

STX-P1 PLATE HEAT EXCHANGER

A **plate 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 in the exchanger and heats them up. Outdoor air passes on the opposite side of the fins is heated, and then supplied to the indoor space.

A major advantage of plate heat exchangers is that the exhaust and supply air never mix, which reduces the risk of unpleasant odors being transferred. The downside is that the efficiency is lower compared to, for example, a rotary heat exchanger.

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.