



Cooling Wall System Vindur® CoolW@ll®



Giving your equipment a deep breath.

From servers to HPC - for IT cooling, everything has to be optimally adapted to specific conditions. We will support you.



Cool ideas pay off.

Our world is becoming increasingly more digital. More and more IT with ever greater computing power is needed and has to be cooled. The demand for energy and space is rising rapidly. **weisstechnik** has quickly realised: "In the future, anyone wanting to improve space requirements and efficiency of IT cooling will need innovative ideas. So why not build walls that cool?" For our customers, this optimisation of IT cooling offers enormous saving potentials.

Simply clever - the wall becomes a heat exchanger.

Our unique cooling wall system Vindur CoolW@II is a real innovation in the area of IT air conditioning. Thanks to the use of large heat exchangers through which chilled water flows, the separation wall between IT and supply is used for cooling. This simple you will gain more space in data centres and can completely go without recirculating coolers.

Energy-efficient. High-performance. Flexible.

Cooling Wall System Vindur® CoolW@II®.

More power. Less consumption.

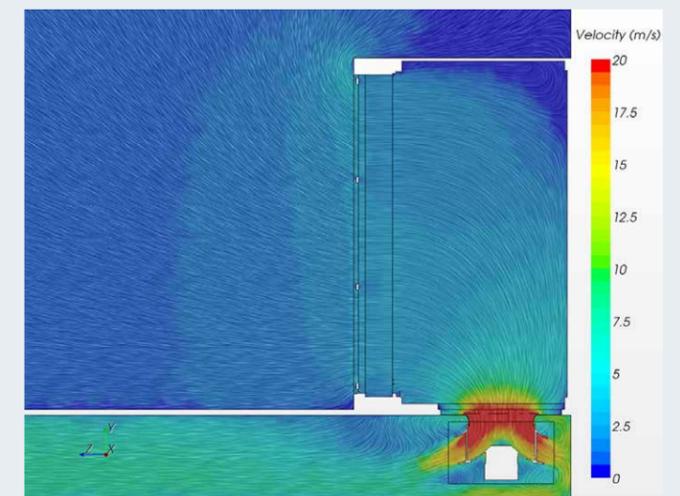
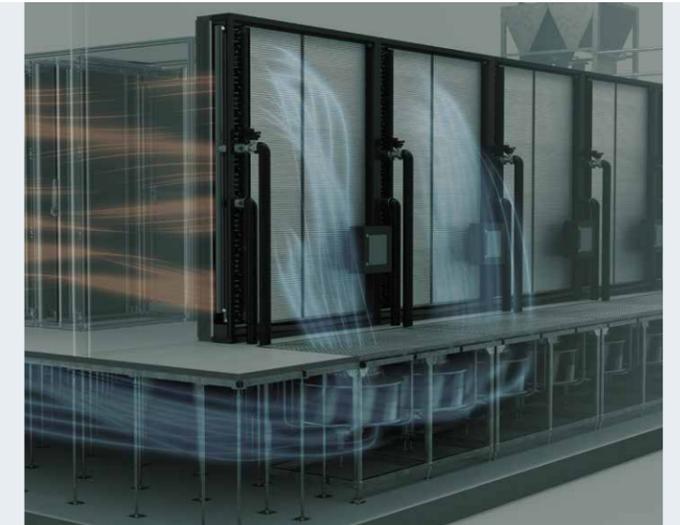
Vindur CoolW@II is the most efficient chilled water room cooling system for data centres. This is ensured for one thing by heat exchanger filter modules in the wall and for another by the underfloor fans in the raised floor. Thanks to the larger heat exchanger surfaces and the optimal airflow, very high heat loads can be managed extremely efficiently. There are no energy losses due to turbulence or constrictions and internal pressure losses are greatly reduced.

Service corridor turns to accessible walk-in cooling system.

With Vindur CoolW@II, the smart cooling solution from **weisstechnik**, you will have even more space for your IT in the future. Additional space for maintenance is no longer required. The facile accessibility to all modules makes maintenance even easier, faster and more cost-efficient.

Modular, flexible design.

Thanks to the heat exchanger geometry and the number of fans, Vindur CoolW@II can be configured precisely to meet the specific requirements. Of course, room concepts without raised floor and with hot aisle partitioning can also be implemented, even with a housing as a room-in-room solution. Benefit from this flexibility right from the planning stage.



Our highlights:

- More cooling capacity with more energy efficiency
- More space in the server room
- Lower investment costs
- Easy accessibility
- Extremely maintenance-friendly

Mature technology. Great proficiency.

The operating principle of Vindur CoolW@ll.

Proven principle. New thinking.

Our innovation Vindur CoolW@ll actually works like a recirculating air-conditioning unit: with fans for conveying and a heat exchanger for cooling the air. While other air-conditioning units are equipped only with the heat exchanger surfaces within the unit, we use almost the full height and width of the IT room to cool the air. This turns the maintenance corridor into a walk-in cooling unit.

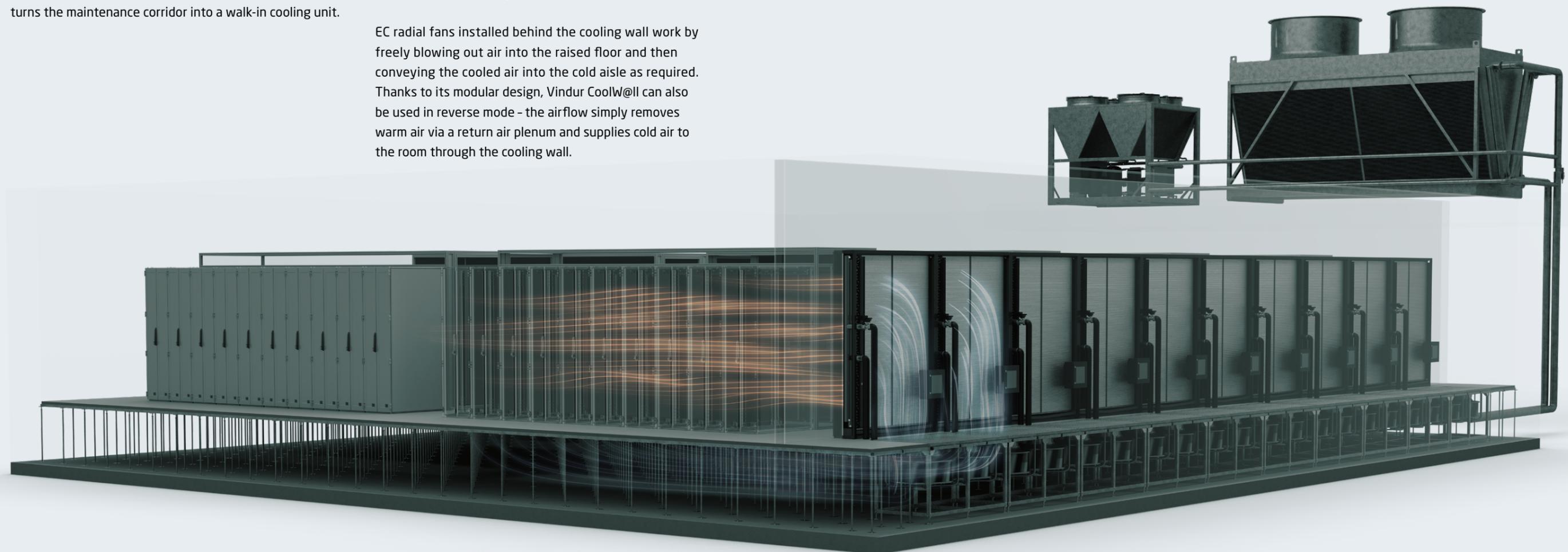
It works this simple.

Warm air discharged by the servers is sucked in by the negative pressure in the service corridor onto the module front, where it is filtered and cooled evenly by the high-performance heat exchanger. In the process, the absorbed thermal energy (power loss of the servers) is dissipated into the chilled water system.

EC radial fans installed behind the cooling wall work by freely blowing out air into the raised floor and then conveying the cooled air into the cold aisle as required. Thanks to its modular design, Vindur CoolW@ll can also be used in reverse mode - the airflow simply removes warm air via a return air plenum and supplies cold air to the room through the cooling wall.

Discover the unique benefits live!

Click here for the web special:



More equipment right from the start.

Basic equipment setting standards.

Interior



- **Stay cool**
The large-area heat exchanger with high-performance lamellas, a continuously controlled 2-way valve and up to 3 EC underfloor fan units per module ensure the necessary cooling capacity.
- **Clean performance**
Thanks to a synthetic fabric G4 filter installed in front of the heat exchanger in airflow direction, there is no power loss due to contamination. Cleaning frequency and therefore maintenance costs are significantly reduced.

Regulation & Control



- **Pretty smart**
For each individual module, the well-thought-out and networked concept includes a fully integrated pcs+ logic and control unit including a display, supporting all common communication and fieldbus protocols.
- **A great team**
Take advantage of high control quality and reliability: up to 16 Vindur CoolW@ll modules can be combined without a higher-level control, share sensor values and run in a redundancy network.

Safety



- **Safe means safe!**
Sturdy, welded base frames make Vindur CoolW@ll modules torsion-resistant and craneable. A perforated front panel with hexagonal perforation prevents damage to filters and cooling registers and at the same time ensures optimum airflow. And if condensation occurs, a stainless steel condensate pan protects your IT equipment from humidity.



Illustration is similar, contains additional equipment

Facts for cool calculators.

Save space and energy with Vindur CoolW@ll.

Taking it precisely for you.

In data processing centres, a considerable proportion of the energy is used for cooling. With Vindur CoolW@ll, you can reduce your future energy costs by more than half compared to recirculating air-conditioning units or increase cooling capacity by up to 40%. We just worked it out for you!

Our starting position:

- Server room with 200 m² IT area; maintenance corridor on both sides
- Return air condition: 32 °C/30% RH
- Supply air temperature: 22 °C
- Chilled water supply/return: 18/24 °C

Our result:

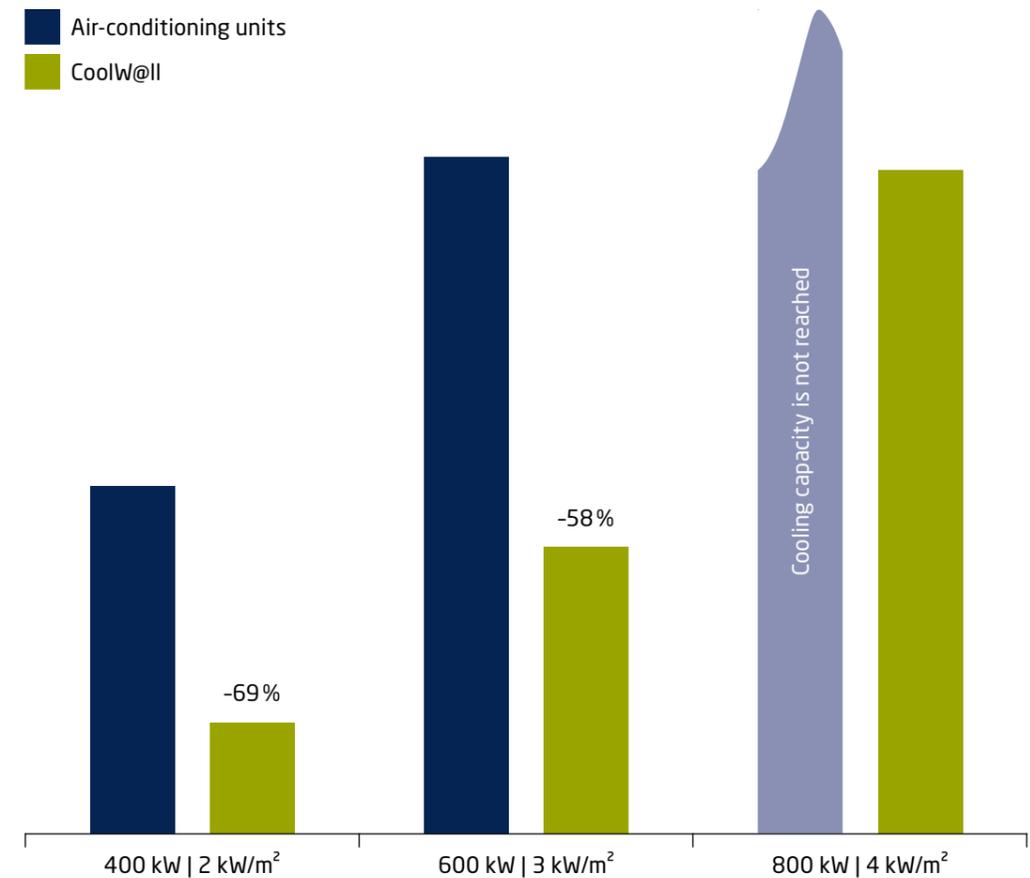
Vindur CoolW@ll achieves a significantly higher cooling capacity with the same number of units or modules than recirculating air-conditioning units with underfloor fans: in this case, up to 4 kW can be dissipated per square metre of room area, while the air conditioners manage only just under 3 kW.

At the same time, fan energy is saved and running costs are reduced (see diagram).

The higher your required power density, the higher the absolute savings for your company.



Operating costs per year



Flexibility pays off.

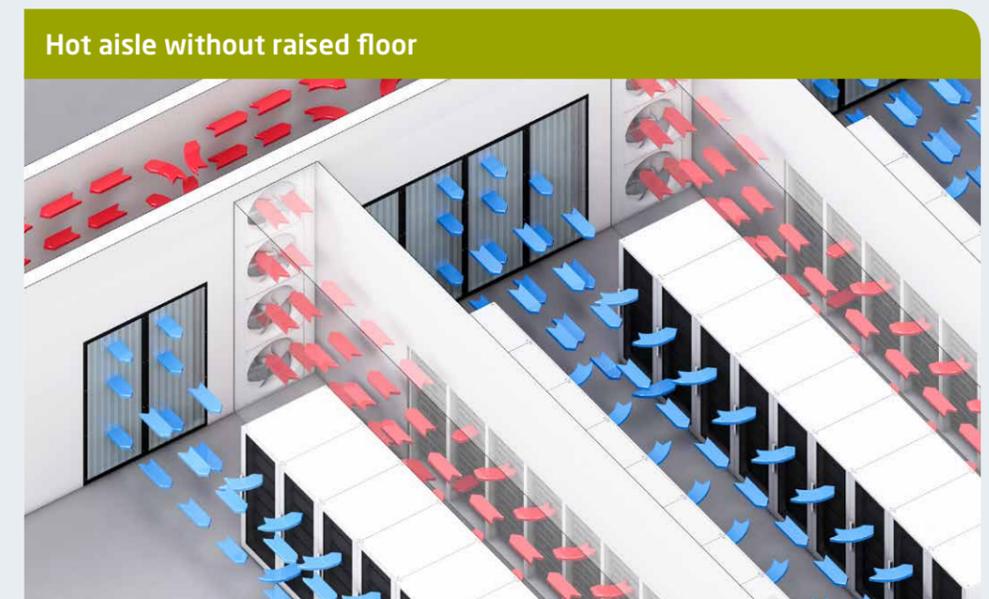
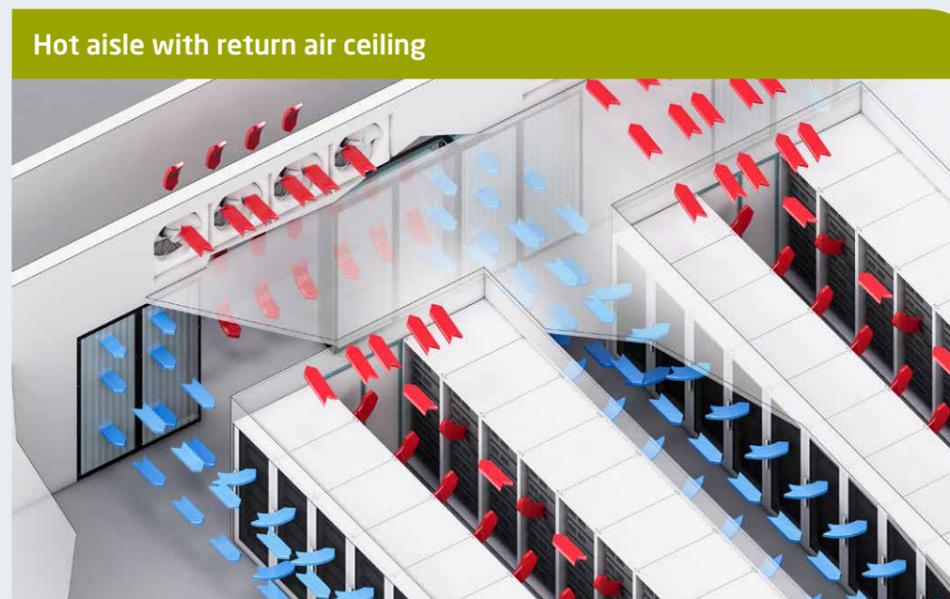
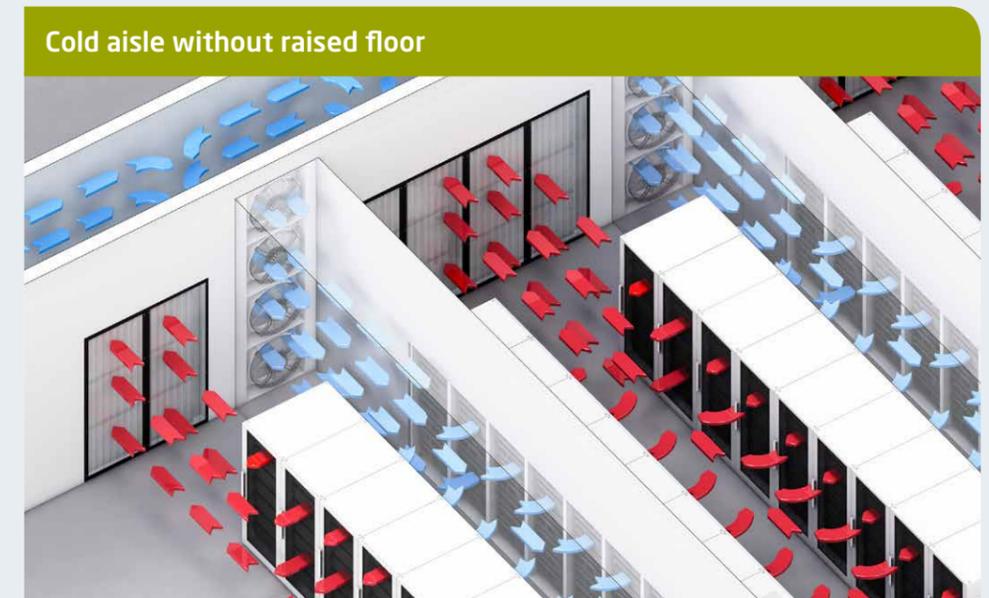
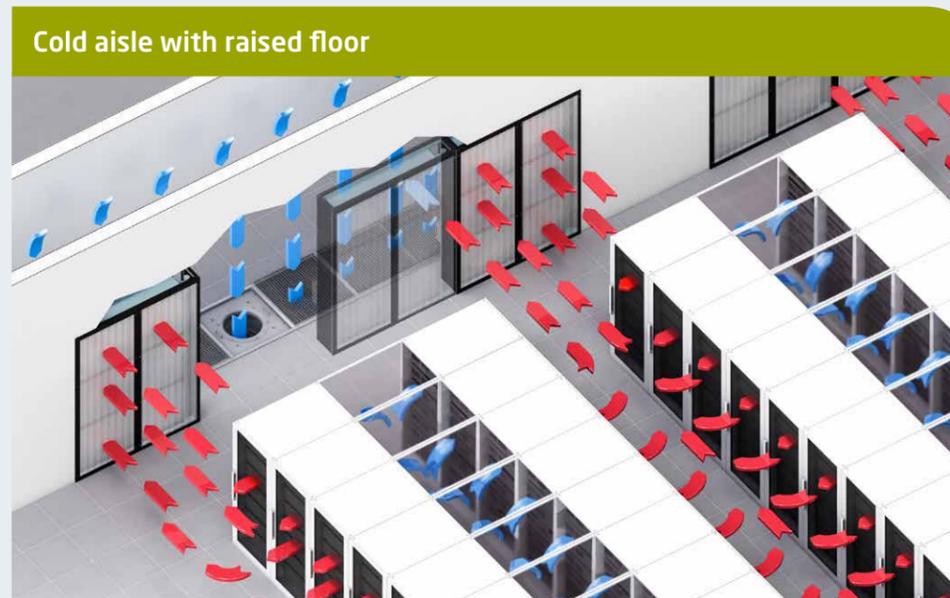
Simply adapt the cooling provided by Vindur CoolW@ll to meet your needs.

Endless combinations.

Vindur CoolW@ll is available in many sizes and in different variants to ensure the optimum cooling for your IT:

- Single- or double-sided, in the middle or over corner
- With or without raised floor
- As a cold or hot aisle solution

Thanks to the modular principle with matching individual elements – heat exchanger filter modules and fan units – Vindur CoolW@ll can be specifically adapted to any room layout.



Convincing technology. Reliable results.

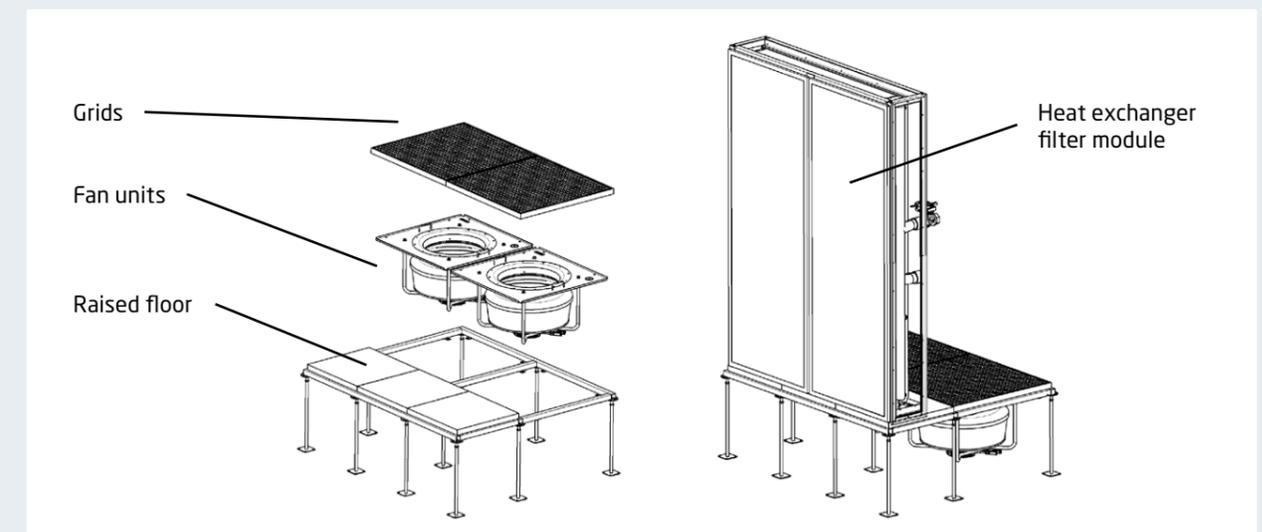
The performance data at a glance:

| Cooling wall system Vindur CoolW@II | | | | | |
|---|-------------------|---|-------------|-------------|------|
| Size | | 180.4 CW | 300.4 CW | 380.4 CW | |
| Nominal airflow | | | | | |
| Airflow rate | m ³ /h | 18000 | 30000 | 38000 | |
| External pressure loss | Pa | 20 | 20 | 20 | |
| Cooling CW - chilled water 10/15 °C and air inlet 30 °C/30% RH | | | | | |
| Cooling capacity (total/sensible) | kW | 93.8/93.8 | 155.8/155.8 | 199.6/199.6 | |
| Medium flow rate | m ³ /h | 16.1 | 26.8 | 34.3 | |
| Cooler pressure loss | kPa | 46.5 | 43.9 | 40.5 | |
| Valve pressure loss | kPa | 16.3 | 44.9 | 49.1 | |
| Connection | inch | Rp 2 | Rp 2½ | Rp 2½ | |
| Cooling CW - chilled water 15/21 °C and air inlet 35 °C/30% RH | | | | | |
| Cooling capacity (total/sensible) | kW | 91.0/91.0 | 151.1/151.1 | 193.7/193.7 | |
| Medium flow rate | m ³ /h | 13.1 | 21.7 | 27.9 | |
| Cooler pressure loss | kPa | 30.9 | 29.2 | 26.9 | |
| Valve pressure loss | kPa | 10.7 | 29.5 | 32.3 | |
| Connection | inch | Rp 2 | Rp 2½ | Rp 2½ | |
| Filter | | | | | |
| Type | | Cassette filter | | | |
| Filter class as per DIN EN ISO 16890 | | ISO Coarse 90% (G4) | | | |
| Fans, size 630 | | | | | |
| | | EC motor, directly driven, free-running | | | |
| Number* | piece | 1 | 2 | 2 | 3 |
| Total power consumption | kW | 2.3 | 1.5 | 3.2 | 5.0 |
| Max. current consumption | A | 5.7 | 11.4 | 11.4 | 17.1 |
| Weight per fan unit | kg | 45 | 45 | 45 | 45 |
| Min. raised floor height | mm | 560 | 560 | 560 | 560 |
| Sound data | | | | | |
| Sound power level, suction side | dB(A) | 86 | 71 | 83 | 90 |
| Sound power level, pressure side | dB(A) | 88 | 75 | 86 | 92 |

*Number of fans can be chosen freely.

We reserve the right to make any technical changes without prior notice.

| Cooling wall system Vindur CoolW@II | | | | | |
|-------------------------------------|----------------|---|----------|----------|------|
| Size | | 180.4 CW | 300.4 CW | 380.4 CW | |
| Fans, size 710 | | | | | |
| | | EC motor, directly driven, free-running | | | |
| Number* | piece | 1 | 2 | 2 | 3 |
| Total power consumption | kW | 1.8 | 1.4 | 2.7 | 3.8 |
| Max. current consumption | A | 4.5 | 9 | 9 | 13.5 |
| Weight per fan unit | kg | 55 | 55 | 55 | 55 |
| Min. raised floor height | mm | 700 | 700 | 700 | 700 |
| Sound data | | | | | |
| Sound power level, suction side | dB(A) | 76 | 69 | 76 | 80 |
| Sound power level, pressure side | dB(A) | 78 | 71 | 78 | 83 |
| Dimensions | | | | | |
| Width | mm | 1200 | 1800 | 1800 | |
| Depth | mm | 355 | 355 | 355 | |
| Height (over raised floor) | mm | 2400 | 2400 | 3200 | |
| Installation area | m ² | 0.43 | 0.64 | 0.64 | |
| Module weight | kg | 200 | 300 | 450 | |
| Supply voltage | V/Ph/Hz | 400/3/50 | | | |



We measure ourselves by our service.

We think and act collaboratively service-oriented. With our service teams, we offer sustainable solutions for long-term safe system operation.



Our services - lots of good reasons:

- Global service network
- Wide selection of preventive maintenance
- Reliable spare part supply
- Special deployments available any time
- Certified proper disposal of outdated devices

24/7-Service-Helpline:
+49 1805 666 556

You can always find a **weisstechnik** expert near you.

Expert advice

Our experienced experts are ready to support you from the first idea to after-sales service in every step of your project, by telephone or on the spot.

Maintenance and servicing

We offer different service levels and guaranteed reaction times of at most 24 hours after the receipt of the fault report. Our full maintenance service provides additional safety with calculable costs.

Spare parts management

Many spare and wearing parts are directly available in our warehouse. To further increase operational reliability, selected spare parts can additionally be stocked on site. We would be pleased to advise you further.

Instruction and training

We provide regular trainings covering the application, operation and software of the units. We also offer customer-specific workshops on request at your location.

Need a little bit more?

Air-conditioning solutions for specific requirements.

Cool minds in many IT and telecommunication companies worldwide choose the innovative air-conditioning units and systems made by Weiss Technik. Wherever there are very special climatic requirements, we develop energy-efficient, high-performance and customer-specific systems for cooling data centres and server rooms. From planning and production to assembly and maintenance. Keeping your computers cool even when things get hot. Get in touch with us!

Passionately innovative.

We work in partnership to support companies in research, development, production and quality assurance. With 22 companies in 15 countries at 40 locations.

weisstechnik

Test it. Heat it. Cool it.



Environmental Simulation

The first choice for engineers and researchers for innovative, safe environmental simulation facilities. In fast motion, our test systems can simulate all the influences in the world as well as for instance in space. In temperature, climate, corrosion, dust or combined stress tests. With a very high degree of reproducibility and precision.



Heat Technology

Experienced engineers and designers develop, plan and produce high-quality, reliable heat technology systems for a broad range of applications from heating and drying cabinets to microwave systems and industrial furnaces.



Climate Technology, Air Dehumidification, Clean Rooms

As the leading provider of clean rooms, climate technology and air dehumidification, we consistently ensure optimal climatic conditions for people and machines. For industrial production processes, in hospitals, mobile operation tents or in the field of information and telecommunications technology. From project planning to implementation.



Clean Air and Containment Systems

With decades of experience and know-how, we guarantee the most sophisticated clean air and containment solutions. Our comprehensive and innovative range of products includes barrier systems, laminar flow systems, safety workbenches, isolators and airlocks.

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