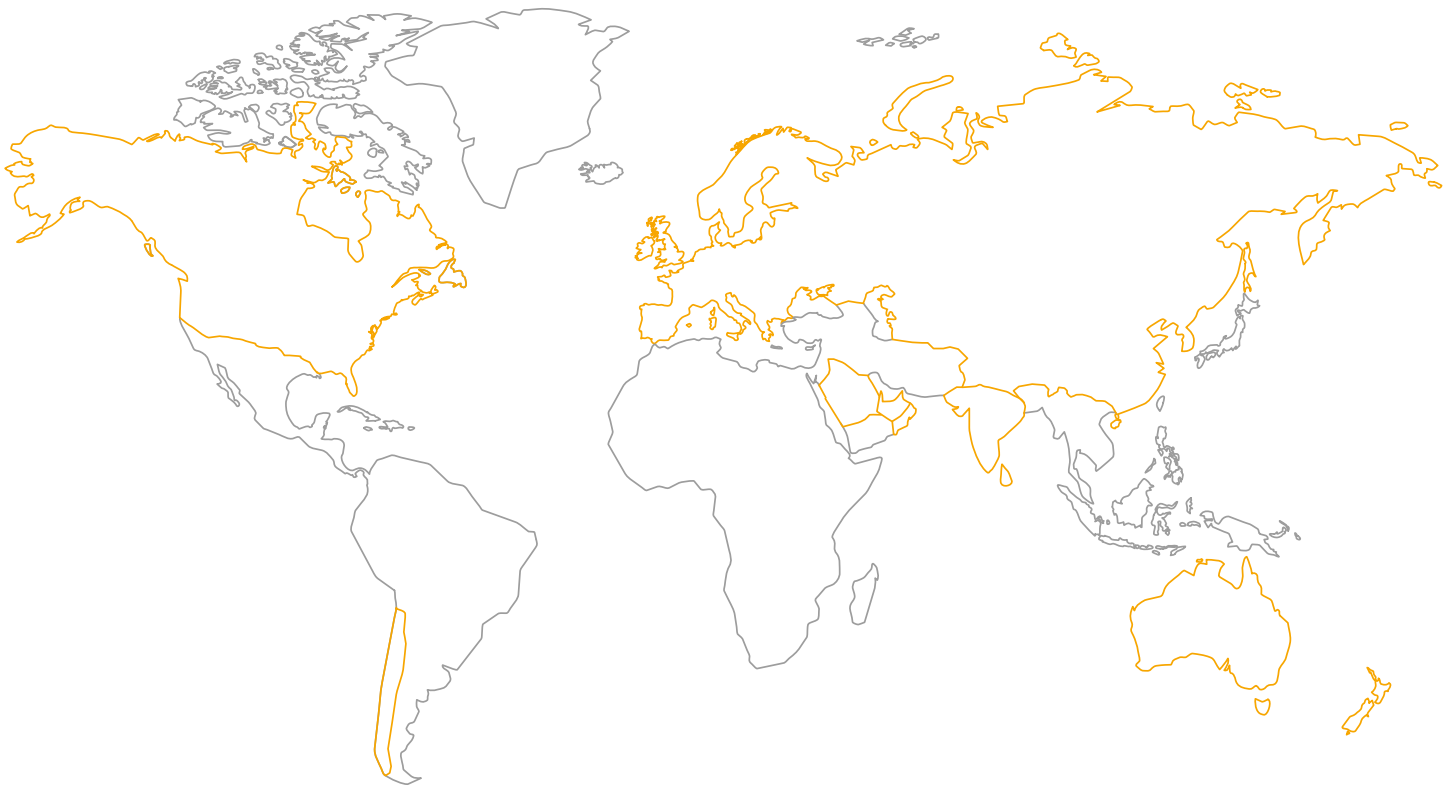




COMPANY PROFILE
2019



VTS



01

VTS GROUP

- 1.1 VTS AHU#1
- 1.2 3 constituents of success
- 1.3 Global product offer



02

DESIGNER SUPPORT

- 2.1 ClimaCAD Online 4.0 [CCOL 4]
- 2.2 VTS BIM



03

PRODUCT

- 3.1 VENTUS VVS - air handling unit
- 3.2 VENTUS Compact - air handling unit
- 3.3 VENTUS S-type - air handling unit
- 3.4 WING - air curtains
- 3.5 FAN COIL UNIT



04

REFERENCE FACILITIES

VTS GROUP – is a manufacturer of technologically advanced equipment for the HVAC Sector; using innovative technologies in the spheres of project research, production and logistics.



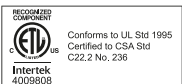
24/7 AVAILABILITY
IMMEDIATE

* Logistics centre



OUR MISSION

AHU#1





THE 3 ELEMENTS OF SUCCESS

Consistently superior product quality. Unbeatable market prices. The shortest lead time. These three elements of market policy ensure that VTS is always one step ahead, in every region of the world.

Following the proven assembly method of the automotive Industry, VTS created a network of 6 efficiently functioning logistics centers: **Atlanta, Dubai, Moscow, Shanghai, Warsaw and Bangalore**. Thereby guaranteeing the shortest delivery terms in the market, regardless of the region in the world.

Mass scale production of reproducible devices makes it possible for VTS to offer our product at the **most competitive price while retaining the best quality**.

Multilevel quality control systems enables VTS to offer the longest warranty in the market. **A 2-year warranty of trouble free equipment operation**.

MARKET'S LEAD
BEST TIME

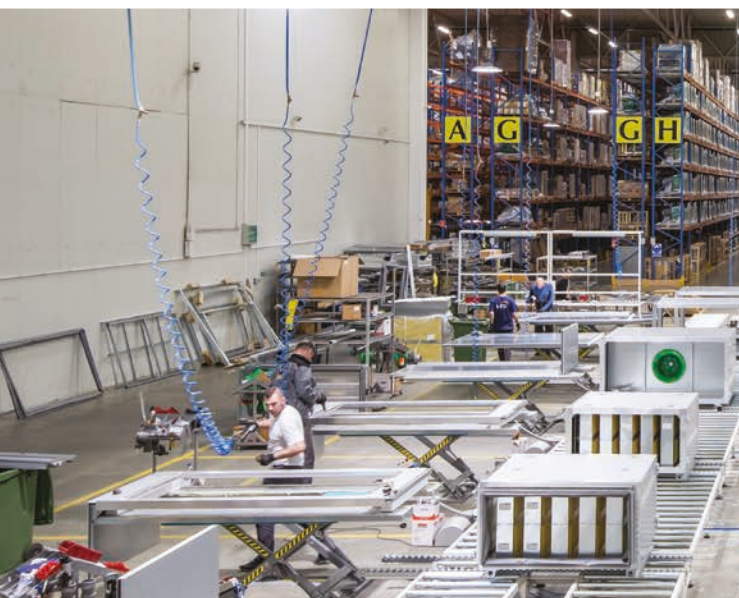
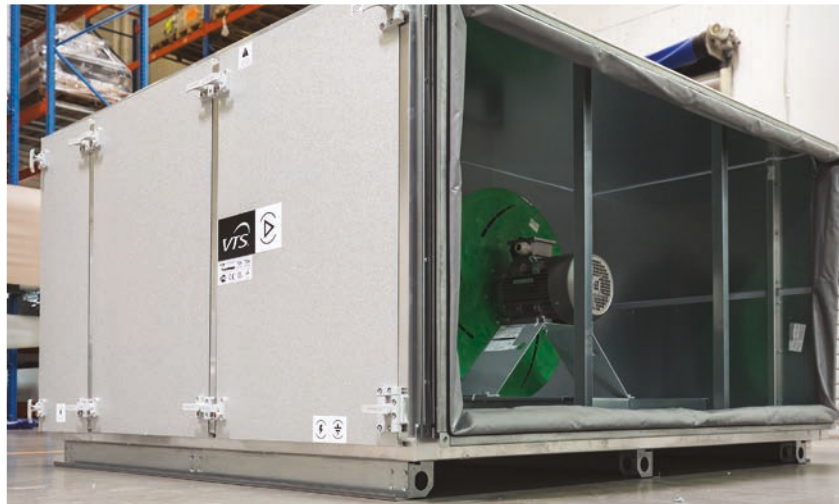
6 LOGISTICS
CENTERS

\$ competitive
price

110 000
UNITS
SOLD ANNUALLY

Q the highest
quality

2 optional warranty
YEARS FOR EACH
UNIT





Global product offer



VENTUS VVS
Air handling unit



AMERICAN VENTUS
Air handling unit



VENTUS COMPACT
Air handling unit



VENTUS N-TYPE
Air handling unit



VENTUS S-TYPE

Air handling unit



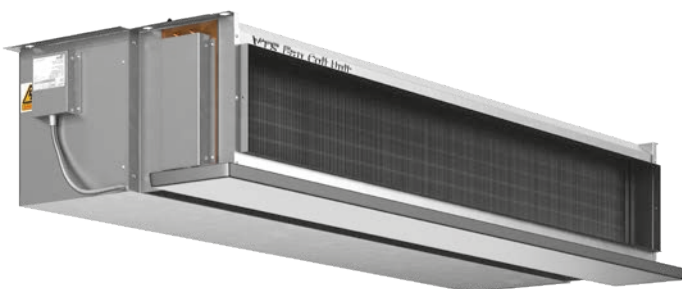
VOLCANO

Heating unit



WING

Air curtain



F-TYPE

Fan coil unit



ClimaCAD Online 4.0 [CCOL 4]

Customized configuration

User friendly interface



Fast&Easy selection

Integrated with CRM, ERP, WMA system

CCOL 4 IS ADJUSTED

» all browsers



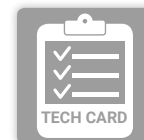
» all operating system



» all devices



DATA EXPORT TO

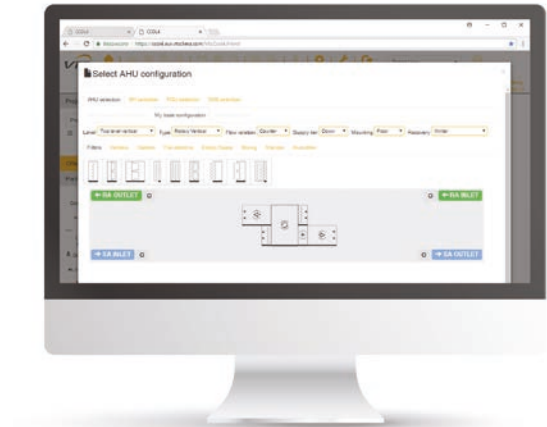




CCOL 4.0 uses the latest technology and development platforms, which will be accessible from anywhere in the world through our software as service models. All you need is a device with a web browser and access to the internet.

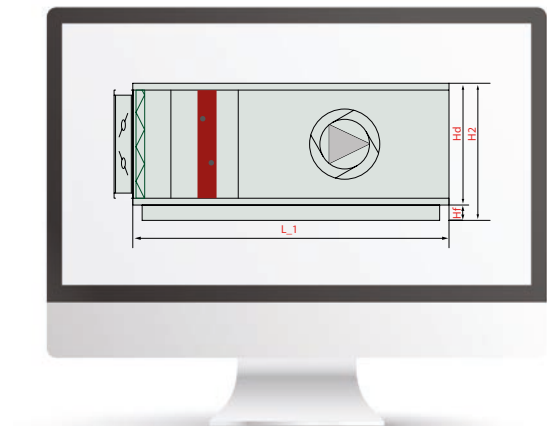
THE VERSATILITY OF DESIGNING

- » unlimited number of device configurations
- » detection of illogical configurations



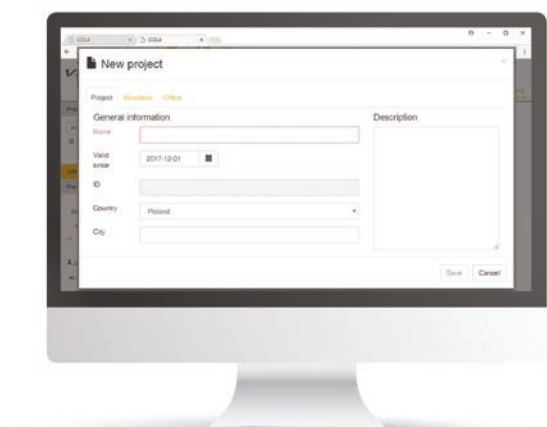
DYNAMIC COUNTING OF DEVICES DIMENSIONS

- » CCOL offers the optimal length of the control panel and the optimal section length adapted to the device functions and device design



MANAGING YOUR OWN DATABASE

- » the possibility of creating your own project database (selection)
- » the possibility of exporting own selections to quotation by VTS technical engineers





VTS BIM - a new approach to digital models of air-handling units

VTS has created the possibility of generating digital models of VENTUS VS and American VENTUS air-handling models on-line. This is possible thanks to the implementation of a new ClimaCAD OnLine 4.0 selection tool, equipped with .rfa (Revit®) files generator.



The process of model generation comes down to the following 3 steps:

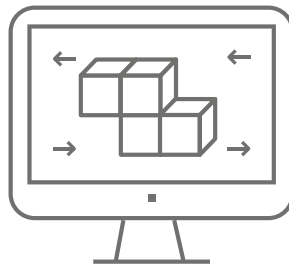


1

Login to CCOL 4.0 website

Login to the CCOL 4.0 using the following web address:

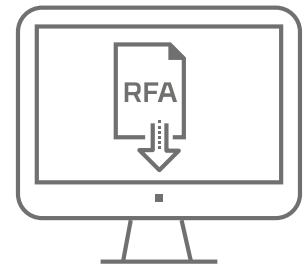
www.ccol4.com



2

Unit configuration

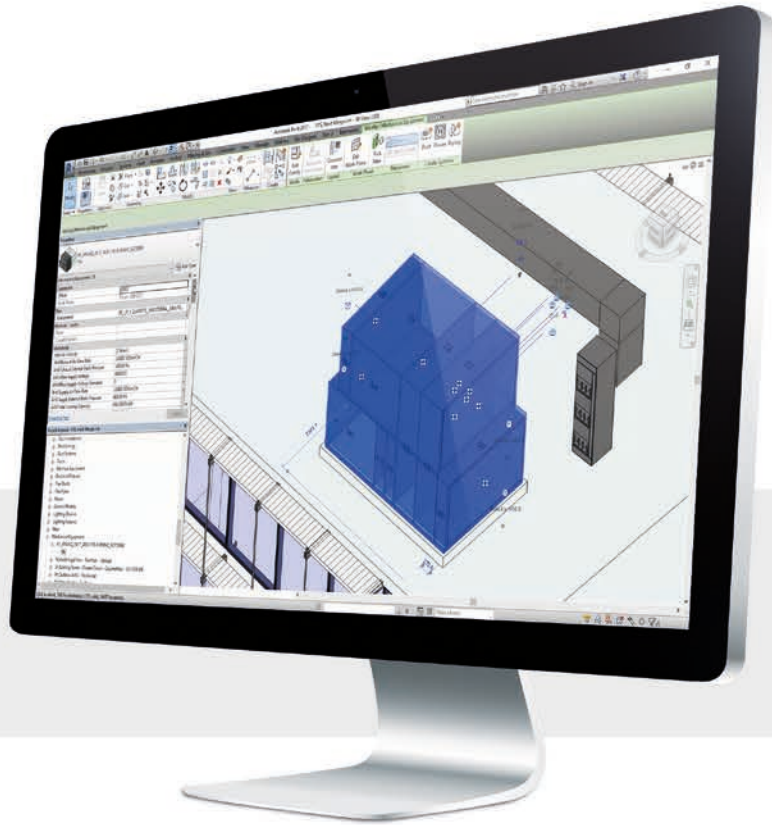
Use the intuitive selection tool to select your Air Handling Unit and set its working parameters to fit the specified project demands.



3

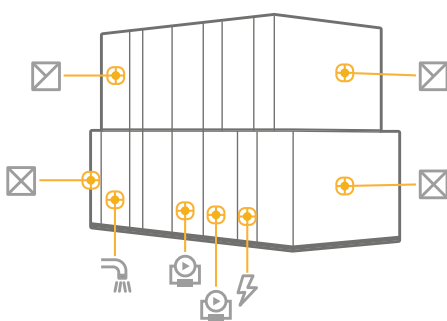
Data export to .rfa file

In order to generate a model in .rfa file, it is enough to enter the name and surname plus the email address of the person dedicated to receive the file. The system will automatically send a link to download the model. The entire process takes approximately 15 minutes.



The release of families for the Autodesk Revit® environment by VTS makes it easier to design agencies for model the building installations on the basis of using the same platform. At present the on-line generator is a unique solution in BIM environment. It enables the generation of a VENTUS air-handling unit model practically in no time in any configuration and with any parameters.

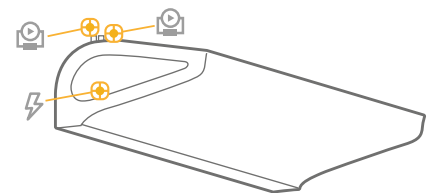
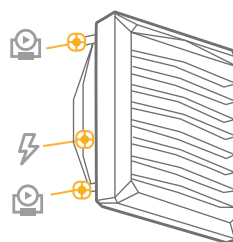
As a result, the client receives:



The generated objects contain detailed parameters connectors:

- » air systems,
- » hydraulic systems,
- » sanitary systems,
- » electric systems,

as well as the complete dimensional data, the device **maintenance** zone and the service (**repair**) zone.



VTS also provides digital models of WING air curtains and VOLCANO heating units.

The models contain:

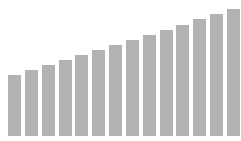
- » parametrized electric and hydraulic connectors,
- » mount options vertically and horizontally,
- » presentation of the range of air stream,
- » parameter of any inclination angle of a heating unit in relation to the horizontal plane.

Models can be downloaded from: <http://vtsgroup.com/vtsbim.html>



VENTUS

VENTUS air handling unit is a device designed for various types of buildings whose main functions cover air supply, air exhaust, air filtration, thermal treatment (both heating and cooling) and heat recovery. Additional functions of air handling units include among other humidifying and/or dehumidifying, air mixing and air circulation control.



14 sizes
available



from **1 100** m³/h
to **100 000** m³/h
capacity ranges

TYPICAL APPLICATION



school



offices



hotels



hospitals



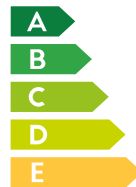
stores



sports facilities



ENERGY RECOVERY | RATE UP TO 92%!

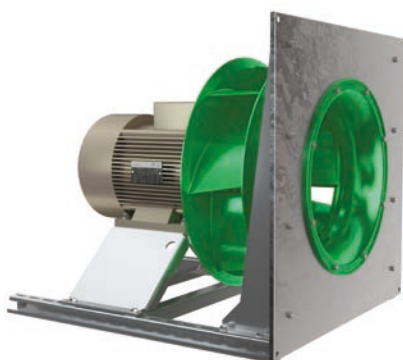


Energy recovery system:

- » cross-flow plate
- » rotary heat exchanger
- » run-around coil

HIGH PERFORMANCE DIRECT DRIVE
PLUG FANS WITH AEROFOIL DESIGN
BACKWARD CURVED BLADES

INNOVATIVE FRAMELESS CASING
- A UNIQUE CASING STRUCTURE
PROVIDES EXCELLENT INTEGRITY
AND RIGIDITY TO THE AHU.



- » Silent operation due to innovative airfoil blades with unique trailing edge shape
- » CAV/VAV ready
- » Smooth performance regulations using VFD technology
- » Maintenance-free fan-set



- » Best possible airtightness
- » Minimized thermal bridges
- » Highest casing rigidity rating



VENTUS COMPACT SUSPENDED AIR HANDLING UNITS



up to **92%**
recovery efficiency



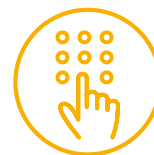
HIGHLY EFFICIENT
HEX COUNTERFLOW
RECOVERY



ENERGY SAVING
AND SILENT
EC MOTORS



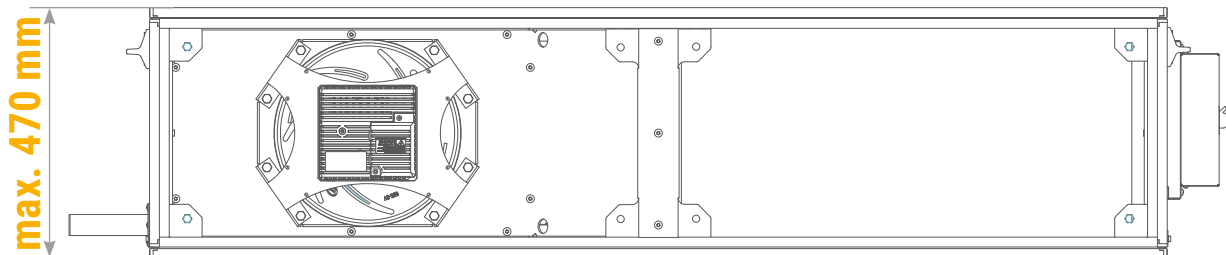
WIRING AND CONFIGURATION
IN PLUG & PLAY
STANDARD



INTEGRATED
MULTIFUNCTIONAL
CONTROLS



MINI-PLEAT
PANEL FILTERS

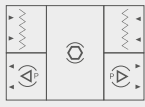




Common dimensions for all functions

Unit size	Nominal airflow	Airflow range	Height	Width	Duct connection height	Duct connection width
	[m³/h]	[m³/h]	[mm]	[mm]	[mm]	[mm]
VVS005s	500	150 - 650	380	790	318	335
VVS010s	1000	300 - 1100	380	1150	318	515
VVS015s	1500	450 - 1650	380	1550	318	715
VVS020s	2000	600 - 2200	470	1610	408	743
VVS030s	3000	900 - 3300	470	2160	408	1018

Lengths of functions

Unit size		F	H	C	HC
	Base unit	Additional air treatment functions			
	[mm]	[mm]	[mm]	[mm]	[mm]
VVS005s	1230	180	180 - 370	370 - 460	460 - 860
VVS010s	1500	180	180 - 370	370 - 460	460 - 860
VVS015s	1500	180	180 - 370	370 - 460	460 - 860
VVS020s	1828	180	180 - 370	370 - 460	460 - 860
VVS030s	1828	180	180 - 370	370 - 460	460 - 860

Duct outfits

Dimension WxH [mm]	VVS005s	VVS010s	VVS015s	VVS020s	VVS030s
Flexible connection	305x288	485x288	685x288	730x375	1005x375
Air damper	305x288	485x288	685x288	730x375	1005x375
Rectangle spigot	330x310/300x300	510x310/400x350	710x310/400x350	740x400/500x400	1015x400/800x400
Rounded spigot	330x310/355	510x310/355	710x310/355	740x400/450	1015x400/450



VENTUS COMPACT FLOOR MOUNTED AIR HANDLING UNITS



up to **86%**
recovery efficiency



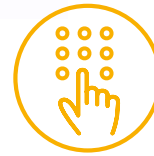
HIGHLY EFFICIENT
ROTARY HEAT WHEELS



ENERGY SAVING
AND SILENT
EC MOTORS



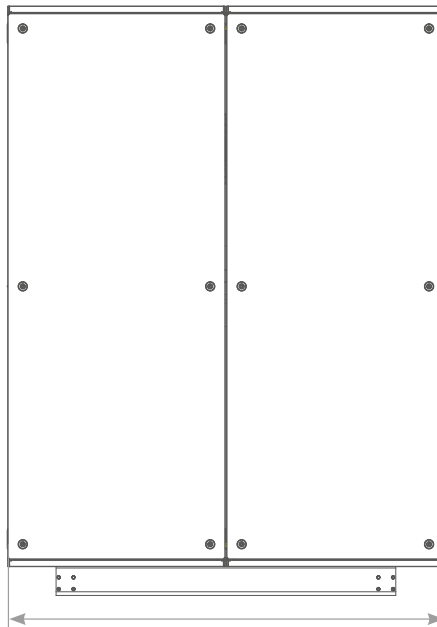
WIRING AND
CONFIGURATION
IN PLUG&PLAY
STANDARD



INTEGRATED
MULTIFUNCTIONAL
CONTROLS



MINI-PLEAT
PANEL FILTERS



max. 1400 mm



Common dimensions for all functions

Unit size	Nominal airflow	Airflow range	Height	Width	Duct connection height	Duct connection width
	[m³/h]	[m³/h]	[mm]	[mm]	[mm]	[mm]
VVS021c	2100	840 - 2310	991	967	348	861
VVS030c	3000	900 - 3300	1255	967	480	861
VVS040c	4000	1200 - 4400	1255	1174	480	1068
VVS055c	5500	1650 - 6050	1525	1345	615	1239
VVS075c	7500	2250 - 8250	1765	1486	735	1380
VVS100c	10000	3000 - 11000	1965	1666	835	1560
VVS120c	12000	3600 - 13200	2039	1897	872	1791
VVS150c	15000	4500 - 16500	2241	2091	973	1985

Height includes 90 mm base rail

Lengths of base units

Unit size			
	[mm]	[mm]	[mm]
VVS021c	1040	1040	1240
VVS030c	1120	1120	1400
VVS040c	1120	1120	1400
VVS055c	1040	1240	1240
VVS075c	1120	1400	1400
VVS100c	1040	1240	1240
VVS120c	1040	1240	1240
VVS150c	1040	1240	1240

Lengths of additional air treatment functions

Unit size	F	H	C	HC	S	E
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
VVS021c	240	240 - 420	370 - 550	550 - 700	1080	550
VVS030c	240	240 - 420	370 - 550	550 - 700	1080	550
VVS040c	240	240 - 420	370 - 550	550 - 700	1080	550
VVS055c	240	240 - 420	450 - 630	630 - 780	1080	630
VVS075c	240	240 - 420	450 - 630	630 - 780	1080	630
VVS100c	240	240 - 420	650 - 830	830 - 980	1080	650
VVS120c	240	240 - 420	650 - 830	830 - 980	1080	650
VVS150c	240	240 - 420	670 - 850	850 - 1000	1080	670



VENTUS S-TYPE

TECHNICAL SPECIFICATIONS

CASING

- 40 mm "Sandwich" double skin panels made of rigid polyurethane foam
- Inspection panels mounted on AHU side
- High anticorrosive protection:
 - Galvanized zinc (Zn) coating: 180g/m²
 - External protection coating material thickness: polyester / 25µm
- Inspection panels on both sides

AIR FILTERS

- Pleated filtration fabric shielded by steel net, installed in 50 mm thick frame
- Filtration fabric made of polyester fibres
- Working max parameters: max temperature (+70)°C, max. RH100%
- ISO Coarse 75% (ISO 16890) - G4 (EN779)

COOLING COIL

- Hydronic coils - 4, 6 rows available
- DX - 6 rows, 2 sections available
- Max operating pressure 1,6 MPa
- Testing pressure 2,1 MPa



DIRECT DRIVE PLUG FAN SET > BLOWER

- Single inlet, radial, backward curved, free running fan
- Direct drive – fan impeller installed directly on motor shaft
- Fan section consisting of single or twin fans
- Smooth regulation

DIRECT DRIVE PLUG FAN SET > AC MOTORS

- Fan and motor mounted on common housing, separated from AHU casing by set of rubber vibration absorbing mounts
- Motors of TEFS (Totally Enclosed, Fan-Cooled)
- Variable Frequency Drive (VFD) – standard part of the fan-set
- Available Energy classes: IE2
- Junction box on casing

DRAIN TRAY

- Material: Stainless steel
- Water outlet: 1"

TYPICAL APPLICATION



residential buildings



industrial buildings



small businesses



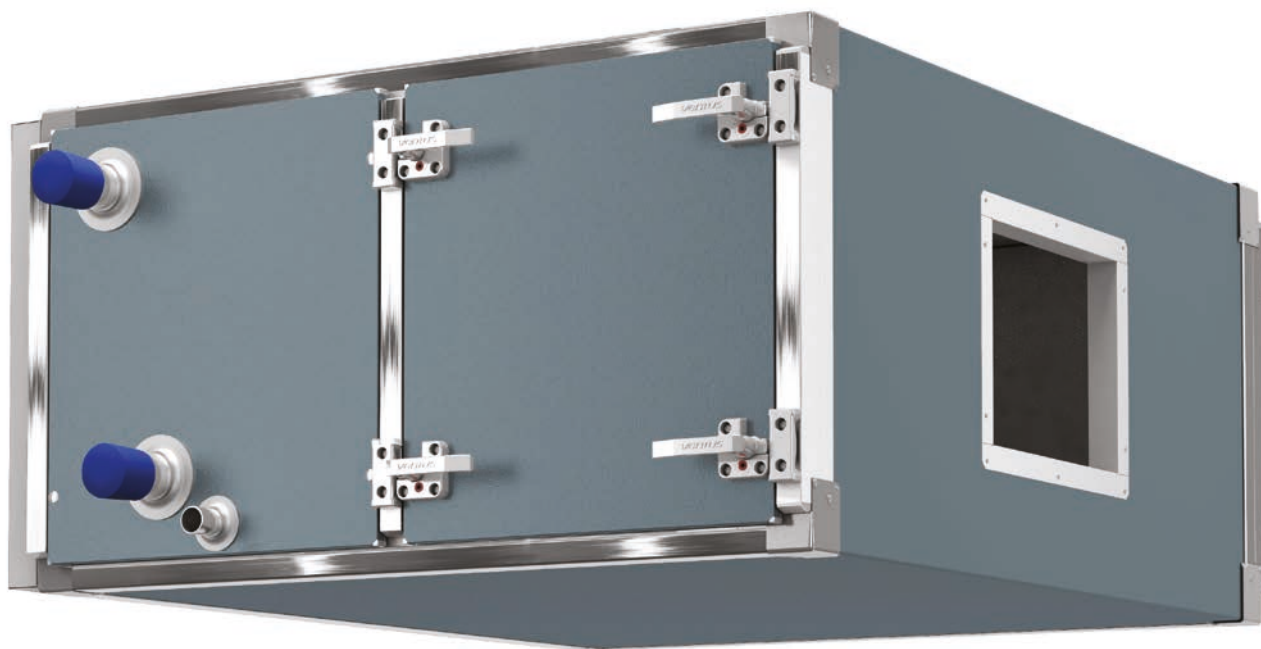
sports facilities



retail and warehouses



garages and workshops



 **100%**
units
tested in factory

Unit size	Min Air Flow		Max Air Flow		Air Flow						
	CMH	CFM	CMH	CFM	CFM						
					0	1000	2000	3000	4000	5000	6000
SVS-35	1500	883	3500	2060		■					
SVS-50	2100	1236	5000	2943		■					
SVS-70	3000	1766	7000	4120		■					
SVS-85	3400	2001	8500	5003		■					
SVS-100	4200	2472	10000	5886		■					

Unit size	Dimensions			Duct Connection	FAN	Motor	Weight
	H	W	L	h x w	Model	Rated Output	
	[mm]				[-]	[kW]	
SVS-35	530	1160	1120	280 x 770	VS 315	1,5	106
SVS-50	595	1300	1120	380 x 620	VS 355	1,5	124
SVS-70	530	2000	1120	380 x 1370	VS 315 x 2	1,5 x 2	181
SVS-85	655	2000	1120	480 x 1470	VS 400 x 2	1,5 x 2	205
SVS-100	655	2200	1120	480 x 1470	VS 400 x 2	1,5 x 2	220



WING

AIR CURTAIN

WING is the new generation device created from a passion for a light and modern design representing characteristics of gliders. A minimal casing with a streamlined form of a wing that seems to float in the air. The diamond style side panels hide the excellent components in an innovative curtain body to set new standards for air curtains. WING combines the unique design and excellent efficiency to redefine the air curtain image.



WING **W**

WATER HEAT EXCHANGER

HEATING POWER RANGE:
4 - 47 kW

EXHAUST FLOW RATE:
1850-4400 m³/h

MAXIMUM AIR COVERAGE:
3,7 m

WING **E**

ELECTRIC HEATING COIL

HEATING POWER RANGE:
2 - 15 kW

EXHAUST FLOW RATE:
1850-4400 m³/h

MAXIMUM AIR COVERAGE:
3,7 m

WING **C**

WITHOUT HEAT EXCHANGER (AMBIENT)

MAXIMUM AIR COVERAGE:
4 m

EXHAUST FLOW RATE:
1950-4600 m³/h

AIR CURTAINS AVAILABLE IN FOLLOWING SIZES

1 m

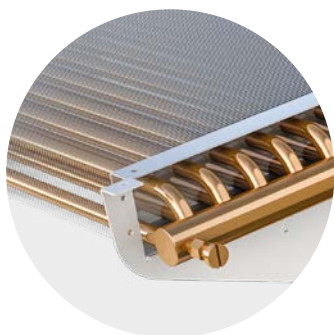
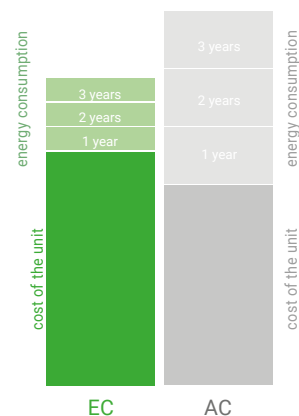
1,5 m

2 m



ENERGY EFFICIENT EC MOTORS

Modern design of the motor and fan saves up to 60% of energy compared to conventional solutions.



WATER HEAT EXCHANGER

The high-performance, two-row water heater is adapted to operate with low parametric factors.



ELECTRIC HEATING COIL

Low-temperature electric heating coil with high power allows for a safe work of the unit without the fan coast. Asymmetric heat power distribution allows to adapt it to the individual needs of the user.



UNIQUE DESIGN AND FUNCTIONALITY

Minimalistic form and smooth shape conceals strength of the device. Air curtains WING silently ensure the purity of restaurants, hotels, shopping malls, and even airports.



VOLCANO

HEATING UNIT

The Volcano heating units are a new generation of devices combining innovative technical solutions with a modern pattern design. Our precise and light casing resembles the beautiful diamond shape - ideal in its simplicity. The character of the device is emphasized by the composition of the selected materials and dynamically shaped air guide vanes.



VOLCANO	VR Mini	VR1	VR2	VR3	VR-D Mini	VR-D
HEATING POWER RANGE	3-20 kW	5-30 kW	8-50 kW	13-75 kW	-	-
MAXIMUM AIR OUTPUT*	2100 m ³ /h	5300 m ³ /h	4850 m ³ /h	5700 m ³ /h	2330 m ³ /h	6500 m ³ /h
HORIZONTAL RANGE (max.)	14 m	23 m	22 m	25 m	16 m	28 m
VERTICAL RANGE (max.)	8 m	12 m	11 m	12 m	10 m	15 m

*0,5 m/s maximum speed



HIGH QUALITY MATERIAL

Made of the highest class ABS with an anti-UV pigment mixture. The casing is characterized by high mechanical strength, durability, and resistance to high temperatures. The material used guarantees unchangeable aesthetics, easy to clean surfaces and long-term durability.



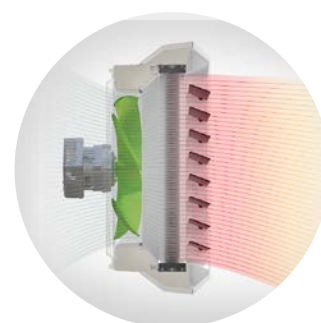
VOLCANO EC CONTROL PANEL

- automatic and stepless fan speed regulation
- time zone calendar
- cooperation with various BMS
- ECO and Antifrost work modes
- cooperation with external temperature sensors
- **connection of even up to 8 heaters to one control panel**



HEAT EXCHANGERS

- 1, 2 and 3-row heaters featuring increased heat exchange surfaces guarantee optimal match of the heating power to the requirements of the facility;
- Enhanced heat transfer surface and ability to work with low temperatures agents;
- All exchangers are tested to guarantee 100% verification of tightness.



MAXIMUM AIR OUTPUT

EC motors guarantee maximum unit efficiency even at reduced speed. Stepless rotation regulation is now available for EC motors allowing the unit to adapt to any requirements.

Our ideally matching fan casing and a dedicated diffuser provide for equal distribution of air speed in the exchanger to guarantee small flow resistance rates and full use of the exchanger's power output.



References



Ritz Carlton

UAE/ Dubai



Four Seasons Hotel

China/Hangzhou



Crowne Plaza

Qatar/ Doha



Dubai Arena

UAE/ Dubai



TESLA Gigafactory

USA/Sparks



Audi

Hungary/ Gyor



Tata Consultancy Services

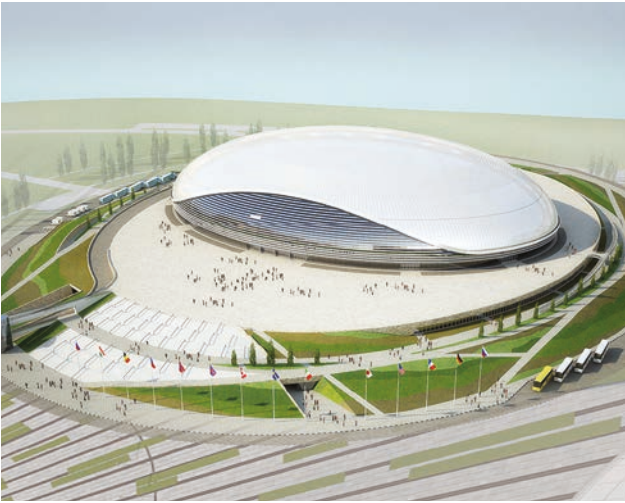
India/Chennai



Prime Corporate Center

Poland/ Warsaw

References



Bolshoy Ice Dome

Russia/ Sochi



Kedainiai Arena

Lithuania/ Kedainiai



University of Auckland

New Zealand/ Auckland



Arab Open University

Kuwait/ Al-Ardia



Ferrari showroom

Poland/ Katowice



Legoland

UAE/ Dubai



IKEA

China/ Shenzhen



Starbucks

Romania/ Brasov



References



InterContinental Hotel

UAE/ Dubai



Hilton Garden Inn

Russia/ Krasnoyarsk



Bridgestone

Russia/ Ulyanovsk



Váci Greens

Hungary/ Budapest



Atria Towers

UAE/Dubai



Siemens

China/ Beijing



New Century Global Country Center

China/ Chengdu



Al Kazim Tower

UAE/ Dubai



VTS Group Headquarters location and contact

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L-1528 Luxembourg
Phone: +35 22 021 18 07-22

VTS sp. z o.o. – producer of VENTUS Air handling units
VTS Plant sp. z o.o. – producer of VOLCANO heating unit
and WING air curtain

Address:
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80-309 Gdansk
Phone: +48 58 628 13 54
e-mail: vtsgroup@vtsgroup.com

Due to continuous improvement of the products, VTS reserves right to implement modifications.
Some of technical data and descriptions may vary from the actual products specification.
Before placing the order, please, confirm all technical specification with VTS sales representative.