

**HOLTOP** Fresh air for your life!



3D HIGH EFFICIENT  
Cross Counter-flow Heat Exchanger

Holtop 3D high efficient cross counter-flow heat exchanger is a unique recuperator specially designed for air-to-air heat recovery in balanced ventilation systems. It is a true breakthrough in ventilation technology, making it possible to recover and efficiently reuse generated energy for heating or cooling rooms, while optimizing the ventilation that is so crucial for a healthy indoor climate.

Holtop 3D high efficient cross counter-flow heat exchanger can be used in almost any ventilation system to maximize indoor comfort and air quality while substantially reducing basic energy requirements and costs. This benefits end-users by increasing their wellbeing and reducing their energy bills. And, reducing the need for fossil fuels also benefits our environment.



Special Resin Material



3D Heat Exchange Design



High Efficiency up to 95%



Washable



Longer Service Life up to 15 years

## Model Description

HB S - 3D 366/366 - H  
 1 2 3 4 5

- 1 **HB** stands for Holtop plate heat exchanger
- 2 **S** stands for sensible heat recovery
- 3 **3D** stands for 3D counterflow structure
- 4 Indicates the size of the cross - sectional areas of the heat exchanger (mm)
- 5 **H** stands for the height of the heat exchanger, the size range is 100-500 (mm)

# Features of 3D High Efficient Cross Counter-flow Heat Exchanger

The appearance structure of the 3D counterflow high-efficiency heat exchanger is a hexagonal core, and the internal main channel structure is a triangle. This structure can fully ensure the maximum heat exchange area. The frame material of the heat exchanger is ABS, and the core material is special resin. This material has the characteristics of high thermal performance, good air tightness, tear resistance, oxidation resistance, and mildew resistance.

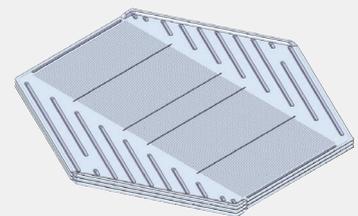


## High-efficiency Heat Exchange Material

- ▶ Upmost thermal performance
- ▶ Great air tightness with good rigidity
- ▶ Oxidation/Mildew resistance

## 3D Heat Exchange Channel

In the air channels, the heat can be transferred from 3 directions. Large heat exchange surface allows the unit to achieve higher level of efficiency.



## Washable Core, Easy To Clean

The core of heat exchanger is washable, and the service life is up to 15 years.



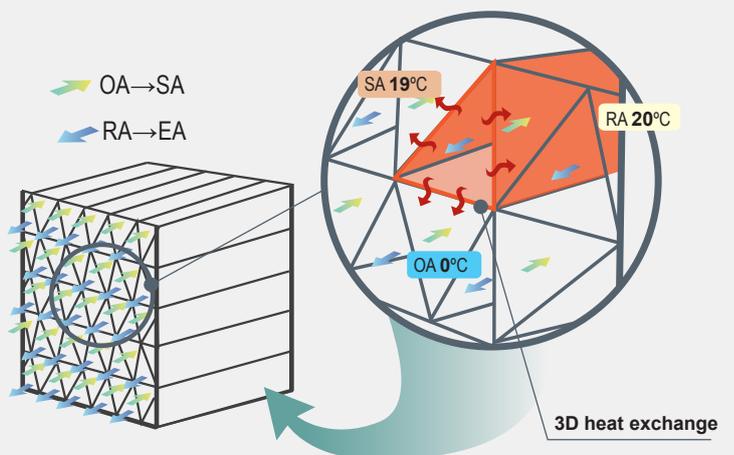
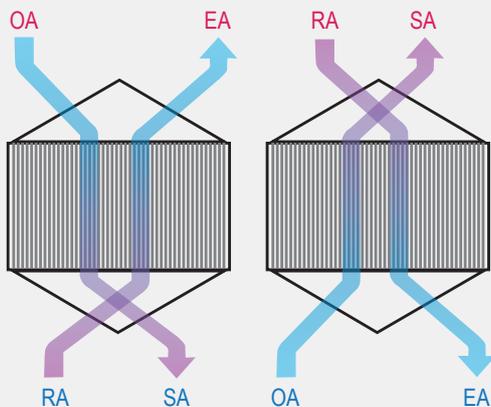
# Working Principle

When the indoor temperature and humidity are different from outdoor, the two-way differential air stream will transfer energy and dampness, which call energy recovery.

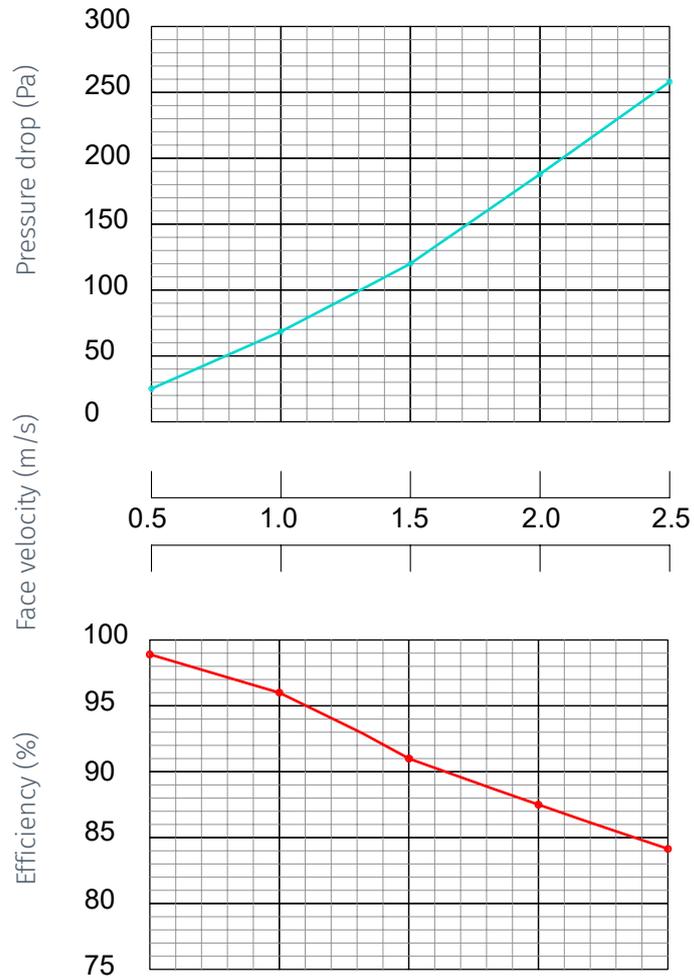
In the counter-flow heat exchanger, airflows are passed by each other along with parallel special resin plates in a counter-flow direction. This allows achieving higher temperature efficiency than using crossflow heat exchanger core. Two neighbor special resin foils form a channel for fresh and exhaust air streams. Heat is transferred when the partial air streams flow crossly and partial air streams flow counter through the channels, and the fresh airflow and exhaust airflow are totally separated.

## Ultra-high Heat Recovery Efficiency

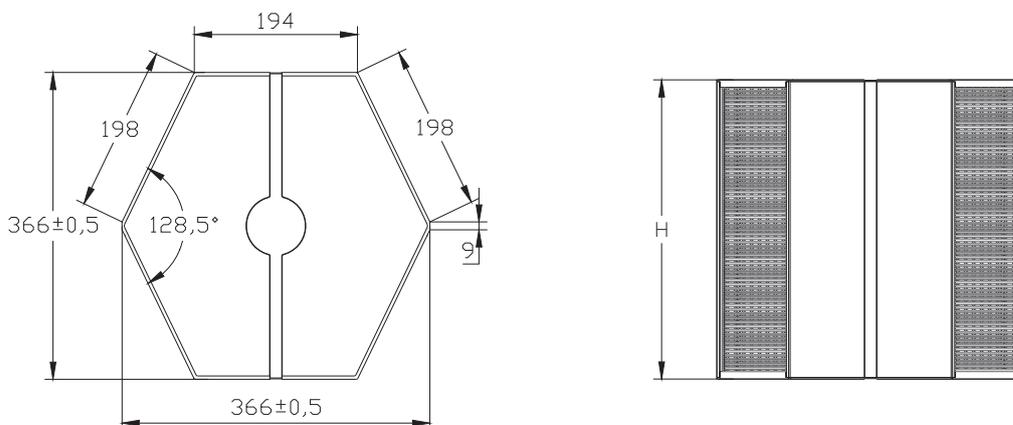
The air flows counterflowly to extend the heat exchange time and make heat transfer more thoroughly. The heat recovery efficiency is up to 95%.



# Performance Parameter

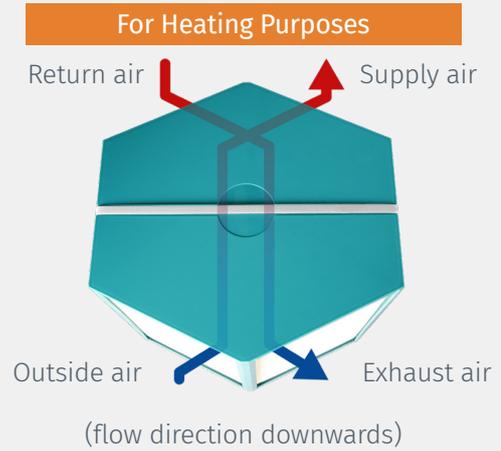
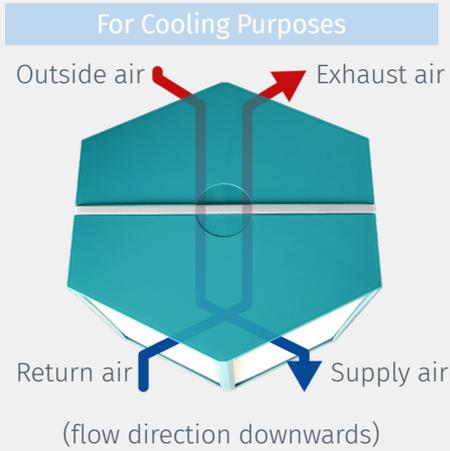


# Dimensions

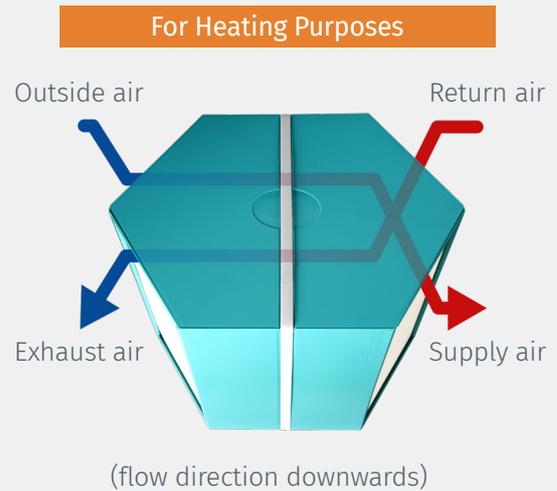
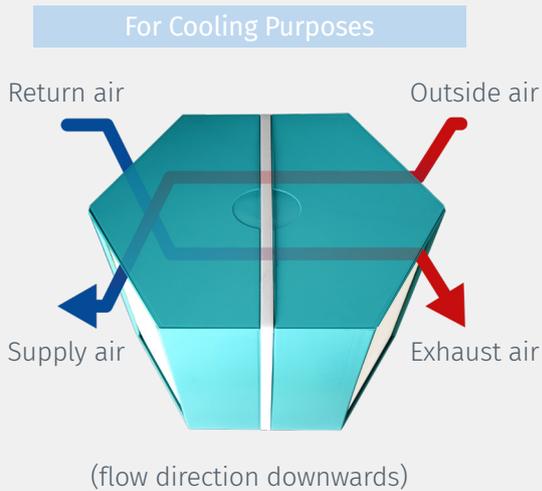


# Installation Options

## ► Mounting orientation “on the noses”



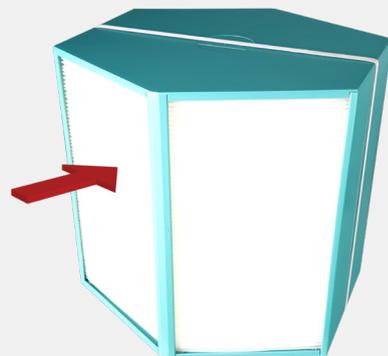
## ► Mounting orientation “on the (white) side panels”



## ► Mounting orientation “on the (green) lids”

(flow direction of airflow losing heat)

Entrance always left from the nose and tag always on top!



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\* Data is subject to changes without notification due to product improvement