

## Plate Type Heat Exchanger

The Plate Type Heat Exchanger from Rapid Cool is designed for superior heat transfer efficiency in a compact and lightweight structure. Engineered with high-quality plates and optimized flow channels, it ensures maximum heat exchange while minimizing space requirements. Ideal for various industrial and HVAC applications, this heat exchanger provides exceptional performance with low energy consumption.



### Working Principle

A Plate Type Heat Exchanger consists of multiple thin, corrugated metal plates arranged in a stack to create parallel flow paths. Hot and cold fluids pass through alternating channels, facilitating efficient heat transfer. The unique plate design enhances turbulence, improving heat exchange efficiency and reducing fouling.

### Key Features

- High Heat Transfer Efficiency** – Maximized thermal performance with minimal energy loss
- Compact & Space-Saving Design** – Smaller footprint compared to shell & tube heat exchanger
- Corrosion-Resistant Plates** – Available in Stainless Steel, Titanium, and other materials
- Leak-Proof Gasketed or Brazed Construction** – Ensures safety and durability
- Easy Maintenance & Cleaning** – Simple disassembly for periodic servicing
- High Pressure & Temperature Resistance** – Designed to withstand demanding conditions

### Technical Specifications

- **Plate Material:** SS304, SS316, Titanium, Hastelloy (as per requirement)
- **Frame Material:** Carbon Steel, Stainless Steel
- **Flow Arrangement:** Single-pass & Multi-pass options
- **Temperature Range:** -50°C to 200°C
- **Pressure Rating:** Up to 25 bar
- **Plate Thickness:** 0.4mm – 1.0mm
- **Gasket Material:** Nitrile, EPDM, Viton (for gasketed models)
- **Cooling Medium:** Water, Oil, Refrigerants, Steam, Glycol
- **NON IBR**

## Applications

HVAC & District Cooling Systems – Efficient climate control solutions

Power Generation – Heat recovery and energy optimization

Food & Beverage Processing – Pasteurization and temperature control

Chemical & Pharmaceutical Industries – Precise thermal management

Marine & Automotive Systems – Compact cooling for engines and hydraulics

Oil & Gas Processing – Effective heat exchange in demanding environments

## Advantages

- **Superior Heat Transfer Efficiency:** Optimized design for rapid temperature regulation
- **Space-Efficient & Lightweight:** Perfect for industries with limited installation space
- **Customizable Configurations:** Tailored solutions based on specific requirements
- **Energy-Efficient Operation:** Reduced power consumption for long-term cost savings
- **Reliable & Leak-Proof Design:** Ensuring safe and long-lasting performance