

STX-M2 COUNTER-FLOW HEAT EXCHANGER

A **counterflow heat exchanger** is used to recover heat from the exhaust air and transfer it to the supply air. Warm exhaust air passes through the fins and heats them up. Outdoor air travels parallel to the fins, is heated, and then supplied to the indoor space. This technology is highly efficient and can achieve a **dry efficiency of up to 85%**.

Just like **plate heat exchangers**, the airflows never mix, which reduces the risk of unpleasant odors being transferred. Since counterflow exchangers are often used in humid environments, there is a risk of freezing. To prevent this, a **defrosting system** is in place that allows the exchanger to be defrosted during operation.

The **heat recovery rate** is controlled using a **bypass damper**, which opens or closes to varying degrees. The same damper is also used to reduce the risk of frost formation. This is done by lowering the recovery rate when the exhaust air temperature is low.