H & M Technology Ventures LLP

Trust the Experts

About H & M..

- H & M Technology Ventures LLP, a Company promoted by, H P Dudani and Manoj Khati.
- The company was established on 28th March 2019 with its registered office in Mumbai & application engineering support centre in Pune & warehouse at Bhiwandi, Thane.
- Both technocrats, with over three decades of global experience in leading companies, have set up H & M to take their passion forward in energy recovery & low energy air conditioning areas with innovative products.
- We truly desire to work towards earning customer's delight, building trust in all our activities we do.
- We partner with cutting edge technology products and solutions in HVAC & R area, combined with our local presence, technology adaptation and customized solution approach, we offer great products and value to our customers.
- Today, H & M work with all major key OEM accounts, Contractors, Consultants pan India.

Our Vision

We will be a GLOCAL company, with a culture of innovation. We will explore & bring technological products that add VALUE to our customers. We will harness & exploit the best ideas in our products & services, to be more effective, building diligently trust in H & M brand, in every business we do.

Co-Founders

H P Dudani

Mechanical Engineer from Mumbai University with 34+ years of experience in HVAC & R industry.

He has worked across various functional domains in business, during his long career, he held senior management positions in the company. He played a key role to expand company's international operation in Middle East & Africa market.

Manoj Khati

Bachelor in Engineering, Postgraduate in Management Studies with an advance study program in the field of strategy.

Entrepreneur & Strategist, Responsible for creating successful brands in the market. He led start ups and steadily scaling up to a mid size business establishing strong future footprints in market.

Our Exclusive Partners & Products

HEATEX

Air to Air
Heat Exchangers

H&M

Heat Pipes

H&M

BARCOL-AIR

VAV, CAV, AFMS
Chilled Beam Systems

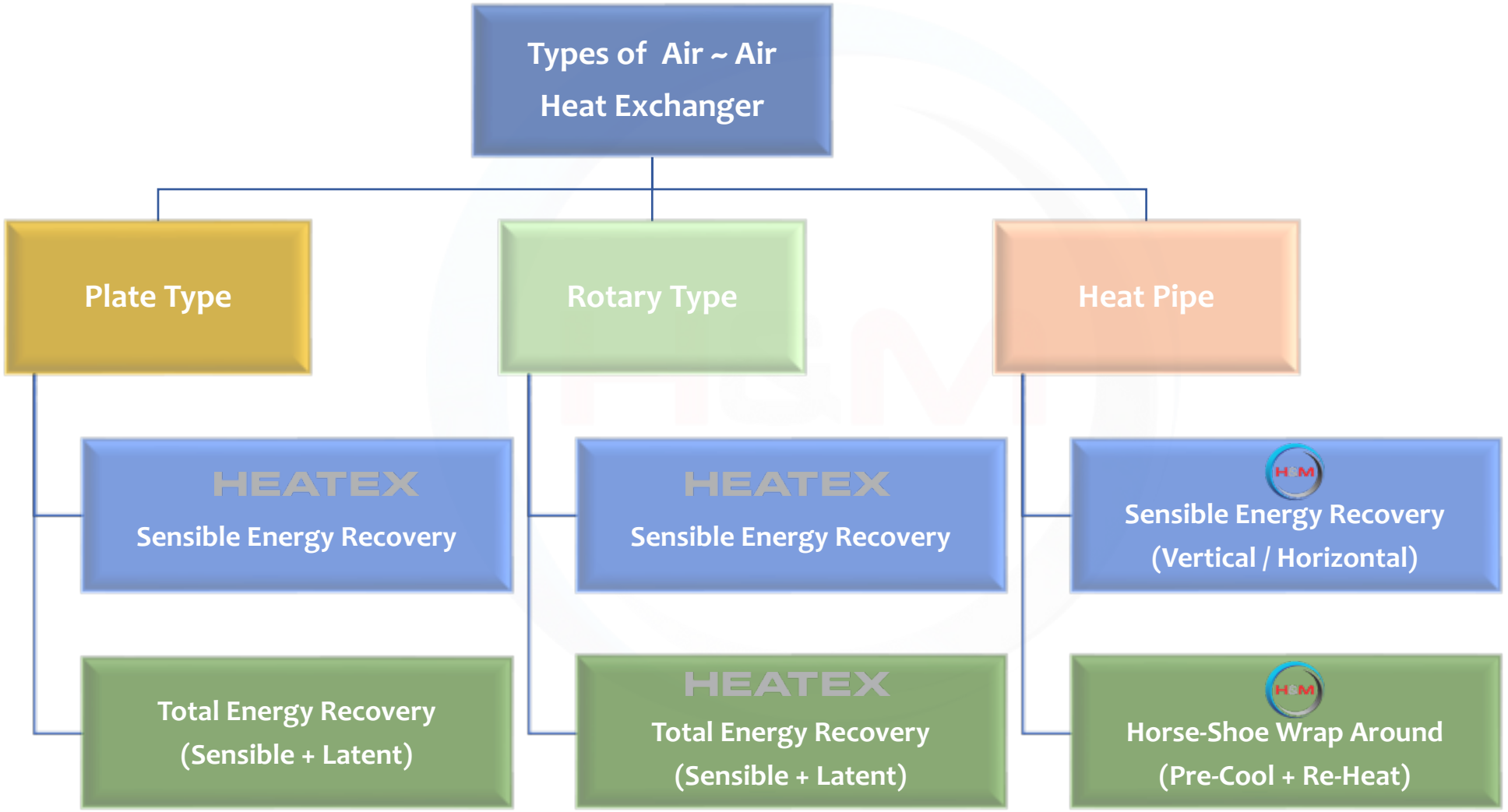
FRITERM®
since 1979

Heat Pipes

Air to Air Energy Recovery

Heat Exchanger

Air-to-Air Heat Exchanger Types



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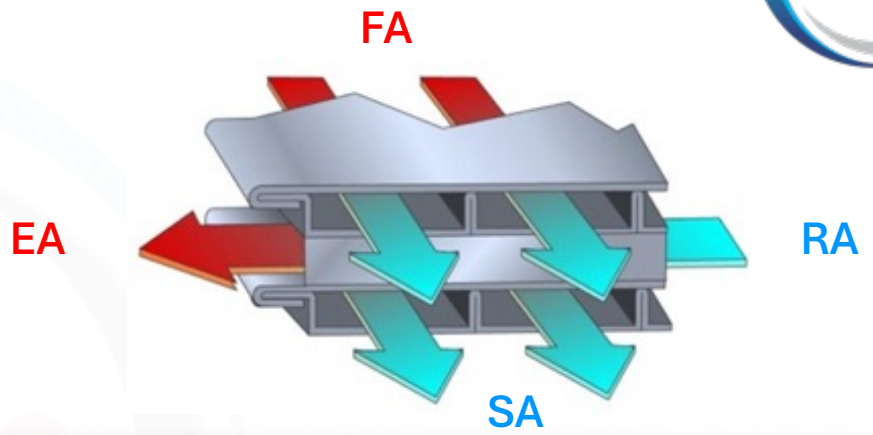
Cross Flow Plate Type

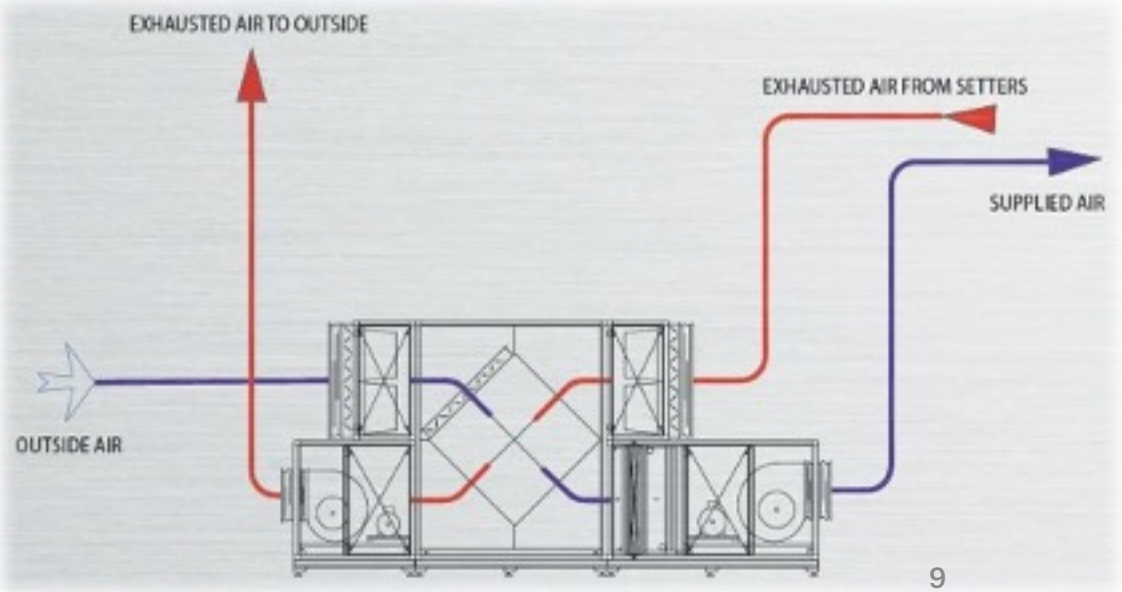
Sensible Energy Recovery

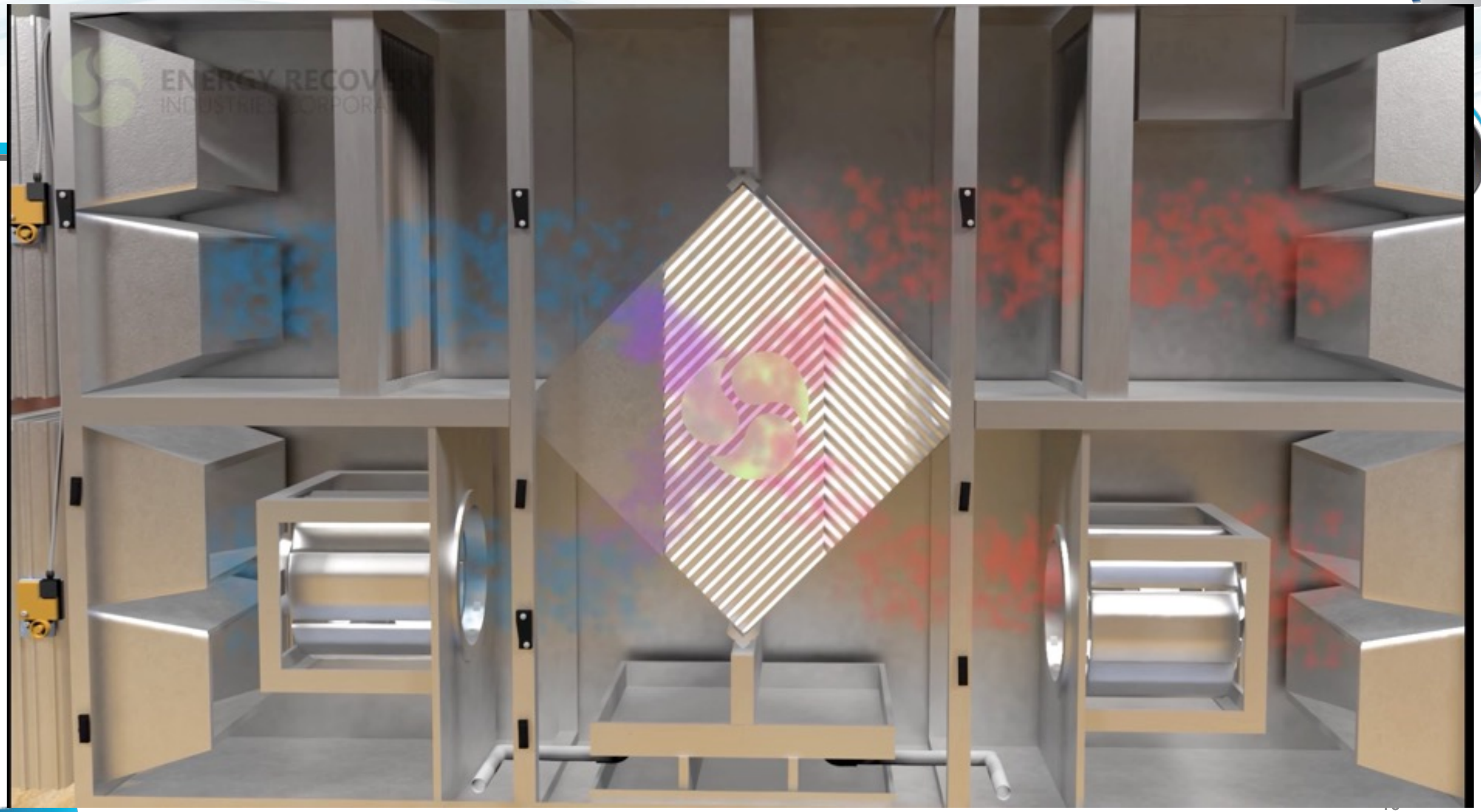
Air-to-Air Heat Exchanger

Cross Flow Plate Heat Exchanger

- Air to Air Plate Type Heat Exchanger is designed to transfer thermal energy (sensible or total) from one air stream to another without moving parts.
- Heat transfer surfaces are in form of plates. Two neighboring plates create channels for the air to pass through them.
- Heat from one air flow is transferred to another without mixing the air flows.
- The Heat transfer medium is through Aluminum / Membrane plates with thermodynamic properties.







Cross Flow Plate Heat Exchanger

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- A very important parameter for the performance of a plate heat exchanger is the spacing between the plates. A narrow channel leads to high-pressure drop but also to high efficiency. The latter means that more heat is transferred to the cold side. If a lower pressure drop is required, it is better to use a higher channel spacing. The trade-off is lower efficiency.

- Usually, the exhaust air is contaminated with humidity and pollutants, but with a plate heat exchanger, airflows never mix, leaving the supply air fresh and clean. To avoid leakage and contamination, Heatex plate heat exchangers are constructed with a double sealing concept. This means both gluing and a mechanical fold.

- To protect the aluminium from harmful substances or corrosive environments it's recommended to coat the plates with epoxy and paint both end-plates and profiles.

Cross Flow Plate Heat Exchanger Product Range

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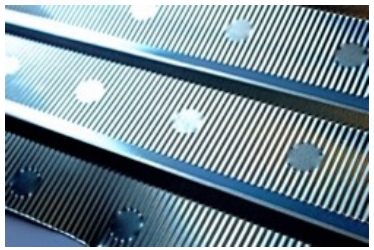
Model	H2	H	P	Z
Airflow capacity	Standard	High	High	Standard
Efficiency	Superior	High	High	High
Plate material	Aluminum/ Epoxy	Aluminum/ Epoxy	Aluminum/ Epoxy	Stainless steel
Size	500 – 3000 mm (19.69″ – 118.1″)	200 – 3000 mm (7.87″ – 118.1″)	600 – 3000 mm (7.87″ – 118.1″)	600 and 1200 mm (23.62″ and 47.24″)
Max. differential pressure (depending on channel height)	3000 Pa 12.04 "WC	1800 Pa 7.23 "WC	3800 Pa 12.26 "WC	4000 Pa 16.06 "WC



Selection Guidelines of Heat Exchanger

Select Type & Options of Heat Exchanger Required :

Parameter	Model H	Model H2	Model Z
	Model H is HEATEX most versatile cross flow plate heat exchanger	Model H 2 is a high performance, low weight, cross flow plate heat exchanger	Model Z is designed for very high corrosive environments and heavy duty applications
Modul Size	200 ~ 3000 mm	500 ~ 3000 mm	600 & 1200 mm
Well Height / Plate Distance	Plate distances 1.8~12.0mm	Plate distances 1.9 ~ 6.0mm	Plate distances 6.0~9.0mm
Efficiency	In single pass sensible efficiency is 65 ~ 70 %.	above 65 %	Single pass sensible efficiency 65% - 70%.
Material Options	- Aluminium Plates and Galvalume Framework, - Epoxy Coated Aluminium Plates and and Galvalume Framework, - Epoxy Coated Aluminium Plates and and Corrosion Protected Framework,		Stainless Steel 316 L Plates and Framework.

Sealant material for higher temperatures

- Silicone free (max 90 C), Silicone Sealing (max 200 C) or Special Sealing (max 240 C)

IEC Plate Heat Exchanger

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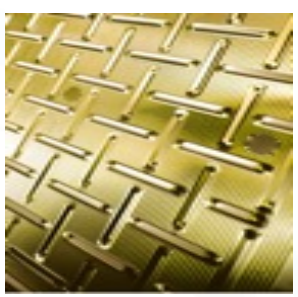
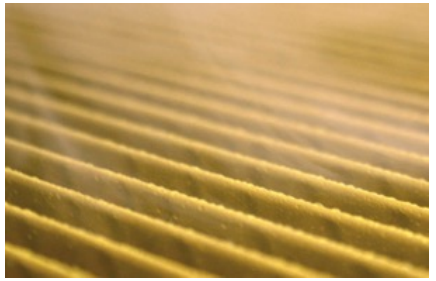
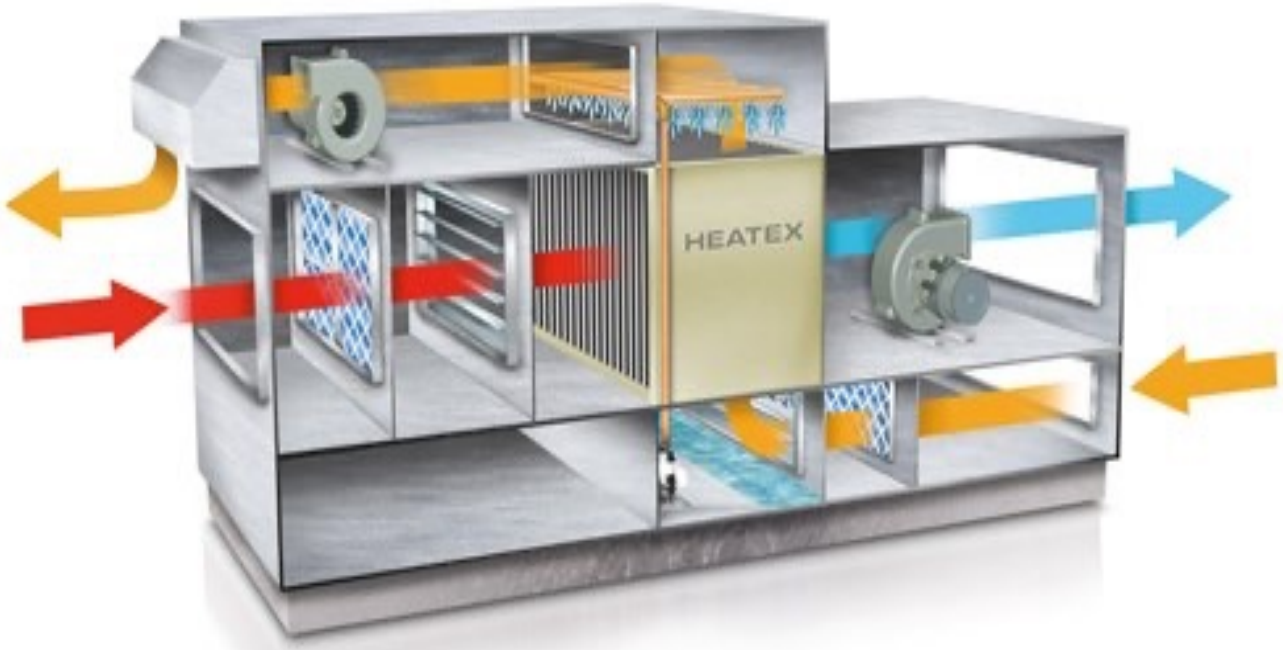
- HEATEX is a global leader in data center IDEC cooling applications and work with several of the leading players in the industry in all geographic regions.
- New “triple” epoxy layer coated aluminum plates and painted framework material for better corrosion resistance & water evaporation.
- That together with HEATEX in-house developed sealing methods result in heat exchangers that will last for many years to come. All units are tested with air and water for tightness.
- Unique plate pattern that gives low pressure drop and high efficiency.







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Rotary Type

Air-to-Air Heat Exchanger

Rotary Heat Exchanger

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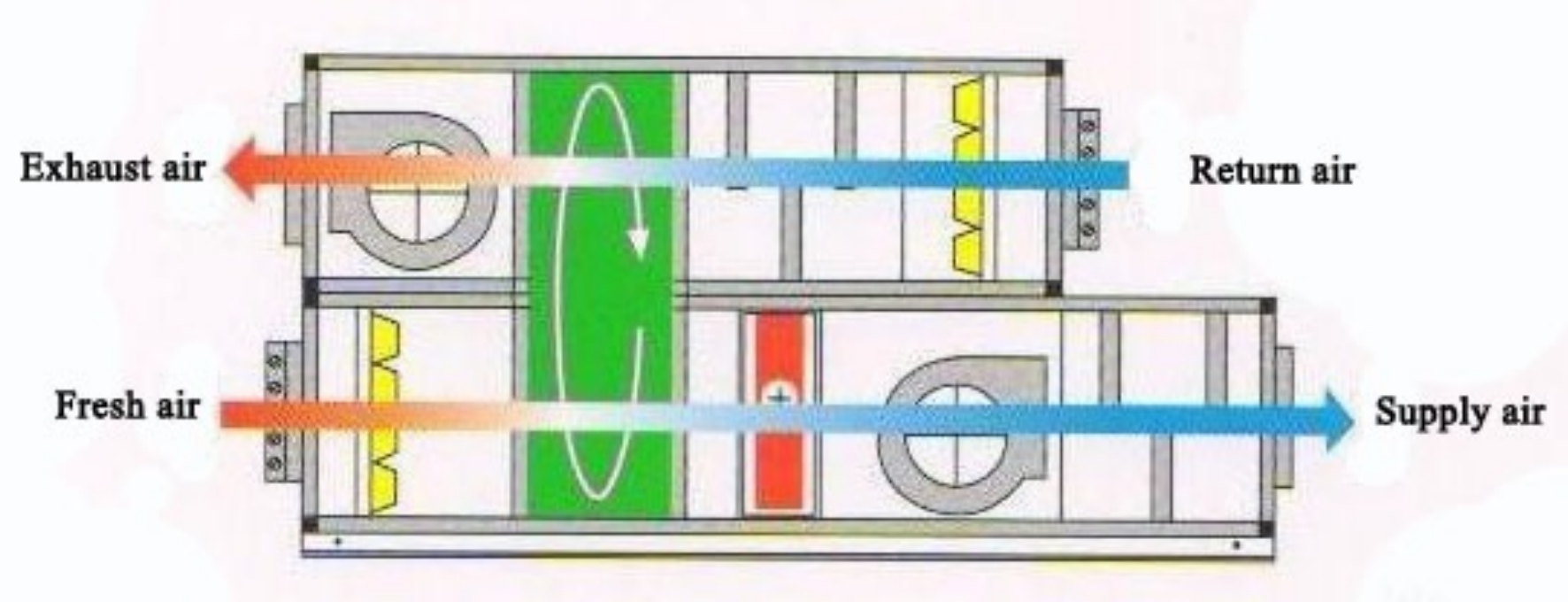

Rotary Heat Exchanger

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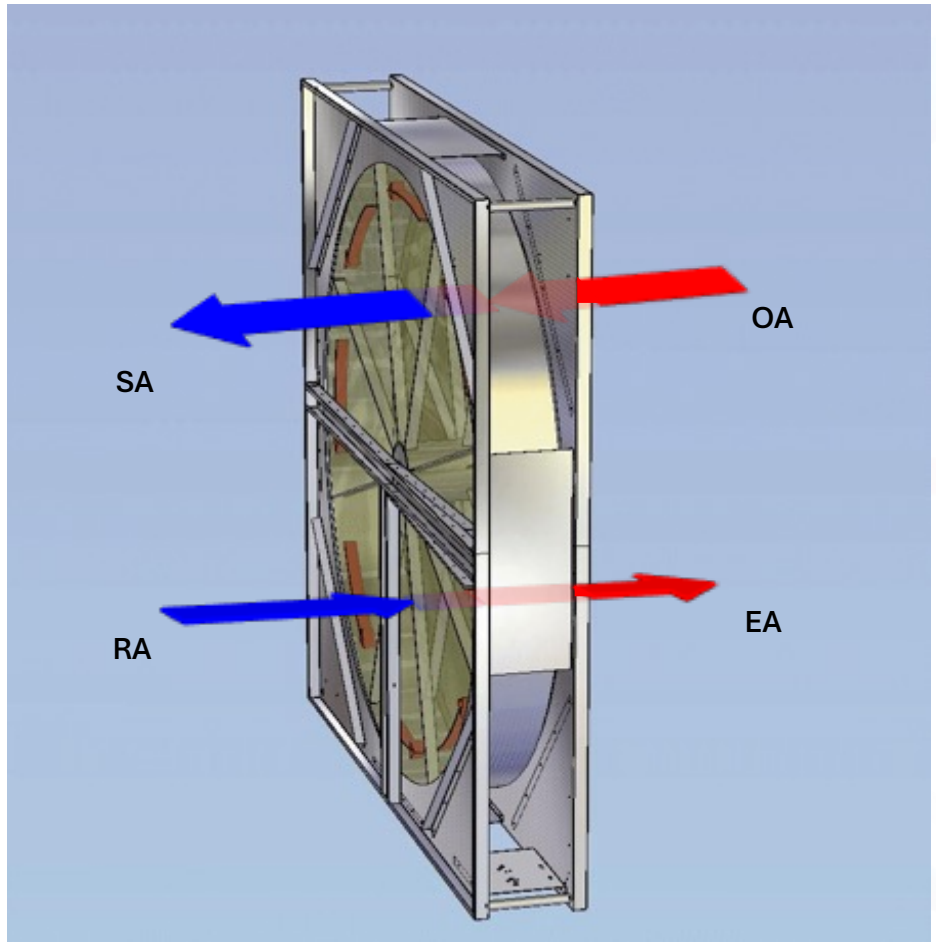

❑ Heat Recovery / Sensible Wheel

- Sensible heat transfer only
  - Aluminium matrix
  - Epoxy-Coated Aluminium

Adding coating like silica gel or 3 A° molecular sieve to enable humidity (latent heat) transfer.

❑ Energy Recovery / Enthalpy Wheel

- Sensible and Latent Transfer
  - 3 A° Molecular Sieve Coated Aluminium
  - Silica Gel coated Aluminium
  - Hygromix (Molecular Sieve + Silica Gel Coated Aluminium)
  - Hybrid (Aluminium Partially Coated with Silica Gel)

Rotary Heat Exchanger Models

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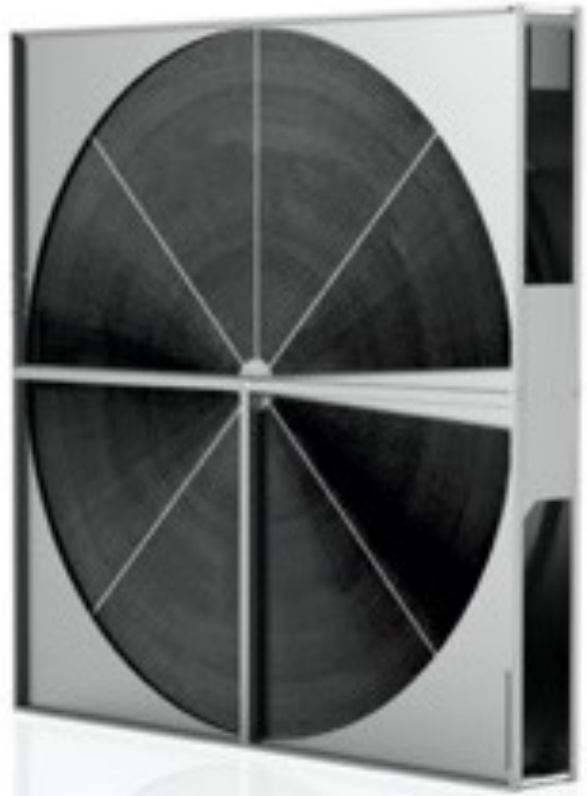


Monolithic
Model E

Monolithic Wheel Model E

- Certified according to Eurovent, AHRI and TüvSüd.
- Model E meets several hygiene requirements.
- Numerous Sizes : Wheel diameter 500 – 2575 mm
- Compact Casing : Casing size = Wheel diameter + 50
- Flexible Orientation
  - Suited for vertical and horizontal installation
  - The airflows may be oriented as side by side or top/bottom
- Airflow Capacity
  - 200 ~ 90 000 Nm3/h (125 ~ 56,000 CFM)
- Typical temperature efficiencies are up to 90%.
- Two air streams are also separated by adjustable brush sealants to minimize leakage.

Rotary Heat Exchanger Models

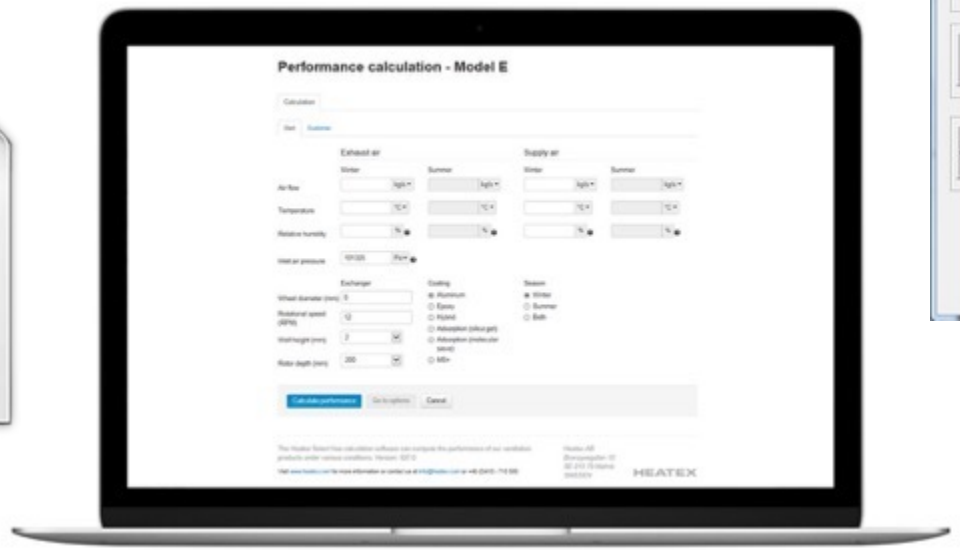
Segmented
Model EQ

Segmented Wheel Model EQ

- Model EQ is a high-performing, segmented rotary heat exchanger in a robust galvanized steel casing.
- Segmented wheel facilitates onsite installation.
- Certified according to Eurovent, AHRI and TüvSüd.
- Model EQ also meets several hygiene requirements.
- Numerous XL Sizes : Wheel diameter 1600 – 3800 mm
- Airflow Capacity
  - 2000 – 190,000 Nm3/h (1170 – 110,000 CFM)

Heatex Select

- Advanced design and calculation software tool.
- Available in online and offline versions at www.heatex.com.
- Eurovent Certified



HEATEX

Specialist in Air-to-Air Heat Exchangers

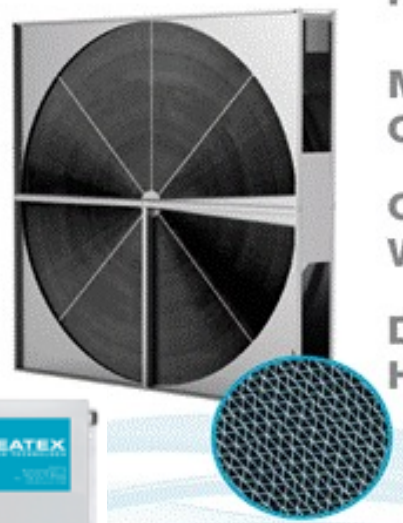
Custom engineered products, manufactured to match your technical specifications.

ILH BERLIN

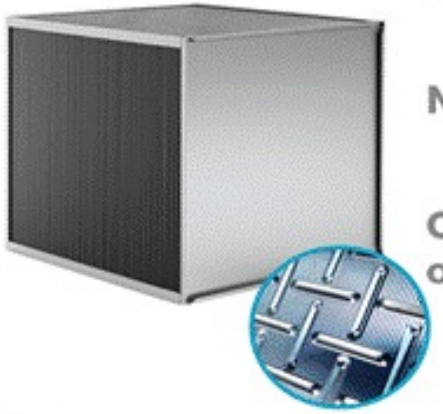
EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

AHRI CERTIFIED

TÜV SÜD



- High Efficiency
- Minimal Cross Contamination
- Customizable Wheel Diameters
- Different Well Heights



- High Efficiency
- Low Pressure Drop
- No Moving Parts
- Complete Separation of Air Flow

Calculate Performance with

HEATEX SELECT

on heatex.com

Air to Air Energy Recovery

Heat Pipes

Heat Pipe Working Principle

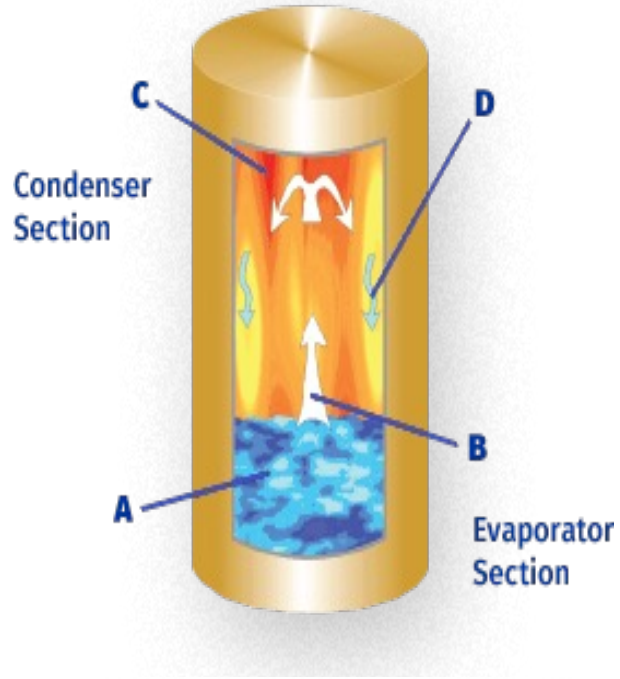
A. Heat is absorbed by Incoming Hot Air from Liquid Refrigerant in the evaporating section. (Pre-Cool)

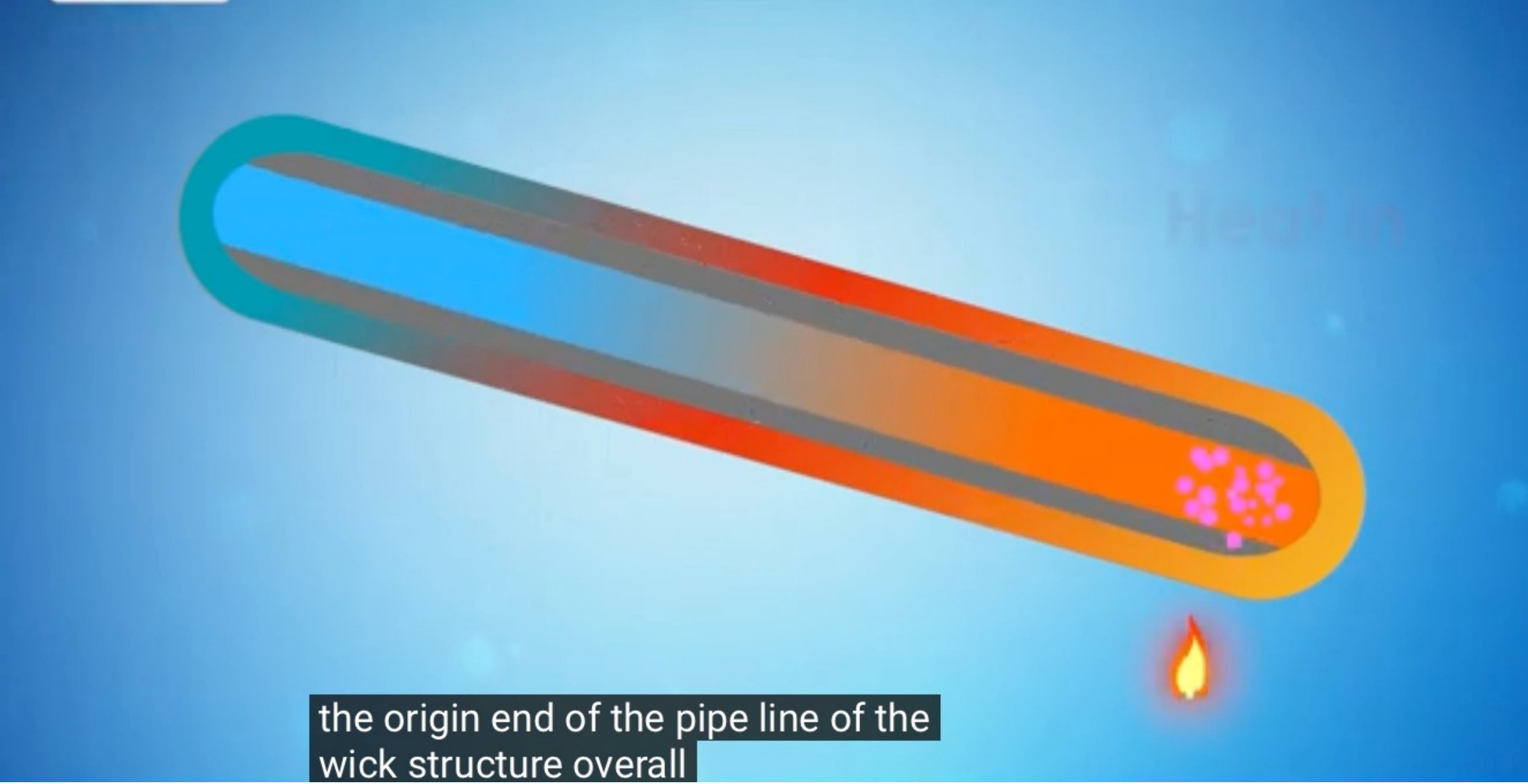
B. Fluid boils to vapour phase. This increases the vapor pressure of the fluid and makes it to move rapidly to the cooler condenser section of the heat pipe, carrying along the absorbed heat.

C. Heat is released by Leaving Cold Air to Vapour Refrigerant in upper part of cylinder; vapour condenses to liquid phase. (Re-Heat)

D. Liquid returns by gravity to the lower part of cylinder (evaporating section) to complete the cycle.

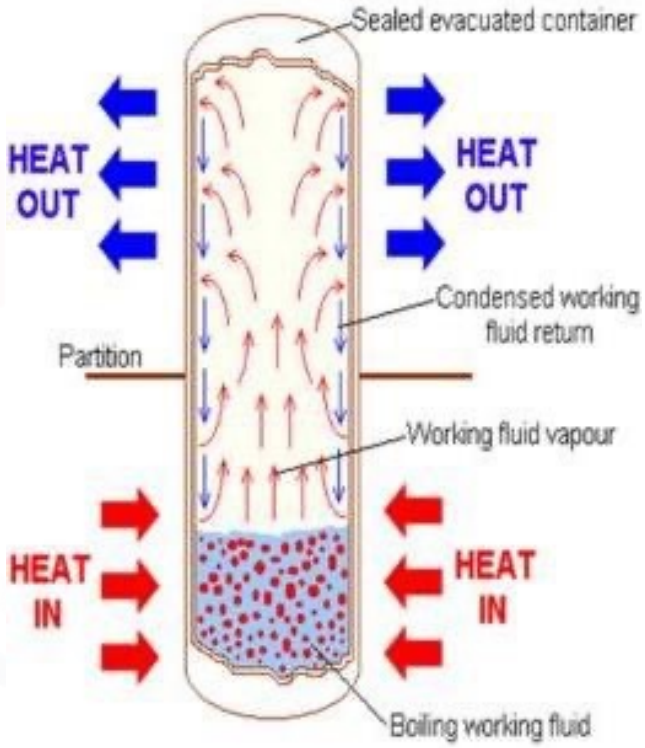
- *No external pumping force is required (i.e. Passive)*

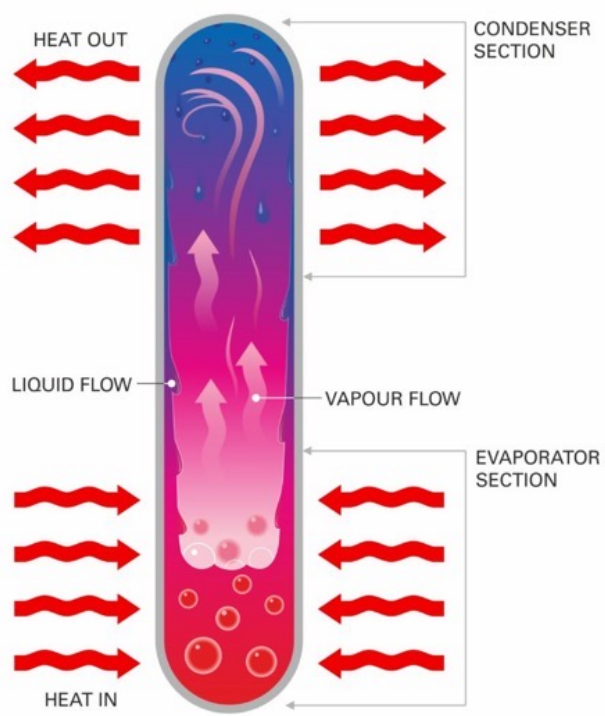



the origin end of the pipe line of the
wick structure overall

Heat Pipe HVAC Application

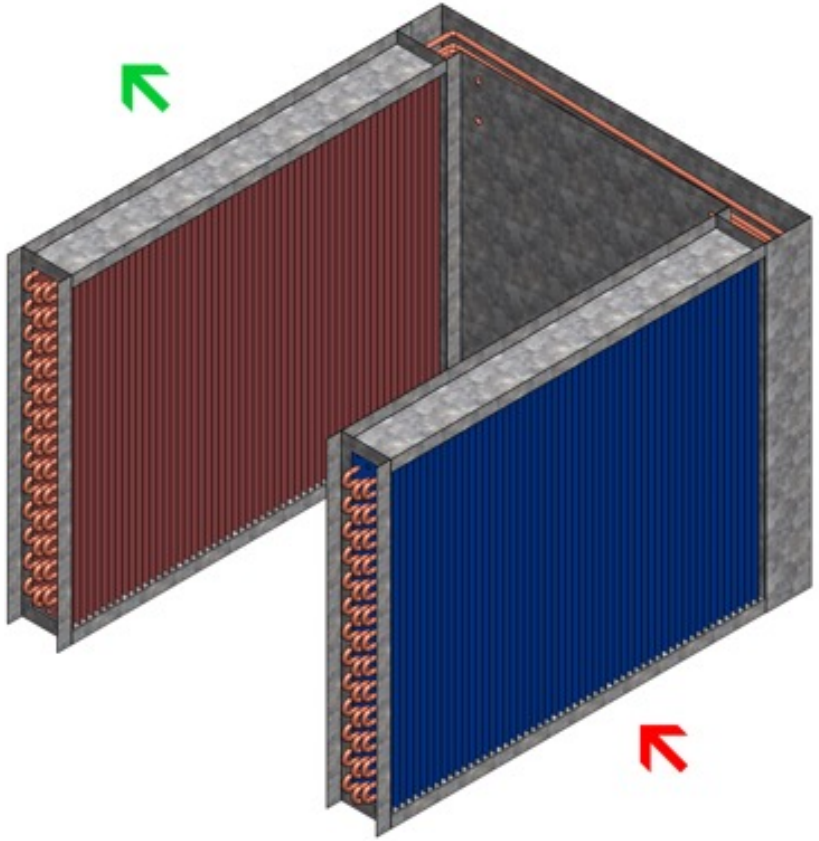
- Incoming Fresh air is pre-cooled, and enthalpy is reduced before the fresh air enters the room or the air conditioning unit that further performs heat and moisture treatment. (AHU)
- Enhance Dehumidification for Humidity Control
- Pre-conditioning the fresh air by above method reduces the heat load of HVAC systems and save the building energy costs.

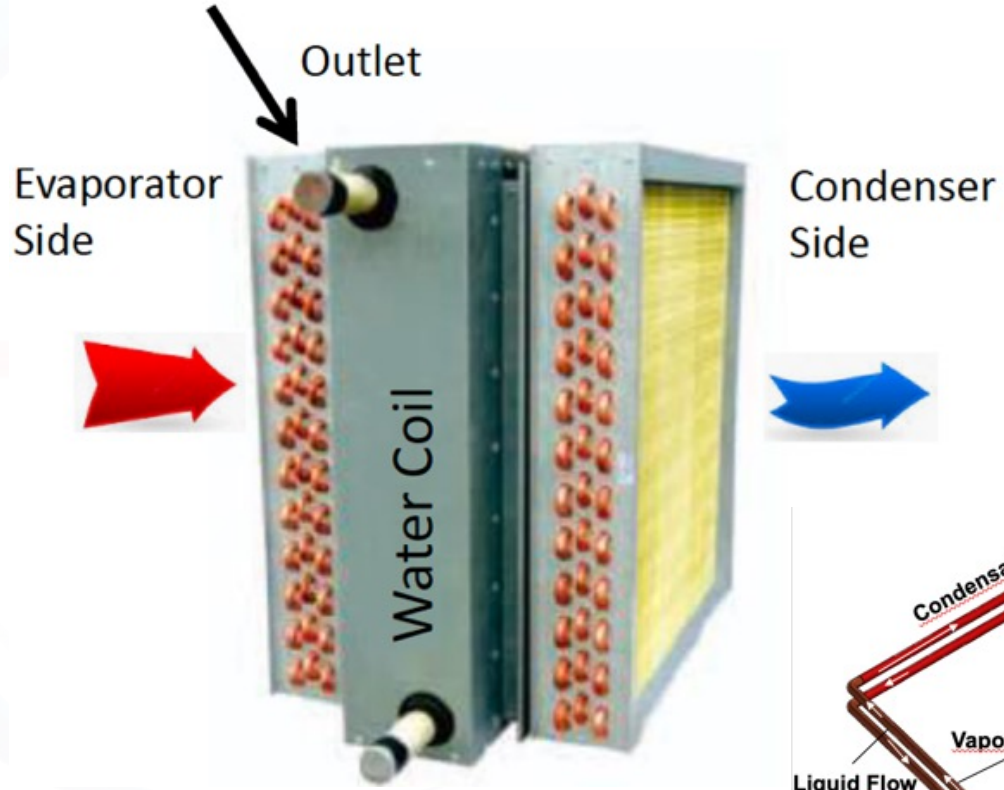


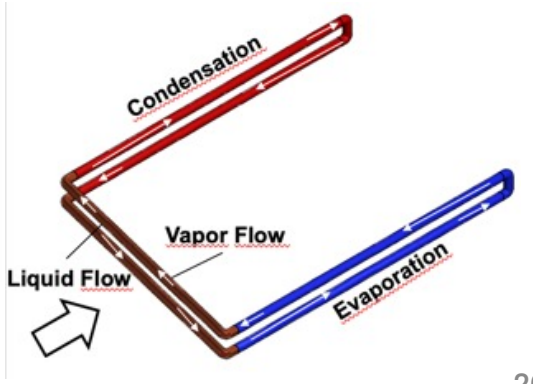


Heat Pipe Types

- Wrap Around (Horse Shoe Type) Heat Pipe Heat Exchanger







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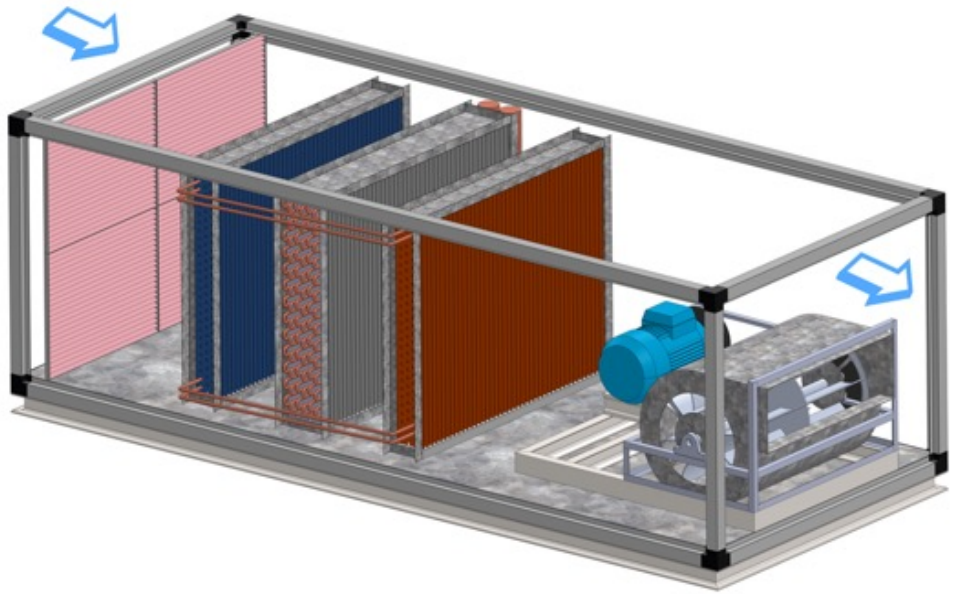
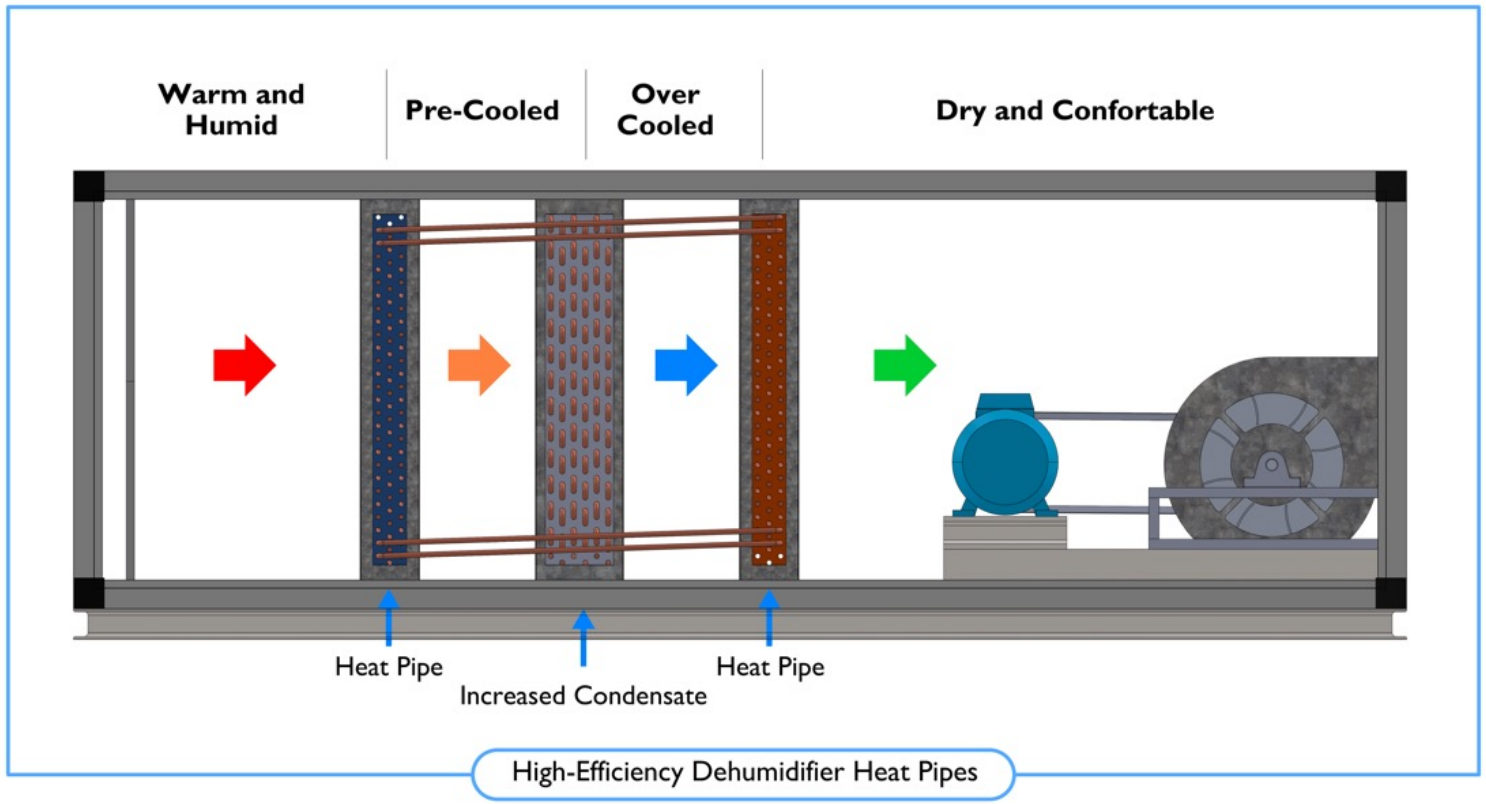


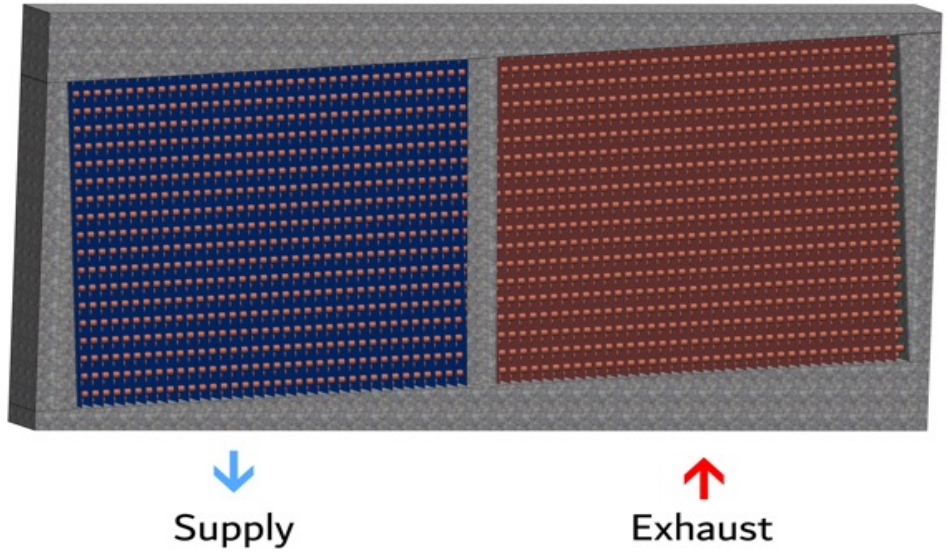


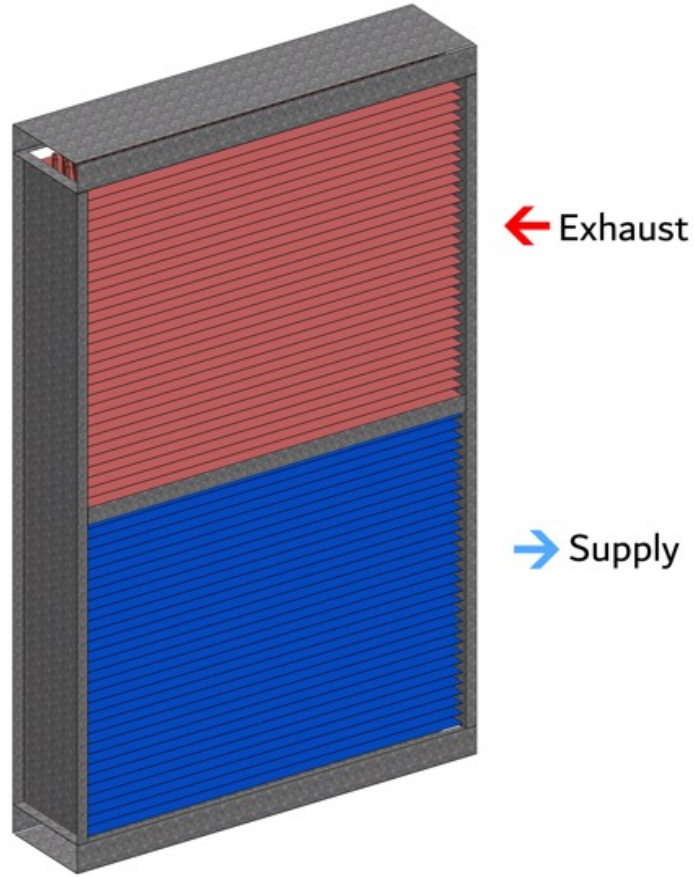
Heat Pipe Types

- Horizontal & Vertical Heat Pipe Heat Exchanger

- These can be used in applications where there is a ducted exhaust stream. Air that is exhausted from the building, is used to precool during (summer) or heat during (winter). The treatment of incoming fresh air helps to save energy.

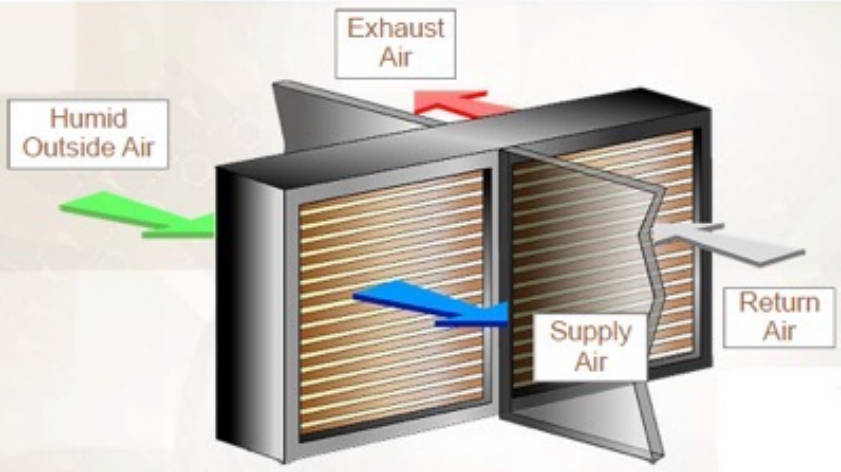
- Intended for applications where two air streams are side by side in a horizontal plane, or one air stream is right above the other (vertical) with minimal distance between the air streams

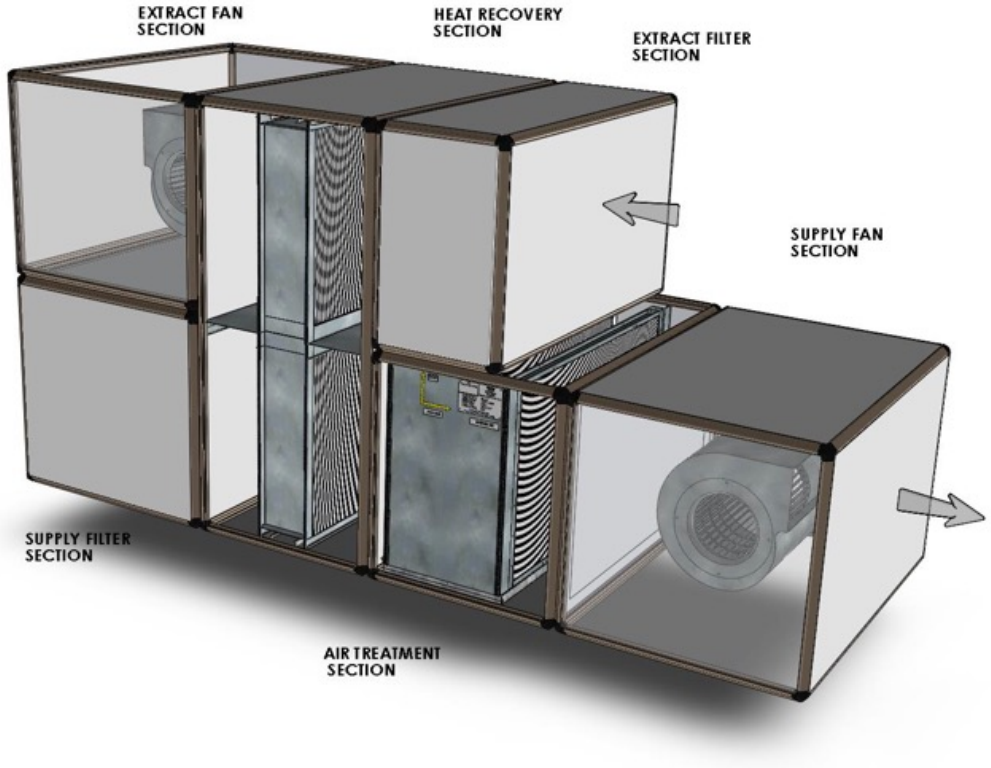




Heat Pipe Types

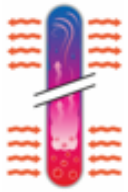
- Horizontal & Vertical Heat Pipe Heat Exchanger





Heat Pipe Features & Benefits

- Energy Recovery
  - Free pre-cooling (lower tonnage AHU systems)
  - Free re-heat (no electric, steam or hot water cost) in WRHP
  - Payback periods generally 18-24months



- Passive System. No Moving Parts

- No Cross Contamination of Air Streams

- Enhanced Dehumidification
  - Lower entering air conditions (Energy Recovery / Savings)
  - Lower cooling coil leaving temperature
  - Improves Indoor Air Quality

- Design Options

- Low Maintenance

Heat Pipe Material Specifications

Refrigerant	R-134a
Air Flow Range	500 ~ 50,000 CFM
Fin Length & Fin Height	To suit customer requirement, AHU OEM coil size
No. of Rows Deep	1 ~ 8 RD
Tube Geometry	½"
Copper Tube Dia.	32 x 28 mm (1 1/4" x 1 1/8")
Copper Tube Type	Inner Groove
Copper Tube Thk.	0.32 mm base thickness

STANDARD SPECIFICATIONS INCLUDES :

Fin Material	Aluminium
Aluminium Fin Thk.	0.12 mm
Fin Type	Sine wave with rippled edges
Fin Pitch	8 FPI ~ 14 FPI
Coating	Pre-Coated hydrophobic blue fins
Casing	1.2 mm ~ 1.6 mm Plain galvanized sheet steel
Charging Port	Brass Schrader valve in each circuit 7/16" – 20 UNF
Pressure Testing	34 Bar (500 Psig)

H&M HEAT PIPES CAN ALSO BE OFFERED WITH FOLLOWING OPTIONAL SPECIFICATIONS :

Copper Tube Thk.	0.34, 0.48 mm base thickness
Fin Type	Louvered
Aluminium Fin Thk.	0.14 mm, 0.15 mm
Casing	GSS Painted, Stainless Steel SS 304, SS 316
Corrosion Protective Coating	Nano Coating, Heresite Coating

Selection Software

- Our Section Software will assist the HVAC design engineer with the proper selection of a Heat Pipe and considering various options and provides energy savings estimates.
- The software provides the designer with the capability to perform a preliminary design selection and to evaluate the H & M heat pipe performance at design point.

Brand Name	H&M
Heat Pipe Type	WRHP
Model	H&M W A 27T 1085FL SA 3R 12F
Refrigerant	R-134a
No. of Row Deep	3
Copper Tube Size	1/2
Copper Tube Thk.	0.34 mm
Copper Tube Type	Inner Groove

Fin Material	Aluminium	
Fin Thk	0.14 mm	
Fin Spacing / Pitch	2.1 mm	
Fin Type	Sine Waves With Rippled Edges	
Fin Coating	Nano Fin Coating	
Frame Material	Galvanized Steel	
Cooling Coil Connection Side	LHS	
Atmospheric Pressure / Altitude	0	m

PRE COOLING - INPUT DATA

On Coil Dry Bulb Temp	33.8	Deg C
On Coil Wet Bulb Temp	25.8	Deg C
RH %	53.19	%
Humidity Ratio	17.68	g/kg
Air Density	1.14	kg/m3

Air Flow	5000	CFM
Fin Length	1085	mm
Fin Height	857.25	mm
No. Of Tubes / Row	27	Nos.
Enthalpy	79.33	kj/kg

PRE COOLING (SUPPLY AIR BEFORE COOLING COIL) - OUTPUT DATA

Off Coil Dry Bulb Temp	25.72	Deg C
Off Coil Wet Bulb Temp	23.73	Deg C
RH %	84.85	%
Humidity Ratio	17.72	g/kg
Air Density	1.17	kg/m3
Condensate	0	LPH

Face Area	0.93	m2
Face Velocity	2.54	m/s
Pressure Drop	70.9	Pa
Enthalpy	71.02	kj/kg
Temp. Effectivenss	32.98	%
Energy Recovery	26.77	KW

RE HEAT (SUPPLY AIR AFTER COOLING COIL) - INPUT DATA

On Coil Dry Bulb Temp	9.3	Deg C
On Coil Wet Bulb Temp	8.9	Deg C
RH %	95	%
Humidity Ratio	6.92	g/kg
Air Density	1.24	kg/m3

Air Flow	5000	CFM
Fin Length	1085	mm
Fin Height	857.25	mm
No. Of Tubes / Row	27	Nos.
Enthalpy	26.79	kj/kg

RE HEAT (SUPPLY AIR) - OUTPUT DATA

Off Coil Dry Bulb Temp	17.38	Deg C
Off Coil Wet Bulb Temp	12.51	Deg C
RH %	57.08	%
Humidity Ratio	7.03	g/kg
Air Density	1.21	kg/m3
Condensate	0	LPH

Face Area	0.93	m2
Face Velocity	2.54	m/s
Pressure Drop	70.9	Pa
Enthalpy	35.29	kj/kg
Temp. Effectiveness	32.97	%
Energy Recovery	26.77	KW

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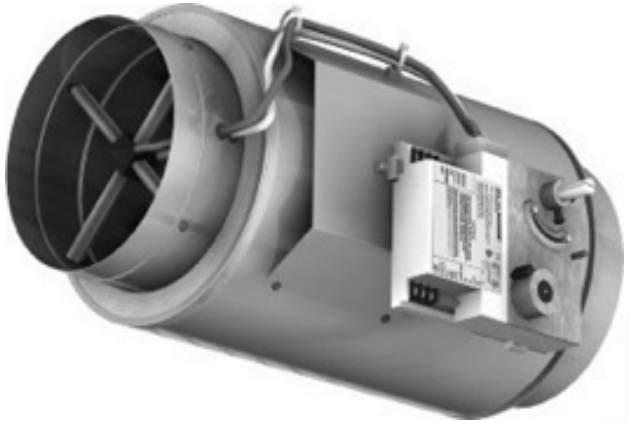
BARCOL-AIR

Specialist in Low Energy

Air Conditioning System

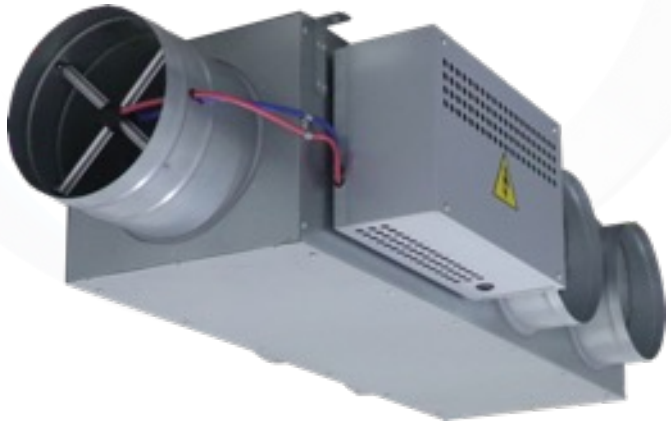
VAV Range



Single/Double Skin Round Connection VAV/CAV Units

Compact VAV Units

Rectangular and Large Air VAV/CAV Units



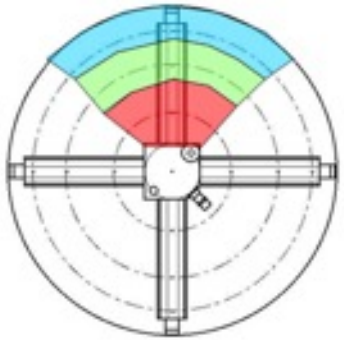
Important Features of VAV Terminal

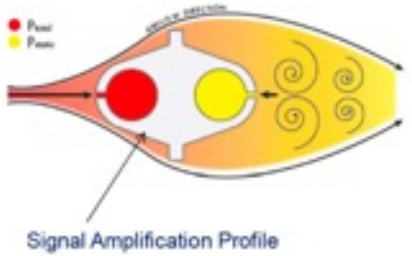
- Pressure independent with Flo-Cross airflow sensor
- Barcol-Air patented design has 2 x 12 sensing points with signal averaging and amplification with proven accuracy of 2.5% in operational range
- Single or Double skin construction
- Special Materials and Finishes
- Factory installed & calibrated digital actuator and controller with maximum and minimum and heat airflows for plug and play operation
- Suitable for Pneumatic, Analogue or Digital Controller
- Oval shape damper blade for linear control characteristics
- Sandwich construction Damper with twin blade & neoprene gasket with low leakage
- Sleeve connection with rubber gasket for circular VAV and 30 mm duct flange connection for rectangular VAV
- Casing leakage class C & Damper leakage class 4 according to EN1751
- BACnet MS/TP integration

VAV Range

- Type : NA/NB/NC Round Inlet Terminals
- Volume Capacity – 50 to 4,500 m3/h
- Size- ϕ100, 125,160, 200, 250, 315, 355, 400

- Type: NK/NL Rectangular Terminals
- Volume Capacity – 50 to 36,000 m3/h
- Size- W x H: 200 x 150 to 1000 x 600





Result accuracy of 2.5% with irregular duct approach.

Air Flow Sensor

Flow Cross Sensor

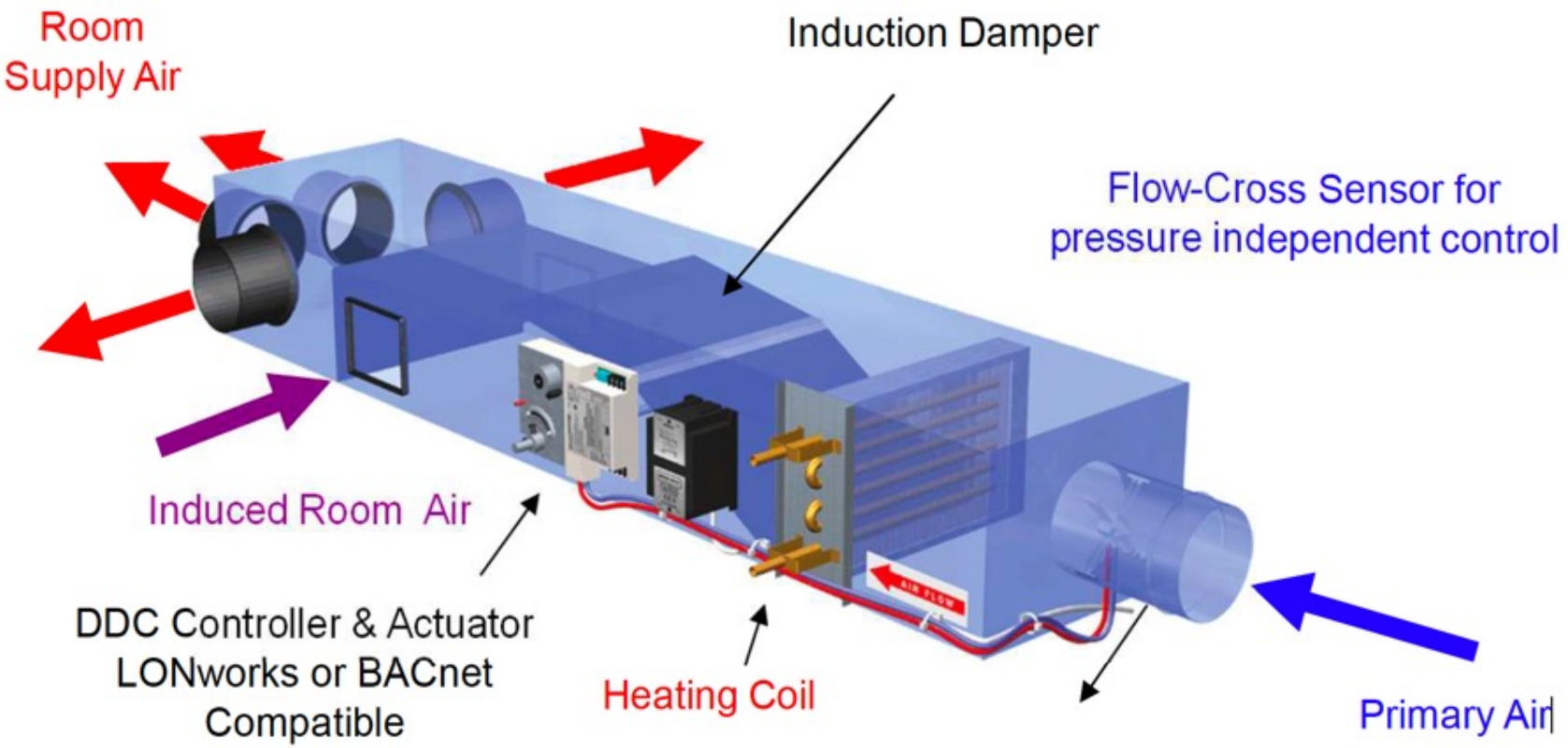
- Measures the airflow through the inlet to the terminal to provide the feed back for the damper control.
- The accuracy of the sensor is critical to the accuracy of the VAV system control.
- Barcol-Air patented design has 2 x 12 sensing points with signal averaging and amplification.
- Has a proven accuracy of 2.5% with irregular duct approach.
- The Airflow Sensor measures both the Total Air pressure and the Static Air pressure allowing the Velocity Pressure to be derived by deducting the Static Pressure from the Total Pressure.

  P total – P static = P velocity

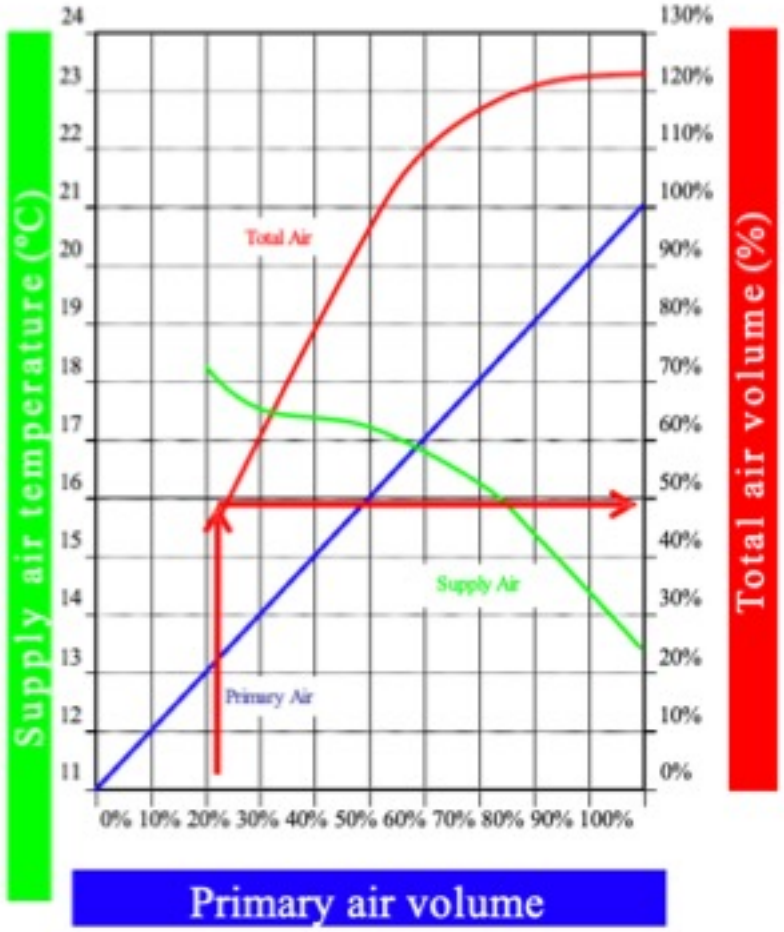
- From the Velocity Pressure the Air Velocity and Airflow are calculated

Induction VAV System

Induction VAV induces room air into the VAV terminal to mix with the primary air before entering the room.



Induction VAV System Performance



- 25% primary air volume – 50% total air

No air dumping and good room flushing

Constant Air Volume (CAV)

Mechanical Type
Round CAV Terminals

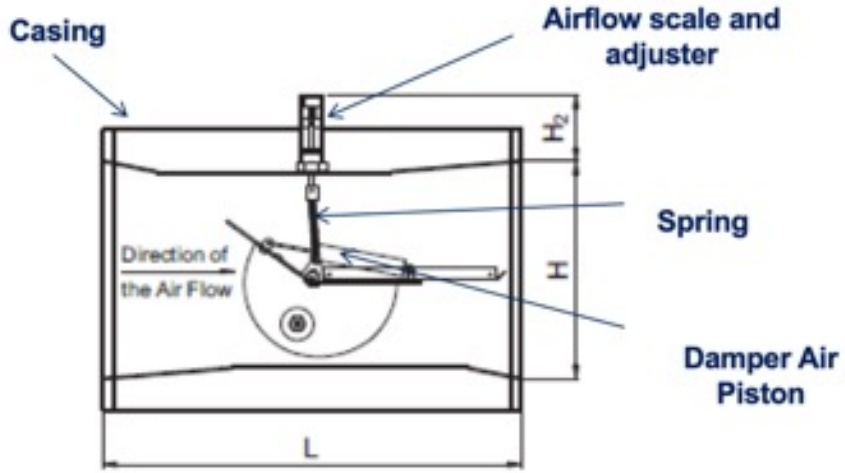
50 ~ 3,600 CMH

Mechanical Type
Rectangular CAV Terminals

200 ~ 23,000 CMH

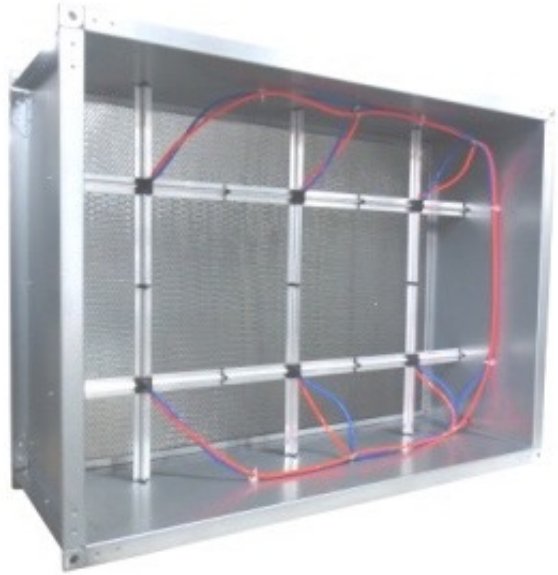
Constant Air Volume (CAV) Features

- Pressure-independent – 50~1000 Pa.
- Self powered - no external power source.
- Operating temperature range – 15 Deg C to + 100 Deg C.
- Control accuracy within ±10%.
- Compact design, save installation space.
- Can be installed with any orientation.
- Each unit factory calibrated for design air flow.
- Provision for on-site adjustment of air flow setting
- Casing is made of galvanized or stainless steel sheet.
- Sleeve connection with rubber gasket for circular CAV and 30 mm duct flange connection for rectangular CAV
- Damper blades of aluminium with SS shaft & self-lubricating nylon bearings
- Casing leakage class C according to EN1751
- Optional customised anticorrosion coatings & insulation.



Measuring and Control Stations
for Air Volume and Pressure

- Type AE..... for air flow measuring.
- Type AF..... for air flow measuring and air flow control.
- Type AH..... for air flow measuring and system pressure control



AER series
Measurement Only

AFS series
Measurement with control dampers combined

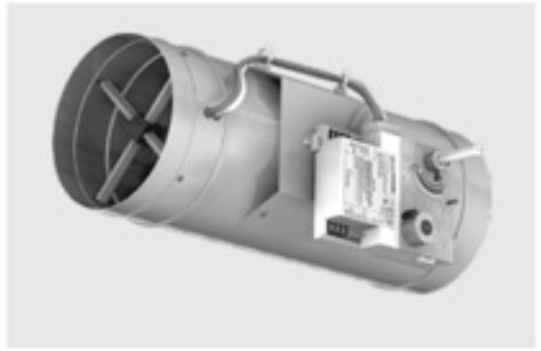
Measuring and Control Stations
for Air Volume and Pressure

BARCOL-AIR

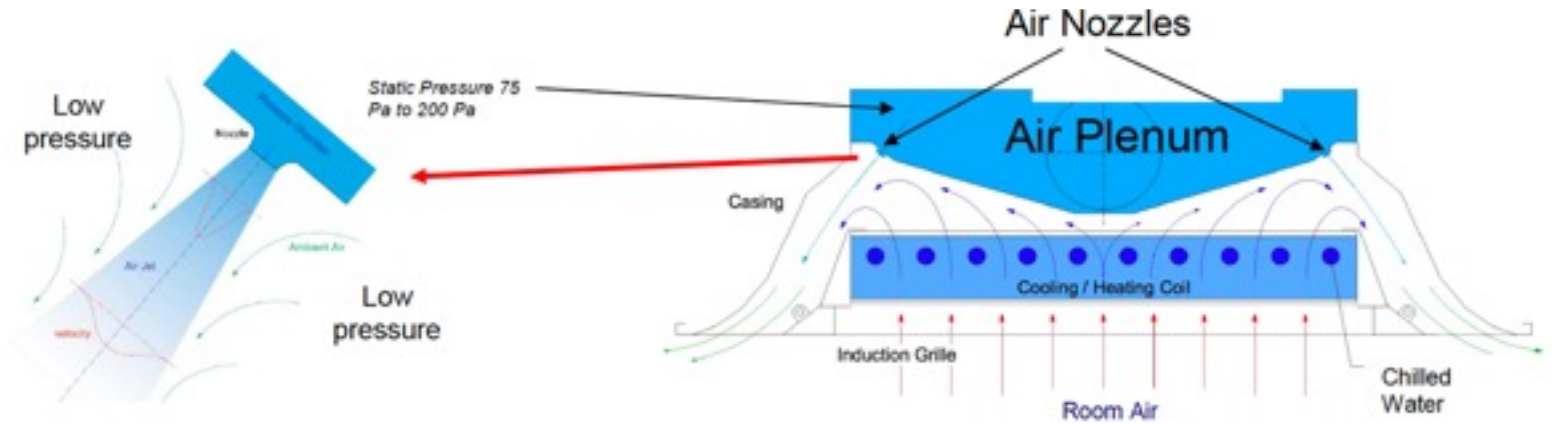
H&M

Functions and Features:

- Direct measurement of air flow using Flow cross air sensors with 0-10V DC or 2-10V DC linear output to BMS control system.
- Optional Honeycomb Plate in front of Air Volume Sensor for greater stability.
- High accuracy ±2.5%.
- Fully factory assembled and calibrated.



Active Chilled Beams



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Our OEM Customers

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FläktGroup

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Our Customers

Pharma Project Reference

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Touching Lives over 100 years

aragen

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Pharma Project Reference

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Trust the Experts

Air-to-Air Heat Exchanger

Application & Performance

Selection Requisite of Heat Exchanger

- **Type :**
  Rotary Type, Plate Type or Heat Pipe

- **Return Air Condition :**
  i.e. Air Flow, Entry Dry Bulb Temperature & Relative Humidity

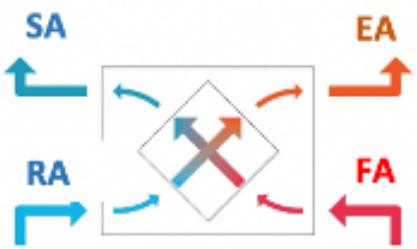
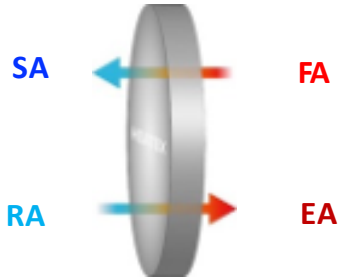
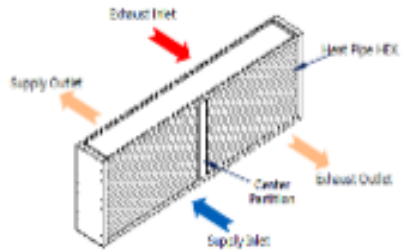
- **Fresh Air Condition :**
  i.e. Air Flow, Entry Dry Temperature & Relative Humidity

- **Required Performance :**
  Minimum Efficiency, Face Velocity, Max. Allowed Pressure Drop

- **AHU Design Restrictions :**
  Dimensions Constraints, Atmospheric Conditions

- **Commercials :**
  Quantity, Delivery Schedule, Project Reference

Sensible

				
Air Flow - Supply Air	CFM	10,000	10,000	10,000
Air Flow - Exhaust Air	CFM	10,000	10,000	10,000
Temperature - New Delhi Summer Conditions				
Fresh Air IN	Deg C / RH	41.8 / 21.5%	41.8 / 21.5% / 10.89g/kg	41.8 / 21.5%
Supply Air OUT	Deg C / RH	28.5 / 44.9%	27.4 / 47.8% / 10.89g/kg	33.6 / 33.6%
Return Air IN	Deg C / RH	24.0 / 50.0%	24.0 / 50.0% / 9.29 g/kg	24.0 / 50.0%
Exhuast Air OUT	Deg C / RH	36.6 / 24.3%	37.6 / 23.0% / 9.29 g/kg	31.8 / 31.8%
Model		H2A1000-2000-027	EA2050x2050-2000V-018	H&M V A 32T 1478FL SA 1478FL RA 8R 12F
Temp. Efficiency		**75.0%**	**81.0%**	**43.6%**
Energy Recovered	**KW**	**70.9**	**77.9**	**43.8**
Recovery Type		Sensible	Sensible	Sensible
Air Velocity	m/s	2.35	3.12	2.6
Pressure Drop	Pa	290	172 / 178	92 / 175
Condensate	Pa	0 lph	0 lph	0 lph
EATR / OACF		0	0.00% / 1.07 (Std. Seal) 0.00% / 1.03 (Sp. Seal)	0

Air-to-Air Heat Exchanger

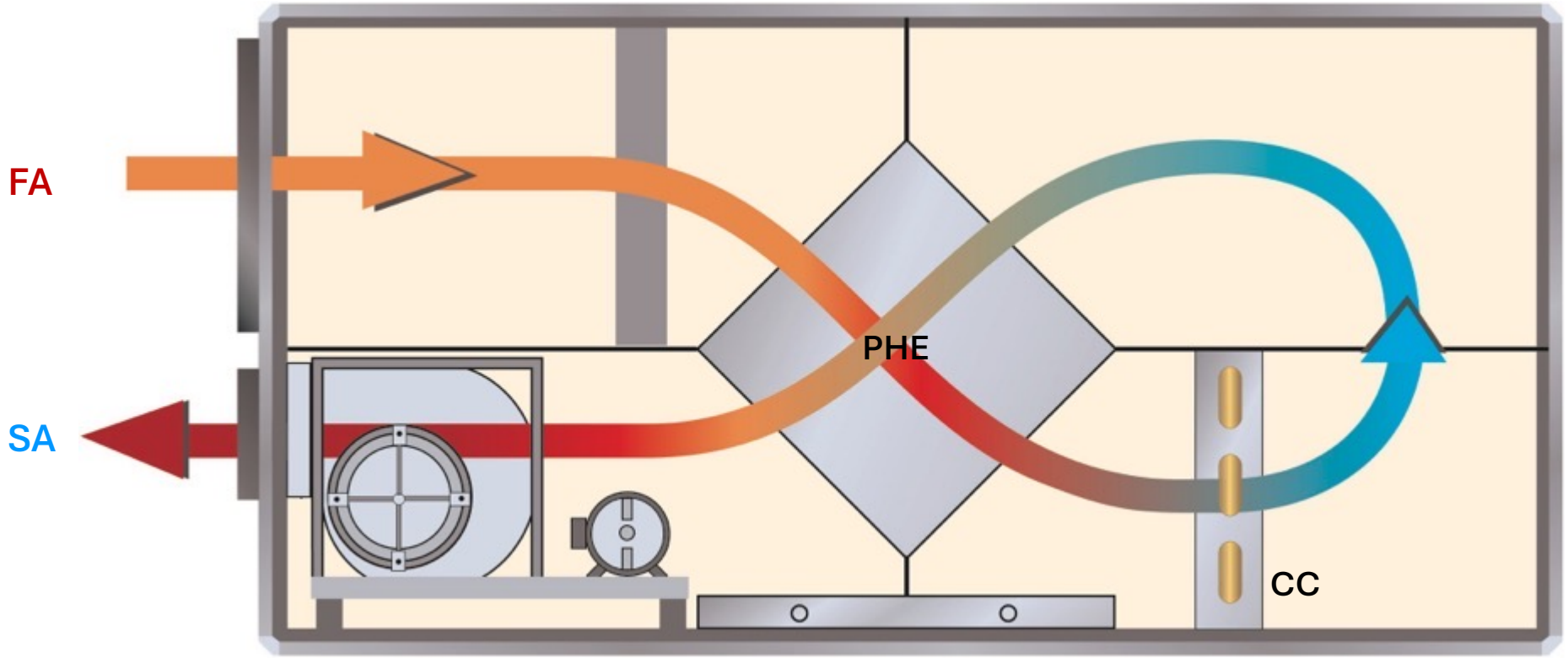
Energy Recovery, Dehumidification & Re-Heat

Sensible PHE for TFA

Pre-Cool, Dehumidification & Reheat

HEATEX

H&M



Air upstream is passed through PHE to the cooling coil at downstream, gets dehumidified and recirculate back to PHE to be reheated before exiting

Double Wheel Concept

Pre-Cool, Dehumidification & Reheat

HEATEX

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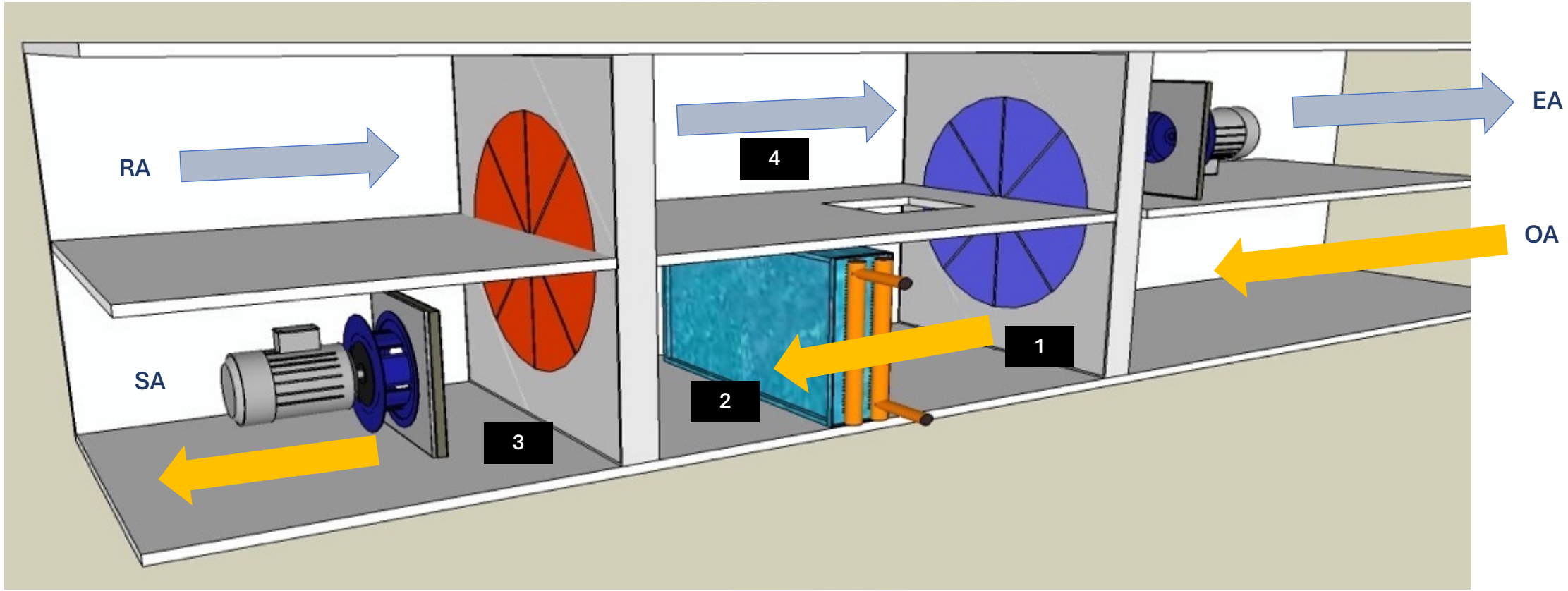

Double Wheel Concept

Pre-Cool, Dehumidification & Reheat

HEATEX

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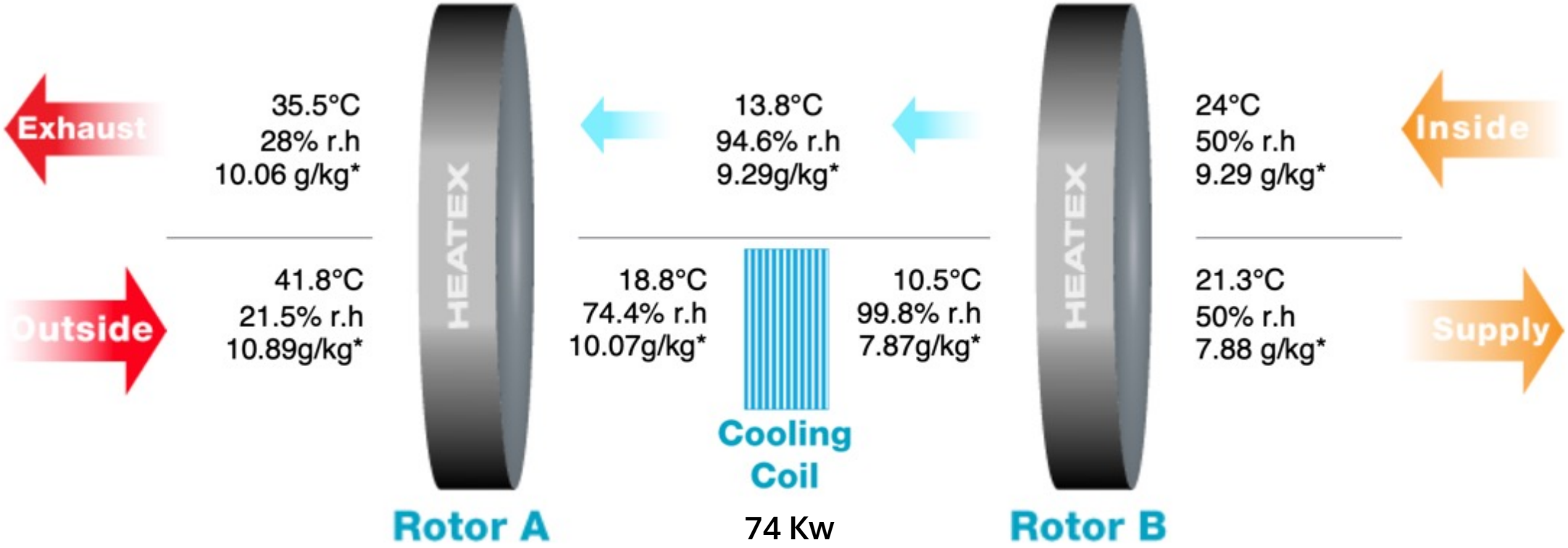
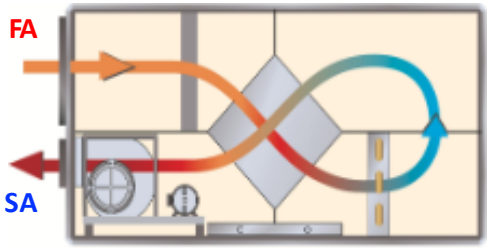
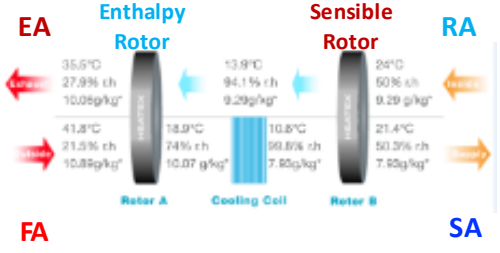
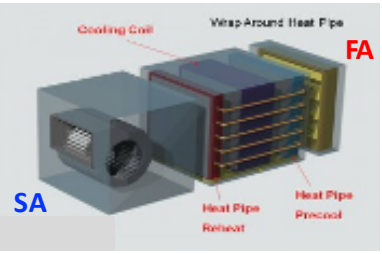


Pre-Cool, Dehumidification & Reheat





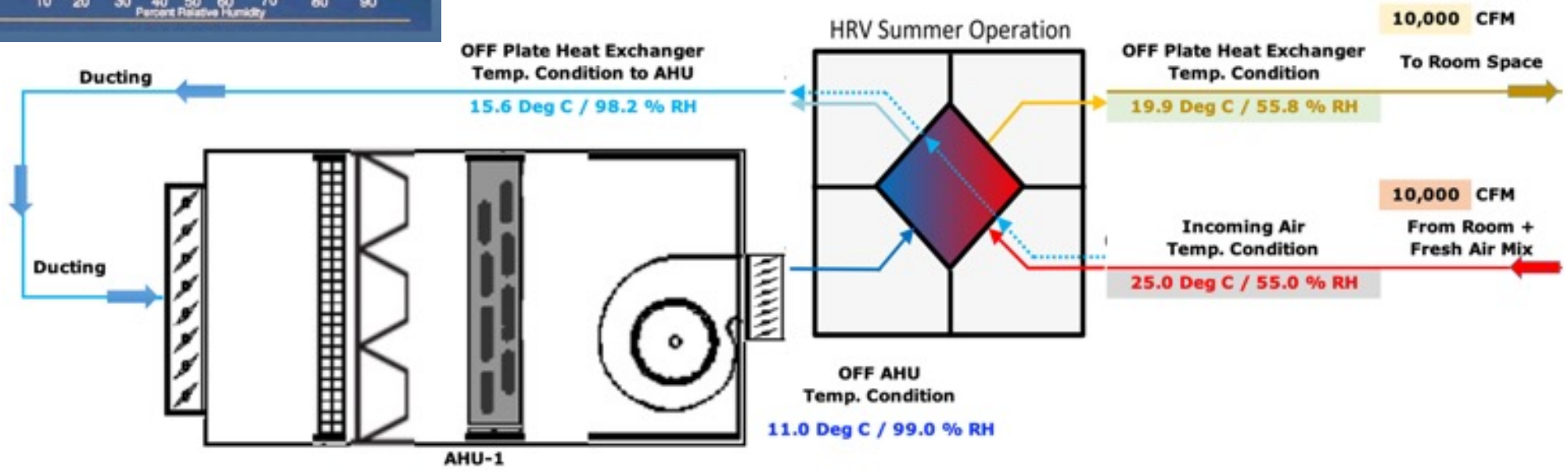


Air Flow - SA	CFM	10,000	10,000	10,000
Air Flow - RA	CFM	N.A.	10,000	N.A.
Temperature - New Delhi Summer Conditions				
Fresh Air	Deg C / RH	41.8 / 21.5%	41.8 / 21.5% / 10.89 g/kg	41.8 / 21.5%
ON Cooling Coil	Deg C / RH	27.3 / 48.2%	18.9 / 74.0% /10.70 g/kg	31.4 / 38.1%
OFF Cooling Coil	Deg C / RH	10.6 / 97.0%	10.6 / 99.0% / 7.93 g/kg	11.0 / 98.0%
Supply Air	Deg C / RH	23.7 / 42.7%	21.4 / 50.3% / 7.93 g.kg	21.6 / 49.9%
Return Air	Deg C / RH	---	24.0 / 50.0% / 9.29 g/kg	---
		---	13.9 / 94.1% / 9.29 g/kg	---
Exhaust Air	Deg C / RH	---	35.5 / 27.9% / 10.06 g/kg	---
Model		HA1000-1600-120	EM2050x2050-2000V-018	H&M W A 39T 1478FL SA 3R 12F
Temp. Efficiency		**47.0%**	**82% / 80.0%**	**34.4%**
Energy Recovered _ Pre Cool	**KW**	**76.5**	**135.0**	**54.0**
Energy Recovered _ Re Heat	**KW**	**76.5**	**57.8**	**54.0**
Recovery Type		Sensible	Total (Sensible+Latent)	Sensible
Air Velocity	m/s	2.95	3.12 / 2.81	2.5
Pressure Drop	Pa	109 + 121	(187+191) + (154+166)	35 + 55
Condensate	Pa	0 lph	0 lph	0 lph
EATR / OACF		0	0.00% / 1.07 (Std. Seal) 0.00% / 1.03 (Sp. Seal)	0

Recirculating AHU

HEATEX

AHU Tag	AHU-1	
Air Flow	10,000	CFM
PHE Face Velocity	2.7	m/s
PHE Pr. Drop	239	Pascal + 266 Pascal
Energy Recovery	105.2	KW + Additional Cooling Coil Savings
Effectiveness	67%	
PHE Model	H2A1000-1800-040-2EOO-2-2-0-1800	
PHE Size	1000 x 1000 x 1800 mm	



Evaporative Cooling with Cross Flow Plate Heat Exchanger

HEATEX

H&M