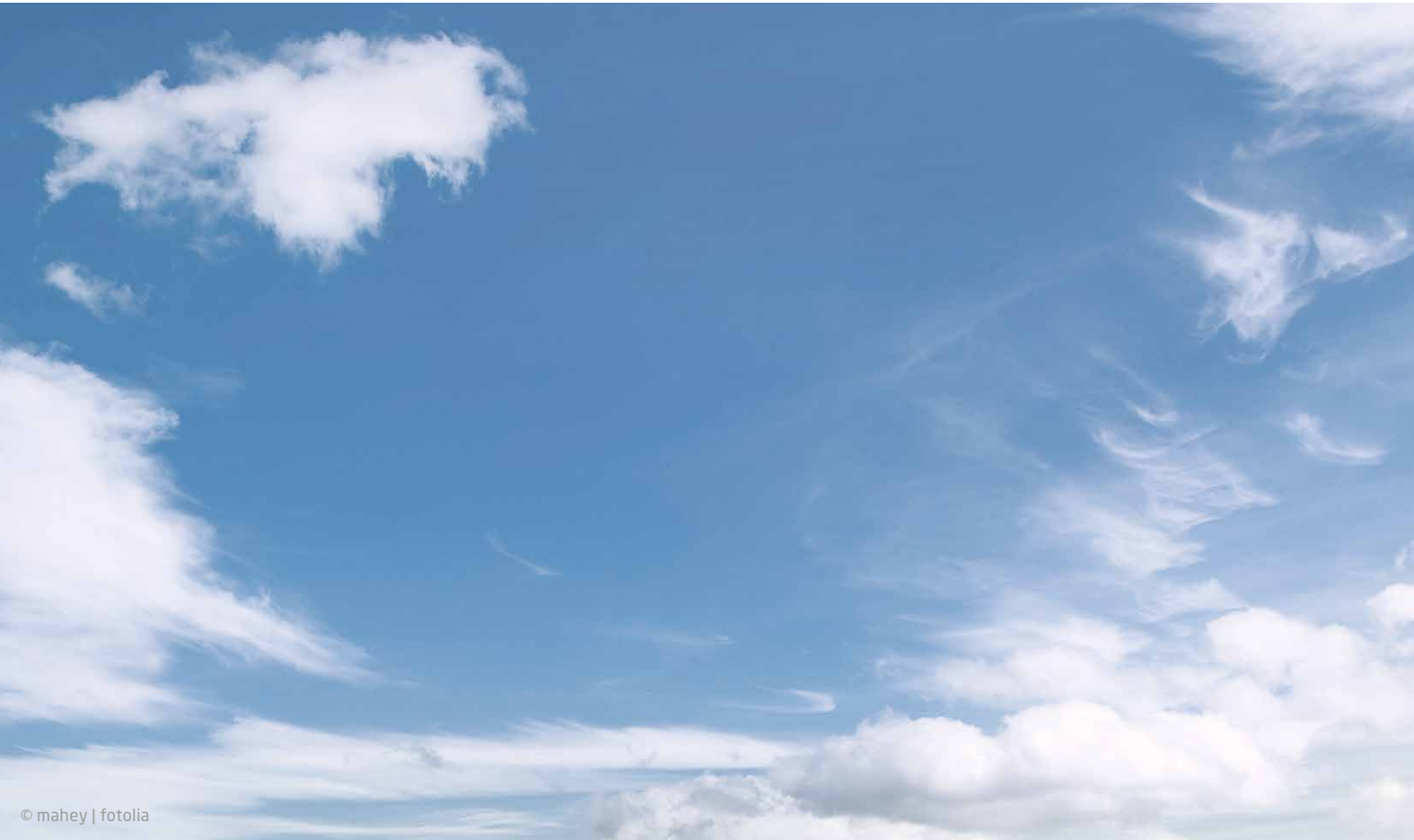


Hygienic Air Cooling Unit Vindur® Top

Play it safe with hygienic cooling.

Do you want to meet the latest requirements for heating, ventilation and air-conditioning (HVAC), reliably and sustainably? We can support you.



Safe solutions for the latest requirements.

The latest requirements of DIN 1946-4 and VDI 6022 oblige hospital operators, consultants and architects and, also, hygienists and biomedical engineers to use air recirculation units with 2-stage filtration for HVAC. Hygienic air cooling units are recirculation systems used as additional or retrofit solutions when existing, primary building air conditioning is no longer adequate and additional cooling is required.

The first choice: Vindur® Top.

The new **weisstechnik** Hygienic Air Cooling Unit Vindur® Top was specially developed for strict hygiene guidelines. All integrated parts are easily accessible and simple to clean and maintain. In addition to the two filter stages, thermal disinfection is optionally available, making it possible to achieve a sustainable improvement in the standard of hygiene. This ensures that you are future-proof and guaranteed to conform to standards.

Top innovation. Top hygiene.

Hygienic Air Cooling Unit Vindur® Top with Thermal Disinfection and Two-stage Filtration.

Equip application areas in accordance with standards.

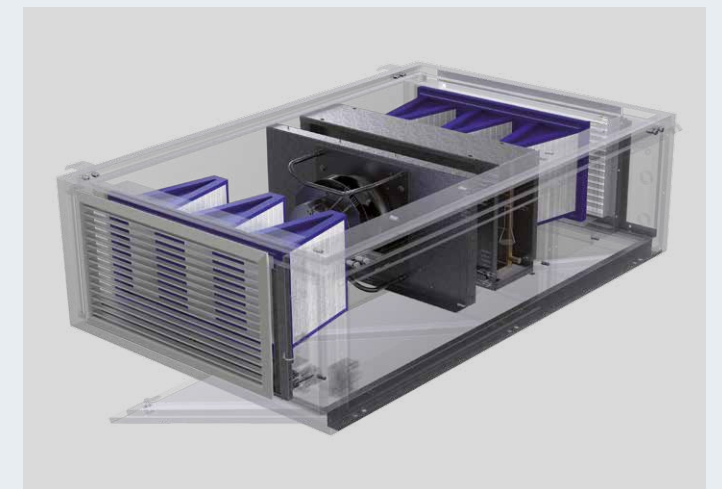
We know what's important. Vindur® Top ensures that you meet the strict guidelines of DIN 1946-4 and VDI 6022 in premises occupied by people. These include patient, examination and recovery rooms and control rooms for CT and MRI. Workplaces in office and industrial buildings, sports facilities, break rooms for personnel and sales and event rooms are subject to VDI 6022.

Additional hygiene through thermal disinfection.

Vindur® Top can be optionally equipped with an innovative thermal disinfection system. The completely new process developed by us prevents the growth of micro-organisms in the air conditioner - effectively and sustainably: Following deactivation, the heat exchanger and condensate drip tray is heated sequentially and dried completely, effectively killing all bacteria and mould. In addition, the inner wall of the double-shell metal housing is coated with antimicrobial paint.

Reliable partner for healthy air conditioning.

weisstechnik has been a reliable partner of hospitals, public building operators and businesses for many years, with extensive know-how and expertise in air conditioning and hygiene. Our solutions are extremely reliable and meet the highest of standards. As the innovation leader in this sector, we are your one-stop source for maximum safety and efficiency.

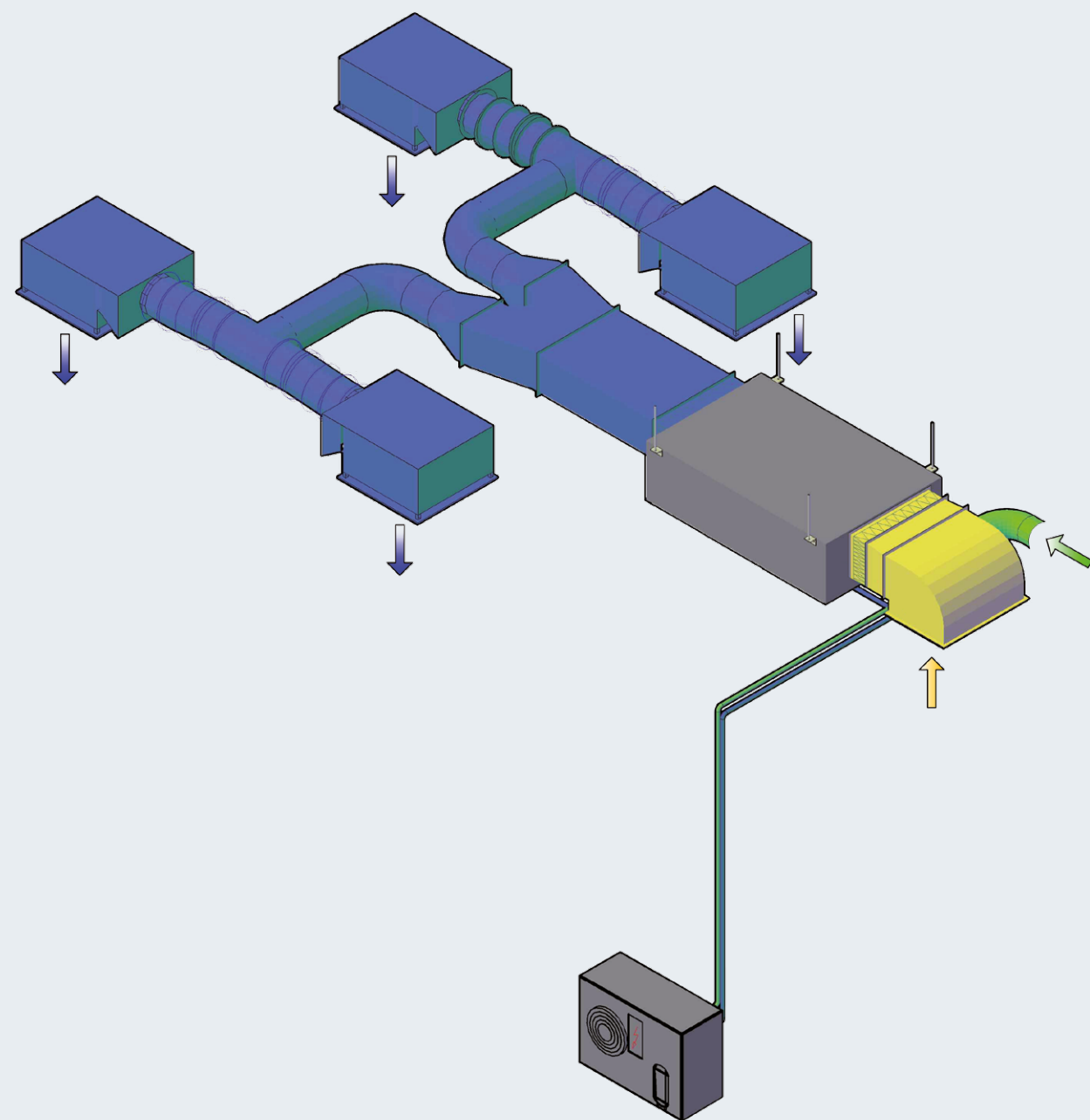


Our highlights:

- Self-disinfecting, thanks to the unique thermal disinfection system
- Compliance with standards regarding two-stage filtration
- Can be connected to a duct system
- Inner wall of housing with antimicrobial coating
- Easily accessible and easy to clean in compliance with DIN 1946-4 and VDI 6022

Much more to it – right from the start.

Basic equipment setting standards.



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

Interior



- **High-powered ventilation**
Vindur® Top operates with a directly powered, high-performance, reliable and extremely energy-efficient EC fan which achieves high external pressure levels.
- **Filtered according to standards**
The units are equipped with a two-stage filtration system with an intake ePM1 $\geq 50\%$ (formerly F7) and ePM1 $\geq 80\%$ on the discharge side (formerly F9), thus meeting the requirements of applicable regulations. In the case of increased clinical requirements, ePM1 $> 80\%$ and H13 filters can even be employed.
- **Enforced cooling**
Cooling through CW-cooling or DX-cooling. Condensate is removed through an integrated condensate discharge pump.

Exterior



- **Versatile installation**
Hygienic Air Cooling Units Vindur® Top can be flexibly installed where a suspended ceiling is involved. It is mounted either below (free suction and free blowing) or inside the ceiling, then connected to the duct system on the suction and pressure side, including ventilation grilles.
- **Optimum accessibility**
All relevant installation parts can be easily accessed and reached without difficulty, thanks to the downwards-opening housing flap. This ensures that the hygienic smooth surfaces can be cleaned with ease and integrated components speedily replaced.

Regulation & Control




- **intelli.4® inside**
The air volume and temperature are controlled via the electrical component with DDC integrated in the unit and can be actuated via the room control or web-based visualisation (touchscreen).

Take a deep breath!
Asthmatics and allergy sufferers alike also benefit from the innovative Thermal Disinfection System.


Tailored cooling.

Options for special requirements.

Interior




- Bacteria and mould have no chance**
In every Hygienic Air Cooling Unit Vindur® Top condensate can occur due to the cooling process, providing an ideal breeding ground for bacteria and mould sucked in with the air. Especially during unit downtimes moisture may still rest on the interior surfaces contributing to massive microbial growth due to a so-called biofilm, dangerously polluting indoor air. The innovative Thermal Disinfection System counteracts this through sequentially heating of the heat exchanger and condensate drip tray, drying installation components and effectively killing all micro-organisms.
- Cooling as needed**
Hygienic Air Cooling Units Vindur® Top can be equipped with a CW-coil or DX-coil to meet requirements and planning needs. Just as you need it.



Just try us yourself!

The weisstechnik Product Configurator is here!

Simply configure Vindur® Top to suit your individual needs. The online tool guides you through the configuration of your specific applications in just a few steps.



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



Convincing engineering. Reliable results.

The performance data at a glance:

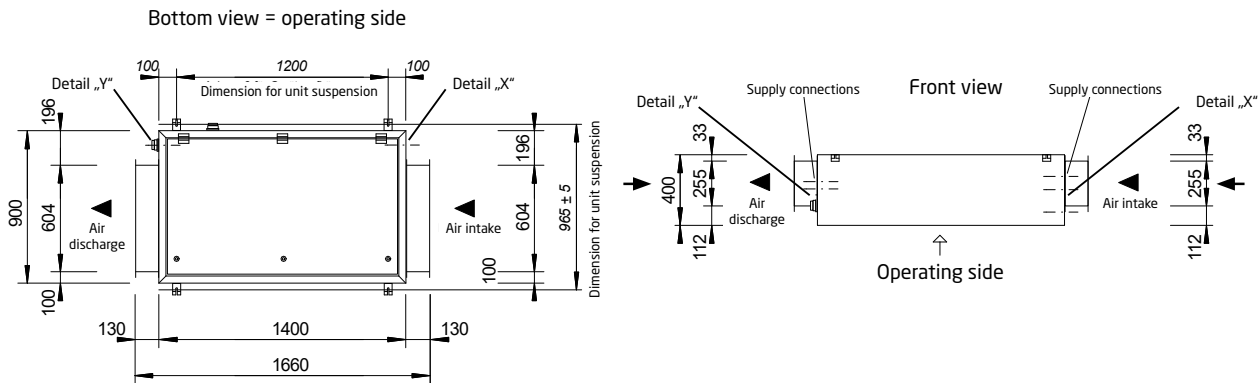
HYGIENIC AIR COOLING UNITS VINDUR® TOP			
Design/type		DV12 (Direct evaporation)	DW12 (Chilled water)
Exterior dimensions WxHxD¹	mm	1400x400x900	
Air volume flow	m³/h	400-1200	
External pressure loss max.	Pa	400	
Sound pressure level²	dB(A)	23-42	
Supply voltage	V/Ph/Hz	230/3/50	
Colour	RAL	9010	
Transport weight	kg	105	
Type of cooling		Cooling circuit, air-cooled External (t _c = 42 °C)	Chilled water 7/12,5 °C acc. to Eurovent
Type		Inverter external	Pumped cold water
Quantity	Pcs.	1	-
Refrigerant		R410A	Chilled water
Cooling capacity (+27 °C/46 % r.F. – tot./sens.)³	kW	4.4	4.7/4.2
Nominal capacity compressor	kVA	1.2	-
Chilled water amount	m³/h	-	0.8
Fan motor unit	A	5.3	-
Number of fans			
Number of fans		1	
Type of motor		EC fan	
Nominal capacity motor	kW	0.5	
Nominal current consumption	A	2.3	
Current consumption	A	5.3	-
Supply voltage	V/Ph/Hz	230/1/50	
Option: Thermal disinfection			
Nominal capacity	kW	2.6	
Nominal current consumption	A	11.3	

¹Required maintenance clearance for opening the flap: 830 mm. At installation in a false ceiling, an inspection opening (access main switch) must be provided in the ceiling.

²At a distance of 1 m centrally below the unit and with free air intake and free air discharge.

³Other temperatures or variants on request.

Ceiling Unit: Hygienic Air Cooling Unit Vindur® Top

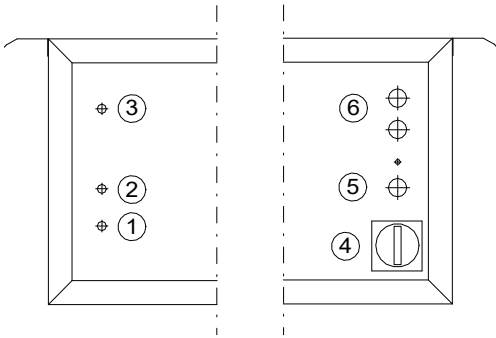


Supply Connections

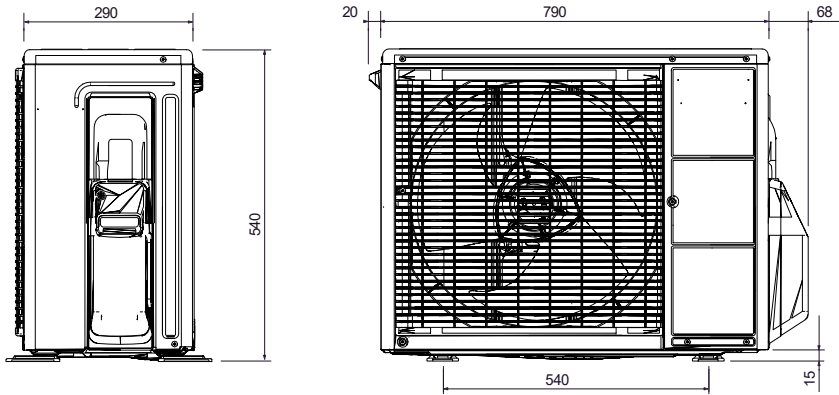
	Typ DW12/DW12TD	Typ DV12/DV12TD
1	Pumped cold water cooler supply 3/4"	Suction gas refrigerant 12 x 1
2	Pumped cold water cooler return 3/4"	Liquid gas refrigerant 6 x 1
3	Condensate drain (condensate pump) 8.5 mm	
4	Main switch	
5	LAN socket	
6	Electric cable entries	

Detail „X“

Detail „Y“



Exterior Unit: Cooling Unit



Simply everything under control.

With our software and control package.



Software for added value!
Our own Control System **intelli.4**® includes the following options:

- Display of all unit and climate data through web visualisation.
- Data transfer via existing building management system (BMS) using a BACnet interface
- Communication of several units with each other, even without BMS
- Freely programmable control for connection of on-site functions
- Remote monitoring and maintenance option (with network cable installed and plugged in)



We measure ourselves by our service!

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

Our Service Experts are always near you.

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

Would you like just a little more?

Air conditioning solutions for special requirements.

Wherever special air conditioning requirements exist, you can rely on **weisstechnik** know-how - anywhere in the world. Whether in industry, development, research or medicine, we can develop customised solutions at any time. From initial planning to after-sales service, and always based on years of experience and proven technology. You too can benefit from this - just talk to us!

Top clarification.
Top comprehension.

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

See video here:

HYBETA
HYGIENE · BERATUNG · TECHNISCHE ANALYSEN

Vindur® Top is certified according to 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

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.



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.

Weiss Klimatechnik GmbH

Geräte- und Anlagenbau

Greizer Straße 41-49

35447 Reiskirchen/Germany

T +49 6408 84-6500

mediclean@weiss-technik.com

www.weiss-technik.com



Management
System
ISO 9001:2015

www.tuv.com
ID 9108624460



KT-MC-Vindur Top-01.1E/PP 0.5/01 2020

Passion for Climate.

Illustrations may contain options.
Subject to technical changes.