

COMPANY PROFILE
2025





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VTS GROUP

- 1.1 VTS: no. 1 worldwide
- 1.2 3 constituents of success



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DESIGNER SUPPORT

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



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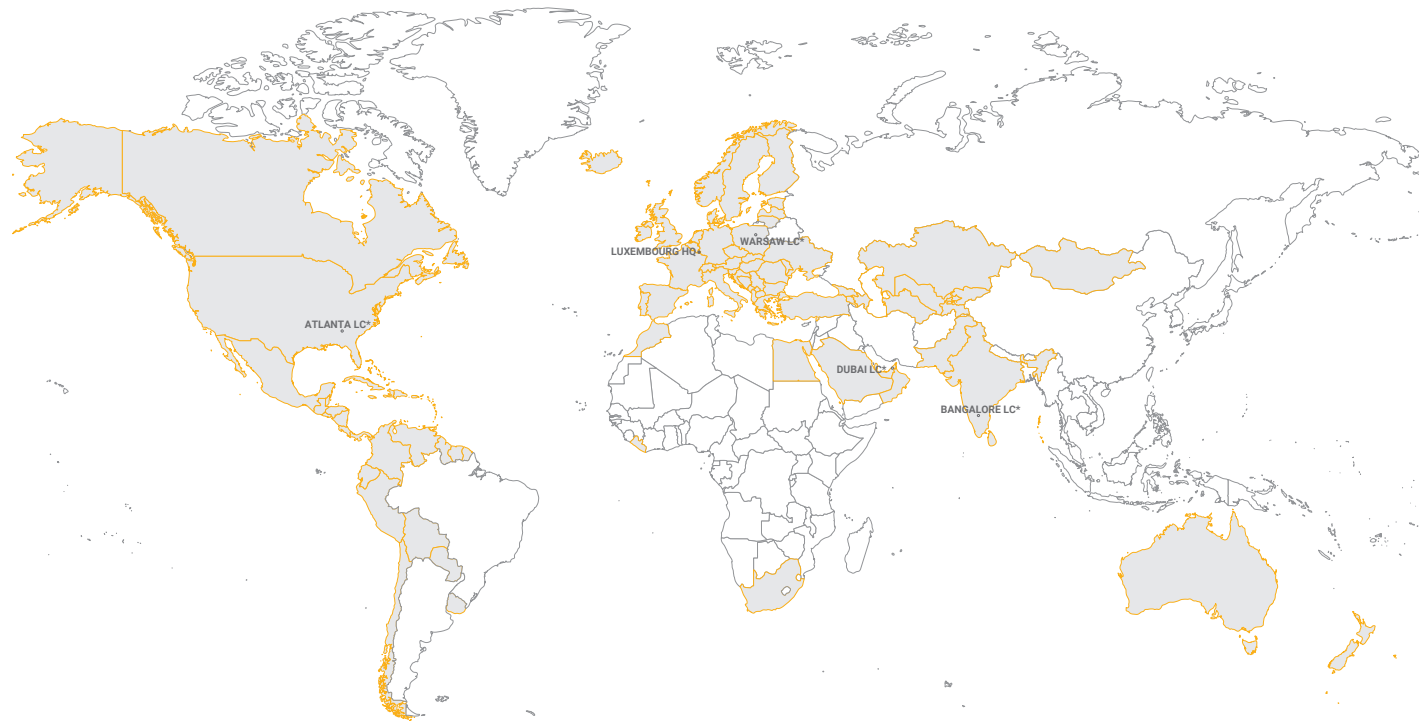
PRODUCT

- 3.1 AVS
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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.

MARKET'S **BEST** LEAD **TIME** **

OUR MISSION
AHU#1



* Logistics center
** Factory will confirm lead time based on the units selected.

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 4 efficiently functioning logistics centers: **Atlanta, Dubai, 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 a **18 months warranty for each unit**.

MARKET'S **BEST** LEAD **TIME**

4 LOGISTICS CENTERS

\$ competitive price

150 000 UNITS SOLD ANNUALLY

the highest **quality**

18 MONTHS **warranty** FOR EACH UNIT





VTS American
VENTUS





AVS

The American Ventus AVS series comprises 15 models ranging from 800 to 38,000 CFM.

These modular air handling units feature robust construction and provide full access to VTS's premium components.

They can be delivered fully assembled, in transport sections, or completely knocked down, offering flexibility and ease of installation to suit various project requirements.



AVS LITE

The American Ventus AVS Lite series offers economical, compact, and modular air handling units with standard configurations.

With 6 models ranging from 800 to 4,000 CFM, these units can be delivered fully assembled or completely knocked down, providing cost-effective solutions without compromising on quality or performance.



AVS VERTICAL



The American Ventus AVS Vertical series features modular air handling units with vertically mounted fans.

With 6 models ranging from 800 to 4,000 CFM, these units offer flexibility in installation and space-saving advantages.

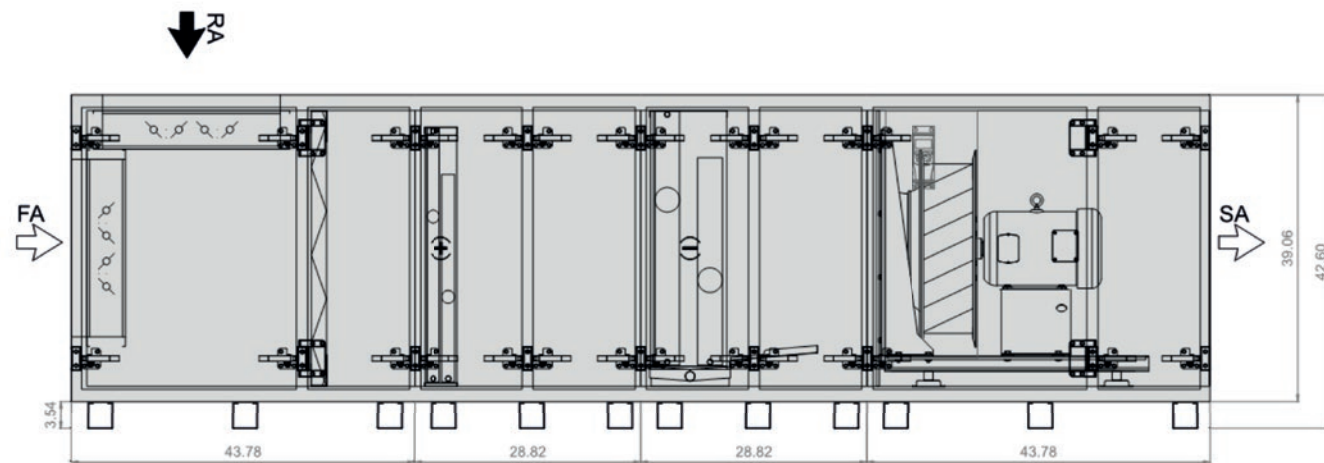
They can be delivered fully assembled or completely knocked down, catering to diverse project needs with efficiency and convenience.



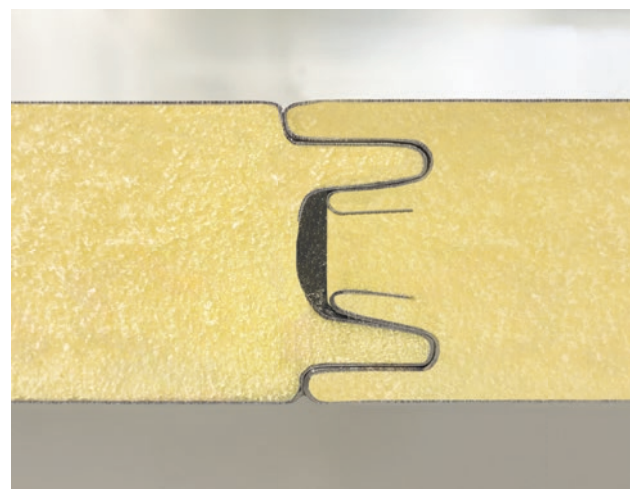
Modular DESIGN

At VTS America, our air handling units feature a distinctive C-shaped panel design meticulously engineered for superior efficiency and durability. Crafted using state-of-the-art production techniques and precise laser-guided robotics, we maintain tight quality control throughout the manufacturing process.

The unique construction of our panels, comprising two sheets of galvanized steel enveloping two inches of rigid polyurethane foam insulation, serves dual purposes. Not only does it ensure exceptional thermal efficiency and structural rigidity, but it also guarantees minimal air leakage, further enhancing the performance and reliability of our units.



Double-Tongue-and-Groove Section Joining



- Simplified Transportation:** Ensures ease of handling and reduced damage risk during transit.
- Effortless Rigging:** Saves time and labor costs during installation.
- Simple Final Assembly:** Promotes efficiency and minimizes installation time.
- Insulated and Thermally Broken Joints:** Enhances energy efficiency and prevents thermal bridging.



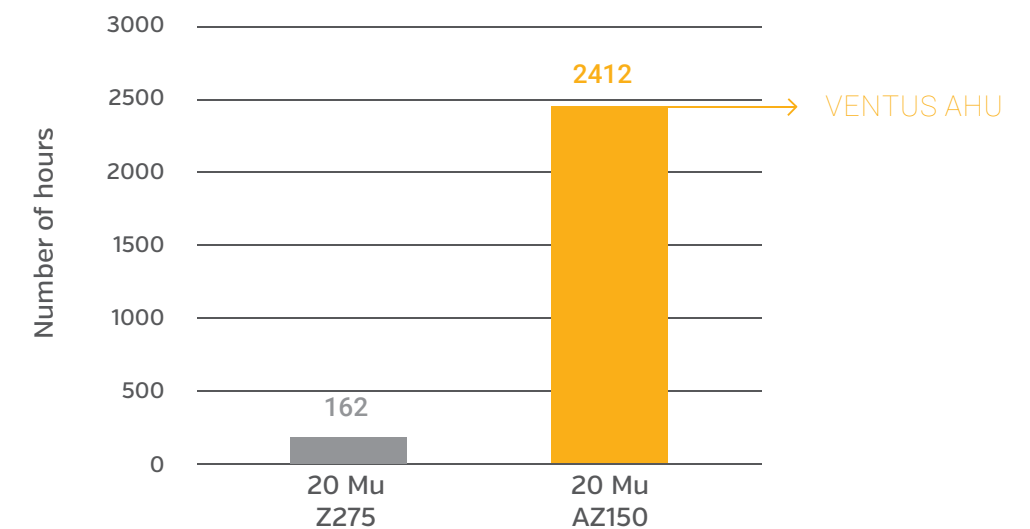
Casing



- Convenient Access:** Designed for easy access to internal components for inspection and maintenance.
- Streamlined Service:** Simplifies troubleshooting and servicing tasks, minimizing downtime and maximizing operational efficiency.
- Versatile Design:** Panels are available in hinged or completely removable configurations, as well as multiple lengths.
- Robust Construction:** double-wall, baked insulation construction ensures durability and longevity for reliable performance over the unit's lifespan.

Corrosion Resistance

- Proprietary Coating:** The exterior skin of VTS's C-Shaped and inspection panels is coated with a proprietary corrosion-resistant coating.
- Enhanced Protection:** This coating provides superior protection against corrosion, extending the lifespan of our air handling units.
- Rigorous Testing:** Our units undergo rigorous testing, with over 2,000 hours of salt spray resistance according to ASTM B117 standards.
- Reliable Performance:** With this level of corrosion resistance, our units maintain optimal performance even in harsh environments, ensuring long-term reliability and durability.



Salt spray test according to ASATMB - 117

Robust CONSTRUCTION



Casing Construction

VTS's robust, double-wall casing sets the standard for durability and performance, offering premium specifications and several key advantages:

Corrosion-Resistant Coating: Crafted from 22-gauge corrosion-resistant coated steel, our casing provides exceptional durability, withstanding over 2,000 hours of salt spray exposure. This ensures long-term protection against environmental elements, enhancing the lifespan of the unit.

Superior Insulation: Equipped with 2 inches of rigid, closed-cell, baked-in polyurethane foam insulation, our casing minimizes energy loss and maintains optimal thermal efficiency. This promotes energy savings and ensures consistent performance.

Durable Interior Skin: The interior skin of our casing is constructed from 25-gauge galvanized steel, providing additional strength and structural integrity.

Impressive Specifications:

- Deflection Ratio: $L = 1/300$
- Thermal Resistance: $R = 13.1 \text{ HrxFt}^2/\text{BTU}$
- Customization Options: Stainless steel interior liners are available upon request, enhancing corrosion resistance and allowing for customization to meet specific project requirements.

Hermetic Sealing

At VTS, we employ cutting-edge technologies to ensure that our air handling units (AHUs) are completely thermally broken and airtight.

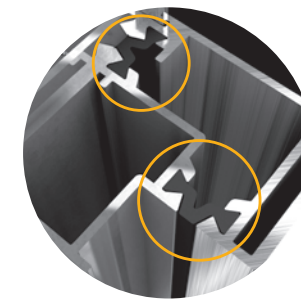
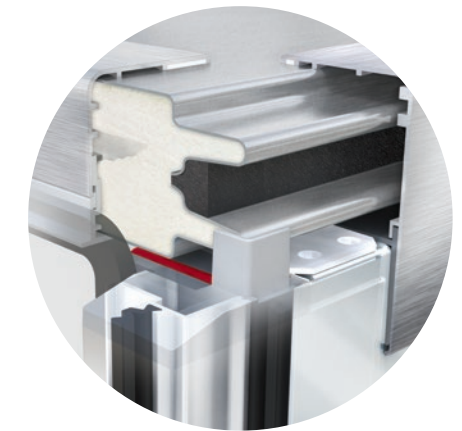
Our commitment to hermetic sealing includes:

- » **Labyrinth Sealing:** Utilizing advanced labyrinth sealing techniques to prevent air leakage and maintain airtightness throughout the unit.
- » **Additional Sealing:** Implementing additional sealing measures on all aluminum door posts and casing edges to further enhance the unit's airtight properties.

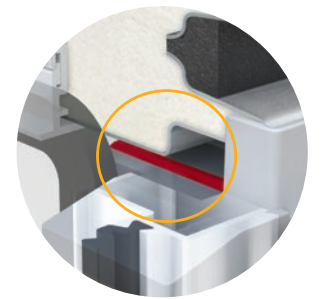
Our dedication to hermetic sealing results in exceptional performance metrics:

- » Casing Air Leakage:
- » At -1.6 in WC: 0.009 CFM/ft²
- » At +2.8 in WC: 0.026 CFM/ft²

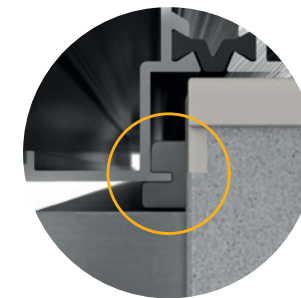
These stringent standards ensure that our AHUs deliver superior efficiency and performance, maintaining optimal indoor air quality while minimizing energy loss.



THERMAL BREAK



ADDITIONAL POST SEALING



LABYRINTH SEALING



ADDITIONAL SEALING EDGE

Internal Skeleton

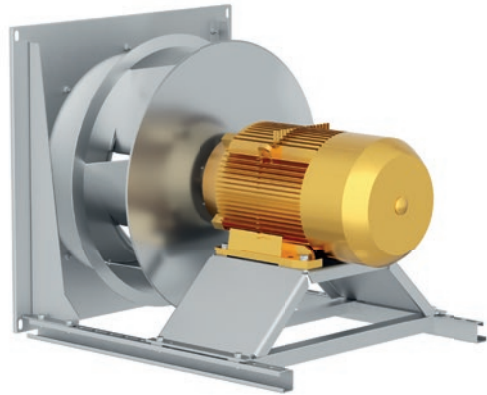
The internal skeleton construction of VTS air handling units is engineered to eliminate thermal bridging between the interior and exterior of the unit, effectively preventing condensation buildup.

This innovative design enhances the overall thermal performance and reliability of our AHUs, ensuring consistent and efficient operation in various environmental conditions.



Premium COMPONENTS

Impellers



VTS America proudly presents our latest innovation: the All-Aluminium LDX Impellers. Meticulously crafted, these impellers deliver optimal performance and reliability in our air handling units, compliant with UL 60335-2 standards for safety.

Key Features:

Range and Design: Available in nine models ranging from 225 to 630 mm in diameter, each featuring seven backward-inclined blades for efficient airflow and enhanced unit performance.

Direct Drive, Airfoil Impeller Design: Engineered with direct drive and airfoil design, our LDX impellers maximize energy efficiency and minimize operational costs.

Certifications: Our LDX Impeller Series is AMCA 210 and AMCA 310 certified, ensuring compliance with industry standards and regulations.

Pre-Tapped Aluminum Inlet Cones: Aluminum inlet cones are pre-tapped for airflow monitoring, simplifying measurement within the unit.

Variable Frequency Drives



Each VTS air handling unit is equipped with LSIS and ABB variable frequency drives (VFDs) directly from our factory.

VFDs that are compatible with all major voltages and both single and three-phase inputs are available.

Key Features:

Factory Installation: VFDs are mounted in factory-installed internal electrical panels, ensuring seamless integration and ease of setup.

Overload Protection: All necessary overload protection devices, including circuit breakers and a single rotary disconnect switch, are mounted on this panel, enhancing safety and reliability.



Motors

At VTS America, we understand that the heart of every air handling unit lies in its motor. That's why we're committed to providing high-quality, reliable motors.

Baldor Premium Efficiency AC Motors:

- » **Efficiency and Performance:** These motors meet NEMA Efficiency Class: Premium Efficiency and IE Efficiency Class: IE3 standards, ensuring industry-leading efficiency and reliability.
- » **Power Range:** Available from 1HP to 15HP, offering a wide range of power options.
- » **Bearing Life:** With a Bearing Life (L10) of 150,000 hours, built for durability.
- » **Integral Shaft Grounding:** Motors 7.5 HP and larger come with integral shaft grounding for enhanced safety.
- » **Custom Options:** Shaft grounding available as a custom option for smaller motors.

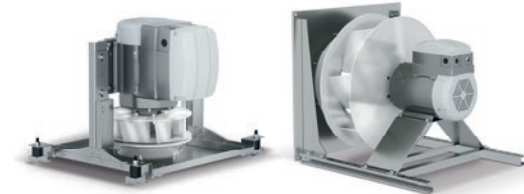
Baldor EC Titanium Motors:

- » **Efficiency and Performance:** These motors achieve NEMA Efficiency Class: Ultra Premium Efficiency and IE Efficiency Class: IE5 standards.
- » **Integrated Drive:** Motors from 1HP to 10HP feature an integrated drive, and 15 HP motors feature a drive located on the motor frame assembly.

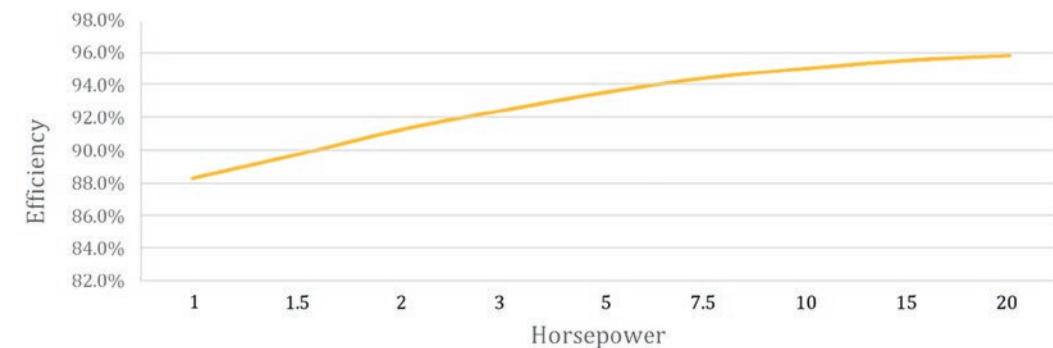
» **Axial-mount drive**



» **Top-mount drive**



» **Motor-only**
(drive located on fan set frame)





Premium COMPONENTS

Hydronic Cooling and Heating Coils

VTS America offers a range of AHRI-certified hydronic coils, including Chilled Water, Hot Water, and Steam coils, tailored to diverse project needs.

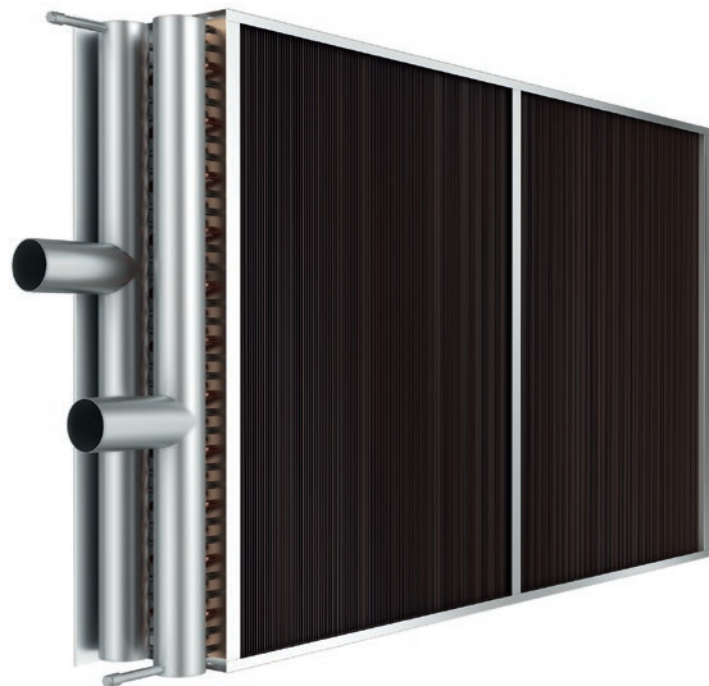
Key Features:

- » **Certification:** AHRI certified for performance and reliability.
- » **Optional Casing:** Choose stainless steel casing for durability and corrosion resistance.
- » **Stainless Steel Drain Pans:** Equipped with double-sloped stainless steel drain pans for efficient moisture removal with every cooling coil.
- » **Custom Coatings:** Optional Blygold or Electrofin coatings available for added protection.

Specifications:

- » **Tube Design:** 1/2" O.D. Tubes with 0.20" Tube Walls for efficient heat transfer.
- » **Fin Configuration:** 0.006" Corrugated Aluminum Fins at 10 Fins Per Inch for enhanced performance.
- » **Connections:** Male pipe thread (MPT) connections with vent and drain for easy installation.
- » **Maximum Operating Pressure:** Withstands up to 261 PSIG for reliable operation.

Tailored Options: Custom coils available upon request to meet specific project needs.



DX Cooling and Heating Coils

VTS America also offers a comprehensive selection of DX Cooling and Heating Coils, providing efficient and reliable solutions for a variety of applications.

Key Features:

- » **Options:** Choose from Standard DX and Heat Pump Coils.
- » **Configurations:** Available in single-circuit or intertwined, dual-circuit designs.
- » **Optional Casing:** Stainless steel casing available for enhanced durability.
- » **Custom Coatings:** Optional Blygold or Electrofin coatings for added protection and longevity.

Standard DX Specifications:

- » **Tube Design:** 1/2" O.D. Tubes with 0.016" Tube Walls for efficient heat transfer.
- » **Fin Configuration:** 0.006" Corrugated Aluminum Fins at 10 Fins per Inch for enhanced performance.
- » **Maximum Operating Pressure:** Withstands 261 PSIG, leak tested up to 522 PSIG for reliability.

Heat Pump DX Specifications:

- » **Tube Design:** 1/2" O.D. Tubes with 0.02" Tube Walls for optimal performance.
- » **Fin Configuration:** 0.006" Corrugated Aluminum Fins at 10 Fins per Inch for efficient heat exchange.
- » **Maximum Operating Pressure:** Withstands 557 PSIG, leak tested up to 725 PSIG for durability.

Tailored Options: Custom coils available upon request to meet specific project needs.





Premium COMPONENTS

Electric Heaters



VTS America offers a range of electric heaters designed for efficient and reliable heating.

Key Features:

- » **Voltage Options:** Available in 208V/3ph, 230V/3ph, 460V/3ph, and 575V/3ph configurations.
- » **Standard Controls:** Includes SCR controls for precise temperature regulation.
- » **Safety Features:** Equipped with air flow switches and door-mounted disconnect switches for enhanced safety.
- » **Heating Capacities:** Range from 6 kW to 297 kW, ensuring suitability for various heating needs.
- » **Efficiency:** Designed for energy efficiency to minimize power consumption.

Tailored Options: Custom electric heaters available for specific project requirements.

Filtration



VTS America offers a comprehensive range of filters designed to enhance indoor air quality and ensure efficient operation of air handling units.

Available Filters:

- » 2" MERV8 Flat Filter
- » 4" MERV13 Pleated Filter
- » 12" MERV13 Cartridge Filter
- » 12" MERV14 Cartridge Filter
- » 12" MERV16 Cartridge Filter
- » 99.95% HEPA Filter
- » 99.995% HEPA Filter
- » 99.9995% HEPA Filter



VTS Dampers



VTS manufactured air dampers are designed with longevity and ease of operation in mind, and are available across all unit models.

Key Features:

- » **Opposed Blade Control Damper:** Ensures precise airflow control for optimal ventilation.
- » **Reinforced Polymer Gear Driven Dampers:** Engineered for durability and quiet operation, ensuring long lifetimes.
- » **AMCA Certified:** Certified at 1", 4", and 8" of static pressure, meeting industry standards for performance and reliability.
- » **Position Indicator:** External position indicator for easy monitoring and adjustment of externally mounted dampers.



U.L.L. Dampers



VTS proudly presents the Tamco 1500 Series Ultra Low-Leak Dampers, renowned for their exceptional leakage specifications and unparalleled performance.

Key Features:

- » **Aluminum Construction:** Crafted with robust aluminum construction and silicone seals for enduring durability and reliability.
- » **AMCA Leakage Class Ratings:** Achieves outstanding leakage class ratings, including 1A at 1 in. w.g., and 1 at 4, 6, and 8 in. w.g., ensuring minimal air leakage and maximum efficiency.





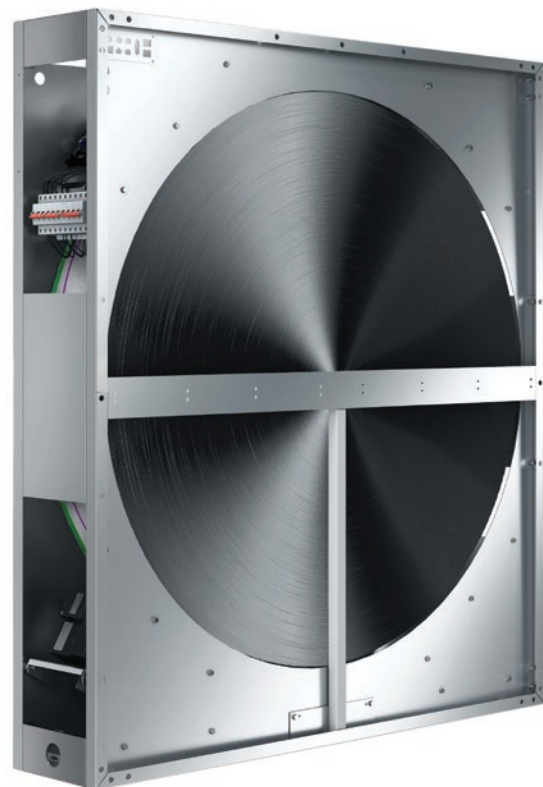
Premium COMPONENTS

Energy Recovery Wheels

VTS manufactures a range of Energy Recovery Wheels (ERWs) designed to optimize energy efficiency and indoor air quality across various unit models.

Key Features:

- » **Total Energy Recovery:** VTS ERWs offer recovery efficiencies of up to 87%, ensuring significant energy savings and enhanced environmental sustainability.
- » **Single-Piece Wheel Construction:** Engineered for maximum energy recovery efficiency, providing seamless operation and superior performance.
- » **3A Molecular Sieve Desiccant Coating:** Utilizes advanced desiccant technology to optimize moisture removal and air purification.
- » **Low Cross-Contamination:** With a maximum cross-contamination rate of 3%, VTS ERWs maintain high air quality standards.
- » **Multi-Piece Wheels:** The AVS230, AVS300, and AVS380 models feature multi-piece wheel construction, offering versatility and efficiency for larger applications.
- » **AHRI 1060 Certification:** All energy recovery wheels are AHRI 1060 certified, guaranteeing compliance with industry standards for performance and reliability.

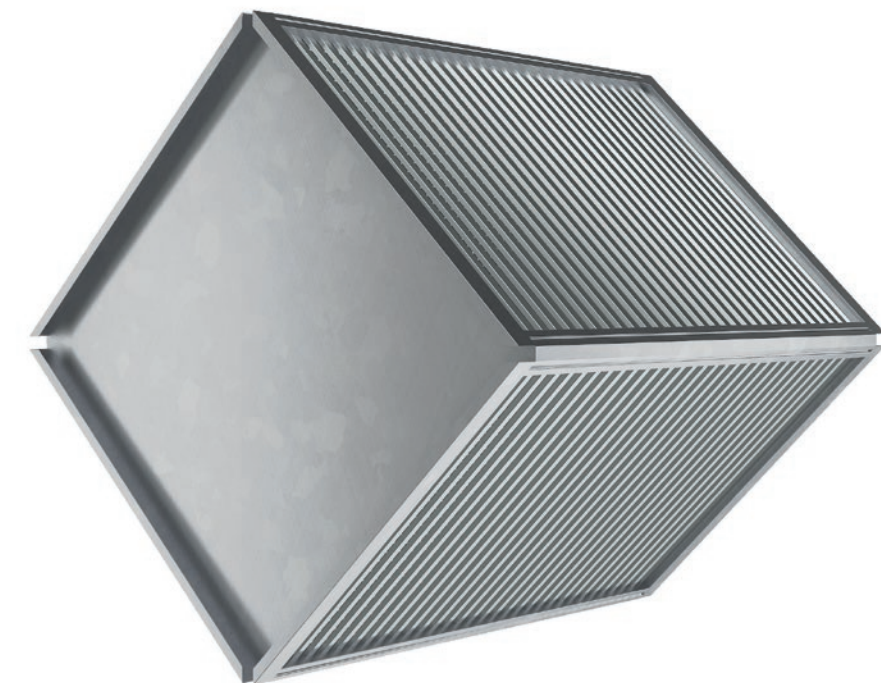


Crossflow Plate Exchangers

VTS offers crossflow plate exchangers designed to optimize indoor air quality in all cabinet models from the AVS012 to the AVS380.

Key Features:

- » **Aluminum Plate Construction:** Composed of aluminum plates enclosed in a casing of aluminum extrusions, ensuring durability and reliability without the use of silicone.
- » **Sensible-Only Recovery:** Provides sensible-only recovery with dry efficiencies up to 87%.
- » **Low Cross-Contamination:** With a maximum cross-contamination rate of 0.25%, VTS plate exchangers maintain high air quality standards.
- » **Optional Dampers:** Face, bypass, and recirculation dampers are available upon request, offering additional control and flexibility for specific applications.
- » **AHRI 1060 Certification:** All plate exchangers are AHRI 1060 certified, ensuring compliance with industry standards for performance and reliability.





Premium ACCESSORIES



Filter gauge



Door handle



External HMI



Marine Light



Junction Box



Porthole



UV Lamp



V PROFILE
AVS008-AVS130



C PROFILE
AVS130-AVS380



CURB READY RAILS
AVS008-AVS380



EIGHT INCH
BASE FRAME
AVS008-AVS380



Outdoor ACCESSORIES



SLOPED ROOF

- » double sloped roof with a five degree incline
- » galvanized steel construction
- » adds additional weather protection



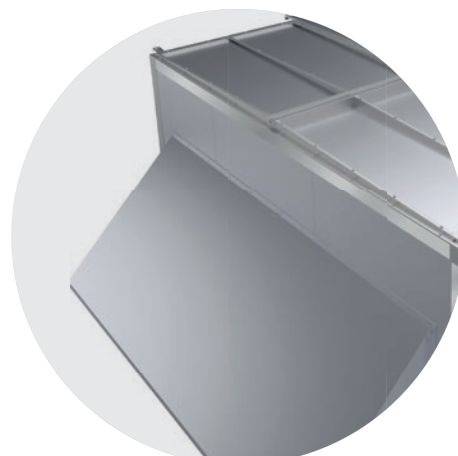
VARIABLE DISCHARGE CONFIGURATION

- » end, top, bottom and side discharge options
- » optional discharge dampers and full end discharge dampers available



VARIABLE INTAKE CONFIGURATIONS

- » top, bottom and side intake options
- » end – optional full face intake damper available units
- » dampers:
 - gear system for even distribution of the torque
 - extruded aluminum construction
 - low leakage
 - double wall blade construction



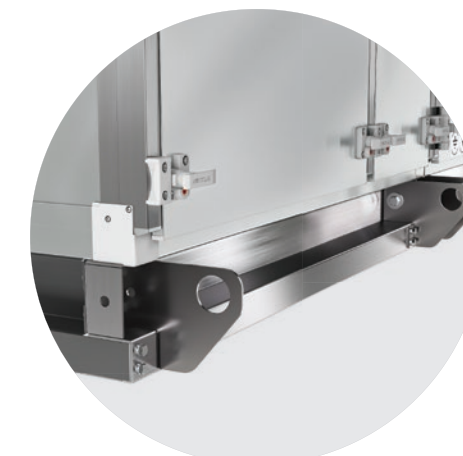
HOODS / LOUVERS

- » outside air intake options



HMI BOX

- » NEMA 3R rated box ensures protection against rain, sleet, and snow, enhancing its durability and reliability in outdoor conditions.



CURB READY RAILS

- » design -overhangs the side of the curb to avoid the need of flashing
- » integrated lifting lugs



AVS 8-55 - SUPPLY / EXHAUST

Cabinet Size	AVS 008	AVS 012	AVS 016	AVS 020	AVS 030	AVS 040	AVS 055
Nominal Airflow	800	1 200	1 300	2 000	3 000	4 000	5 500
Hf	3,54	3,54	3,54	3,54	3,54	3,54	3,54
Hc	18,43	18,43	20,47	23,62	28,94	33,66	37,60
Ht	21,97	21,97	24,01	27,16	32,48	37,20	41,14
Hs	40,40	40,40	44,48	50,78	61,42	70,86	78,74
W	27,95	38,62	44,21	46,77	53,50	59,06	66,14
Wi	24,02	34,68	40,28	42,83	49,57	55,12	62,20
Hi	14,49	14,49	16,54	19,69	25,00	29,72	33,66

AVS 65-380 - SUPPLY / EXHAUST

Cabinet Size	AVS065	AVS085	AVS100	AVS130	AVS170	AVS230	AVS300	AVS380
Nominal Airflow	6 500	8 500	10 000	13 000	17 000	23 000	30 000	38 000
Hf	3,54	3,54	3,54	3,15	3,15	3,15	3,15	3,15
Hc	39,06	43,03	51,06	51,06	62,83	72,01	72,01	90,79
Ht	42,60	46,57	54,60	54,21	65,98	75,16	75,16	93,94
Hs	81,66	89,60	105,66	107,64	131,18	149,54	149,54	187,10
W	75,24	82,87	82,87	98,94	102,56	122,24	141,93	146,34
Wi	71,30	78,94	78,94	95,00	98,62	118,31	137,99	142,40
Hi	35,12	39,09	47,13	47,13	58,90	68,07	68,07	86,85



DIMENSION

Dimension	End Full (FF)		End (FS)		Top (US)		Side (BS)	
	W	H	W	H	W	H	W	H
AVS008	21,65	12,13	17,99	7,99	17,99	7,99	7,94	10,94
AVS012	32,32	12,13	25,98	7,99	25,98	7,99	7,94	10,94
AVS016	37,91	14,17	34,02	7,99	34,02	7,99	7,94	12,94
AVS020	40,47	17,32	25,98	12,01	25,98	12,01	11,94	15,94
AVS030	47,2	22,64	34,02	12,01	34,02	12,01	11,94	20,94
AVS040	52,76	27,36	40,47	17,32	40,47	17,32	14,96	16,26
AVS055	59,84	31,3	47,2	22,64	47,2	22,64	14,96	24,13
AVS065	68,94	32,76	47,2	22,64	47,2	22,64	14,96	24,13
AVS085	76,57	36,73	59,84	31,3	59,84	31,3	29,13	28,07
AVS100	76,57	44,76	59,84	31,3	59,84	31,3	29,13	35,94
AVS130	92,64	44,76	76,57	36,73	76,57	36,73	29,13	35,94
AVS170	96,26	56,54	76,57	36,73	76,57	36,73	29,13	47,76
AVS230	115,94	65,71	104,33	36,73	104,33	36,73	29,13	59,57
AVS300	135,63	65,71	124,02	36,73	124,02	36,73	29,13	59,57
AVS380	140,04	84,49	127,95	36,73	127,95	36,73	29,13	75,31

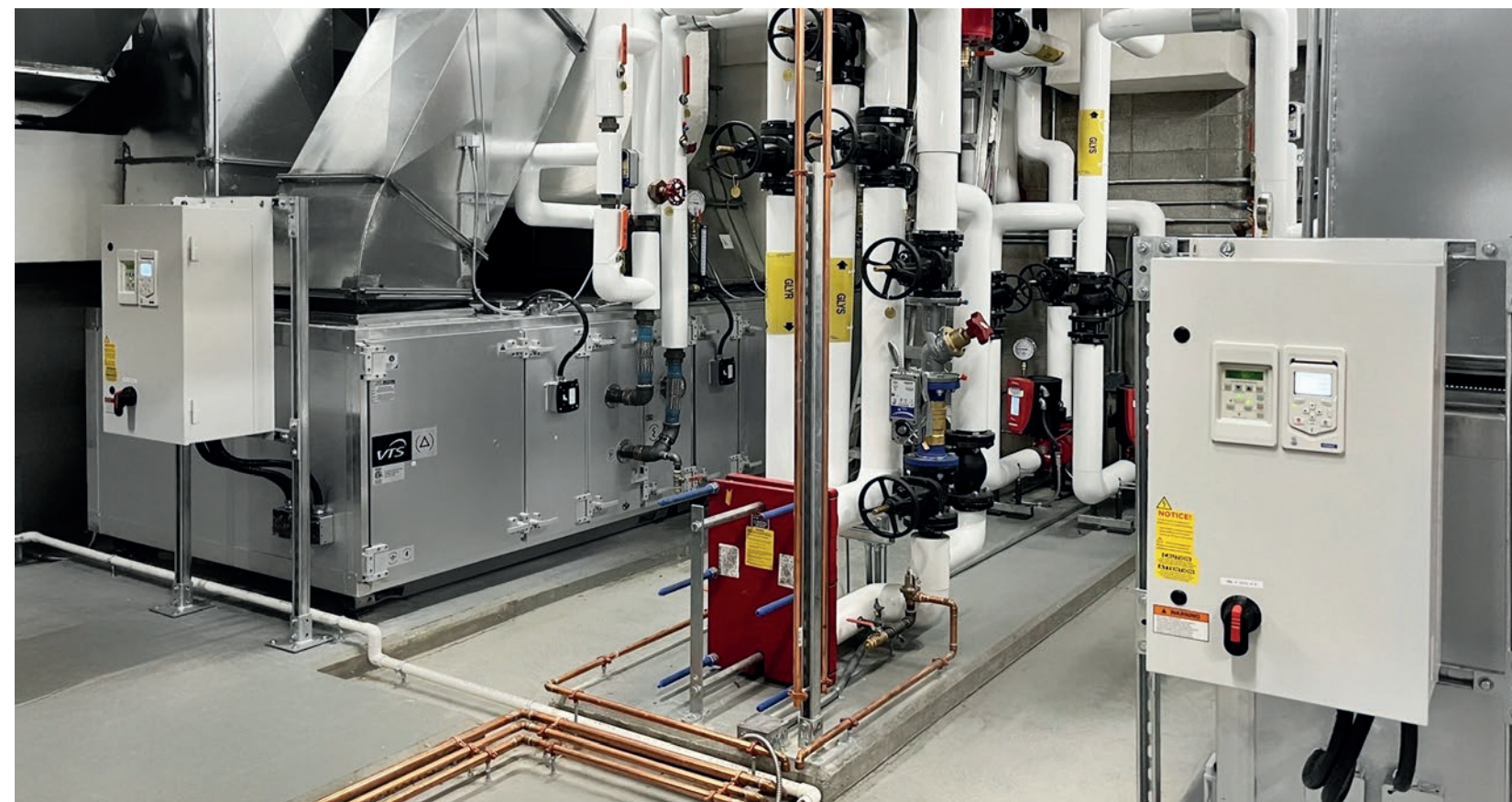
Success STORIES

ST. PETER'S SCHOOL IN CALGARY, ALBERTA

VTS America team manufactured and delivered a tailored heating solution to meet the unique needs of the school. This included one AVS065 unit delivering 10,000 CFM and one AVS055 unit delivering 6,000 CFM of heating.

From design to delivery, we ensured every detail was meticulously addressed to provide the school with high-quality heating units. The result? A warm and inviting environment conducive to learning and growth.

This success underscores our commitment to delivering top-notch products that make a real difference. We're proud to have played a part in enhancing the learning experience at St. Peter's School.



THE BELL @ 225 W. RANDOLPH IN CHICAGO

Teaming up with our trusted Illinois Representative, Midwest Applied Solutions, we delivered exceptional results. Eight AVS170 DOAS units, each delivering 17,500 CFM for a total of 140,000 CFM of outside air with energy recovery wheels, were deployed for the building.

The project presented unique challenges, but our team's dedication and expertise prevailed. Despite space constraints, we utilized the existing freight elevator to bring modules up to the 21st floor, avoiding the need for knockdown construction.

This success story underscores the importance of collaboration and expertise in overcoming challenges and delivering outstanding results. We're grateful for the opportunity to contribute to the success of The Bell @ 225 W. Randolph. And we extend our heartfelt thanks to Midwest Applied Solutions for their invaluable partnership.



| Success STORIES



PRODUCTION FACILITY IN ORRVILLE, OHIO

VTS America air handling units provide reliable climate control for production facility in Orrville, Ohio, home of well-known peanut butter and jelly sandwiches. Two AVS170 and one AVS300 units deliver 140 tons of cooling (64,000 cfm). These robust, customizable units ensure optimal production conditions, safeguarding product quality and employee comfort.

SAPUTO CHEESE IN WISCONSIN

VTS America air handling units provide reliable climate control for production facility in Orrville, Ohio, home of well-known peanut butter and jelly sandwiches. Two AVS170 and one AVS300 units deliver 140 tons of cooling (64,000 cfm). These robust, customizable units ensure optimal production conditions, safeguarding product quality and employee comfort.





VTS America, Inc.
3535 Gravel Springs Road Ext
Suite 201
Buford, GA 30519
United States of America
Tel: 470-809-6811
e-mail: america@vtsgroup.com

SOCIAL MEDIA



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DOWNLOADABLE DOCUMENTATION



VTS America
reference projects



IOM

The features mentioned are subject to continuous upgrade and can change any time.
VTS assuring continuous improvement for product and data and reserves the right to change design and specifications without notice.
2025, version A.

www.vtsgroup.com