

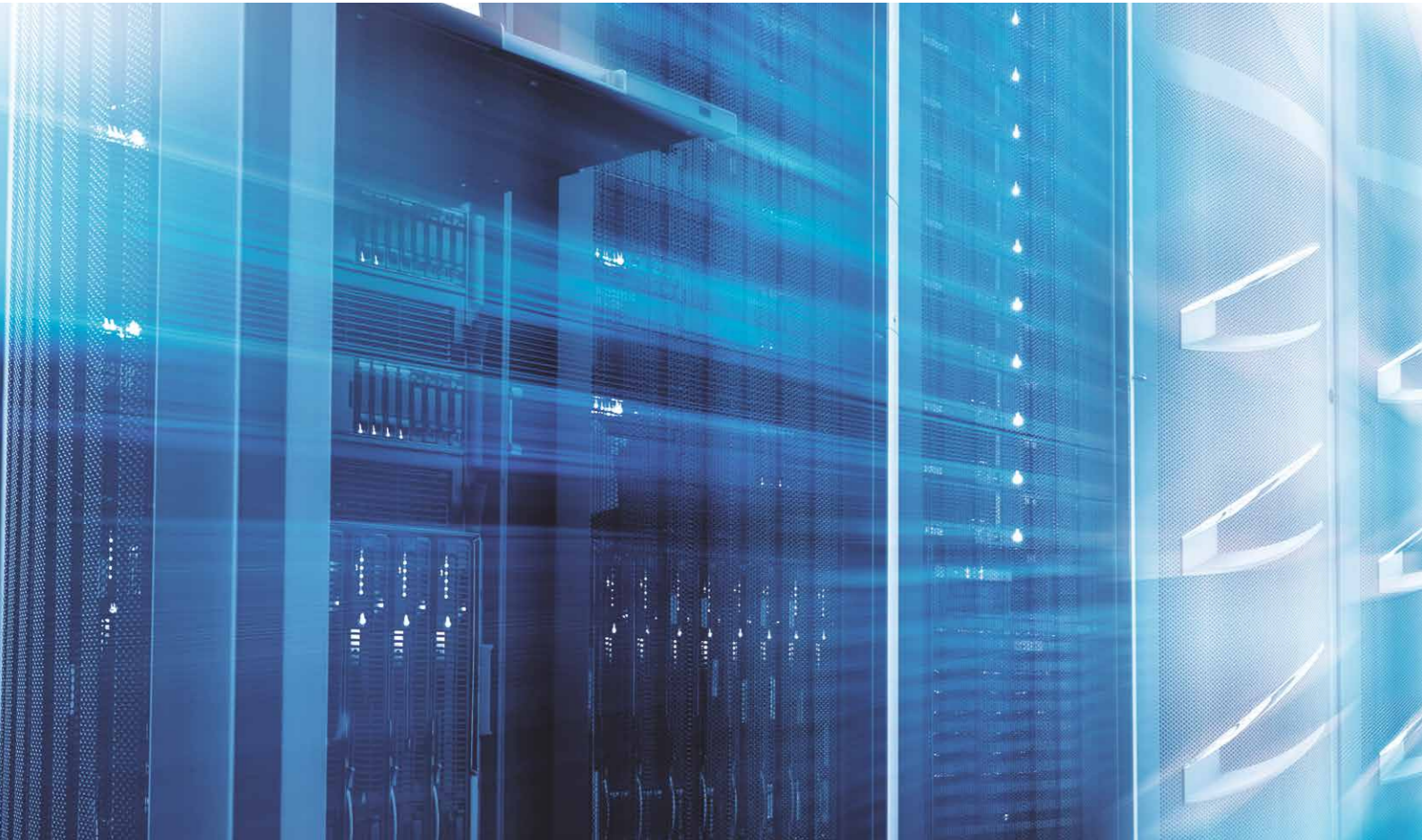


Row-Based Cooling Units Vindur® CoolRow



Giving your equipment a deep breath.

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



Frequent calculators need a cool head.

Our world is becoming increasingly more digital. The demand for IT technology is rising and this leads to an increased demand for cooling. This is not only due to the growing number of units but mostly because of developments in performance and miniaturisation. More and more data centres are being upgraded with high-performance servers from the high-performance computing (HPC) sector. Cooling alone constitutes up to 1/3 of the total power consumption. By smart optimisation enormous savings potentials arise for you.

Cool innovation without detours.

Vindur® CoolRow, our new row-based recirculating air cooler was specifically developed for high-density areas plus small- and medium-sized IT rooms without double floors or separate cooling equipment areas. It helps saving space as it can be easily installed next to or between two server racks directly in the server room. As a result, your IT load can be dissipated right where it is produced. Without complicated air guiding in double floors or separate ducts.

Efficient, flexible, extremely maintenance-friendly.

Row-Based Cooling Units Vindur® CoolRow.

More power. Less consumption.

Above all, our in-row cooling units impress with their inner values. All individual elements were arranged and designed to maximise the cooling surface area and therefore the performance. In addition, optimised air guiding, the smart control system with dynamic load adaptation and speed-controlled EC fans ensure greater efficiency at significantly lower energy costs.

Flexible and ready for connection.

Flexibility is the second name of Vindur® CoolRow. It can be connected from above as well as from below. Hot and cold aisle solutions as well as an individual control of the single aisles can be realised. Thanks to the unit's compact stand-alone design and fully integrated components, you are no longer dependent on the server rack structure.

Serviceability redefined.

We paid special attention to serviceability, since time is money. Both the filters and the fans can be serviced at any time without any tools and during operation. This reduces maintenance times and increases operational reliability.



Our highlights:

- Maximum cooling capacity per shelf
- High efficiency thanks to optimised air guiding with low pressure losses
- Flexible design, easy to maintain

More equipment, right from the start.

Basic equipment setting standards.

Interior



- **Stay cool**
The large-area vertical heat exchanger, a continuously controlled 2-way valve and 5 to 10 EC fans (depending on unit size) distributed across the height of the unit guarantee the necessary cooling capacity.
- **Clean performance**
Thanks to a G4 filter installed in front of the heat exchanger, there is no loss of capacity due to pollution. Cleaning frequency and therefore maintenance costs are significantly reduced.
- **Better safe than sorry**
A droplet separator and a stainless steel condensate pan as well as a lifting pump reliably protect your IT equipment from humidity. In addition, each unit is equipped with a water sensor as standard. An alarm message is displayed if, contrary to all expectations, water accumulates inside the unit.

Regulation & Control



- **Pretty smart**
The intelligent and networked concept includes a fully integrated pcs+ control unit including an operating display for each in-row cooling unit.
- **A great team**
Gain more control quality and reliability: up to 16 Vindur® CoolRow units can be combined without higher-level control and they can share sensor values and can be operated in a redundant network.



Tailor-made cooling.

Options for individual solutions.



Exterior



- **Usable without partitioning**

When installed without warm or cold aisle housing, guide plates at the fan outlet guarantee reliable air supply to the servers.

Regulation & Control



- **Accurate to the last degree**

In addition to the 4 internal temperature sensors, up to 2 additional external temperature sensors and pressure sensors can be integrated for a dynamical adaptation of the output to the IT load.

- **Full control**

You want to network your Vindur® CoolRow units? No problem! They can be easily integrated into the building management system via optional expansion cards for common communication and fieldbus protocols. Web connection or visualisation is also possible.

Convincing technology. Reliable results.

Get a clear picture of Vindur® CoolRow.

How it works.

The warm air emitted by the servers is sucked in at the rear of the unit, filtered and evenly cooled by the high-performance heat exchanger. The absorbed heat energy (power loss of the servers) is dissipated into the chilled water system. The radial fans distributed across the height of the unit then extract the cooled air into the cold room.

A droplet separator safely drains any condensate that may occur, which is then collected in a condensate pan and transported out of the unit with a lifting pump.



The performance data at a glance:

Vindur® CoolRow row-based cooling			
Model		50.4 CW	100.4 CW
Nominal airflow			
Airflow rate	m ³ /h	5,000	10,000
External pressure loss	Pa	20	20
Cooling CW - chilled water 10/15 °C and air inlet 35 °C/25 % RH			
Cooling capacity (total/sensible)		29.3/29.3	56.1/56.1
Medium flow rate	m ³ /h	5	9.6
Cooler pressure loss	kPa	29	23.5
Valve pressure loss	kPa	9.9	14.9
Connection	inch	Rp 1¼	Rp 2
Cooling CW - chilled water 15/21 °C and air inlet 37 °C/25 % RH			
Cooling capacity (total/sensible)	m ³ /h	3.5	6.7
Medium flow rate		24.5/24.5	46.9/46.9
Cooler pressure loss	kPa	14.9	12
Valve pressure loss	kPa	4.9	7.3
Connection	inch	Rp 1¼	Rp 2
Filter			
Type		Cassette filter	
Filter class as per DIN EN ISO 16890		ISO Coarse 90 % (G4)	
Fans			
Type		EC motor, directly driven, free-running	
Number	pcs.	5	10
Total power consumption	kW	0.85	1.59
Max. current consumption	A	7.2	13.4
Sound data			
Sound power level, suction side	dB(A)	75	78
Sound power level, pressure side	dB(A)	80	83
Dimensions			
Width	mm	300	600
Depth	mm	1,200	1,200
Height	mm	2,000	2,000
Installation area	m ²	0.36	0.72
Weight	kg	192	315
Connection supply	V/Ph/Hz	230/1/50	

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

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.

Qualification and re-qualification

We provide our customers with all qualifications and re-qualifications necessary for the reliable operation of an installation. These include DQ, FAT, OQ, SAT, IQ and GMP.

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.

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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.



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.



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.



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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