



COMPACT SOLUTIONS FOR TECHNICAL AND SERVER ROOMS

HANSA recirculating air cooling units

ReCool Line



ABOUT US

HANSA Klimasysteme GmbH has been based in Strücklingen, in the municipality of Saterland, since 1961; Saterland is known for its Sater Frisian language, the smallest linguistic enclave in Germany. Our products speak for themselves. For

decades, we have been synonymous with technically sophisticated, high-quality air-conditioning systems. As a family-owned and managed company since 1971, we stand for continuity, stability, and long-term reliability.

The company

Ever since the company was founded, we have earned a reputation throughout Germany and far beyond for manufacturing ventilation units for schools, sports halls, swimming pools and hospitals, as well as for industrial and process engineering applications. Building on this expertise, we offer a comprehensive portfolio of air-handling units for a wide range of applications.

Our units are engineered to deliver high quality, functionality, reliability and energy-efficient operation. The actual energy performance depends on the specific unit configuration and the

corresponding technical documentation. Throughout our product development, we have secured numerous intellectual property rights through the European Patent Office, reflecting the innovative nature of our technologies.

As a member of the German AHU Manufacturers Association (RLT-Herstellerverband e.V.), we design and manufacture our units in strict accordance with the AHU guidelines, ensuring the highest standards of quality, operational safety, and regulatory compliance for both our customers and the operators of our equipment.

The team

We invest in the continuous development of our employees and train the next generation of skilled professionals. The HANSA team comprises experienced specialists in the field of ventilation unit manufacturing, with expertise spanning refrigeration technology, control engineering, and automation.

Our units are designed and manufactured in accordance with the quality management requirements of DIN EN ISO 9001:2015.

Our sales team consists of experienced experts who are committed to finding the right solution for you.

Our philosophy

Our goal is to meet our customers' climate control requirements as effectively as possible while helping to protect the environment. To achieve this, we offer systems that can be tailored to our customers' specific operating conditions using flexible manufacturing processes and state-of-the-art components while minimizing energy consumption. As the energy requirements of both the overall system and its individual modules can be reduced without compromising performance, both investment and energy costs are reduced.

The carbon footprint of our company, our production processes and the product-related emissions – from raw material extraction to the factory gate – has

been independently assessed. Product-related emissions have been calculated using market-based secondary emission factors. We have purchased carbon credits to offset the unavoidable greenhouse gas emissions resulting from our operational and product-related activities. This simultaneously achieves positive social and environmental effects. In accordance with the EmpCo EU Directive, the results of the sustainability assessment are presented transparently as a sustainability overview on our publicly accessible ImpactBoard web portal.

Committed to climate protection – not just through our products



HANSA is a member of the AHU Manufacturers Association (Herstellerverband Raumluftechnische Geräte e.V.).



RECOOL LINE

Overview

VDI 6022-compliant recirculating air cooling units (with optional FreeCool module) for cooling technical and server rooms, suitable for installations with or without raised floors.

Depending on the model, ReCool Line units feature either an integrated direct expansion (DX) refrigeration system with a direct evaporator or a chilled water coil, including a hydraulic control system. Cooling capacities range from 13 kW to 88 kW, based on a 14 K temperature difference and return air conditions of 36

°C / 35% RH. The units can be equipped with free cooling modules (FreeCool) for energy-efficient free cooling. All units are fitted with extract air filters rated ISO ePM10 $\geq$ 50%.

ReCool Line recirculating air coolers offer a wide range of optional features, allowing them to be optimally configured for the specific requirements of each customer project. Revit BIM models are available for all ReCool Line units, making planning and system integration easier.

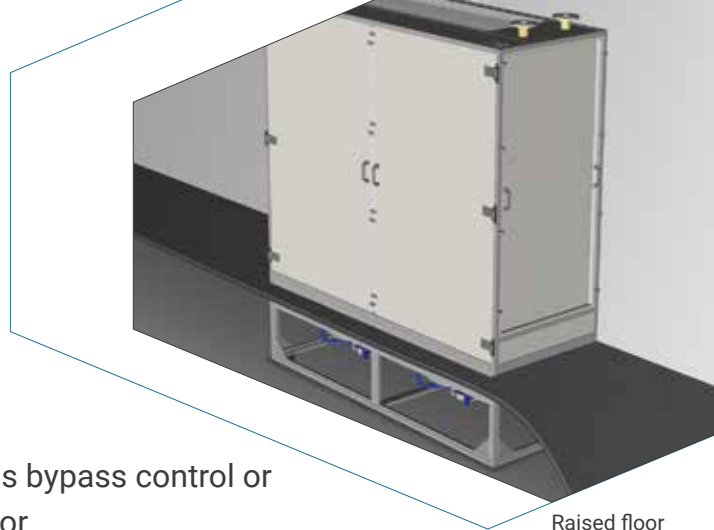


Options

- Integrated mechanical refrigeration with hot gas bypass control or digital scroll compressor, and a direct evaporator
- Chilled water coil with a hydraulic circuit, including a two-way or three-way control valve and pump
- DDC controls: Saia or HEC, with a touch panel or handheld terminal
- Optional FreeCool module for utilising free cooling from outside air

Advantages

- Compact
 - Can be integrated into the building management system
 - Automatic and manual operating modes
 - Various redundancy configurations can be implemented
 - Easy installation (unit depth: 880 mm)
- Expandable with an optional FreeCool module
Revit BIM models available



Raised floor



Designation		ReCool Line 03 KW	ReCool Line 05 KW	ReCool Line 10 KW	ReCool Line 18 KW
Supply airflow rate	m ³ /h	3000	5000	10000	18000
Cooling capacity ($\Delta T = 14 \text{ K}, 36 \text{ °C} / 35 \% \text{ RH}$)		14.5	24	48	88
Electrical data					
Power supply		400 V / 50 Hz			
Total rated power input	kW	2.2	3	4.5	8
Total rated current	A	4.5	6	9	15
Acoustic data					
Sound power level L_w / Octave band (Hz)					
Extract air 63 Hz	dB	51.7	53.5	58.6	60.2
Extract air 125 Hz	dB	56.8	59.5	68.5	69.6

TECHNICAL DATA

ReCool Line with chilled water coil

Designation		ReCool Line 03 KW	ReCool Line 05 KW	ReCool Line 10 KW	ReCool Line 18 KW
Extract air 250 Hz	dB	56.0	59.4	70.5	70.6
Extract air 500 Hz	dB	54.1	55.1	63.1	63.7
Extract air 1000 Hz	dB	47.9	52.8	60.9	62.0
Extract air 2000 Hz	dB	47.1	48.9	57.0	58.6
Extract air 4000 Hz	dB	49.3	51.4	71.8	70.4
Extract air 8000 Hz	dB	38.1	39.6	50.9	51.6
Supply air 63 Hz	dB	59.0	61.9	68.4	69.7
Supply air 125 Hz	dB	64.8	69.0	78.9	80.1
Supply air 250 Hz	dB	61.2	66.0	75.6	76.5
Supply air 500 Hz	dB	65.5	69.3	78.1	78.9
Supply air 1000 Hz	dB	68.2	71.1	78.6	79.5
Supply air 2000 Hz	dB	68.6	69.6	76.5	78.2
Supply air 4000 Hz	dB	66.7	68.1	85.8	85.2
Supply air 8000 Hz	dB	57.5	58.9	68.7	70.2
Dimensions					
Width	mm	1350	1350	1700	2300
Depth	mm	880	880	880	880
Height	mm	2585	2585	2585	2585
Delivery units		2	2	2	2
Max. width of largest unit section	mm	1350	1350	1700	2300
Max. depth of largest unit section	mm	880	880	880	880
Max. height of largest unit section	mm	1950	1950	1950	1950

Designation
ReCool Line 03 KW
ReCool Line 05 KW
ReCool Line 10 KW
ReCool Line 18 KW

Weight					
Total transport weight	kg	296	333	396	581
Material specifications					
Inner casing		Galvanised sheet steel			
Outer casing		Hot-dip galvanised sheet steel			
Heat exchanger tube material		Copper			
Heat exchanger fin material		Aluminium			
External static pressure EA/SA	Pa	150	150	150	150
EA/SA fan					
EA/SA fan total pressure	Pa	343	375	450	487
EA/SA motor rated power	kW	1.1	1.74	3.45	2 × 3.45
EA/SA motor rated current	A	1.7	2.7	5.3	2 × 5.3
Filter					
Filter class		ePM 10 50%			
Number of filter elements		2	2	4	6
Filter width	mm	592	592	592	592
Filter height	mm	490	490	592	592
Filter length	mm	94	94	94	94
Chilled water coil					
Cooling medium		Water	Water	Water	Water
Cooling capacity	kW	14.5	24	48	88
Inlet temperature / RH	°C / %	36 / 35	36 / 35	36 / 35	36 / 35
Outlet temperature / RH	°C / %	22 / 72	22 / 72	22 / 72	22 / 72
Inlet water temperature	°C	10	10	10	10
Outlet water temperature	°C	16	16	16	16
Water flow rate	m³/h	2.7	4.6	9.2	16.2
Water pressure drop	kPa	26.8	27.8	30.0	32.1
Connection size	DN/inch	20 / ¾	25 / 1	40 / 1½	50 / 2

ReCool Line with integrated cooling system

Designation		ReCool Line 03 iK	ReCool Line 05 iK	ReCool Line 10 iK	ReCool Line 18 iK
Supply airflow rate	m ³ /h	3000	5000	10000	18000
Cooling capacity ($\Delta T = 14 \text{ K}, 36 \text{ °C} / 35 \text{ \% RH}$)	kW	13.3	22	44	79.6
Electrical data					
Power supply	400 V / 50 Hz				
Total rated power input	kW	7.2	11	20.5	34.5
Total rated current	A	14.5	21	38	60
Acoustic data					
Sound power level L_w / Octave band (Hz)					
Extract air 63 Hz	dB	54.5	56.6	61.6	63.2
Extract air 125 Hz	dB	57.7	60.4	69.4	70.6
Extract air 250 Hz	dB	55.5	59.4	70.5	70.6
Extract air 500 Hz	dB	55.7	57.1	65.1	65.7
Extract air 1000 Hz	dB	52.6	57.8	65.9	67.0
Extract air 2000 Hz	dB	53.0	54.9	63.0	64.6
Extract air 4000 Hz	dB	51.2	53.4	73.9	72.4
Extract air 8000 Hz	dB	44.0	45.5	56.8	57.6
Supply air 63 Hz	dB	58.6	62.1	68.4	69.7
Supply air 125 Hz	dB	64.7	69.0	78.9	80.1
Supply air 250 Hz	dB	60.7	66.0	75.6	76.5
Supply air 500 Hz	dB	65.2	69.2	78.1	78.9
Supply air 1000 Hz	dB	67.9	71.0	78.6	79.5
Supply air 2000 Hz	dB	68.5	69.6	76.5	78.2
Supply air 4000 Hz	dB	66.5	68.1	85.9	85.2
Supply air 8000 Hz	dB	57.3	58.7	68.6	70.1

Designation
ReCool Line 03 KW
ReCool Line 05 KW
ReCool Line 10 KW
ReCool Line 18 KW

Dimensions					
Width	mm	1350	1350	2150	2700
Depth	mm	880	880	880	880
Height	mm	2585	2585	2585	2585
Delivery units		2	2	2	2
Max. width of largest unit section	mm	1350	1350	2150	2700
Max. height of largest unit section	mm	1950	1950	1950	1950
Max. depth of largest unit section	mm	880	880	880	880
Weight					
Total transport weight	kg	352	405	546	845
Material specifications					
Inner casing		Galvanised sheet steel			
Outer casing		Hot-dip galvanised sheet steel			
Heat exchanger tube material		Copper			
Heat exchanger fin material		Aluminium			
External static pressure OA/SA	Pa	150	150	150	150
EA/SA fan					
EA/SA fan total pressure	Pa	329	370	445	483
EA/SA motor rated power	kW	1.1	1.74	3.45	2 × 3.45
EA/SA motor rated current	A	1.7	2.70	5.30	2 × 5.30
Filter					
Filter class		ePM 10 50%			
Number of filter elements		2	2	4	6
Filter width	mm	490	490	592	592
Filter height	mm	592	592	592	592
Filter length	mm	94	94	94	94

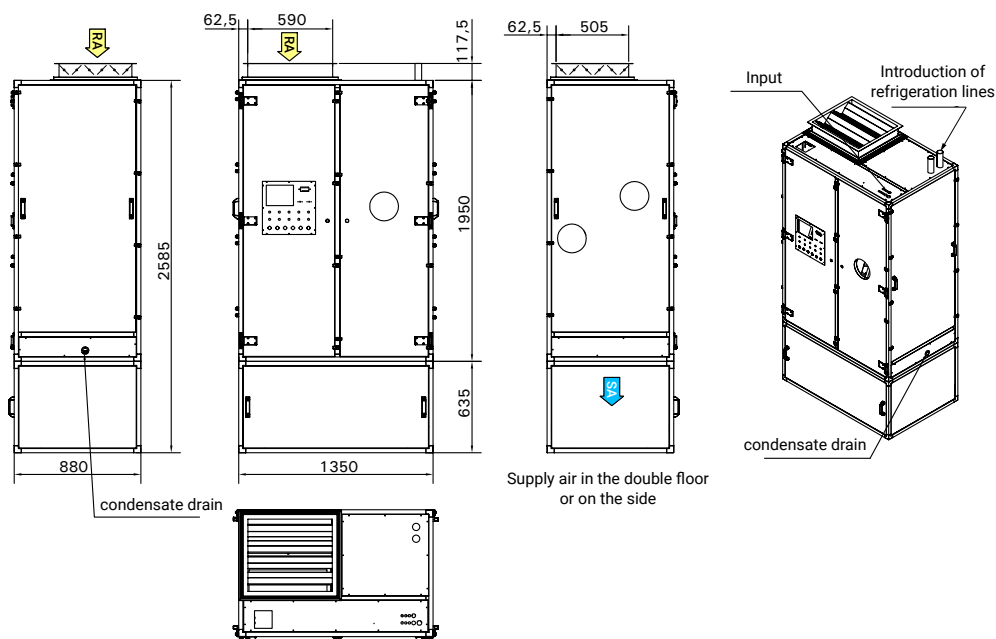
ReCool Line with integrated cooling system

Designation		ReCool Line 03 iK	ReCool Line 05 iK	ReCool Line 10 iK	ReCool Line 18 iK
Refrigeration system					
Refrigerant		R513A	R513A	R513A	R513A
Cooling capacity	kW	13.3	22	44	79.6
Number of refrigeration circuits		1	1	2	2
Total cooling power input	kW	3.5	6	12	19
Max. current (cooling)	A	15	15	15	22.3
Air inlet temperature / RH	°C / %	36 / 35	36 / 35	36 / 35	36 / 35
Air outlet temperature / RH	°C / %	22 / 72	22 / 72	22 / 72	22 / 72
Air-side pressure drop	Pa	23	31	59	64
Table cooler – low-noise version					
		TK quiet 22	TK quiet 35	2x TK quiet 35	2x TK quiet 57
Condenser capacity	kW	22	35	2 × 35	2 × 57.5
Dimensions (WxHxD)	mm	1490x990x1260	1880x1500x1380	2 × (1880 × 1500 × 1380)	
Weight, low-noise version	kg	208	219	2 × 219	2 × 326
Sound pressure level – low-noise version	dB	60	60	60	60
Air inlet temperature	°C	40	40	40	40
Condensing temperature	°C	50	50	50	50
Fan power output	W	409	1431	2 × 1431	2 × 2019
Electric current	A	0.63	2.14	2 × 2.14	2 × 3.10
Table cooler – extra low-noise version					
		TK super quiet 22	TK super quiet 35	2x TK super quiet 35	2x TK super quiet 57
Condenser capacity	kW	22	35	2 × 35	2 × 57.5
Dimensions (WxHxD)	mm	1490x990x1260	1880x1500x1380	2x(1880x1500x1380)	2x(3230x1500x1380)
Weight, low-noise version	kg	219	278	2 × 278	2 × 428
Sound pressure level – low-noise version	dB	49	49	49	49
Air inlet temperature	°C	40	40	40	40
Condensing temperature	°C	50	50	50	50
Fan power output	W	272	530	2x 530	4x 350
Electric current	A	0.38	0.87	2x 0.87	4x 1.10

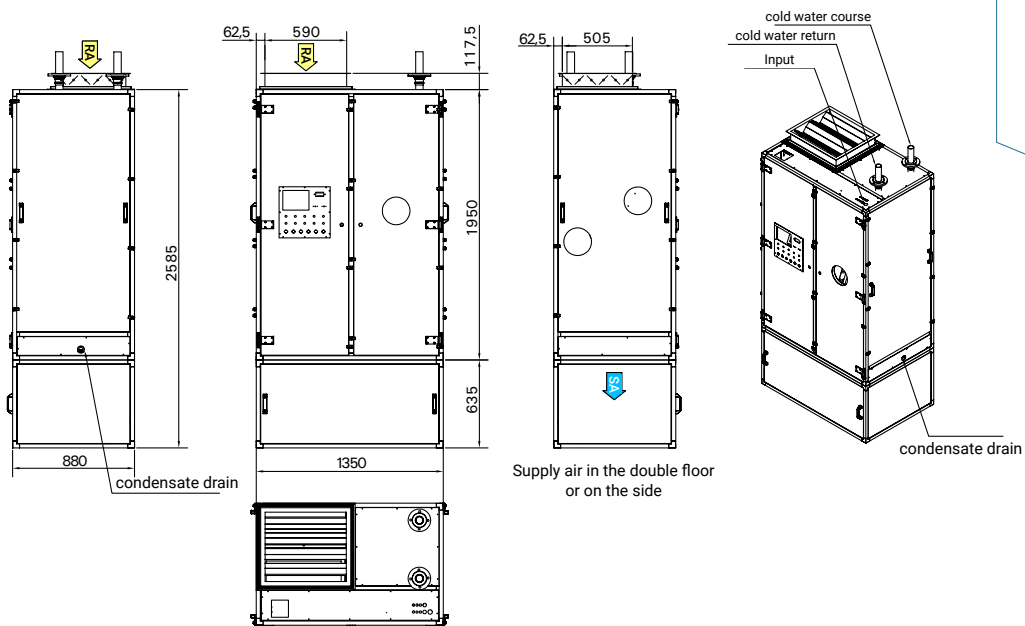
DIMENSIONAL DRAWINGS

ReCool Line 03 + 05

With integrated cooling system:

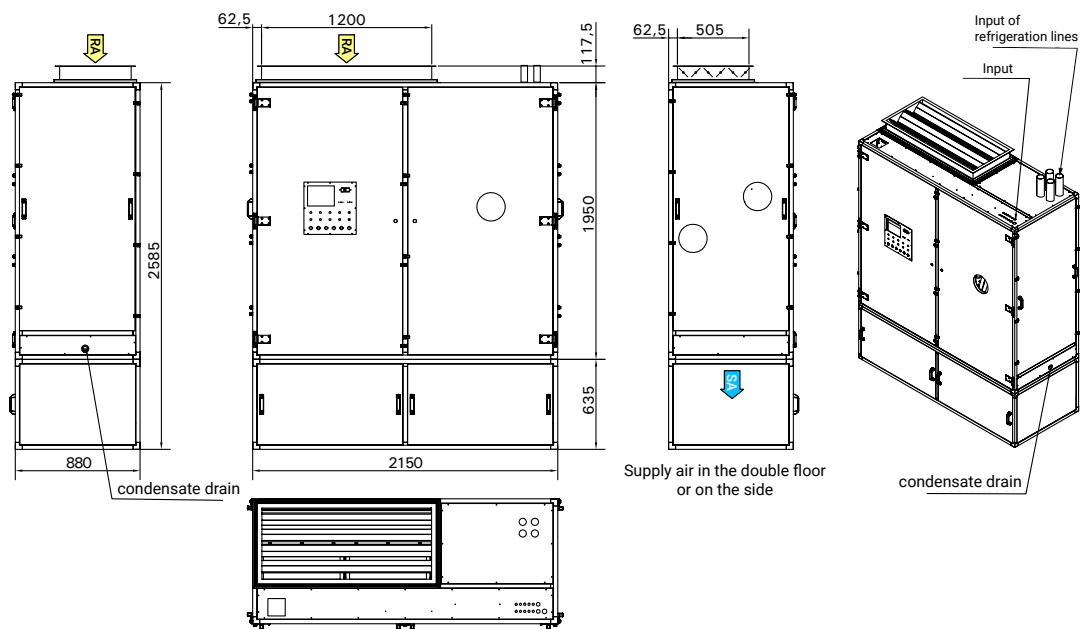


With a chilled water coil:

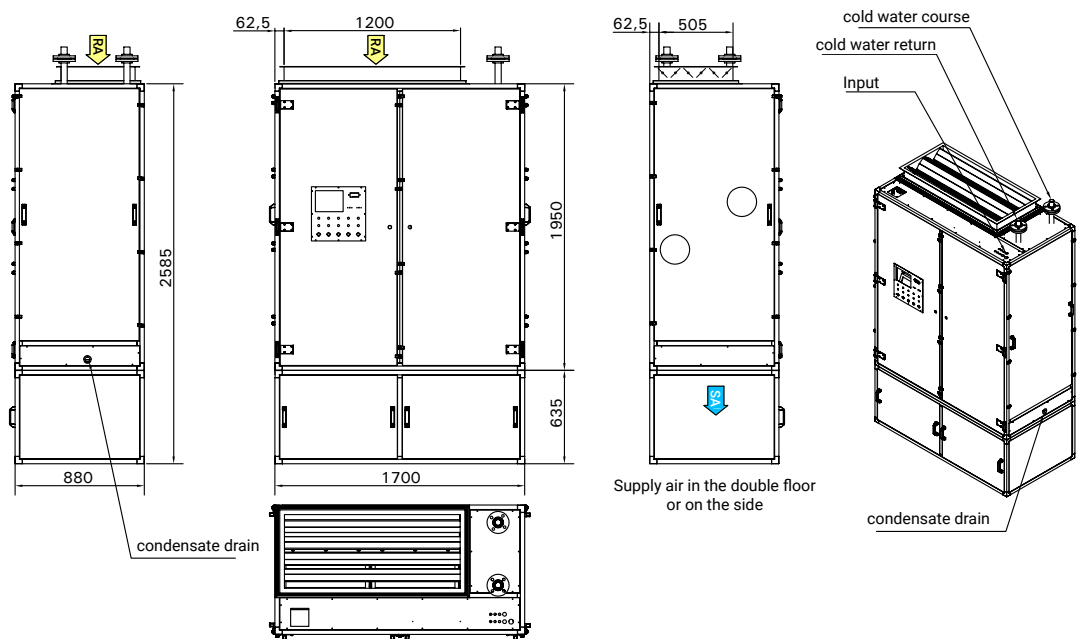


ReCool Line 10

With integrated cooling system:

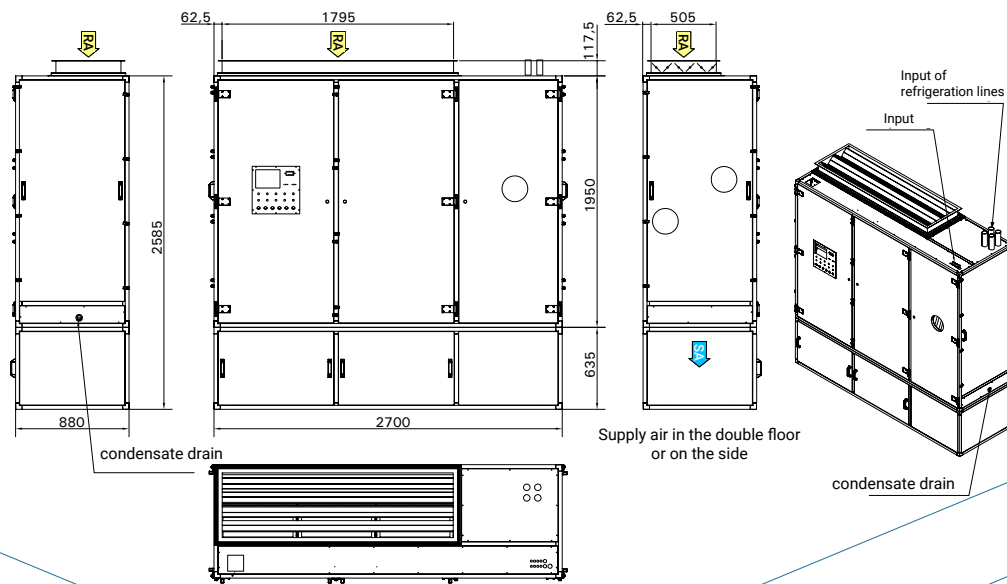


With a chilled water coil:



ReCool Line 18

With integrated cooling system:



With a chilled water coil:

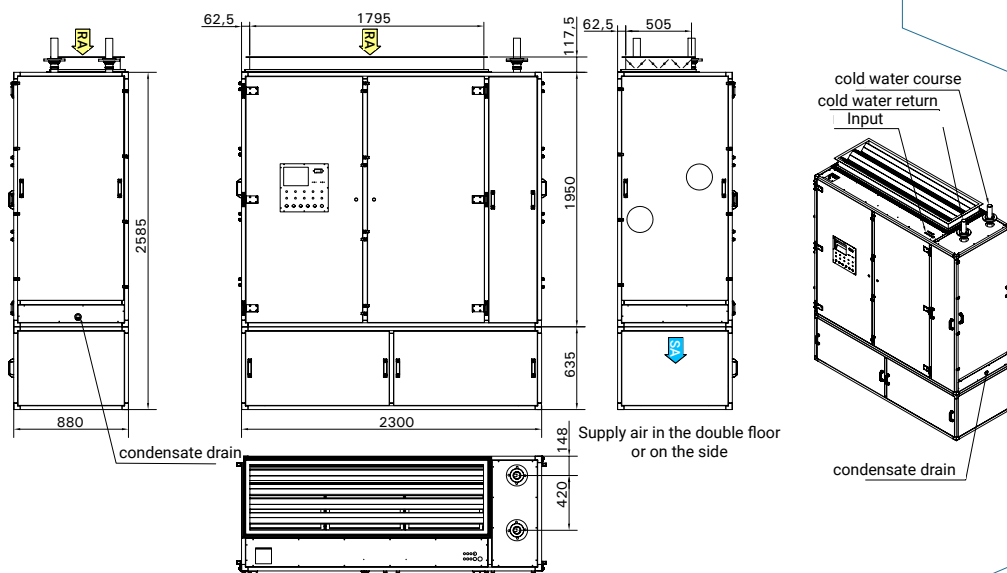
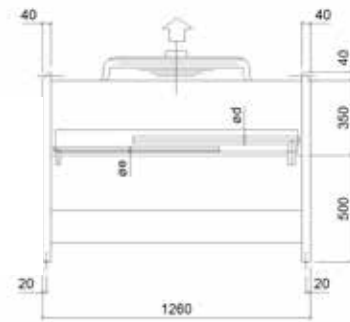
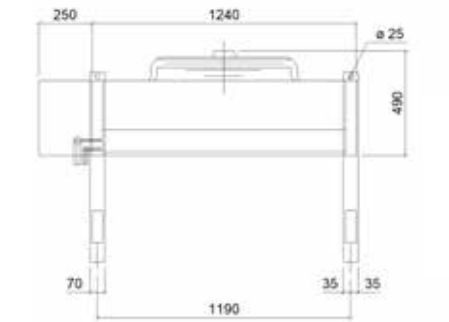
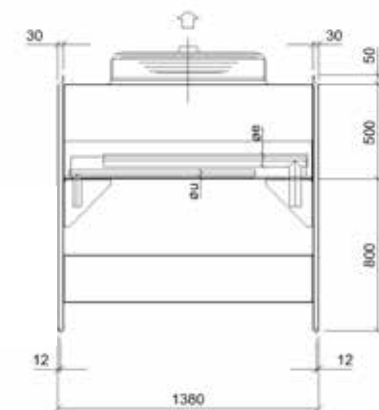
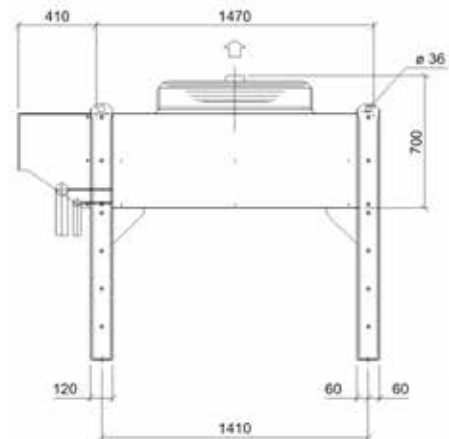


Table cooler – low-noise version

TK quiet 22:



TK quiet 35:



TK quiet 57:

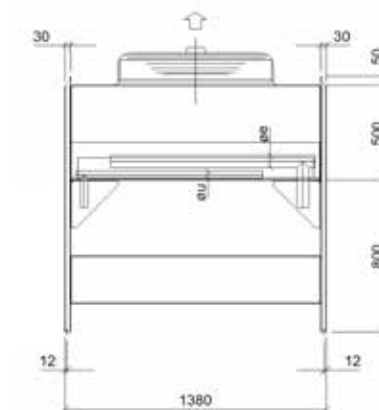
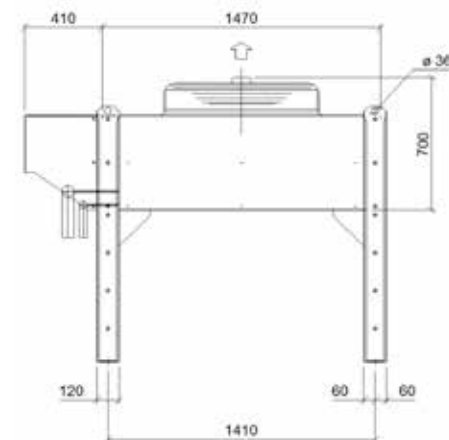
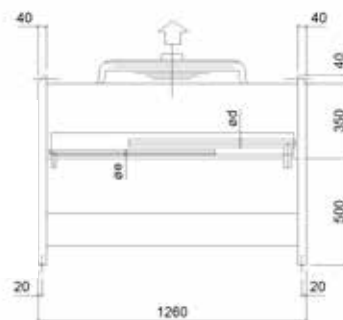
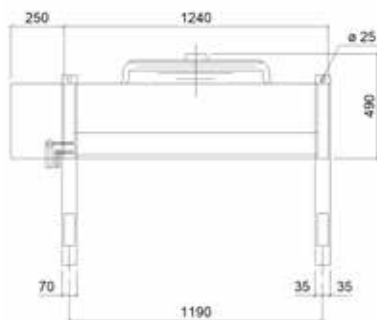
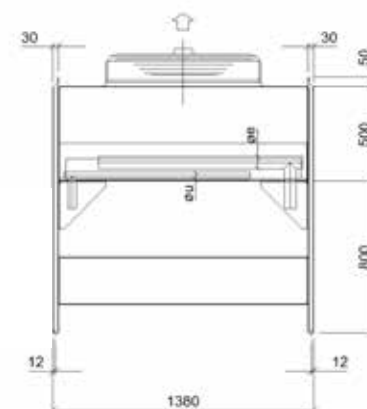
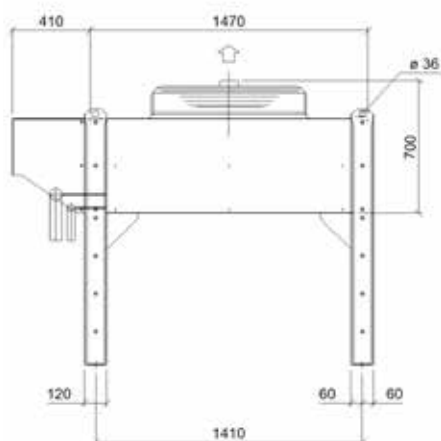


Table cooler – extra low-noise version

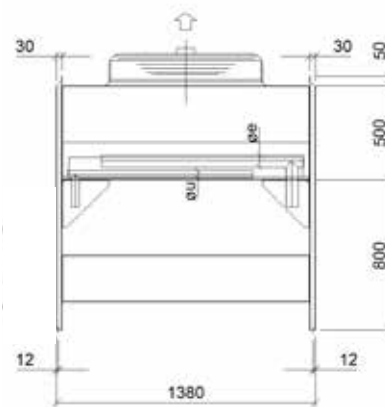
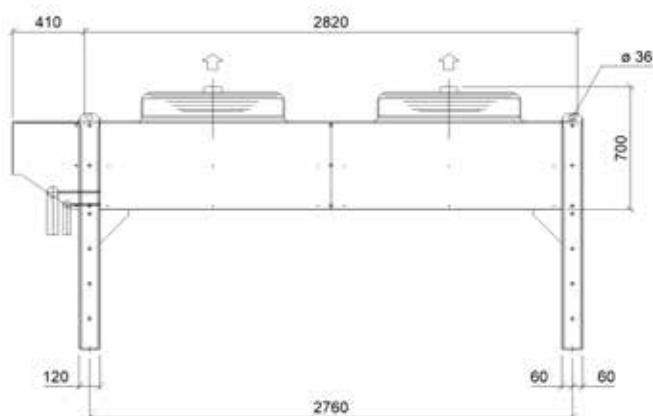
TK super quiet 22:



TK super quiet 35:



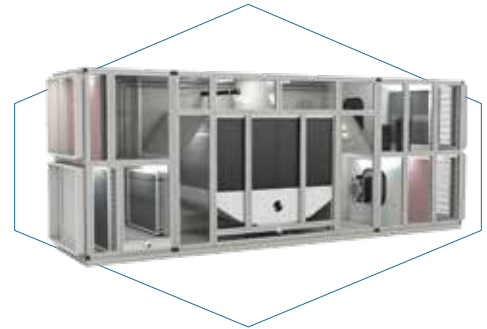
TK super quiet 57:



MORE PRODUCTS

Blue Line

Highly customisable ventilation and full air-handling units with central heat recovery designed for energy-efficient operation. All standard heat recovery systems can be integrated, including plate heat exchangers, rotary heat exchangers, run-around coil systems and Accublock.



Slim Line

Highly efficient, compact units manufactured in large quantities for cooling spaces with high thermal loads. Compared with recirculation or split-system units, these units can deliver significant energy savings in specific applications. Actual savings depend on the individual operating conditions.



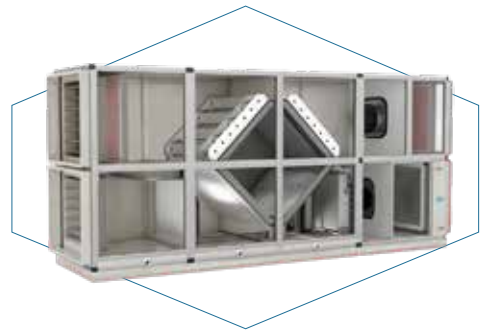
Free Line

Our Free Line units are fully customisable air-conditioning units designed for the free cooling of server rooms and, more generally, for the dissipation of process heat. They can be perfectly adapted to a range of applications.



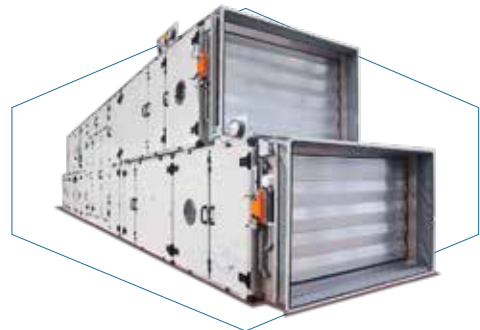
Pool Line

Swimming pool dehumidifiers are designed to provide comfort, protect the building, and operate efficiently. Their durable, energy-efficient design helps to reduce operating costs while meeting the specific requirements of each project.



Blue Line Hy

Germ-free, clean air is an essential requirement in hygiene-sensitive environments. Our Blue Line Hy air-handling units condition the air to meet specific application requirements.



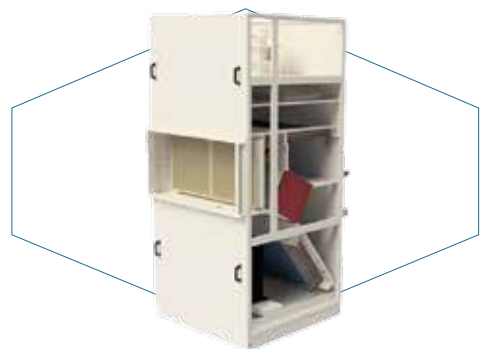
Compact Line

The modular design of this product range enables cost-effective manufacturing while providing maximum flexibility and versatility. The units are designed to meet high quality standards while ensuring cost-effective operation.



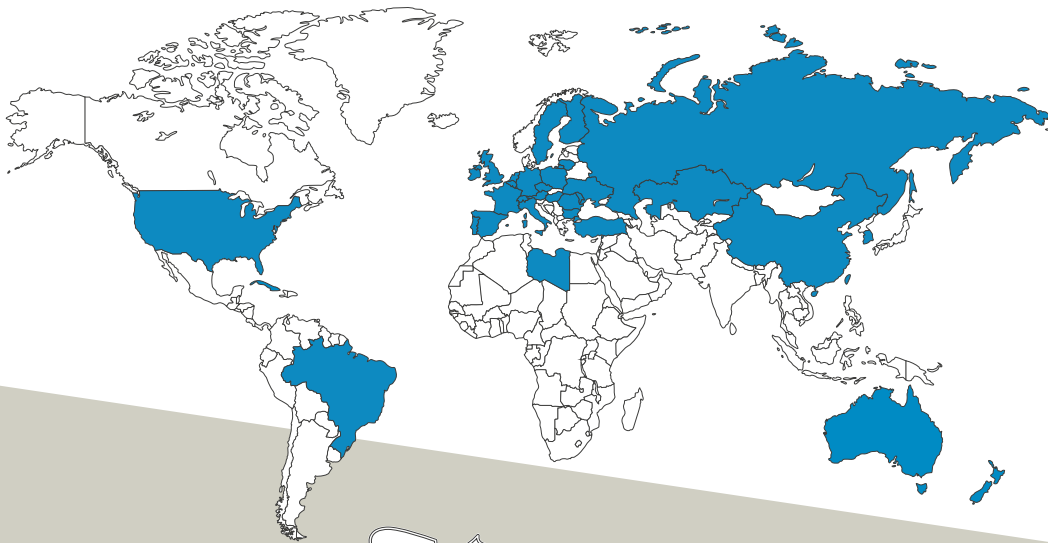
Specialised units

Our specialist product range includes the LF-HY (food hygiene) and Hygro Line (recirculating-air dehumidification) series. More detailed information about all our products is available on our website.





Our units around the world



LOCATIONS





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