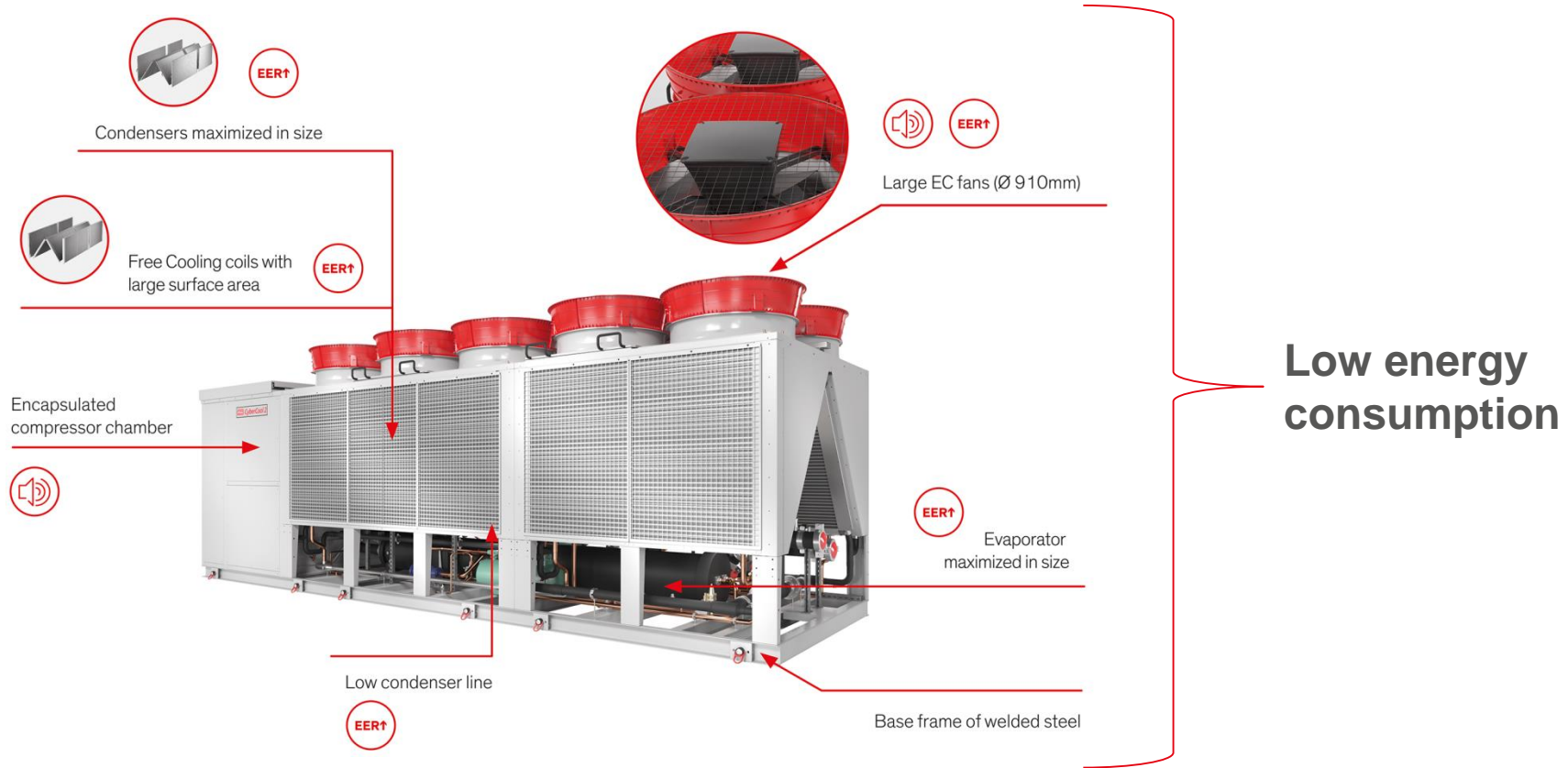




## CyberCool 2 (screw compressors)

- Cooling capacity 400 kW – 1,400 kW
- Indirect Free Cooling
- Low energy consumption
- Maximized coil surfaces
- Noise-optimized design
- Wide range of applications at outside temperatures from -40 to +55 °C
- Integrated quick-start routine

# CyberCool 2 – Maximized components





## CyberCool 2 (scroll compressors)

- Cooling capacity 50 kW – 600 kW
- Indirect Free Cooling
- Maximized coil surfaces
- Electronic expansion valve as standard for all models
- Isolated compressor chamber to reduce noise



## STULZ Explorer WSA and WPA

- Cooling capacity 370 kW – 1,260 kW (WSA screw compressors)
- Cooling capacity 160 kW – 565 kW (WPA scroll compressors)
- Indirect Free Cooling
- Electronic expansion valve as standard, controlled by the STULZ C2020
- Easy installation and machine connection
- Interchangeable components





## CyberCool 1 Outdoor

- Cooling capacity 36 kW – 235 kW
- Compact chillers for outdoor installation, ready for connection
- Indirect Free Cooling
- Chiller for medium-sized data centers
- Speed-controlled condenser
- Quiet, high-efficiency scroll compressor



## STULZ Explorer WSW

- Cooling capacity 230 kW – 1,530 kW
- 16 sizes
- Constant-speed screws combined with dry-expanding evaporators
- Available in standard and quiet design variants
- Single or dual circuit chiller versions



## STULZ Indoor Data Chiller

- Cooling capacity 20 kW – 100 kW
- Indirect Dynamic Free Cooling
- Minimum footprint
- 3 cooling systems
- Integrated pumps
- Easy maintenance – all parts accessible from the front
- Electronic expansion valve

# Products

**STULZ**



SHELTER  
COOLING





## Wall-Air Evolution for outdoor installation

- Cooling capacity 4.5 kW – 15.5 kW
- Direct Free Cooling
- Condensation pressure control
- Displacement principle
- EC compressor
- Microchannel heat exchanger
- Inside and outside temperature sensors
- Plug and play
- Automatic restart after power failure



## Tel-Air 2 for indoor installation

- Cooling capacity 4.5 kW – 12.5 kW
- Direct Free Cooling
- Condensation pressure control
- Downflow, Upflow, Displacement principle
- Plug and play
- Automatic restart after power failure
- Inside and outside temperature sensors



## Split-Air 3

- Cooling capacity 5.4 kW – 15.7 kW
- Direct Free Cooling
- Condensation pressure control
- Available with EC compressor
- Plug and play
- Automatic restart after power failure
- Suitable for residential areas due to its low noise



## Free-Air for indoor or outdoor installation

- Cooling capacity 3.5 kW – 6 kW
- Direct Free Cooling
- Energy efficient Free Cooling solution that can be retrofitted in existing systems
- EC fan
- Ready for operation on the very first day – easy mechanical and electrical installation
- Automatic restart after power failure



The STULZ logo is a red rectangle with the word "STULZ" in white, bold, sans-serif capital letters.The image shows a modern laboratory or server room. On the left, there are laboratory workstations with white cabinets, black countertops, and various scientific instruments. In the center, a black server rack stands prominently, featuring a control panel with a small screen and a large ventilation grille at the bottom. The room has a clean, professional appearance with a white ceiling and floor.

**Solutions for Hospitals, Laboratories  
and Archives**

# Hospitals, Laboratories and Archives – Precision Cooling



## CyberLab

- Cooling capacity up to 20 kW
- Satisfies the hygiene requirements of VDI 6022
- The market's first standardized unit for special applications of this kind
- EC technology
- High quality, perfectly harmonized components
- Precise control system

# Hospitals, Laboratories and Archives – Precision Cooling



## MiniSpace EC

- Cooling capacity 5 kW – 25 kW
- For small and medium-sized IT rooms
- 3 cooling systems (A, G, CW)
- Direct Free Cooling
- Upflow, Downflow, Displacement
- EC fan
- Maximum cooling capacity with a minimal footprint

# Hospitals, Laboratories and Archives – Precision Cooling



## CyberAir 3PRO DX ASR

- Cooling capacity 30 kW – 150 kW
- Reduced fan power consumption thanks to its location in the raised floor
- More sizes of EC compressor
- Increased cooling capacity per footprint
- Filter class F5
- 2 cooling systems (A, AS, GE, GES)
- 6 sizes, EC technology
- Direct and Indirect Free Cooling
- Many options

# Hospitals, Laboratories and Archives – Precision Cooling



## STULZ Indoor Data Chiller

- Cooling capacity 20 kW – 100 kW
- Indirect Dynamic Free Cooling
- Minimum footprint
- 3 cooling systems
- Integrated pumps
- Easy maintenance – all parts accessible from the front
- Electronic expansion valve

# Hospitals, Laboratories and Archives – Precision Cooling



## CyberCool 2 (screw compressors)

- Cooling capacity 400 kW – 1,400 kW
- Indirect Free Cooling
- Low energy consumption
- Maximized coil surfaces
- Noise-optimized design
- Wide range of applications at outside temperatures from -40 to +55 °C
- Integrated quick-start routine

The STULZ logo is located in the top right corner of the image. It consists of the word "STULZ" in a bold, white, sans-serif font, centered within a red rectangular box that has a thin white border.The text "Solutions for Industry" is positioned in the lower-left area of the image. It is written in a white, bold, sans-serif font. The text is framed by two horizontal white lines, one above and one below, which extend across the width of the text.



## CyberCool 2 (screw compressors)

- Cooling capacity 400 kW – 1,400 kW
- Indirect Free Cooling
- Low energy consumption
- Maximized coil surfaces
- Noise-optimized design
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- Integrated quick-start routine





## STULZ Explorer WSA and WPA

- Cooling capacity 370 kW – 1,260 kW (WSA screw compressors)
- Cooling capacity 160 kW – 565 kW (WPA scroll compressors)
- Indirect Free Cooling
- Electronic expansion valve as standard, controlled by the STULZ C2020
- Easy installation and machine connection
- Interchangeable components



## Tel-Air 2 for indoor installation

- Cooling capacity 4.5 kW – 12.5 kW
- Direct Free Cooling
- Condensation pressure control
- Downflow, Upflow, Displacement principle
- Microchannel heat exchanger
- Plug and play
- Automatic restart after power failure
- Inside and outside temperature sensors

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# Thank you very much

**STULZ**

CLIMATE. CUSTOMIZED.

