

Who Admits Us?

Devoted to becoming a global plate heat exchanger supplier recognized for excellence, HFM places utmost importance on attaining international quality certifications. We uphold stringent control measures throughout our production procedures, to guarantee that our customers receive nothing short of the best-quality products.

We are resolute in our commitment to consistently meet and exceed industry standards. Our diverse range of certifications, including 3A, ISO, CE, BV, SGS, and others, further validate our unwavering dedication to quality.



Who Trusts Us?

We have gained the trust of our clients all around the world. By providing high-quality products and services to users in various industries on a consistent basis, HFM Plate Heat Exchanger is known as a reliable partner for cooperation.



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Heat Exchange in Data Centers

Enabling Sustainable and Efficient Thermal Management

Application Scenario

At its core, data center cooling is the process of moving heat. Servers continuously generate heat, and if it is not removed quickly, performance becomes unstable and long-term reliability is affected. As computing density increases, traditional air cooling is no longer sufficient, making liquid cooling a more effective solution.

In liquid cooling systems, coolant absorbs heat directly at the source and carries it through connected loops, where it is transferred and ultimately rejected outdoors. Plate heat exchangers serve as the key interface between these loops, enabling efficient heat transfer while keeping fluids safely separated.

Technical Principle

A plate heat exchanger transfers heat through a series of thin metal plates arranged in a compact frame. Fluids flow on opposite sides of the plates without mixing, while heat passes through the metal from the hotter side to the colder side.

The corrugated plate design creates turbulence, improving heat transfer efficiency and allowing precise temperature control within a compact footprint. This is why plate heat exchangers are widely used in data center cooling, where efficiency, responsiveness, and space optimization are critical.

Explore our brazed plate heat exchanger range for data center cooling. Scan the QR code to view available models and detailed specifications.



Product Technologies

Brazed Plate Heat Exchangers (BPHE)

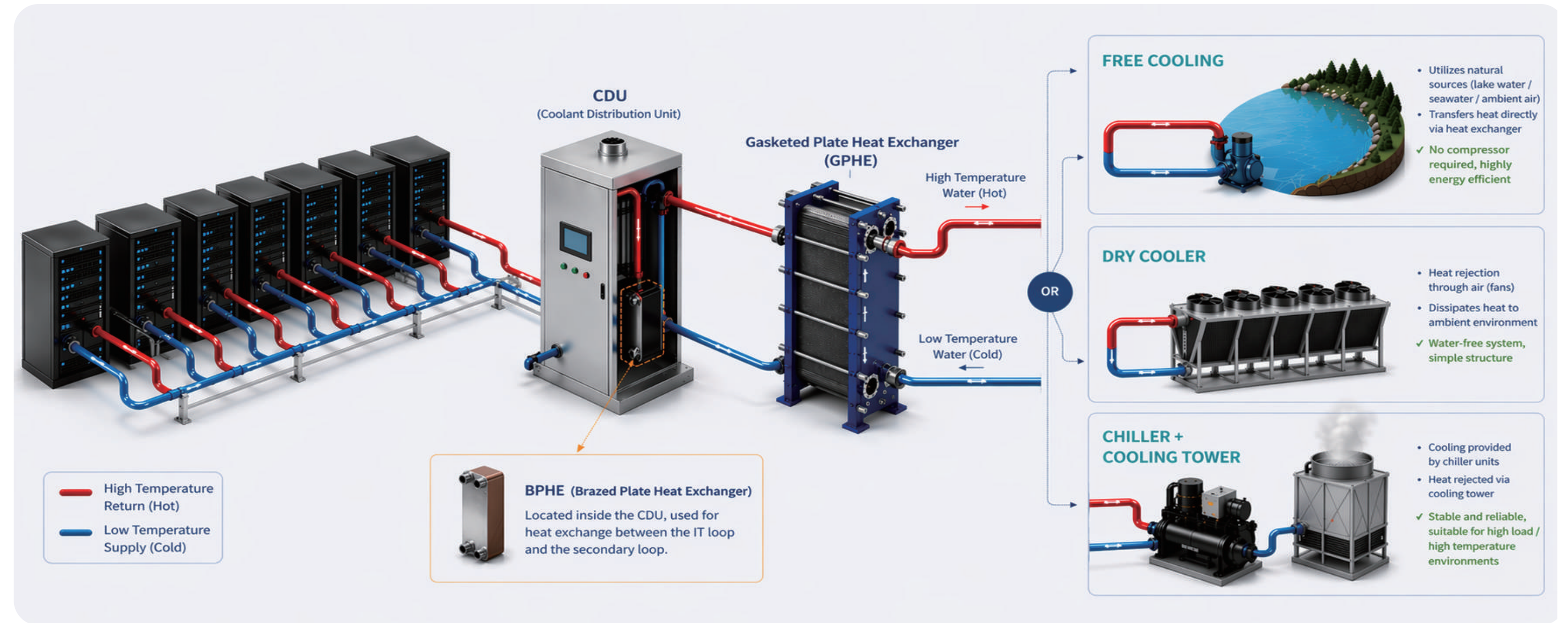
BPHEs are mainly used in CDUs and localized liquid cooling modules, where compact size, sealing reliability, and fast response are essential.

- Design Pressure: 30–45 bar
- Pressure Drop: typically ≤ 100 kPa (liquid side)
- Capacity: up to $150 \text{ m}^3/\text{h}$ per unit
- Temperature Range: -196°C to 225°C

Their fully sealed design minimizes leakage risk and supports efficient heat transfer in compact, closed-loop systems.



Data Center Liquid Cooling Solution Diagram

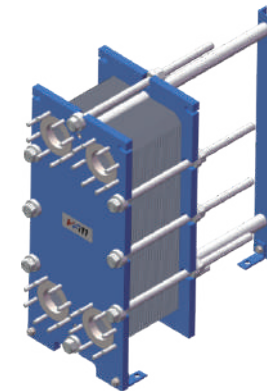


Gasketed Plate Heat Exchangers (GPHE)

GPHEs are commonly used on the facility side to handle larger heat loads with greater flexibility.

- Design Pressure: 10–25 bar
- Pressure Drop: typically ≤ 100 kPa (liquid side)
- Capacity: up to $3500 \text{ m}^3/\text{h}$
- Temperature Range: -10°C to 200°C

Their removable plate design allows easier cleaning, inspection, and future capacity adjustment.



Semi-welded Plate Heat Exchangers

Semi-welded designs are used where higher reliability or compatibility with demanding media is required.

- Design Pressure: 10–63 bar
- Pressure Drop: typically ≤ 100 kPa (liquid) / ≤ 10 kPa (gas)
- Capacity: typically 560 – $1280 \text{ m}^3/\text{h}$
- Temperature Range: -10°C to 200°C

They reduce leakage risk on the critical side while retaining serviceability for maintenance.

