

#30VTS

# THE GLOBAL PLAYER

Newsletter 2/2019



## VENTUS Compact - changes in floor mounted air handling units

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VTS

## Introduction



Dear Ladies and Gentlemen,

I have the pleasure of encouraging you to become acquainted with the next edition of our corporate newsletter.

The current issue pays special attention to changes introduced by us in VENTUS Compact air-handling units as well as in controls of all air-handling units offered by VTS. Our presence in China is another very important topic. It is one of our strategic markets with which very ambitious plans of VTS are connected. I encourage you to see the movie prepared by us for our partners from Asia as well as to become familiarized with one of our most prestigious references - Daxing airport in Beijing where WING air curtains and VOLCANO heating units were installed.

VTS always focuses on creativity and out of box thinking. This takes place in the area of a product, sales, marketing and communication. Therefore, this year we have prepared a virtual trip around the factory for our customers with the use of Virtual Reality technology. Thanks to VR glasses with which our salespersons were equipped you will have a unique opportunity to see how assembly and installation of our VOLCANO water heaters looks like.

Enjoy reading our newsletter.

Hanna Siek-Zagórska, VTS Group President

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# | VENTUS Compact - changes in floor mounted air-handling units

In the 2<sup>nd</sup> quarter of 2019 we introduced several changes in our portfolio. Changes which were made in VENTUS Compact air-handling units (floor mounted version) were one of them.

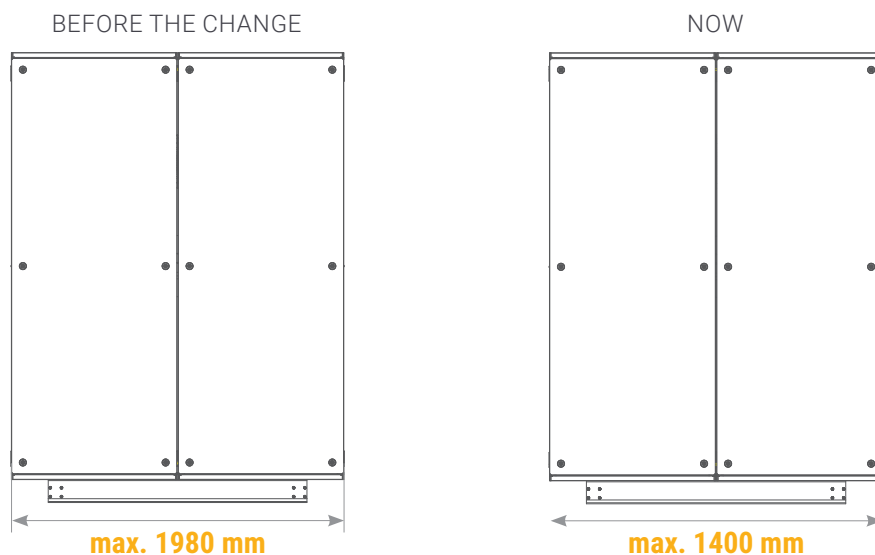
## | Fan Wall

"Fan Wall" is the most important novelty which appeared in VENTUS Compact air-handling units. The solution consists in adaptation of the number of fans to parameters of the amount of flowing air and necessary compression ratio so that the working point of the fans will be in their optimal value.



## | Length of air-handling units

The introduced construction changes allowed to decrease length of the air-handling unit base. At present, the maximum length of the floor mounted air-handling unit base comes to 1400 mm, whereas the minimum length is 1040 mm (only for particular sizes and configurations of the air-handling units).



## Roofing

Compact floor mounted air-handling units have been made accessible in an external version. The devices in this version were equipped with:

- > roofing - analogous to roofing in VENTUS modular air-handling units,
- > air intake and air discharge - analogous to roofing in VENTUS modular air-handling units,
- > junction box resistant to external factors placed on the backside of the unit.



## A change of the junction box location

For internal use, the junction box was transferred to the upper board of the unit above the rotary heat exchanger, thanks to which the connection of the unit is more flexible now.

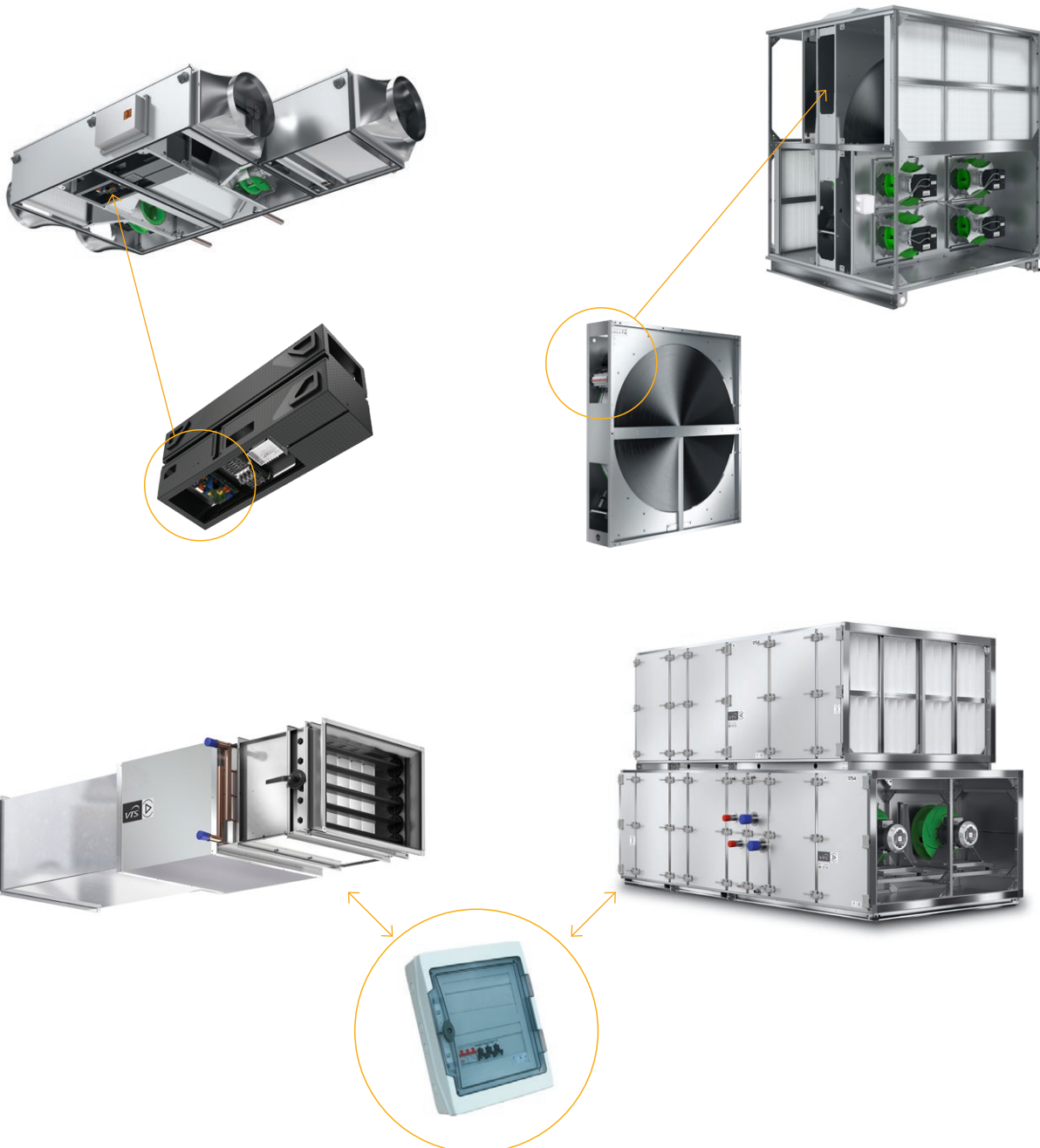


## | New controls in VTS air handling units

The package of changes we used to write about as far as VENTUS Compact air-handling units are concerned also included modifications in controls. New controls based on uPC3 controller are being applied in VTS air-handling units since May.

The uPC3 will replace the old uPC2 and OPTIMA ones. The modification concerns all VENTUS air handling units, as per below list:

- > compact floor mounted units VVS021c-VVS150c (controller integrated with unit's body),
- > floor mounted units VVS021 – VVS650 (controller installed in the unit's body and in control boxes),
- > ceiling suspended units VVS005s – VVS030s (Controller in the unit's body and in control boxes),
- > ceiling suspended units NVS023 – NVS080 (controller in control boxes).





## The most significant benefits arising from implementation of the new automation:

- 1. Match the controls application** to the range of air treatment functions and their sequence supported by CCOL4 (configuration of various functions according to the building requirements).
- 2. Create of new functions** expanding VTS units application like:
  - > CO<sub>2</sub> control by means of mixing box or the airflow,
  - > support for any type of static pressure transducer (other than the one being in VTS offer),
  - > support to cascade air temperature regulation.
- 3. Enable AHU parameters simulation mode** (for maintenance and diagnostic purposes).
- 4. Rebuilding of user interface** (available in HMI Advanced) for more intuitive one (function menu split into functional blocks).
- 5. Original VTS visualization** – a maintenance and service tool, easy maintenance of the AHU by means of the Internet or internal Ethernet infrastructure:

- > management of multiple AHUs control by means of one controller (communication network between multiple VTS units),
  - > multifunctional, convenient weekly operations schedule,
  - > remote HMI Advanced desktop, enabling full remote maintenance by means of internet,
  - > filing of key AHU operation parameters in few minutes time intervals,
  - > filing of all operational parameters of all AHU operations in ten-odd minutes time intervals.
- 6. VTS Factory Visualization** - independent calculating module, enabling to determine:
    - > temporary energy recovery capacity,
    - > temporary heater capacity (for selected configurations),
    - > temporary fan power,
    - > annual electric power consumption by the fans and heat wheel (is applied),
    - > annual savings resulting from energy recovery operations
    - > annual heating power consumption (for selected configurations),
    - > annual savings resulting from optimization functions.

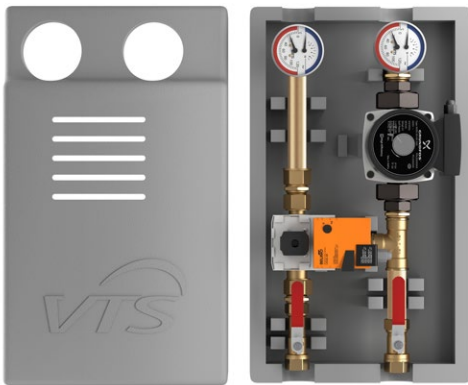


## | Pump groups – new options in VTS offer

Taking account of customers' needs, VTS has extended its option of pump groups by adding the Lite version. Since the middle of May the company's offer contains pump groups in Premium and Lite versions.

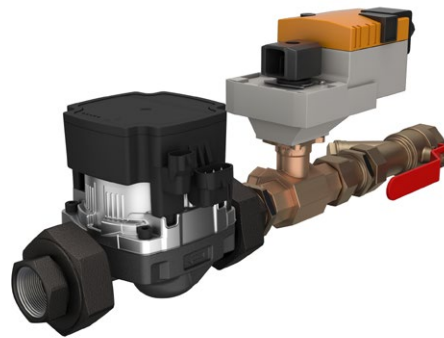
Let us remind you that a pump groups is a system for adjustment of heating power of a water heater ensuring smooth qualitative control. When combined with a thermostat or return water sensor it is also an effective protection against freezing of the exchanger.

### | Premium Pump Group



- Pump group consists of:
- > casing made of EPP,
  - > thermomanometers,
  - > mesh filter,
  - > water pump,
  - > motorized 3-way valve,
  - > by-pass circuit,
  - > non-return valve (for bypass),
  - > shut-off valves on the coil side.

### | Lite Pump Group



- Pump group consists of:
- > water pump,
  - > motorized 3-way valve,
  - > mesh filter,
  - > shut-off valves on the heat source side.

## | Premium – Lite: When to apply?

The simplified pump group vs fully equipped one is poorer only by few elements, which could be easily fileld-provided by the installer. These elements are:

- > casing ,which can be added by installer if required,
- > thermomanometers, which enable to estimate if the installation works correctly (both measurement of the medium pressure and temperature),
- > non-return valve in the circuit of primary regulation valve. Lack of this valve can adversely affect regulation capabilities of the set.

Whenever common complex heating system is engaged to supply multiple heaters, a by-pass solution is used to help to balance

the entire circuit (the by-pass is even crucial for long-range systems). The by-pass improves also the regulation capabilities of the entire system, as it sets constant valve authority in the regulation circuit (the regulation capabilities becomes independent for each water heater). The entire system becomes predictable regardless of how wide the heating distribution system is, what are the flow resistances and how big is the pump driving entire system.

**For simply hot water supplying systems, a "LITE" pump group is recommended.**



## | American VENTUS – STRONGER THAN EVER

**In 2013, VTS opened a production and logistics centre in the United States. At the same time, it was the sixth centre of the company in the world. It is also worth emphasizing that in that period we were the first European manufacturer of air-handling units, which commenced sales so bravely on this extremely demanding market.**

A lot has changed for 6 years. We made a number of modifications in products, we enhanced capacity of production lines several times, we started to offer our products in South America and Canada, we won a position of a trusted partner in business. However, this did not change our attitude - we keep learning, developing and working to be able to offer even better as well as new products and services.

Therefore, we prepared a movie showing the most important advantages of American VENTUS air-handling units. The movie is a part of an advertising campaign encouraging to become acquainted with our offer. We would like to sincerely encourage you to watch it and to share your opinions in comments.

Just click on the graphics below to see the movie.



[ASK ABOUT THE OFFER >>](#)

## | VTS in China



**„As we all perfectly know, China is one of two biggest markets in the world - that is why, VTS is and must be present in China. We still learn this market and I am deeply convinced that experience and knowledge, acquired by us, will give rise to increasingly large effects.**

At the end of last year, we optimized our sales structure so that it can be managed and supported more effectively. This year, we have already signed 20 contracts with new business partners with which we develop cooperation and wish to continue it for a very long period of time. We also enriched our offer of products, inter alia, by adding WING and VOLCANO units which entered the market vigorously and thanks to which we acquired a spectacular project of a new Daxing airport in Beijing about which you can read in this newsletter in fact.

The offer includes new air-handling units of S-type as well, which achieve great success on the Indian market. We pay special attention to QUALITY of the products themselves, which is and must be very high as well as quality of cooperation, handling, service before and after sales, materials and marketing events, supplies, etc., in brief: in each and every possible area and at each and every possible level.

***To sum up, the current year is a breakthrough year for VTS in China. We are convinced that, in each and every next year, our share in the market will be on the increase consecutively. Keep your fingers crossed for us!***

Zbigniew Gawliński,  
Corporate Business Development Director at VTS



To ensure a positive image of VTS and constant interest in our products, we have prepared a number of new materials and forms of communication to be made accessible to our present and potential business partners. In cooperation with our Product Manager from China, Minson Xi, we prepared a cycle of films.

Below please find the movie in which Minson is presenting one of our factories (Warsaw, Poland).



The next movies show our products: VENTUS air-conditioning units, WING air curtains and VOLCANO heating units. The movies will be made accessible soon in our profiles in Social Media.

Apart from new materials, we also commenced communication in Chinese social media. We encourage you to follow our profiles on:



**Youku** is the most popular Chinese platform with movies. Counterpart of YouTube

[GO TO YOUKU VTS >>](#)



**Weibo** is a counterpart of Facebook in China.

[GO TO WEIBO VTS >>](#)



**Zhihu** is a website for people who look for specialists in different fields, e.g. in air-handling and air-conditioning.

[GO TO ZHIHU VTS >>](#)

VTS has also set up its profile on WeChat, the most popular instant messenger in China. To join the group of those who watch our activity in this profile, just download WeChat application

(available free of charge on App Store or Google Play) and scan the following QR code.



# | New Beijing Airport

## - the world's biggest airport with VTS air curtains and heating units.

**Located in less than 50 kilometres south from the capital of China, Beijing Daxing Airport will become world's biggest airport along with being the most progressive and modern transportation centre.**

Officials say that this new transport hub will cost around \$12 billion. It certainly will be a great model of futuristic infrastructure filled with the most advanced and highest quality technology. The new airport will act as a second international airport for Beijing to relieve pressure from Beijing's Capital International Airport which is currently highly overloaded. With the opening currently planned for September 30, 2019, the Beijing Daxing Airport will have the capacity to handle 45 million passengers annually by 2021 and even 72 million by 2025.

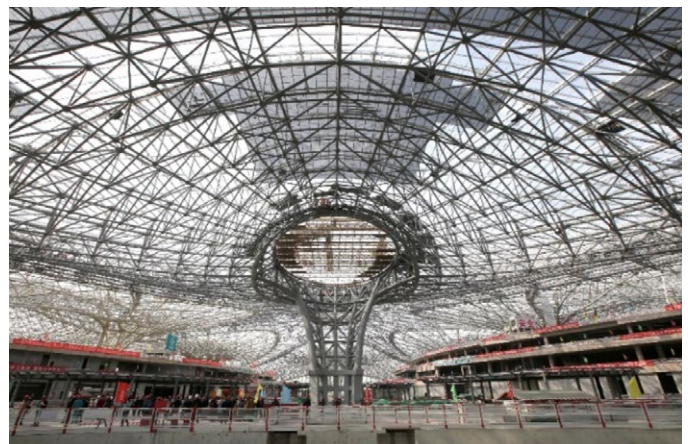


### Modern design and technology

In contrast to already functioning airports, the Daxing airport will be shaped like a spreading flower, where central hub will be used for passenger processing, ticketing, and security. Each of five petals of the flower will lead to gates, and administrative offices will be located in a sixth petal. By using distributed zones of operation, the airport is set up so that passengers will arrive at the carousel in less than 13 minutes after a flight's arrival.

With a futuristic design, new Beijing airport is obligated to deliver the only highest quality and most developed technologies. For example, at Beijing Daxing International

Airport, robots have the most important tasks like automated security checks or to be a patrol inspector. This robot inspector can guarantee the airport's higher requirements for power supply security, and the new intelligent inspection robot to assist the system to carry out inspection point is about 1~2 minutes, while the robot inspection time is 10~30 seconds, and the data recording and analysis can be completed simultaneously. It can improve the intelligent management level of airport substations.



### Will it be another stuffy and badly ventilated airport?

Until this day Chinese airports were known as stuffy and badly ventilated. Even when there was a new, expensive and modern looking airport opened in the region, passengers still had the feeling that someone forgot to design or simply switch on the air condition. But with the opening of Daxing airport there, it will be an introduction to the highest standards for aviation centres in Asia. Ventilation systems featured in air conditions units supported by a very efficient set of air heaters and air curtains will assure comfort and pleasure.



### WING air curtains will secure clean and fresh air inside the airport

With unpredictable and quickly changing weather caused by the high amplitude of temperature and infamous Beijing's smog, designers of Daxing Airport have decided to facilitate their project in air curtains which can maintain very comfortable environment inside the complex. By using the air stream air curtains, one can prevent insects and impure air mixing with the inside air of the premise keeping the chilled air inside at its utmost purity. Having high expectations, designers decided to establish cooperation with VTS Group, which is one of the biggest manufacturers in the HVAC industry. VTS' WING air curtains were chosen due to its high efficiency and quality. In the number of 298 sets, WING air curtains, which are a look-alike of airplane wings, will protect the facility.



### VOLCANO heating units will take care of heat comfort

Following WING air curtains, VTS' VOLCANO air heaters were chosen to control temperature parameters inside the buildings in the time of fast and dynamic weather changes in the Daxing airport area. Simple but very effective construction of VOLCANO heating unit allows to control inside temperature even in the

middle of severe winter. VOLCANO in the number of 162 sets will allow lower costs of heating. Both devices, thanks to their unique and modern design, fits perfectly in the decor and complement the same of the newly built airport.

### Energy efficient

From all devices available on the market only WING and VOLCANO were able to meet the high technical requirements. Equipped with EC motors, that allow reducing energy cost, what is even more significant for the extensive buildings like airports is where devices are forced to work 24 hours per day without breaks for the whole year. Introduced in 2017, energy-saving motors were a large step ahead and quickly start to convince customers from all around the world about the advantages of using electronically commuted motors and their ability to lower exploitation costs by even 50%.



### BMS compatibility

EC motors were a big difference between VTS's products and other market players. But the most important attribute that distinguished them from others was their equipment's ability to cooperate with BMS.

BMS (Building Management System) is a computer-based control system installed in buildings to control and monitor devices and their parameters. It is more and more common system used in new and highly automated constructions which is very welcome in progressive infrastructure that is currently growing in China. Thanks to that ability VOLCANO and WING give the opportunity that all their functions like Door Optimum, Calendar programming etc. can be set up for all ventilation devices from one place and allows them to have an easy and quick view or impact on conditions and parameters prevailing on each moment in the facility.

At the moment of the opening, Beijing Daxing International Airport will become the biggest and most modest aviation centre, equipped with most developed devices and technologies, for many years will be a role model for any future project, not only airports but for all communication centres all around the world.

## | VTS factory virtual trip

VTS always focuses on creativity and out of box thinking. This takes place in the area of a product, sales, marketing and communication. Therefore, this year we have prepared a virtual trip around the factory for our customers with the use of VR (Virtual Reality) technology.



### Glass walls

Openness and transparency in business have always been important to us. We produce our units using the best components, each and every detail of the manufacturing process is well-thought-of and well prepared in the smallest details. For many years, our factory has been an example to be followed and we are willing to present it to our partners. Are you interested in how VOLCANO or WING devices are made? Check them out.

### You cannot come to the factory... the factory will come to you

During all visits of our partners in the Logistics Centre, they can

peep between shelves, watch the production line or even work as a heater fitter. Now, thanks to the use of the VR technology, this experience will be available to all our customers. We have prepared a movie recorded with a 180-degree camera, which allows everyone to fly down into the factory by means of special glasses, fly between shelves and impersonate the VOLCANO heater fitter and all this can take place in our customer's office.

**Our salespersons in all regions travel with VR glasses and take customers for a virtual trip around the logistics centre.**





## ▶ THE LATEST REFERENCES

#30VTS



Name of the building: **Daxing Airport**  
Country: **China**  
City: **Beijing**



Name of the building: **Lulu Tech Park**  
Country: **India**  
City: **Cochin**



Name of the building: **ETERNUM Office**  
Country: **Poland**  
City: **Gdansk**



Name of the building: **Ice Area**  
Country: **Russia**  
City: **St. Petersburg**



Name of the building: **Bloom Tower**  
Country: **UAE**  
City: **Dubai**



Name of the building: **The Government House of the Republic of Kazakhstan**  
Country: **Kazakhstan**  
City: **Nur-Sultan**







Name of the building: **Lin Gang Technology City**  
Country: **China**  
City: **Shanghai**



Name of the building: **Das Haus Residential and Commercial Center**  
Country: **Estonia**  
City: **Tallinn**



Name of the building: **Green Quarter Mall**  
Country: **China**  
City: **Shanghai**



Name of the building: **SPA Center Mall**  
Country: **Romania**  
City: **Cluj Napoca**



Name of the building: **Makhachkala International Airport**  
Country: **Russia**  
City: **Makhachkala**



Name of the building: **Office Center Park Town**  
Country: **Lithuania**  
City: **Vilnius**