

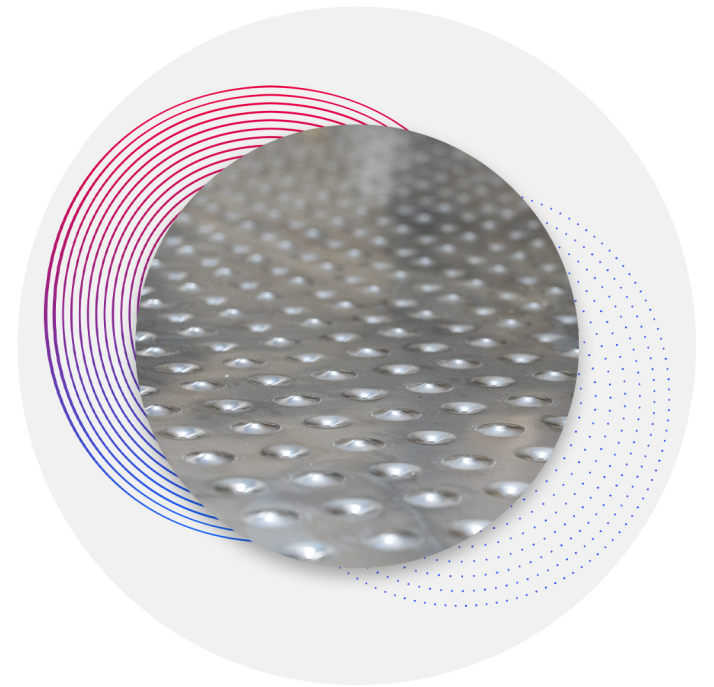
# Types of Air-to-Air Heat Exchangers

Air-to-air heat exchangers are vital to many industrial applications, recovering heat to save energy, reduce expenses, and increase operational efficiency.

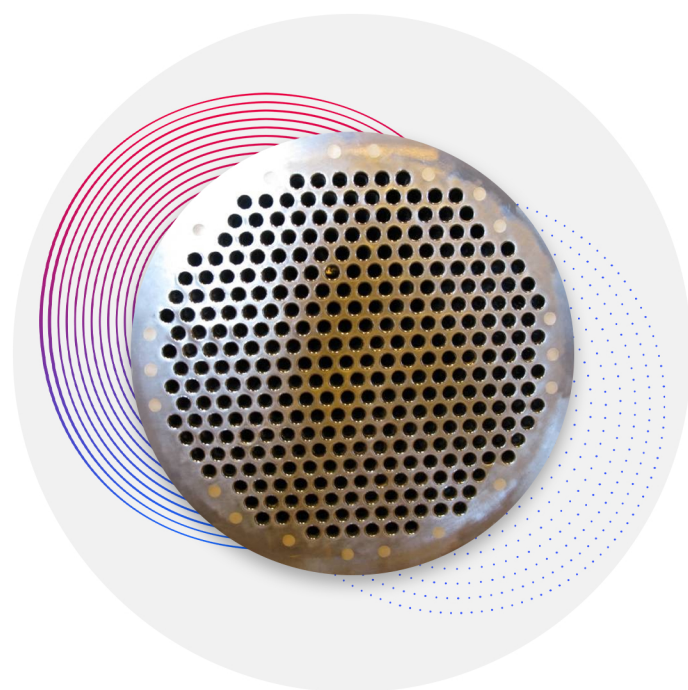
Heat exchangers are generally classified by the way the air moves through the unit, and they come in three primary types: plate, tube, and wheel. Each variation provides distinct advantages and disadvantages, for performance in a range of applications and environments.

## Dimple Plate Types

- Plate type air-to-air heat exchangers provide a low cost and effective solution to reduce heating and cooling loads on the treatment of process air. The plates on the heat exchanger physically separate the supply and exhaust air.
- Plate type heat exchangers can slide into an enclosure with a box like design to protect the thermal plates. Their ability to preheat or precool air is ideal for ovens, kilns, and fume incinerators.



## Tube Types



### Shell & Tube

- Tube type industrial air-to-air heat exchangers accommodate higher pressures and temperatures than wheel and plate type heat exchangers.
- They are an ideal choice in environments that can become dusty or have a high concentration of particles in the air.
- Shell & tube air-to-air heat exchangers deliver optimal performance for recovering valuable heat energy from dryers, ovens, kilns, and furnaces. They can also be a reliable primary and secondary recovery system for fume incinerators and VOC abatement systems.



### Cooling Tower

- Vertical shell and tube heat exchanger with larger tube diameters are designed for cooling air streams with large amounts of particulates before it enters a bag house for final cleaning and discharge into the atmosphere.
- Hot, dirty air enters the top of the unit and goes down through the tubes. Most of the particulates fall through the tubes and are collected underneath the exchanger in a large material collection hopper.

