

Vindur[®] Top Hygienic Air Cooling Unit

Micro-organisms don't stand a chance.

Do you want to cool occupied rooms in hospitals, in public or industrially used buildings, and in private areas hygienically and efficiently? We support you in this.



Reliable solutions for hygienic acclimatisation.

Micro-organisms like viruses, bacteria and spores are almost everywhere. They spread particularly easily in rooms where a large number of people, including sick people, spend time together. Thus it is especially important to ensure such areas have optimum air hygiene. Vindur® Top, with a four-stage safety concept, combines reliable room air technology with the highest hygiene requirements, setting new standards.

Vindur® Top with four-stage safety concept.

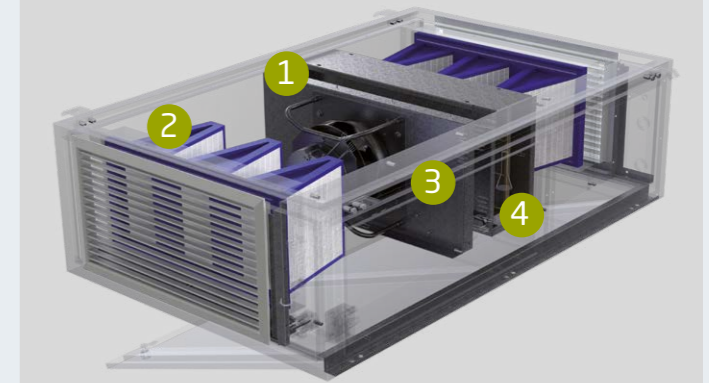
The Vindur® Top has been specially developed for use in rooms used for medical purposes and in public or industrial buildings and hotels. It fully complies with the hygiene guidelines of the new DIN 1946-4 and VDI 6022. Its unique, four-stage safety concept ensures that micro-organisms are reliably filtered out and killed.

Top innovative. Top hygienic.

The Vindur® Top hygienic air cooling unit offers optimal protection for your health.

More safety in circulating air cooling.

Vindur® Top is equipped with a four-stage safety concept, whereby the inner sheets are provided with anti-microbial silver-ion coating (1), HEPA filters (2), UVC emitters (3) and the innovative thermal disinfection (4) can also be optionally integrated.



Cool rooms in compliance with the standards.

With Vindur® Top you fully comply with the guidelines of DIN 1946-4 and VDI 6022 for cooling in rooms occupied by persons. According to VDI 6022, rooms are considered to be rooms occupied by persons if they are used for more than 30 days per year or regularly for more than 2 hours per day. This includes hospitals and clinics as well as public buildings, offices and industrial buildings or hotels.



Reliable partner for the optimum climate.

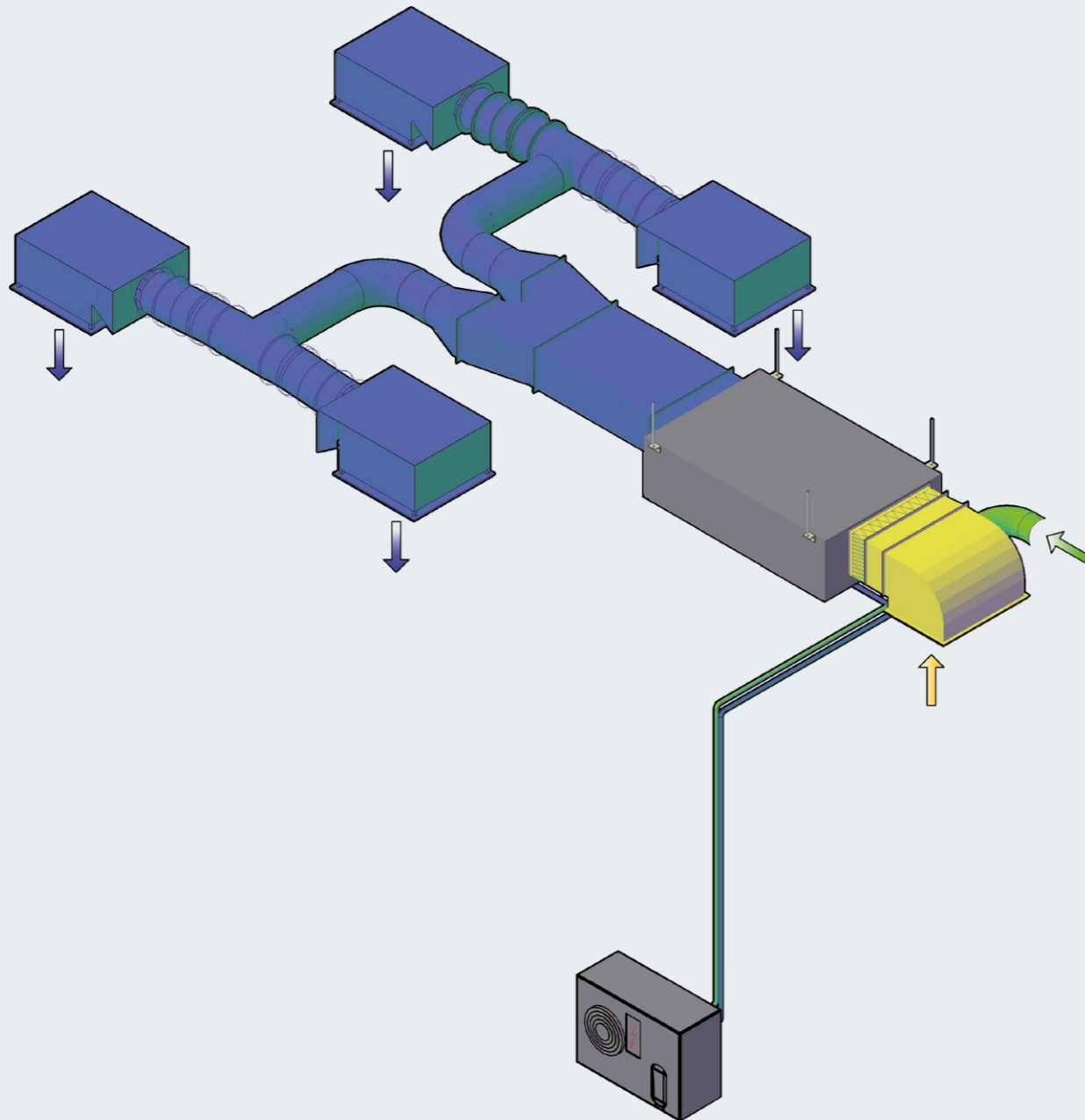
weisstechnik has comprehensive know-how in the field of hygienic climates. Our solutions work extremely reliably and meet the highest demands in terms of room quality. As innovation leader in the industry, we offer you maximum safety - all from one source.

Our highlights:

- Four-stage safety concept for optimal hygienic air treatment
- Two filter levels ePM1 ≥ 55% and ePM1 ≥ 85%, optional ePM1 ≥ 85% and HEPA filter (H14) of class EN 1822:2009 ≥ 99.995%
- Easily accessible and easy to clean
- Possible connection to the duct system

So much more to offer, right from the start.

Basic equipment that sets the standard.



You can find further details on equipment in our technical descriptions. **Contact us.**

Interior



- **High performance ventilation**
Vindur® Top works with a direct-driven, powerful, reliable and extremely energy-efficient EC ventilator, which allows high external compression.
- **Filtering in compliance with standards**
The basic equipment consists of a two-stage filtration system, designed as ePM1 \geq 55% (previously F7) on the suction side and ePM1 \geq 85% (previously F9) on the pressure side. For increased hygienic requirements (e.g. coronavirus), the ePM1 \geq 85% and H14 filter \geq 99.995% can be optionally used.
- **Efficient cooling**
Cooling is realised by means of cold water or direct evaporation; the condensate is discharged by integrated condensate lifting pumps.

Exterior



- **Variable installation**
Vindur® Top can be installed below a ceiling (free intake and free discharge) or within a suspended ceiling with a duct system connected on the intake and discharge side.
- **Optimal accessibility**
Thanks to the housing flap, which opens downwards, all installation parts are easily accessible and easy to reach. This ensures easy cleaning and quick replacement of built-in parts.

Regulation & control



- **Intelligent regulation and control - intelli.4® inside**
A regulation and control unit specially adapted to this appliance enables all modern web-based communication options, both in terms of implementation in existing or planned building management systems and in terms of service and maintenance work.

Typical fields of use

Vindur® Top hygienic air cooling units are air recirculation units that are ideally suited as an additional or retrofit solution for existing building air conditioning

Customised cooling.

The four-stage safety concept in detail.

Interior



- **Silver-ion coating**
Vindur® Top's inner sheets are provided as standard with an antimicrobial coating that prevents the spread of micro-organisms.
- **Extra safety with a HEPA filter**
The optionally available, highly effective H14 HEPA filters reliably filter 99.995% of all micro-organisms from the air.
- **UVC emitter for extra disinfection**
Viruses and bacteria that are deposited on the HEPA filter during cooling operation are rendered ineffective by the UVC light.
- **Top hygiene with thermal disinfection**
After switching off the unit, the heat exchanger and the condensate tray are automatically heated up for a certain period of time. The components that come into contact with water are thereby dried and micro-organisms such as viruses, bacteria and mould are rendered ineffective or killed. Biofilms, which form a breeding ground for micro-organisms and increasingly develop resistance to disinfectants, are thus reliably prevented.



Test now!

The weisstechnik product configurator is available!

Configure your very own Vindur® Top. The online tool guides you through the configuration for your specific application in just a few steps. Test us!

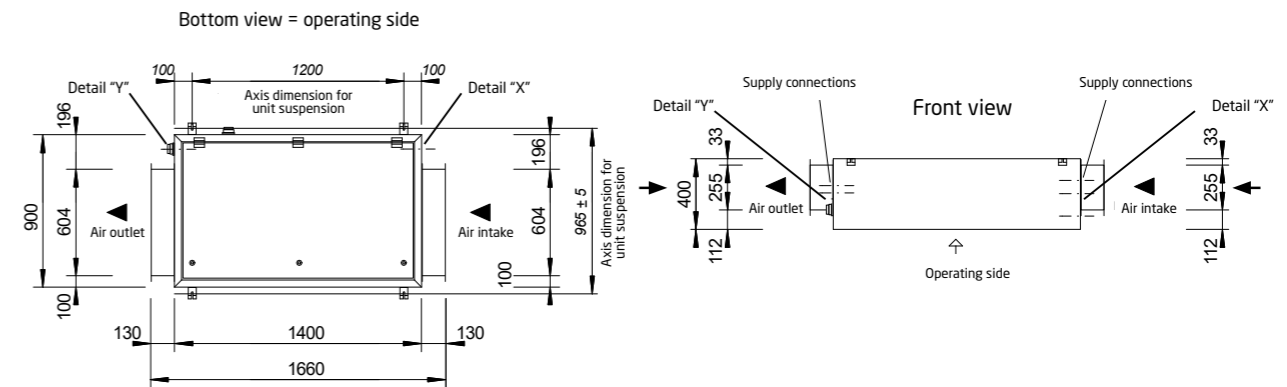


Convincing technology. Reliable results.

Performance data at a glance:

VINDUR® TOP HYGIENIC AIR COOLING UNIT			
Design/type		DV12 (direct evaporation)	DW12 (cold water)
External housing dimensions, W x H x D ¹	mm	1400 x 400 x 900	
Air flow capacity	m ³ /h	600-1200	200-1200
Max. external pressure loss	Pa	400	
Sound pressure level ²	dB(A)	23-42	
Supply voltage	V/Ph/Hz	230/3/50	
Colour	RAL	9010	
Transport weight	kg	105	
Cooling method		Cooling circuit, air-cooled, (t ₀ = 8 °C / t _k = 42 °C)	Cold water 7/12.5 °C according to Eurovent
Construction type		External inverter	Pumped cold water
Quantity	pieces	1	-
Refrigerant		R410A	Cold water
Cooling capacity (+27 °C/46 % r.h. - ges./sens.) ³	kW	4.5/4.1	4.7/3.9
Nominal compressor power	kVA	1.2	-
Cold water quantity	m ³ /h	-	0.7
Power input	A	5.3	-
Filter combination			
Standard filter combination		Combination of class ePM1 fine dust filter ≥ 55% (F7) and class ePM1 fine dust filter ≥ 85% (F9) according to DIN EN ISO 16890	
Ventilator-motor unit			
Number of fans		1	
Motor type		EC-ventilator	
Motor nominal power	kW	0.5	
Nominal power consumption	A	2.3	
Supply voltage	V/Ph/Hz	230/1/50	
Option: thermal disinfection			
Heating power	kW	2.6	
Nominal power consumption	A	11.4	
HEPA filters		Combination of fine dust filter class ePM1 ≥ 85% (F9) according to DIN ISO 16890 and HEPA filter H14 class EN 1822:2009 ≥ 99.995%	
UVC emitter	W	23	

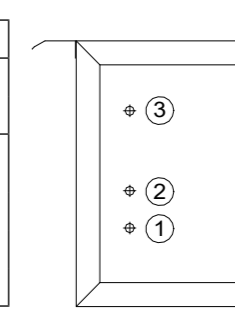
Ceiling unit: Vindur® Top hygienic air cooling unit



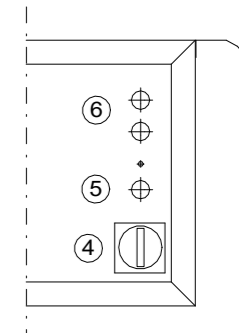
Supply connections

	Type DW12/DW12TD	Type DV12/DV12TD
1	Pumped cold water cooler flow 3/4"	Intake gas refrigerant 12 x 1
2	Pumped cold water cooler return 3/4"	Liquid gas refrigerant 6 x 1
3	Condensate drainage (condensate pump) 8.5 mm	
4	Master switch	
5	LAN socket	
6	E-cable glands	

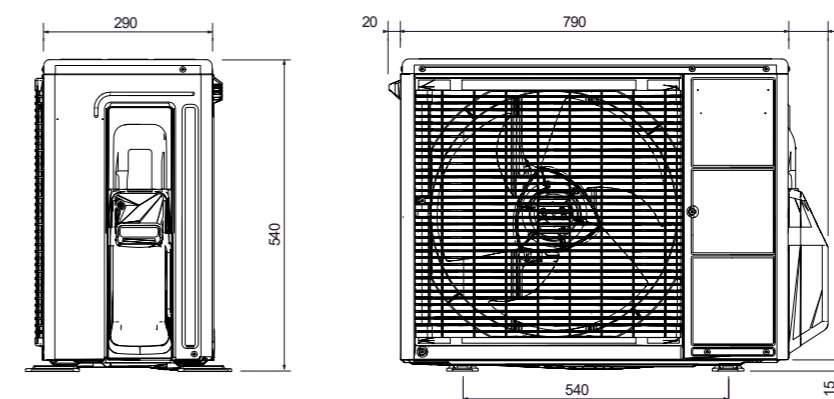
Detail "X"



Detail "Y"



External unit: cooling unit



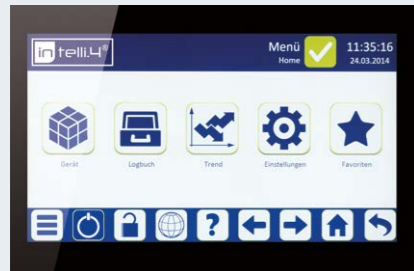
¹Necessary maintenance clearance for opening the flap: 830 mm. If installed in a false ceiling, an inspection opening (access main switch) must be provided in the ceiling. (external dimensions of unit for connections to the top: 1622x400x900 mm)

²In 1 m distance centrally below the unit and with free intake and free discharge.

³Further temperatures or variants on request.

Everything simply under control.

With our software and control package.



Added value with software!

Our own intelli.4® control system includes the following options:

- Display of all unit and climate data via web visualisation
- Data transfer via existing building technology (GLT) using a BACnet interface
- Communication between several units, including without GLT
- Freely programmable control for connection of on-site functions
- Option of remote monitoring and maintenance (with installed and plugged in network cable)



We measure ourselves by our service!

Our services - lots of good arguments:

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

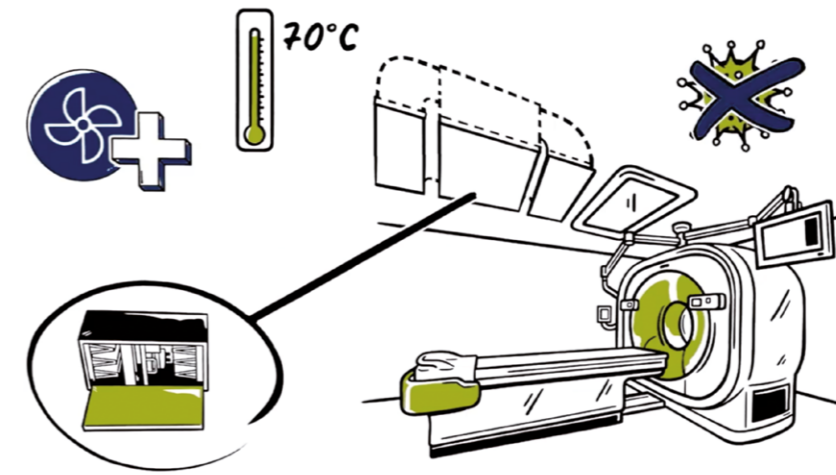
Our service experts are always nearby.

24/7 Service Helpline
+49 1805 666 556

Would you like some more?

Climate solutions for special requirements.

Wherever there are very special climatic requirements, people around the world rely on the know-how of **weisstechnik**. For industry, development, research and medicine, we always develop customised solutions. From initial planning to the after-sales service. Always based on many years of experience and sophisticated technology. You can benefit too - get in touch with us!



Top explanation.
Top understood.

The Vindur® Top principle:
This is how thermal disinfection works to protect against viruses, bacteria and mould.

This way to the video:



HYBETA
HYGIENE · BERATUNG · TECHNISCHE ANALYSEN

Vindur® Top is certified in accordance with
VDI 6022 and DIN 1946-4.

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
For a safe future.



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.



Air Solutions

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.



Pharmaceutical Technology

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, airlocks and stability test systems.

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Illustrations may contain options.
Subject to technical changes.

Passion for Climate.