American
ventus

COMPANY PROFILE 2022

www.vtsgroup.com

01
VTS GROUP

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

02
DESIGNER SUPPORT

2.1 ClimaCAD Online 4.0 (CCOL 4)
2.2 VTS BIM

03
PRODUCT

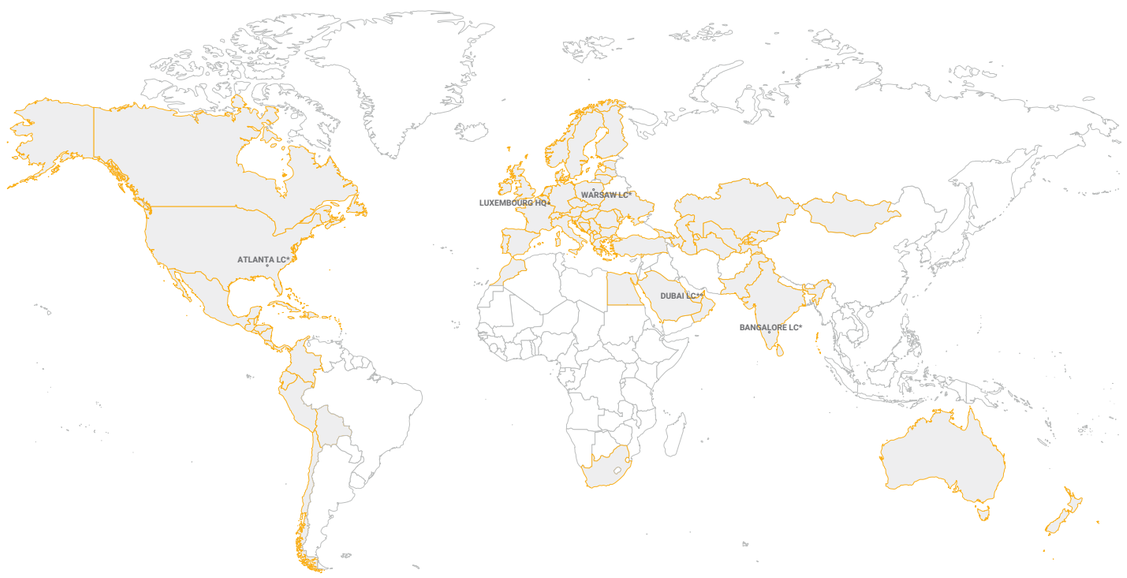
3.1 AVS
3.2 Design
3.3 Air Tightness
3.4 Rooftop Accessories
3.5 AVS General Dimensions
3.6 AVS Key Components
3.7 Documentation / Social Media

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.

MARKET'S BEST LEAD TIME

4 LOGISTICS CENTERS

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.**

competitive price

150 000 UNITS SOLD ANNUALLY

Multilevel quality control systems enables VTS to offer a **18 months warranty for each unit.**

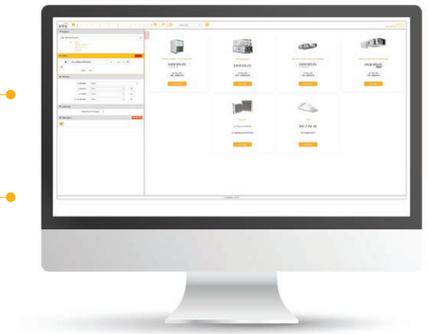
the highest quality

18 MONTHS warranty FOR EACH UNIT

ClimaCAD Online 4.0 [CCOL 4]

Customized configuration

Integrated savings calculator



Intuitive selection assistant step by step

Integrated with CRM, ERP, WMA system

CCOL4 IS COMPATIBLE WITH:

» all browsers

» all operating system

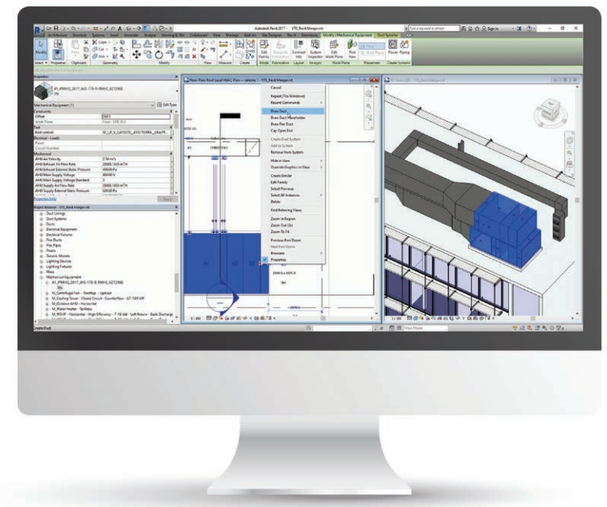
» all devices

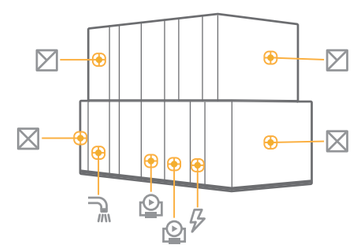
DATA EXPORT TO

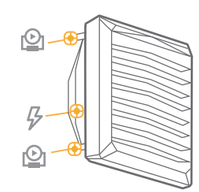
PDF | CAD 2D | CAD 3D | SUBMITTAL | QUOTATION | TECH CARD

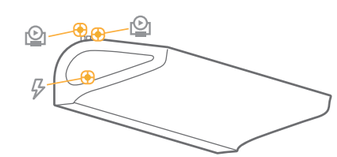
VTS BIM - a new approach to digital models of air-handling units

VTS has created a possibility of dynamic online generation of digital models of the units VENTUS VVS, VENTUS Compact and American VENTUS AVS. This is possible due to the launch of the new ClimaCAD OnLine 4.0 product selection program that features an .rfa [Revit®] file generator









Generated objects contain detailed parameters connectors:

- **air systems**
- **hydronic systems**
- **sanitary systems**
- **electric systems**

as well as the complete dimensional data, including unit's maintenance and service (repair) zone.

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

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 an air heater in relation to the horizontal plane.**

Models can be downloaded from: **https://vtsgroup.com/vts-bim**

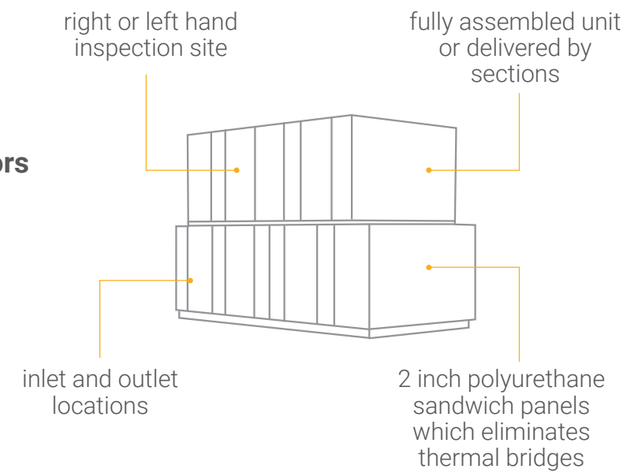
American
VENTUS

AVS

from **800** CFM
to **38 000** CFM
in total **capacity**

premium efficiency motors
energy recovery system:
- cross-flow plate
- energy wheel

2 000 h
salt spray test
resistance
on the external coating



AVS LITE

from **800** CFM
to **4 000** CFM
in total **capacity**

premium efficiency motors
energy recovery system:
- cross-flow plate
- energy wheel

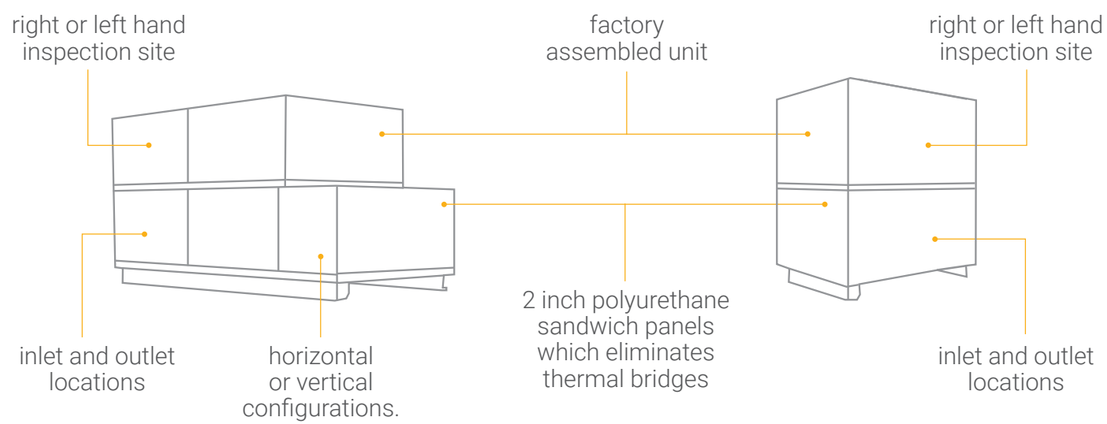
2 000 h
salt spray test
resistance
on the external coating

AVS VERTICAL

from **800** CFM
to **4 000** CFM
in total **capacity**

premium efficiency motors

2 000 h
salt spray test
resistance
on the external coating



Units

American
ventus

RELIABLE
AND TIGHT
CONSTRUCTION

TOP QUALITY
COMPONENTS

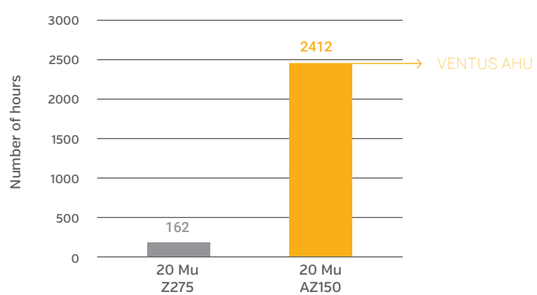
SAFETY
OF USE

03
Product range - American VENTUS

DESIGN

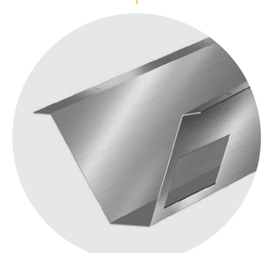
MORE THAN 2,000 HOURS SALT SPRAY TEST PROTECTION

RESISTANCE TO CORROSION



Salt spray test according to ASATMB - 117

ALUMINUM POSTS
AS **STANDARD**
FOR ALL TYPES OF UNITS



V PROFILE
AVS040-AVS085

C PROFILE
AVS100-AVS380

CURB READY RAILS
AVS8-AVS380

GALVANIZED STEEL SUPPORT
AS **STANDARD**
FOR ALL TYPES OF UNITS

CASING SKIN

- high rigidity and durability of the AHU structure
- low absorption of heat radiation and UV
- perfect resistance to weather conditions

FAN SECTION CAGE

- high longitudinal stiffness of the structure
- easy section assembly

CONVENIENT

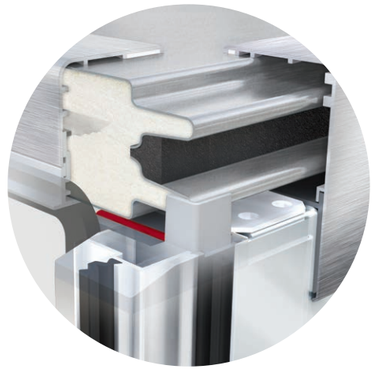
- easy transport
- great profile resistance to deflection

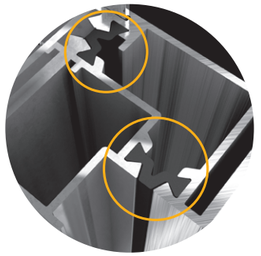
STRUCTURAL POSTS

- thermally broken as standard
- high resistance to weather conditions and UV radiation

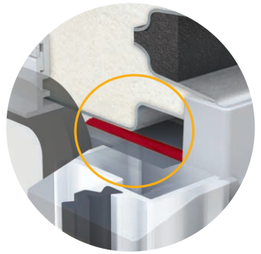
03
Product range - American VENTUS

AIR TIGHTNESS





THERMAL BREAK



ADDITIONAL POST SEALING

LABYRINTH SEALING

ADDITIONAL SEALING EDGE

ERGONOMIC INSPECTION PANEL LOCK

- All units come with hinged panels
- VTS utilizes their patented Smart Hinge System which prevents seal damage when the panels are open
- Perfect ergonomics with integrated handle and hinge function
- Easy to use with quick opening and closing of inspection panels

ALUMINUM STRUCTURAL POSTS WITH AN ADDITIONAL SEALING FIN AND A THERMAL INSERT

- thermal break as standard - ensures no condensation outside the AHU
- the fin ensures labyrinth sealing – currently the most effective solution on the market, mainly used in laboratory equipment
- original solution consisting in the use of symmetrical channel tension filled with a sealing compound, which provides 100% tightness of the connection between the column and construction structure

03
Product range - American VENTUS

ROOFTOP ACCESSORIES

SECTIONAL ROOF

- » prevents water penetration
- » additional weather protection

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

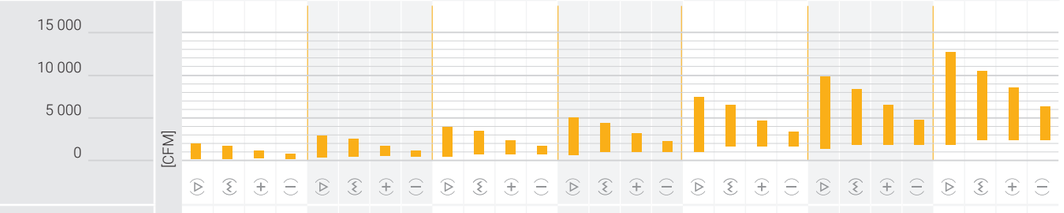
CURB READY RAILS

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

VARIABLE DISCHARGE CONFIGURATION

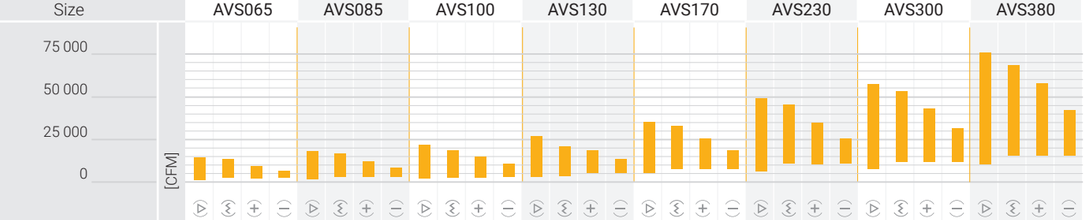
- » end, top, bottom and side discharge options
- » optional discharge dampers and full end discharge dampers available

AVS 8-55 - SUPPLY / EXHAUST



Rated parameters		Recommended range of airflow						
Size		AVS 008	AVS 012	AVS 016	AVS 020	AVS 030	AVS 040	AVS 055
Min.	[CFM]	332 427 427 427	480 618 618 618	636 819 819 819	806 1 037 1 037 1 037	1 185 1 524 1 524 1 524	1 567 1 945 1 945 1 945	2 003 2 419 2 419 2 419
Max.	[CFM]	2 140 1 883 1 254 924	3 091 2 719 1 817 1 339	4 096 3 605 2 486 1 832	5 186 4 564 3 331 2 454	7 622 6 708 4 835 3 563	10 078 8 559 6 697 4 934	12 880 10 648 8 758 6 453
H_f	[inch]	3.54						
H	[inch]	21.97	21.97	24.02	27.17	32.48	37.20	41.14
W	[inch]	27.95	38.62	44.21	46.77	53.50	59.06	66.14
W_i	[inch]	24.02	34.68	40.28	42.83	49.57	55.12	62.20
H_i	[inch]	14.49	14.49	16.54	19.69	25.00	29.72	33.66

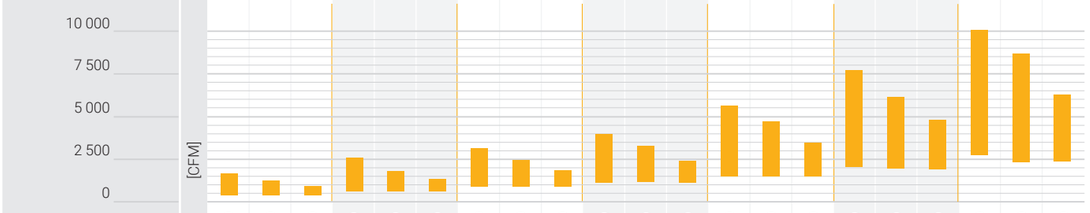
AVS 65-380 - SUPPLY / EXHAUST



Rated parameters		Recommended range of airflow							
Size		AVS065	AVS085	AVS100	AVS130	AVS170	AVS230	AVS300	AVS380
Min.	[CFM]	2 395 3 307 3 307 3 307	2 952 4 069 4 069 4 069	3 559 4 501 4 501 4 501	4 283 4 979 5 183 5 183	5 557 7 630 7 630 7 630	7 706 10 427 10 427 10 427	8 988 12 165 12 165 12 165	11 834 15 526 15 526 15 526
Max.	[CFM]	15 402 14 553 10 640 7 840	18 983 17 907 13 199 9 725	22 883 19 807 16 026 11 809	27 540 21 909 19 697 14 513	35 731 33 576 26 348 19 414	49 540 45 883 35 609 26 238	57 783 53 531 43 761 32 245	76 080 68 316 58 255 42 924
H_f	[inch]	3.54		3.15					
H	[inch]	42.60	46.57	54.21	54.21	65.98	75.16	75.16	93.94
W	[inch]	75.24	82.87	82.87	98.94	102.56	122.24	141.93	146.34
W_i	[inch]	71.30	78.94	78.94	95.00	98.62	118.31	137.99	142.40
H_i	[inch]	35.12	39.09	47.13	47.13	58.90	68.07	68.07	86.85

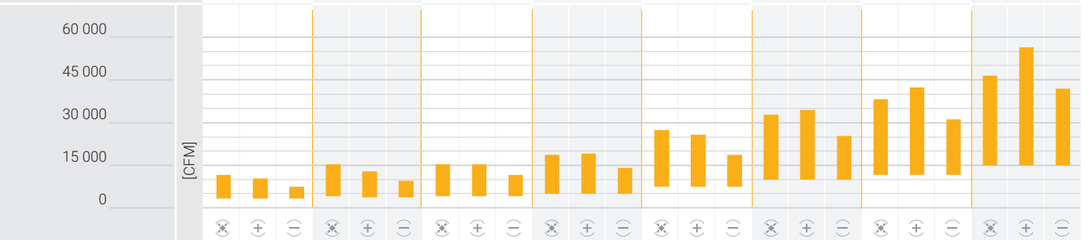
*All Dimensions described in this catalog are for reference only and are subject to change without prior notice, always follow CCOL4 data for accuracy.

AVS 8-55 - CROSS-FLOW PLATE



Rated parameters		Recommended range of airflow						
Size		AVS 008	AVS 012	AVS 016	AVS 020	AVS 030	AVS 040	AVS 055
Min.	[CFM]	446 427 427	697 618 618	846 819 819	1 067 1 037 1 037	1 526 1 524 1 524	2 089 1 945 1 945	2 732 2 419 2 419
Max.	[CFM]	1 699 1 254 924	2 650 1 817 1 339	3 218 2 486 1 832	4 058 3 331 2 454	5 799 4 835 3 563	7 939 6 697 4 934	10 386 8 758 6 453
H_f	[inch]	3.54						
H	[inch]	21.97	21.97	24.02	27.17	32.48	37.20	41.14
W	[inch]	27.95	38.62	44.21	46.77	53.50	59.06	66.14
W_i	[inch]	24.02	34.68	40.28	42.83	49.57	55.12	62.20
H_i	[inch]	14.49	14.49	16.54	19.69	25.00	29.72	33.66
H_2	[inch]	40.39	40.39	44.49	50.79	61.42	70.87	78.74

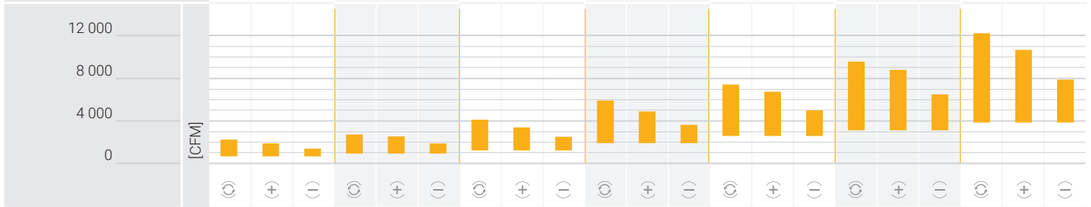
AVS 65-380 - CROSS-FLOW PLATE



Rated parameters		Recommended range of airflow							
Size		AVS065	AVS085	AVS100	AVS130	AVS170	AVS230	AVS300	AVS380
Min.	[CFM]	3 307 3 307 3 307	4 185 4 069 4 069	4 501 4 501 4 501	5 070 5 183 5 183	7 630 7 630 7 630	10 427 10 427 10 427	12 165 12 165 12 165	15 526 15 526 15 526
Max.	[CFM]	11 972 10 640 7 840	15 905 13 199 9 725	15 905 16 026 11 809	19 268 19 697 14 513	28 041 26 348 19 414	33 749 35 609 26 238	39 471 43 761 32 245	47 778 58 255 42 924
H_{fd}	[inch]	3.54		3.15					
H_{fu}	[inch]	0.00	0.00	2.36	2.36	2.36	2.36	2.36	2.36
H	[inch]	42.6	46.57	54.21	54.21	65.98	75.16	75.16	93.94
W	[inch]	75.24	82.87	82.87	98.94	102.56	122.24	141.93	146.34
W_i	[inch]	71.3	78.94	78.94	95.00	98.62	118.31	137.99	142.40
H_i	[inch]	35.12	39.09	47.13	47.13	58.90	68.07	68.07	86.85
H_2	[inch]	81.65	89.61	107.64	107.64	131.18	149.53	149.53	187.09

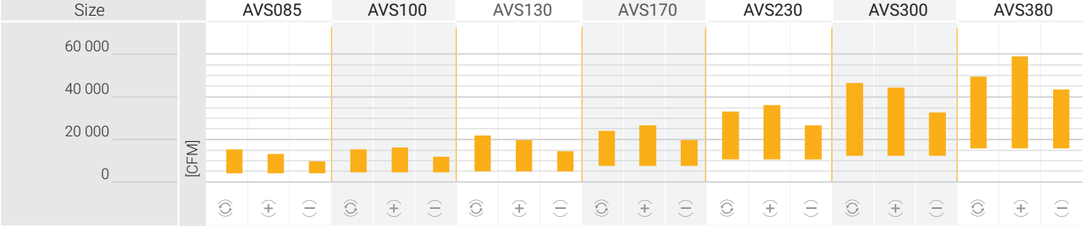
*All Dimensions described in this catalog are for reference only and are subject to change without prior notice, always follow CCOL4 data for accuracy.

AVS 12 - 65 WITH ENERGY WHEEL



Rated parameters		Recommended range of airflow																				
Size		AVS 012			AVS 016			AVS 020			AVS 030			AVS 040			AVS 055			AVS 065		
Min.	[CFM]	618	618	618	819	819	819	1 037	1 037	1 037	1 524	1 524	1 524	1 945	1 945	1 945	2 419	2 419	2 419	3 307	3 307	3 307
Max.	[CFM]	2 179	1 817	1 339	2 664	2 486	1 832	4 068	3 331	2 454	5 869	4 835	3 563	7 364	6 697	4 934	9 536	8 758	6 453	12 205	10 640	7 840
H_f	[inch]	3.54																				
H	[inch]	21.97			24.02			27.17			32.48			37.20			41.14			42.60		
W	[inch]	38.62			44.21			46.77			53.50			59.06			66.14			75.24		
W_i	[inch]	34.68			40.28			42.83			49.57			55.12			62.20			71.30		
H_i	[inch]	14.49			16.54			19.69			25.00			29.72			33.66			35.12		
H_2	[inch]	40.39			44.49			50.79			61.42			70.87			78.74			81.65		

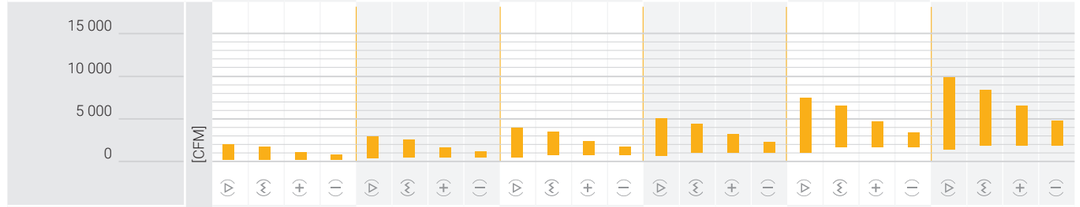
AVS 85-380 WITH ENERGY WHEEL



Rated parameters		Recommended range of airflow																				
Size		AVS085			AVS100			AVS130			AVS170			AVS230			AVS300			AVS380		
Min.	[CFM]	4 069	4 069	4 069	4 501	4 501	4 501	4 979	5 183	5 183	7 630	7 630	7 630	10 427	10 427	10 427	12 165	12 165	12 165	15 526	15 526	15 526
Max.	[CFM]	15 121	13 198	9 724	15 122	16 026	11 809	21 698	19 697	14 513	23 578	26 348	19 414	32 704	35 609	26 238	45 678	43 761	32 245	48 968	58 255	42 924
H_{fd}	[inch]	3.54			3.15																	
H_{fu}	[inch]	0.00			2.36			2.36			2.36			2.36			2.36			2.36		
H	[inch]	46.57			54.21			54.21			65.98			75.16			75.16			93.94		
W	[inch]	82.87			82.87			98.94			102.56			122.24			141.93			146.34		
W_i	[inch]	78.94			78.94			95.00			98.62			118.31			137.99			142.4		
H_i	[inch]	39.09			47.13			47.13			58.9			68.07			68.07			86.85		
H_2	[inch]	89.61			107.64			107.64			131.18			149.53			149.53			187.09		

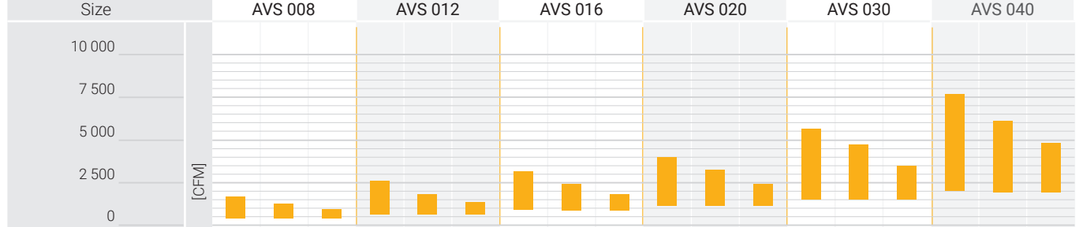
*All Dimensions described in this catalog are for reference only and are subject to change without prior notice, always follow CCOL4 data for accuracy.

AVS LITE 8-40 - SUPPLY / EXHAUST



Rated parameters		Recommended range of airflow																				
Size		AVS 008				AVS 012				AVS 016				AVS 020				AVS 030				AVS 040			
Min.	[CFM]	332	427	427	427	480	618	618	618	636	819	819	819	806	1 037	1 037	1 037	1 185	1 524	1 524	1 524	1 567	1 945	1 945	1 945
Max.	[CFM]	2 140	1 883	1 254	924	3 091	2 719	1 817	1 339	4 096	3 605	2 486	1 832	5 186	4 564	3 331	2 454	7 622	6 708	4 835	3 563	10 078	8 559	6 697	4 934
H_f	[inch]	3.54																							
H	[inch]	21.97				21.97				24.02				27.17				32.48				37.20			
W	[inch]	27.95				38.62				44.21				46.77				53.50				59.06			
W_i	[inch]	24.02				34.68				40.28				42.83				49.57				55.12			
H_i	[inch]	14.49				14.49				16.54				19.69				25.00				29.72			

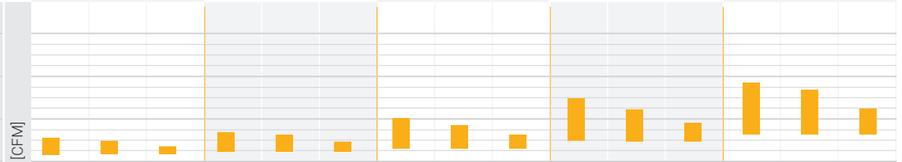
AVS LITE 8-40 - CROSS-FLOW PLATE



Rated parameters		Recommended range of airflow																				
Size		AVS 008				AVS 012				AVS 016				AVS 020				AVS 030				AVS 040			
Min.	[CFM]	446	427	427		697	618	618		846	819	819		1 067	1 037	1 037		1 526	1 524	1 524		2 089	1 945	1 945	
Max.	[CFM]	1 699	1 254	924		2 650	1 817	1 339		3 218	2 486	1 832		4 058	3 331	2 454		5 799	4 835	3 563		7 939	6 697	4 934	
H_f	[inch]	3.54																							
H	[inch]	21.97				21.97				24.02				27.17				32.48				37.20			
W	[inch]	27.95				38.62				44.21				46.77				53.50				59.06			
W_i	[inch]	24.02				34.68				40.28				42.83				49.57				55.12			
H_i	[inch]	14.49				14.49				16.54				19.69				25.00				29.72			
H_2	[inch]	40.39				40.39				44.49				50.79				61.42				70.87			

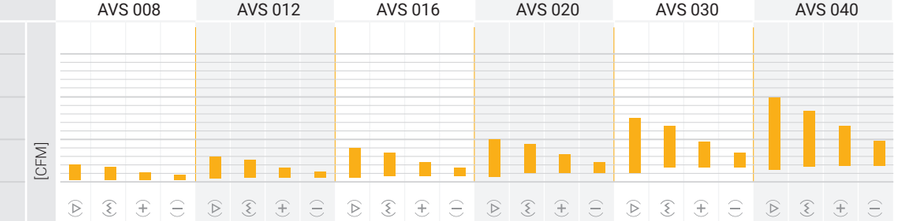
*All Dimensions described in this catalog are for reference only and are subject to change without prior notice, always follow CCOL4 data for accuracy.

AVS LITE 12 - 40 WITH ENERGY WHEEL



Rated parameters		Recommended range of airflow														
Size		AVS 012			AVS 016			AVS 020			AVS 030			AVS 040		
Min.	[CFM]	618	618	618	819	819	819	1 037	1 037	1 037	1 524	1 524	1 524	1 945	1 945	1 945
Max.	[CFM]	2 179	1 817	1 339	2 664	2 486	1 832	4 068	3 331	2 454	5 869	4 835	3 563	7 364	6 697	4 934
H_f	[inch]	3.54														
H	[inch]	21.97			24.02			27.17			32.48			37.20		
W	[inch]	38.62			44.21			46.77			53.50			59.06		
W_i	[inch]	34.68			40.28			42.83			49.57			55.12		
H_i	[inch]	14.49			16.54			19.69			25.00			29.72		
H_2	[inch]	40.39			44.49			50.79			61.42			70.87		

AVS - VERTICAL CONFIGURATIONS



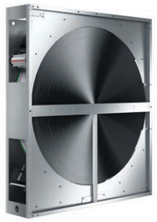
Rated parameters		Recommended range of airflow																					
Size		AVS 008				AVS 012				AVS 016				AVS 020				AVS 030				AVS 040			
Min.	[CFM]	332	427	427	427	480	618	618	618	636	819	819	819	806	1 037	1 037	1 037	1 185	1 524	1 524	1 524	1 567	1 945	1 945	1 945
Max.	[CFM]	2 140	1 883	1 254	924	3 091	2 719	1 817	1 339	4 096	3 605	2 486	1 832	5 186	4 564	3 331	2 454	7 622	6 708	4 835	3 563	10 078	8 559	6 697	4 934
H_{fd}	[inch]	3.54																							
H_{fu}	[inch]	0.00				0.00				0.00				0.00				0.00				0.00			
H	[inch]	21.97				21.97				24.02				27.17				32.48				37.20			
W	[inch]	27.95				38.62				44.21				46.77				53.50				59.06			
W_i	[inch]	24.02				34.68				40.28				42.83				49.57				55.12			
H_{ui}		19.69				19.69				19.69				25.00				25.00				29.72			
H_{di}		14.49				14.49				16.54				19.69				25.00				29.72			
H_2		45.59				45.59				47.64				56.10				61.42				70.87			

VENTUS KEY COMPONENTS

FAN SECTIONS

- Depending on unit size, VTS will use either 1, 2, 3, 4, or 5 fans
- Utilize ABB variable frequency drives
- Utilize Baldor premium efficient motors (TEFC); Baldor EC Gold Series permanent magnet motors are an option. EC Gold meets the more stringent IE 4 requirements.
- Motor bearing life is standard L10-400,000 hrs
- All motors 7.5 HP and larger come standard with shaft grounding rings
- Backdraft dampers are available
- Available voltages depending on size: 115/1, 208/1, 230/1, 208/3, 230/3, 460/3, 575/3
- Single point power for fans
- Impeller is made from fiber reinforced polymer
- Capable of 10" of total static pressure
- Extremely quiet and energy efficient
- Fan combination is more efficient than ECM/forward curved fan configurations

ENERGY RECOVERY WHEELS

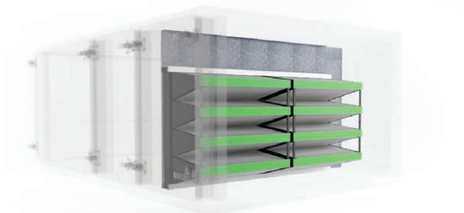


- VTS manufactured wheels from AVS-012 up to AVS-170
- Class leading efficiencies
- 3A Molecular Sieve - 0.22% Leakage Rate
- All wheels are total energy wheels
- All wheels are AHRI 1060 certified
- All wheels are equipped with VFD speed control

DAMPERS

- Dampers are manufactured in house by VTS
- Gears are made with fiber reinforced polymer and infused with nylon for long life and quiet operation
- AMCA certified for 1", 4" and 8" of pressure.
- Square shaft preventing actuator slippage
- Indicator position shown on outside of damper for externally mounted dampers
- Opposed blade

FILTERS



- 2" MERV 8 or 4" MERV 13 pre filters
- 12" MERV 13, 14, or 16 final filters
- HEPA Filters

ENERGY RECOVERY PLATES

- Dry efficiencies up to 87%
- AHRI 1060 certified
- Sensible only
- Crossflow configuration
- The exchanger consists of aluminum plates, the casing of aluminum extrusions, and side walls of Aluzinc sheet steel. The exchangers are silicone free

ULTRA LOW LEAKAGE DAMPERS

- Dampers are Tamco Series 9000
- Aluminum construction with polyurethane foam
- AMCA certified for Class 1A low leakage for 1", Class 1 for 1", 4" and 8" of pressure.
- Insulated blades with an R-value of 2.29

WATER / REFRIGERANT / STEAM COILS AND DRAIN PANS

- Hot water, chilled water, refrigerant, and steam
- All coils are AHRI certified
- Optional stainless steel coil casing
- Standard stainless steel drain pans
- Coils can be swapped out typically in less than one hour
- Coils can be provided with optional Blygold coating

ELECTRIC HEATER

- Standard SCR controls
- Door interlocking disconnect switch
- 6 kW to 297 kW
- Air flow switch

DOWNLOADABLE DOCUMENTATION

VTS America
reference projects

IOM

SOCIAL MEDIA

VTS America
Youtube

VTS America
LinkedIn

NOTES

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

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.
2022, version A.

www.vtsgroup.com