



**Simplicity is the ultimate sophistication**  
– Leonardo da Vinci



VTS mission is to become a leading supplier offering AHU for business partners with excellence in simplicity.

# **VTS Group**

## – a leader in HVAC technology

**VTS Group** is a leading provider of Air Handling Units for commercial applications, focused on offering innovative products at competitive prices with a quick turn-around.

The strongest recommendations for VTS are our many years of experience and customers around the world.

*What has always made us unique keeps us growing still. VTS Group is a global corporation, a trusted brand and a leading supplier of air conditioning units and heating appliances. Where versatility meets experience, progress is born. We combine the pleasure of creativity with perfection, quality and simplicity to create a new dimension of products in the HVAC sector. This goes beyond any ordinary solutions because our work is our passion!*

Hanna Siek-Zagórska  
CEO VTS Group

**Scan QR code and watch  
a corporate movie**



INTRODUCTION

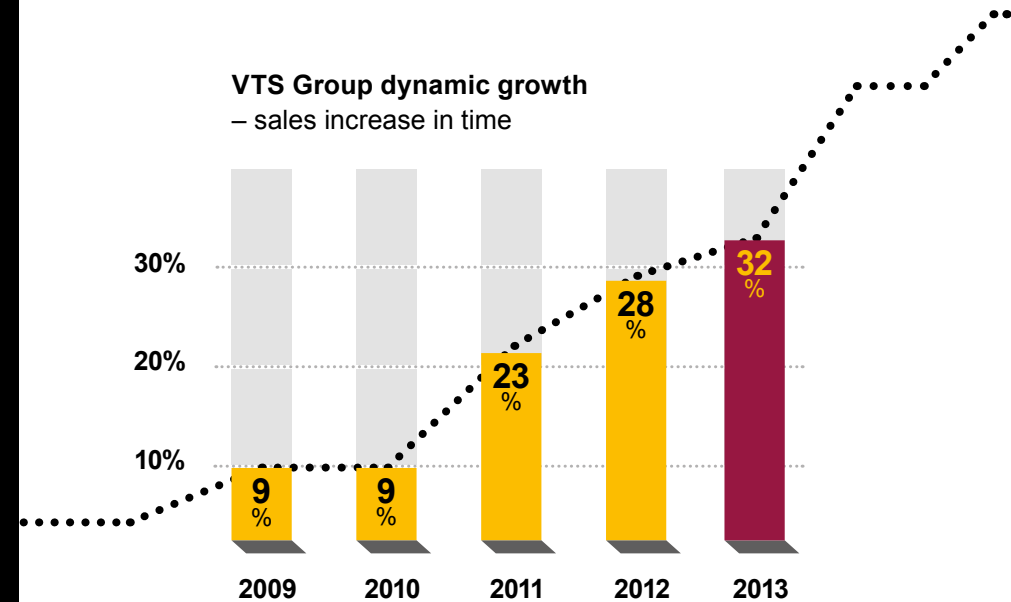
# A global corporation with European origins

**VTS is the No. 1 provider of air handling units in Europe** and leading provider in the world with established platforms across quickly developing markets of the Gulf States, China and India, a thoughtful mixture of greenfield investments and acquired businesses.

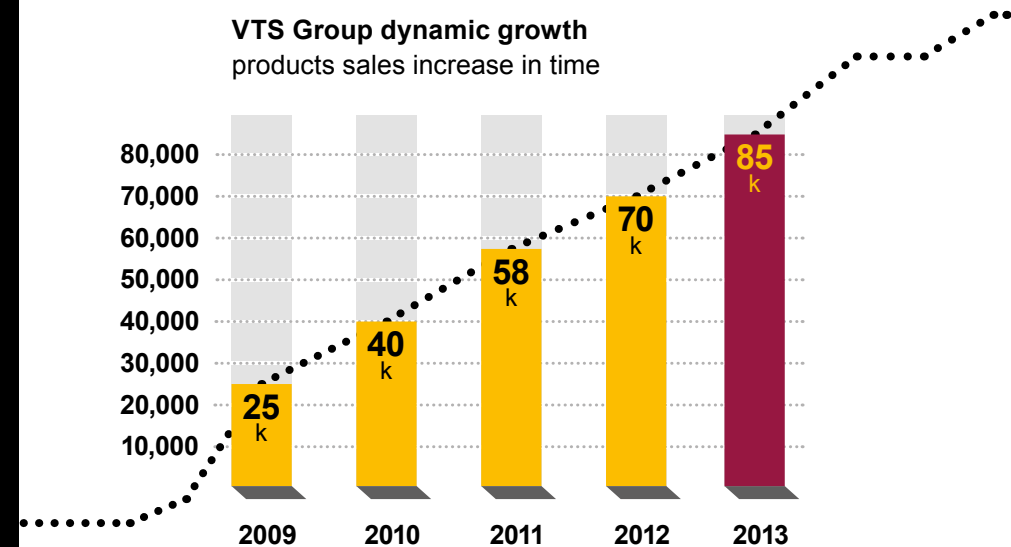
**VTS offers streamlined, flexible and innovative AHU** with a wide range of applications covering market needs at competitive prices. VTS Group's 3 major product categories include:

Air Handling Units – **VENTUS range**  
Air Curtains – **DEFENDER**  
Water Heaters – **VOLCANO**

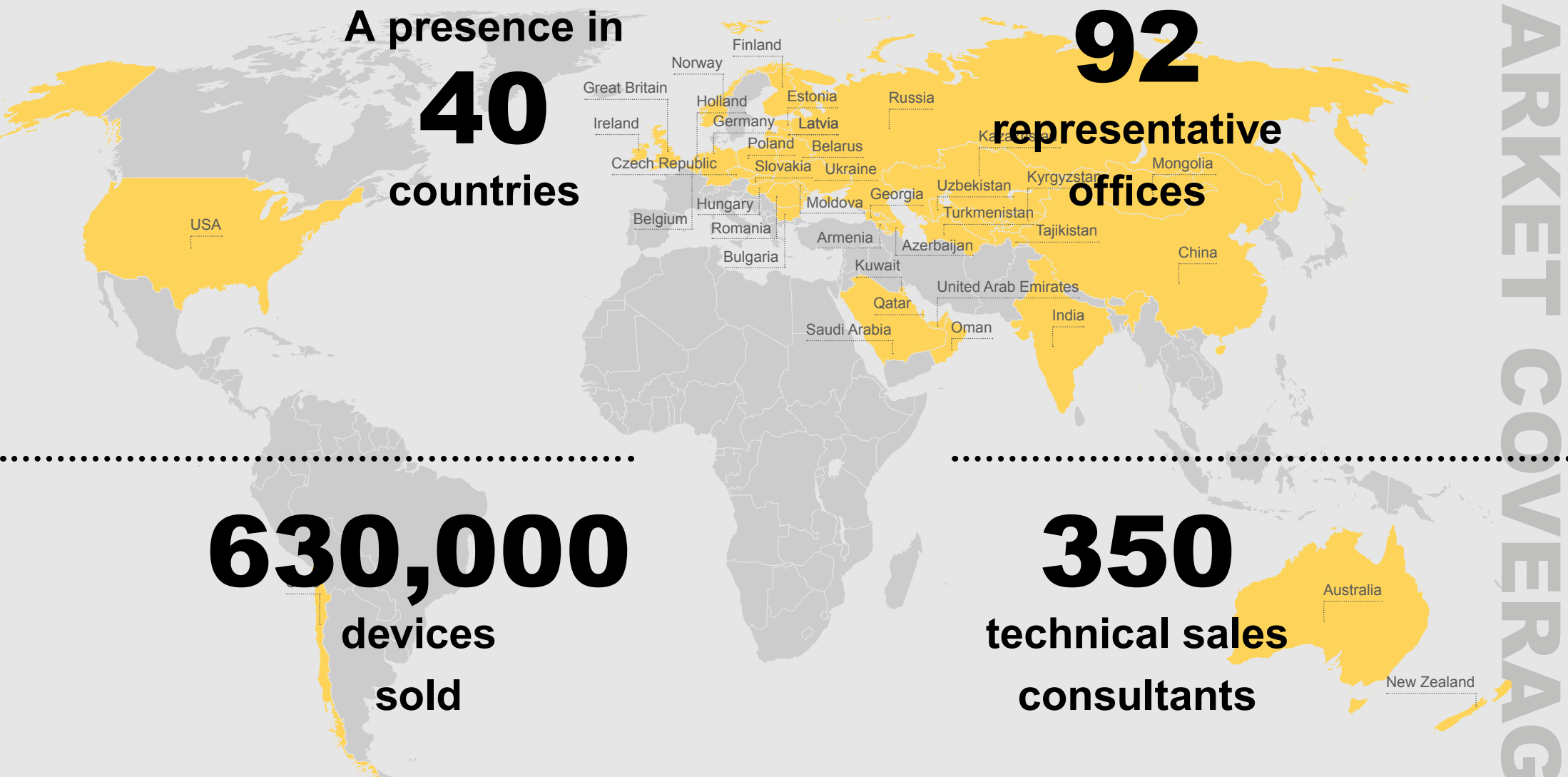
**VTS Group dynamic growth**  
– sales increase in time



**VTS Group dynamic growth**  
products sales increase in time



# VTS Worldwide



# Market leader focused on **dynamic long term growth**



## Innovative Technology

Innovative product – flexible and innovative products design with a wide range of applications covering the market.

Technology features include frameless casing, eliminating thermal bridges and composite PLENUM fan characterized by increased parameters and reduced costs.

New product options – constant development of new models tailored to specific market needs.



## Advanced Supply Chain Management

Storage of components in 5 Production Plants located in Poland, India, UAE, China and the USA, allowing quick delivery of products to final customers.

Ultra short lead time - c.a. 75% of orders are sent within short lead time of 1 week.

Long term relationship and cooperation with leading component manufacturers, service companies, retail chains and HVAC dealers from Europe and Asia.

Assembly of AHUs either on client's site by authorized service teams or at Group's assembly hubs.



## High Market Coverage & Distribution

High market involvement through presence in 40 countries, extensive network of more than 350 technical sales consultants and utilizing franchises in the Central European market and dealers in the Western part of Europe.

Leading market position in Poland, Russia and other Central European countries and well established companies in the Gulf States, China and India.



A background image showing a group of business professionals in a meeting. They are gathered around a large glass table, looking at and pointing to various documents and charts. The charts include pie charts and bar graphs. The scene is brightly lit, suggesting a modern office environment.

Reliable **business partner**

**No. 1 in Europe**

**OUR ADVANTAGES**

Leading and innovative provider of AHU solutions with proven track record in commercial projects worldwide.

Well- established cooperation with key customers: either global retail merchants, office and industrial building designers or installers and general contractors.

# Thousands of satisfied customers around the world are the best recommendation for VTS

## Hotels



**Hotel Mariott**  
United Arab Emirates



**Ritz Carlton**  
United Arab Emirates



**Leela Palace**  
India



**Everbright China**  
China



**Crownie Plaza Hotel**  
India



**Aloft Hotel - Abu Dhabi**  
United Arab Emirates



**Al Bateen Tower**  
United Arab Emirates



**Rocco Forte**  
United Arab Emirates



**Four Seasons Hotel**  
China

## Offices



**Sky Tower**  
Poland



**Skyview Corporate Park**  
India



**Gazprom**  
Russia



**Shining Towers**  
United Arab Emirates



**Medina Centrale**  
Qatar



**K3 Office Building**  
Hungary



**Canal +**  
Poland



**Emirates Financial Towers**  
United Arab Emirates



**Siemens**  
China



**Digital - Beijing**  
China



**CNC Building**  
China



**Al Kazim Towers**  
United Arab Emirates



## Commerce and sport buildings



**Kazan Arena**  
Russia



**Olympic Stadium**  
Russia



**Yuanshen Sports Centre**  
China



**Leier City Center**  
Hungary



**Cladire birouri BVO**  
Romania



**Fencing Centre**  
China



**Audi**  
United Arab Emirates



**Al Salam Mall**  
Kuwait



**Ikea**  
China

## Public facilities



**Moscow National Library**  
Russia



**Al Ain Cromwell Hospital**  
United Arab Emirates



**Sharjah Museum of Islamic Civilisation**  
United Arab Emirates



**Clinic in Santariskes**  
Lithuania



**Parliament**  
Slovakia



**Mosque**  
Kazakhstan



**Medina Centrale**  
Qatar



**No. 1 Hospital**  
China



**Fundeni Hospital**  
Romania



**Toyota Lexus**  
Russia



**Europe Eye Hospital**  
Romania



**Royal Castle**  
Poland

The products worth **investing in**

# ***VENTUS***

Air handling unit is a device installed in a building 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 humidifying and/or dehumidifying, air mixing and air circulation control.

## Wide performance range

- Building of any capacity - from restaurants, through trading centres to huge Production Plants
- All kinds of buildings - residential, commercial, industrial
- Base air handling units supported by wide range of optional air treatment functions

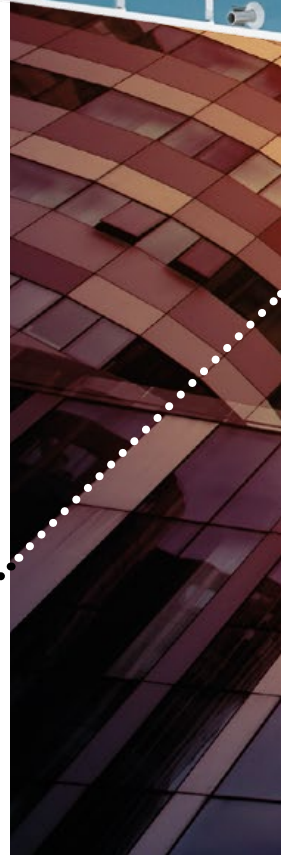


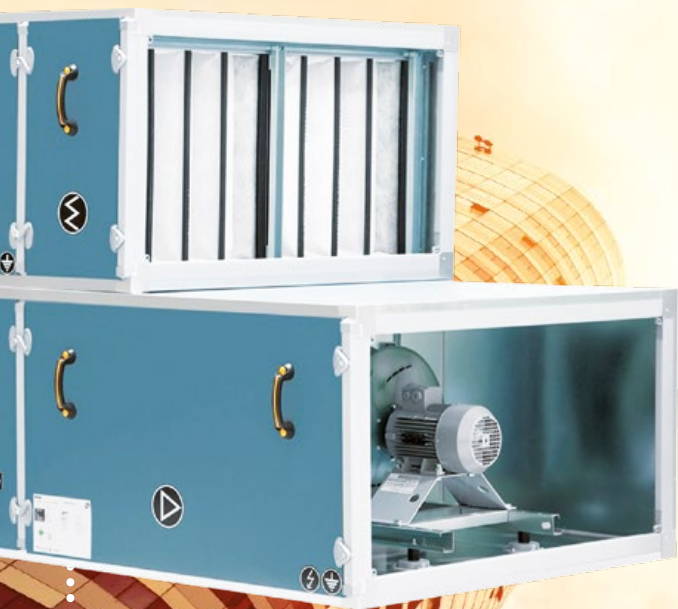
**16 sizes**  
available

**200 CFM to 60000 CFM**  
capacity ranges

## VENTUS sizes

10 15 21 30 40 55 75 100 120 150 180 230 300 400 500 650





## Innovative FRAMELESS casing

- VTS unit casing utilizes ground-breaking technology which eliminates thermal bridges, a cause of condensation on a standard unit.
- Panels are made of polyurethane foam with double side zinc coated steel sheets covered with anticorrosive coating, significantly increasing units' rigidity and decreasing corrosivity.
- Frameless casing allows VTS' AHUs to operate in almost all climate and geographical zones – all weather conditions, and in temperatures ranging from  $-40^{\circ}\text{F}$  to  $+150^{\circ}\text{F}$ .



## High performance PLENUM fan

- PLENUM fan supplied from VFD for easy performance regulation
- Airfoil blades ensuring best static efficiency



## VENTUS advantages

- VTS unit energy recovery efficiency reaches 85%.
- VTS offers AHUs with full control systems providing a simple and clear interface which allows users to read and set up the necessary operation parameters.
- Selected components of VTS units with a warranty of up to 5 years.







# The **products** worth **investing** in



**Get more **for less****  
– maximum features in standard unit without added costs.

- Innovative **FRAMELESS** casing
- Low weight
- Maintenance-free **PLENUM** fan

**VTS Air Handling Unit** – VENTUS Born in the USA combines European technology and American sustainability. VENTUS born in the USA is tailored to the needs of the American market, available in either horizontal or vertical configurations. The unit offers a wide range of applications, providing a low cost method of air conditioning and/or heating buildings at the same time. The units can be configured for different inlet positions for easy duct connection. The same for the components inspection panels, which can be specified for right or left side.

**1 WEEK** delivery time as a **STANDARD**

**Available in 9 nominal capacities  
from 800 to 8500 CFM**

## Wide range of applications

- Operation in different climate conditions (-40°F to 150°F)
- Compact size – possibility of mounting in small spaces and easy relocation if needed



### Filters

All units have an internal flat filter frame for two or four-inch filters:

- Two-inch MERV8 filter
- Four-inch MERV13 filter

### Coils

Main coil with copper tubes and aluminum fins in 1, 2, 3, 4, 6 and 8 rows hydronic and 2, 3, 4 and 6 row for DX



## Innovative FRAMELESS casing

Low vibration, noise and elimination of thermal bridges - high durability polyurethane sandwich panels.

Control options

## PLENUM Fan

Backward curved fan impeller, directly driven by highly efficient electric motor.

## Typical applications:



Schools



Offices



Hospitals



Stores





# The **products** worth **investing** in

**ventus** 

**Get more for less**  
**VENTUS born in the USA**

## 1 Ready to install – Plug&Play device

Factory-mounted controls and end devices.

Options of packages:

- a. VENTUS + frequency converter
- b. VENTUS + frequency converter + controls
- c. VENTUS + frequency converter + controls + wiring

## 2 Simple to maintain

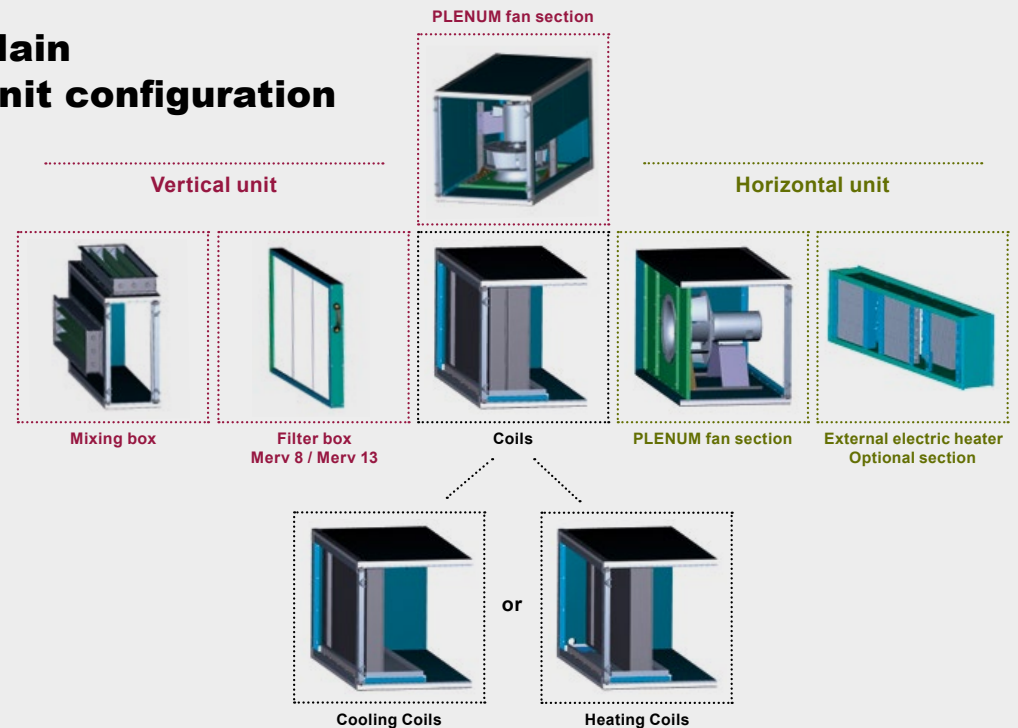
- a. Maintenance-free PLENUM fan
- b. Anti-corrosion and reduced energy loss casing – no thermal bridges
- c. Anti-corrosion drain pan made of stainless steel

## 3 Investment safety

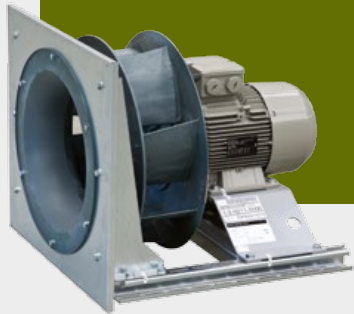
- a. Selection software (ClimaCAD On-line) certified by Eurovent available at [www.vtsgroup.us](http://www.vtsgroup.us). Eurovent confirms the accordance of unit's calculated parameters.
- b. The high quality manufacture of VENTUS units is the result of the strict and up to date standards developed by VTS Group and independent international leading expert laboratories.



### Main unit configuration



## High performance direct drive PLENUM fans with backward-curved blades



- High efficiency
- Silent operation due to the fan rotors fitted with aerodynamic blades curved backwards
- Substantial energy savings
- Maintenance-free – direct drive
- Flexible direction of power supply flow
- Smooth air flow adjustment



## Innovative FRAMELESS casing

- a unique casing structure provides excellent integrity and rigidity to the AHU

- Reduced energy loss
- Excellent rigidity
- Elimination of condensation in the unit walls
- Anti-corrosion protection
- Easy installation
- Compact size
- Lower weight
- No thermal bridges





# The **products** worth **investing** in



## Optional Sections

These optional sections make the VTS product even more flexible:

### Mixing Box

The mixing box option ships together with the unit and includes low leak aluminum dampers and access panel.

### Flexible supply/discharge location

VTS selection software offers many applications as to the location of air supply and discharge in the units. This reduces field work needed to properly install and set up the unit.

### Electric Heater

A factory installed electric heaters with square fins - available in a wide variety of voltages and kW's. All units have a double point power connection, one for the unit itself and one for the electric heater.

### Steam Coil

One-row steam coil is available as the option of preheater.



General data										
Unit Size		VTS 8	VTS 12	VTS 16	VTS 20	VTS 30	VTS 40	VTS 55	VTS 65	VTS 85
Coil Face Area (ft²)	Heating / Cooling	1.71	2.48	3.40	4.55	6.60	9.14	11.96	14.53	18.03
	DX	1.73	2.5	3.6	4.58	6.77	9.18	12.14	14.74	18.34
Airflow Range MIN/MAX (CFM) <sup>a</sup>	MIN All/Draw-through Electric Heat (Horizontal/Vertical)	340 / 520	490 / 760	650 / 1040	820 / 1400	1200 / 2160	1600 / 3000	2000 / 3850	2400 / 4600	3000 / 5680
	MAX Cooling (Horizontal/Vertical)	1192	1722	2281	2889	4245	5613	7173	8578	10572
	MAX Heating (Horizontal/Vertical)	2146	3099	4107	5200	7641	10103	12912	15440	19030
Fan HP / Max RPM <sup>b</sup>		0.75 / 4100	1 / 3750	1 / 2550	1.5 / 2300	2 / 2200	3 / 2010	5 / 2100	5 / 1700	7.5 / 1900
		1 / 4600	2 / 4700	1.5 / 2900	2 / 2650	3 / 2700	5 / 2500	7.5 / 2300	7.5 / 1900	10 / 2120
				2 / 3240	3 / 2950	5 / 3000	7.5 / 2800	10 / 2500	10 / 2120	
Flat Filter (Qty/in)	MERV8 (2") or MERV13 (4")	1/ 24.00 x 14.25	1/ 34.62 x 14.25	1/ 40.25 x 16.25	1/ 42.75 x 19.37	3/ 16.50 x 24.75	3/ 18.37 x 29.50	3/ 20.75 x 33.37	3/ 23.75 x 34.87	4/ 19.75 x 38.75

a: Minimum cfm limit applies to all functions or Electric Heat. Max cfm due to moisture carry-over limits. b: Max RPM due to max HP (load)

Dimensions and weights										
Unit Size		VTS 8	VTS 12	VTS 16	VTS 20	VTS 30	VTS 40	VTS 55	VTS 65	VTS 85
Horizontal Unit <sup>a</sup>	Height (in)	20,8	20,8	22,8	26	31,3	36	40	41,4	45,5
	Width (in)	27,2	37,8	43,4	46,0	52,7	58,3	65,4	74,4	82,1
	Length (in)	47,6	47,6	47,6	53,9	53,9	62	62	68,3	68,3
	Weight <sup>b</sup> (lb)	183	246	261	327	405	494	629	728	847
Mixing Box Section (length (in) / weight (lbs))		16 / 24	22,3 / 41	22,3 / 87	24,1 / 78	24,1 / 98	16 / 102	30,4 / 161	30,3 / 170	30,3 / 175

a: Basic unit includes fan, drives, 2 row re-heat coil, 4 row cooling coil and 2" MERV8 filter. b: Weight of basic unit includes casing, fan, average drive, 2 row re-heat coil, 4 row cooling coil and 2" MERV8 filter. Consider +/- 10% weight difference.

Dimensions and weights							
Unit Size		VTS 8	VTS 12	VTS 16	VTS 20	VTS 30	VTS 40
Vertical Unit <sup>a</sup>	Height (in)	43,6	43,6	45,7	54,1	59,4	68,9
	Width (in)	27,2	37,8	43,4	46	52,7	58,3
	Length (in)	33,2	33,2	33,2	33,2	33,2	33,2
	Weight <sup>b</sup> (lb)	244	322	355	404	491	568
Mixing Box Section (length (in) / weight (lbs))		19 / 39	19 / 48	19 / 68	27,1 / 92	27,1 / 113	27,1 / 132

a: Basic unit includes fan, drives, 2 row re-heat coil, 4 row cooling coil and 2" MERV8 filter. b: Weight of basic unit includes casing, fan, average drive, 2 row re-heat coil, 4 row cooling coil and 2" MERV8 filter. Consider +/- 10% weight difference.

Available Electric Heat									
Available electric heating, min - max (in kW)									
Voltage	VTS 8	VTS 12	VTS 16	VTS 20	VTS 30	VTS 40	VTS 55	VTS 65	VTS 85
208/60/1	3-9	3-12	6-15	6-21	9-30	15-30	18-30	21-30	27-30
230/60/1	3-9	3-12	6-15	6-21	9-27	15-27	18-27	21-27	27-27
208/60/3	3-9	3-12	6-15	6-21	9-30	15-42	18-54	21-54	27-54
230/60/3	3-9	3-12	6-15	6-21	9-30	15-42	18-48	21-48	27-48
460/60/3	3-9	3-12	6-15	6-21	9-30	15-42	18-54	21-63	27-81



# The **products** worth **investing** in



## Energy recovery systems

### Energy recovery systems – affordable for everyone:

VENTUS born in the USA may be supplied with: Energy Recovery Wheel and Cross flow energy recovery

Separation of the air used and supplied

Recovery of sensible and latent heat

Energy recovery sections at competitive prices

### Energy Recovery Wheel

Maximum heat recovery efficiency of up to 85%

Low internal air leakage rate of 1% - 3%

Equipped with motor and VFD to adapt to environmental changes and ensure maximum efficiency

### Cross flow energy recovery

Maximum heat recovery efficiency of up to 70%

Internal air leakage rate as low as 0.1%

Ensures low air leakage in single direction



## Energy recovery rate of up to 85%!







## Typical applications:



Malls



Breeding facilities



Warehouses, workshops  
and production facilities



Sports facilities



# The **products** worth **investing** in

## **VOLCANO** Unit Heater



VOLCANO heaters form an integral part of modern heating systems. Used in buildings of medium and large capacity, they eliminate the problem of underheating and the negative influence of atmospheric conditions onto the inside of the building.

The **VOLCANO unit heater** is available in three basic options

**1 VOLCANO mini**  
Heating power: **3-20 kW**  
Weight: **9.8 kg**  
Efficiency: **1177 CFM**  
**Double row exchanger**

**2 VOLCANO VR 1**  
Heating power: **10-30kW**  
Efficiency: **3237 CFM**  
**Single row exchanger**

**3 VOLCANO VR 2**  
Heating power: **30-60kW**  
Efficiency: **3060 CFM**  
**Double row exchanger**

**Lifetime casing warranty as a STANDARD**



- Low noise operation
- Failure-free operation
- High efficiency



# The **products** worth **investing** in

## **DEFENDER** Air Curtain



The air curtain is a device which creates a protection barrier at the entrance to the building. Air curtain protects against the cold air when heat is in use and against dust, fumes, wind and insects in summer.

### **DEFENDER characteristics**

- Aesthetic casing and modern design, high quality and efficient technical parameters
- Each version is available in 3 sizes (1m, 1.5m and 2m) which makes it useful for any project
- Available in two basic versions:
  - with water heater – heating power: 6.0kW – 25kW
  - with electric heater – heating power: 3.6kW – 10.8kW
- Low noise level



### **Lifetime casing warranty as a STANDARD**



- Exchanger design allows for both vertical and horizontal installation
- Easy and intuitive, allowing the user to set the temperature between +50°F to +86°F
- Adjustment precision: +/- 33°F
- Integrated thermostat
- 3-speed fan operation
- Wall mounted controller
- Full support of all functions
- Possibility to work with door switches





## Typical applications:



**Offices**



**Hotels**



**Warehouses  
and production facilities**



**Hospitals, clinics and pharmacies**



**Malls and shops**



**Sports facilities**



# We focus on **long term relationships** and **cooperation**

## Operations

The high quality manufacture of VENTUS units is the result of the strict and up to date standards developed by VTS Group and independent international leading expert laboratories.



The VTS business model provides easy and immediate modification of the specification, allowing clients to adjust product orders virtually until the delivery date (until the product leaves the Production Plant). On-line information available to sales consultants regarding the entire flow of units, orders and sales, provides clients with up-to-date detailed information on their order status.

Due to a strong focus on mainstream products, VTS' stock comprises a limited number of ~ 1,400 components, always available in the Production Plants. This strategy results in a short lead time – 75% of deliveries are realized within 1 week from order and this allows further cost optimization.

Components are supplied by reliable manufacturers comprising over 40 suppliers - well known global equipment producers as well as VTS associated suppliers with proven long term cooperation with the Group.

Once the selected components are ready, they are dispatched to one of the VTS assembly hubs or to a final client for unit assembly.

Depending on the final order, the client can be offered to have the unit assembled in the company hub or on-site by an authorized team.

**1 week**  
delivery time



**315**  
AHUs daily



over

**100,000**  
AHUs yearly



# VTs is always **one step ahead**

## Production Plant

.....  
In the United States of America, VTS offers VENTUS born in the USA.

### UNITED STATES OF AMERICA

- VTs America entered the market in 2014 offering the AHU tailored to the needs of American market.
- Production Plant in Atlanta as well as assembly hub and training centre.
- Customer orders are being realized within 1 week.
- VTs is bringing simplistic yet high-quality air handling solution to the U.S. and look forward to expanding awareness in this market of global application successes to date.

### CENTRAL EUROPE

- VTs operates in Central Europe via our own Warsaw-based Production Plant and assembly hub.
- Orders are delivered within 2 weeks (including time of transport).
- AHUs distribution channels comprise their own network of mobile sales consultants with a presence in countries including: Romania, Hungary, Czech Republic, Slovakia, Lithuania, Latvia and Estonia.

### RUSSIA

- VTs operates via Moscow-based warehouse and assembly hub of our own.
- Orders are dispatched within 3 weeks (including time for transport).
- AHUs distribution channels comprise our own network of 71 mobile sales consultants (with a physical presence in 16 regional cities).
- Approximately 25% of market share in Russia.

### POLAND

- Locally, the Group operates through its own Production Plant and warehouse as well as assembly hub run by an associated partner.
- Customer orders are delivered within 1 week.
- The Polish market is represented by an extensive network of 50 mobile sales consultants spread across the country (a physical presence in 19 cities).
- Approximately 35% of the market share in Poland.





In Europe, VTS offers VENTUS and VENTUS N-type Air Handling Units as well as VTS Euroheat heating appliances.

Asia and Middle East VTS offers VENTUS and VENTUS S-type Air Handling Units.

**No.1**  
supplier  
of AHU



### THE GULF STATES

- In the Gulf States, the Group operates via our own Production Plant and assembly hub in Dubai.
- Orders are delivered within 2 weeks.
- In UAE, VTS operates via sales offices in Abu Dhabi, Dubai and Sharjah. Saudi Arabia, Qatar and Kuwait are served via local dealers network.

### CHINA

- In China, VTS operates via our own Production Plant and assembly hub located in Shanghai.
- Orders for standard AHUs are delivered within as little as 1 week.
- The Group is present in 3 regions and operates via a network of mobile sales consultants.

### INDIA

- In India VTS operates via our own Production Plant and assembly hub dedicated to the Indian market.
- Orders are delivered within 2 weeks.
- Locally, VTS owns 5 sales offices, covering the most promising regions and operates via mobile sales consultants.

PRODUCTION PLANT

# VTs is always **one step ahead**

## IT systems

The Group's sales and distribution network is formulated by experienced technical sales consultants who interact directly with clients regarding all enquiries through ClimaCAD on-line.

Proprietary software enables an easy-to-use client interface, quick on-line product set up, offers preparation in multiple languages and easy modification within minutes.

ClimaCAD is fully integrated with in-house IT systems and enables real time collaboration among multiple users all over the world.



**Easy to use AHU selection application (ClimaCAD on-line).**

Enter the selection application at [www.vtsgroup.us](http://www.vtsgroup.us)

Select the AHU you need in **60 seconds**.

**Scan QR code and  
enter ClimaCAD on-line**



**select the AHU in  
60 sec.**



# People are the innovative strength of VTS Group

**VTS's strength lies in a team of excellent professionals - specialists who, due to their passion, ambition, and hard work, continue to build a strong and solid organization.**



**Join VTS Team.  
Scan QR code and check  
available job offers.**

**TEAM**

We care about the safety  
**of your investment**



## **QUALITY, SAFETY, SERVICE**

VTs Customer Service provides top quality guarantee and post-guarantee service – assurance and the shortest response time on the market.

The best delivery times on the market - immediate availability of heating devices, availability of standard AHU - even in 1 week!

Warranty up to 5 years.



# Quality first

The highest quality of VTS devices is appreciated by the leading World experts - including Eurovent, TUV, BVQI, Rostest, MBF-TMB, statistics confirmed by certificates of excellence.



## Eurovent

EUROVENT – the Eurovent certificate confirms the accordance of parameters of designed units calculated with the use of ClimaCAD on-line – the Group's product configuration application with real operating parameters. EUROVENT certification is considered the top performance rating in Europe with a nearly 50-year history. EUROVENT is well known for its strict test means and high test standards. VTS integrated energy recovery AHU has been awarded the EUROVENT certificate with excellent performance.

## TUV



TUV – PN-EN 1886, PN-EN 13053 are the two most important standards on the European market describing parameters and the quality of ventilation and air conditioning AHUs. They are the only basis to apply for the membership in the Eurovent Certification Company organization and obtain a Eurovent certificate. The research process is carried out by independent research institutions with CEN – European Committee for Standardization notification including TÜV among others.



## CE

CE - VTS devices comply with safety standards in accordance with EU guidelines. VTS units have been tested in accordance with Low Voltage Directive, Electromagnetic Compatibility and Machinery Directive.



## ISO

ISO 9001 / ISO 14001 – a system of quality management implemented in VTS in 1996 in the field of design guarantees full repeatability of all VTS devices. ISO 14001 certificate confirms the efficiency of the environment management system aimed at protection of health and the environment against the harmful influence of production activity, products and services.



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