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Hofmann (Beijing) Engineering Technology Co., Ltd.

🌐 www.hofmann-heatexchanger.com

☎ +86(10)84478229

✉ service@hfm-phe.com

📍 3F/6F Zhengdong International Mansion,
100027, Dongcheng District, Beijing, China

HFM PLATE HEAT EXCHANGERS

Your Global Partner in
Plate Heat Exchange

Hearing Focusing Making



YOUR GLOBAL PARTNER IN PLATE HEAT EXCHANGE

HFM Plate Heat Exchangers

Hearing
Focusing
Making

HFM is an integrated plate heat exchanger company with over 30 years of experience in the heat exchange industry. All our business activities are centered on plate heat exchangers, combining global trade, engineering design, manufacturing, and product supply.

HFM manufactures and supplies complete heat exchanger units, including gasketed, brazed, semi-welded, fully welded, plate-and-shell, printed-circuit heat exchangers, also with spare parts for a wide range of industrial applications. We also provide replacement plates, gaskets, and other related components. Our production and supply capabilities support both new projects and ongoing equipment maintenance.

HFM provides plate heat exchanger solutions for energy and power, data center cooling, HVAC and refrigeration, oil and gas, chemical processing, food and beverage, marine, mining, industrial manufacturing, and water treatment. Our products have been supplied to customers in more than 110 countries and regions.

HFM has an independent engineering team specializing in plate heat exchanger applications. We provide operating-condition analysis, thermal calculation, product selection, structural design, material recommendations, and technical evaluation according to specific project requirements.

Embracing new technologies and keeping pace with the era, it is the purpose of HFM development. HFM takes the lead in embracing international technologies in the traditional heat exchange field, innovatively and also deeply integrate heat exchange with big data. By integrating trade, engineering, manufacturing, and supply, HFM supports customers throughout the plate heat exchanger lifecycle from initial selection and design to production, delivery, spare-parts supply, and after-sales service.

HFM is a traditional manufacturing company with glorious history, moreover, we are a modern energy-technology solving company in step with time.



Our Mission

Provide reliable plate heat exchangers and professional solutions worldwide.

We combine plate heat exchanger engineering, manufacturing, global trade, and supply capabilities to support customers with product selection, design, production, delivery, spare parts, and technical service.

Explore Our Solutions



Our Vision

To be a trusted global plate heat exchanger company, recognized for engineering excellence, reliable manufacturing, and lasting customer value.

We continue to strengthen our plate heat exchanger product portfolio, engineering capabilities, manufacturing system, and global supply network to serve more industries, applications, and markets.



Our Value

HFM is committed to professional engineering, reliable manufacturing, efficient global supply, and responsive customer support. These principles guide every stage of our plate heat exchanger business.

Maintain Innovation

We continuously improve plate heat exchanger technology, plate design, material applications, and manufacturing processes to meet changing industrial requirements.

Intelligent Operations

We use digital systems to support plate heat exchanger selection, production planning, quality management, spare-parts inventory, and global order delivery.

Customer Experience

We provide responsive technical and commercial support throughout each project, helping customers select, purchase, receive, operate, and maintain the appropriate plate heat exchanger.



History of HFM

- 1998

How We Began

As the predecessor of HFM, Greenleading was established to promote plate heat exchanger (PHE) business in China, focusing on the R&D and application of plate heat exchanger products.
- 2001

Continuous Growth

Greenleading was authorized by Germany GEA as its China assembly factory and was leading for three years in sales market share in the power energy industry.
- 2009

One Giant Leap

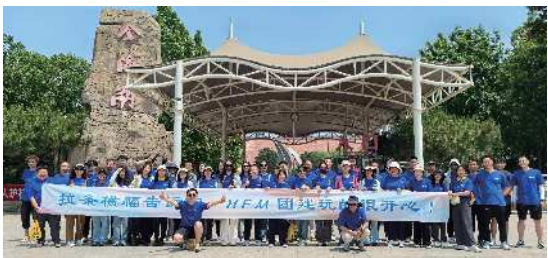
BOEN & HFM was registered and established based on the technical design capability and experience in various industries.
- 2013

Globalization

HFM started its overseas market 2B and 2C development based on e-commerce business, provided plate heat exchangers and full-brand spare parts services, and established a global marketing and service network.
- 2026

Advancing Through Innovation

HFM's innovation portfolio grew to 100 patents and patent applications, covering invention and utility model technologies, alongside multiple software copyrights. Additional patent applications are currently under examination.



Product

Gasketed Plate Heat Exchanger (GPHE)



The Gasketed Plate Heat Exchanger (GPHE) represents a cutting-edge solution for efficient heat transfer, featuring a design composed of corrugated metal plates and precision-engineered gaskets. These gaskets ensure that hot and cold fluids remain segregated within separate channels, thereby optimizing heat transfer efficiency while preventing any cross-contamination. This innovative design makes them highly adaptable and compact, ideally suited for applications across diverse industries including power generation, refrigeration, food processing, and chemical processing. HFM's Gasketed Plate Heat Exchangers are distinguished by their superior efficiency, facilitated by the expansive surface area provided by the corrugated plates, which significantly enhances heat transfer performance compared to conventional methods.

Basic Parameters of Gasketed Plate Heat Exchanger (GPHE)

Plate Material: 304/304L, 316/316L, 317, 904L, 254SMO, Titanium, Hastelloy C-276, and other available	Gasket Material: EPDM, NBR, HNBR, Viton, other available Max Design Pressure: 30barg Max Design Temperature: 200°C
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Brazed Plate Heat Exchanger (BPHE)

A Brazed Plate Heat Exchanger (BPHE) is an efficient, compact, and versatile heat exchanger designed for transferring heat between two fluids, which can be either liquids or gases. It consists of a series of thin, corrugated metal plates stacked and brazed together using a copper or nickel alloy in a vacuum furnace, creating thin rectangular channels through which heat exchange occurs. This brazed construction eliminates the need for gaskets and enhances resistance to high pressures and temperatures, providing excellent heat transfer capabilities in a compact design.

Due to their smaller size compared to traditional Gasketed Plate Heat Exchangers, Brazed Plate Heat Exchangers are ideal for applications where space is limited. They can function as condensers, evaporators, oil or gas coolers, and perform other roles involving heating or cooling transfer. They are widely used in HVAC systems, refrigeration, industrial processes, electric vehicles (EVs), and renewable energy systems, offering reliability, superior performance, and seamless integration into various systems.

Basic Parameters of Brazed Plate Heat Exchanger (BPHE)

Plate Material: 316/316L Brazing Material: Copper, Stainless steel	
Max Design Pressure: 100barg Max Design Temperature: -196°C ~ 225°C	



Semi-Welded Plate Heat Exchanger

The Semi-Welded Plate Heat Exchanger combines robust construction with efficient heat transfer capabilities. Featuring plates welded on one side and sealed with gaskets on the other, this design ensures durability and reliability under high-pressure and high-temperature conditions. Each plate pair is laser-welded to create a sealed channel for corrosive media, minimizing leakage risks effectively.

HFM's Semi-Welded Plate Heat Exchangers are designed for versatility and durability, offering exceptional thermal performance and the ability to handle aggressive and hazardous fluids. Industries such as chemical processing, petrochemical, and oil and gas benefit from the advanced design and reliable operation of these exchangers, ensuring optimal performance and safety in critical processes.

Basic Parameters of Semi-Welded Plate Heat Exchanger

Plate Material:
304/304L, 316/316L, 254SMO,
Titanium, Hastelloy C-276,
Nickel and other available

Gasket Material:
EPDM, NBR, HNBR, Viton, CR, other available
Max Design Pressure: 50barg
Max Design Temperature: 200°C



Plate Evaporator

The Plate Evaporator consists of a series of thin metal plates with channels or passages between them through which the liquid to be evaporated flows. Designed to revolutionize liquid evaporation processes, it offers durability, precision, and leak-proof performance. Utilizing semi-welding technology, it efficiently evaporates liquids, making it ideal for industries such as food, beverage, pharmaceuticals, and chemicals.

The evaporator is constructed from corrosion-resistant materials, including stainless steel, titanium, and nickel alloys. These materials are arranged to create a series of parallel channels, ensuring high thermal efficiency and significant energy savings, surpassing the performance of traditional shell-and-tube evaporators.

Basic Parameters of Plate Evaporator

Plate Material:
304/304L, 316/316L, 254SMO,
Titanium, Hastelloy C-276,
Nickel and other available

Gasket Material:
EPDM, NBR, HNBR, Viton, other available
Max Design Pressure: 6barg
Max Design Temperature: 200°C



Stainless-Steel Plate Heat Exchanger

The Stainless-Steel Plate Heat Exchanger (PHE) is a gasketed plate heat exchanger, designed with stainless steel plates and frame, ensuring superior durability and resistance to corrosion. Specifically designed for food-grade applications and industries requiring high-level hygiene, it is ideal for sectors such as food and beverage, pharmaceuticals, and biotechnology. The gaskets, made from food-grade elastomeric materials, ensure a tight seal while allowing for easy maintenance and cleaning, ensuring optimal performance and longevity in hygienic conditions.

HFM's Stainless-Steel Plate Heat Exchangers meet stringent operational demands, offering robust performance and exceptional hygiene standards. These exchangers provide reliable and efficient heat transfer solutions, ensuring process integrity and safety in environments where cleanliness and product purity are critical.

Basic Parameters of Stainless-Steel Plate Heat Exchanger

Plate Material:
304/304L, 316/316L, 254SMO,
Titanium, Hastelloy C-276,
Nickel and other available

Gasket Material:
EPDM, NBR, HNBR, Viton, other available
Max Design Pressure: 30barg
Max Design Temperature: 200°C

Frame Material:
Solid stainless steel or carbon steel clad stainless steel

Plate Condenser

The Plate Condenser is integral to vacuum evaporation and distillation systems, enhancing heat exchange through precision engineering and semi-welding technology. Comprising specialized plate packs and gaskets, it efficiently condenses steam while the cooling medium warms in a gasketed channel.

Constructed from corrosion-resistant materials, including stainless steel, titanium, and nickel alloys, the condenser features a design that ensures low-pressure drop and high turbulence. Ideal for the food and beverage, pharmaceutical, and chemical industries, this condenser provides exceptional efficiency, cost-effectiveness, and ease of maintenance.

Basic Parameters of Plate Condenser

Plate Material:
304/304L, 316/316L, 254SMO,
Titanium, Hastelloy C-276,
Nickel and other available

Gasket Material:
EPDM, NBR, HNBR, Viton, other available
Max Design Pressure: 6barg
Max Design Temperature: 200°C



Welded Plate Heat Exchanger (WPHE)

The Welded Plate Heat Exchanger comprises corrugated metal plates welded together using laser or argon arc welding, forming a series of channels for efficient heat transfer. Without gaskets, welded plate heat exchangers offer superior resistance to high temperatures and pressures, making them ideal for extreme conditions. Constructed from materials such as stainless steel and titanium, they provide high thermal efficiency and are less prone to leakage and fouling.

Welded plate heat exchangers are widely used in industries such as petrochemical, oil and gas, energy power, biomedical, and metallurgy. Variants include non-detachable, two-sided, four-sided detachable (HFM bloc), and wide-channel welded plate heat exchangers, catering to diverse industrial requirements and ensuring robust performance in demanding environments.



Basic Parameters of Welded Plate Heat Exchanger (WPHE)

Plate Material:
304/304L, 316/316L, 254SMO,
Titanium, Hastelloy C-276,
Nickel and other available

Max Design Pressure: 50barg
Max Design Temperature: 400°C

HFM Bloc

The HFM Bloc is a four-sided detachable fully welded plate heat exchanger designed to provide a compact solution for high-pressure and extreme-temperature applications. Unlike traditional welded plate heat exchangers, it features no gaskets and is accessible on both sides, making it significantly easier to clean. This design allows for closer temperature approaches and requires minimal space, enhancing overall efficiency.

These exchangers are low-maintenance, fully robot-welded, and cost-effective. Available in materials such as SS316L, titanium, Hastelloy, 254 SMO, 904L, and nickel, the HFM Bloc is suitable for various demanding environments. It ensures reliable performance in challenging conditions, making it an ideal choice for industries that require robust and efficient heat exchange solutions.

Basic Parameters of HFM Bloc

Plate Material:
304/304L, 316/316L, 254SMO,
Titanium, Hastelloy C-276,
Nickel and other available

Max Design Pressure: 50barg
Max Design Temperature: 400°C



Plate and Shell Heat Exchanger (PSHE)

The Plate and Shell Heat Exchanger combines the benefits of plate heat exchangers and shell-and-tube heat exchangers. It features corrugated plates welded into a cylindrical shell, with the plates typically made of stainless steel. This design creates high turbulence and efficient heat transfer. Fluid A flows through the channels formed by the plates, while Fluid B flows through the surrounding shell, often in opposite directions, to maximize heat transfer.



Basic Parameters of Plate and Shell Heat Exchanger (PSHE)

Plate Material:
304/304L, 316/316L, 254SMO,
Titanium, Hastelloy C-276,
Nickel and other available

Max Design Pressure: 100barg
Max Design Temperature: 500°C



Printed Circuit Heat Exchanger (PCHE)

The Printed Circuit Heat Exchanger (PCHE) is engineered for demanding applications involving extreme temperatures, high pressures, and compact installation requirements. Its flow channels are chemically etched into metal plates, which are then diffusion-bonded together to form a highly integrated core without gaskets or conventional welds between the plates.

Combining high structural strength with excellent thermal performance, PCHEs provide efficient heat transfer within a significantly smaller footprint than conventional heat exchangers. They are well suited for LNG, hydrogen, supercritical CO₂, oil and gas, petrochemical, power generation, and other critical applications. Channel configurations, materials, and connection sizes can be customized according to specific process conditions.

Basic Parameters of Printed Circuit Heat Exchanger (PCHE)

Plate Material:
SS316L, Inconel, Hastelloy
Other materials available upon request

Max Design Pressure: Up to 100 MPa
Max Design Temperature: -196°C to 1,100°C, depending on material
Connection Size: DN15–DN500, customizable



Quality Control

At HFM, our quality control process is integral to our dedication to excellence in the heat exchange industry. We enforce strict quality assurance protocols at every stage of production, from selecting raw materials to the final inspection of completed products. Our modern laboratories are equipped with advanced testing equipment, allowing precise analysis and validation of material properties. Each component undergoes thorough examination, including Positive Material Identification (PMI), checks on plate corrugation depth, gasket thickness, and pressure testing, ensuring that every product meets or exceeds industry standards.



Plate Corrugation Depth Measurement



Positive Material Identification (PMI) on plate



Tensile Testing of Gasket Material



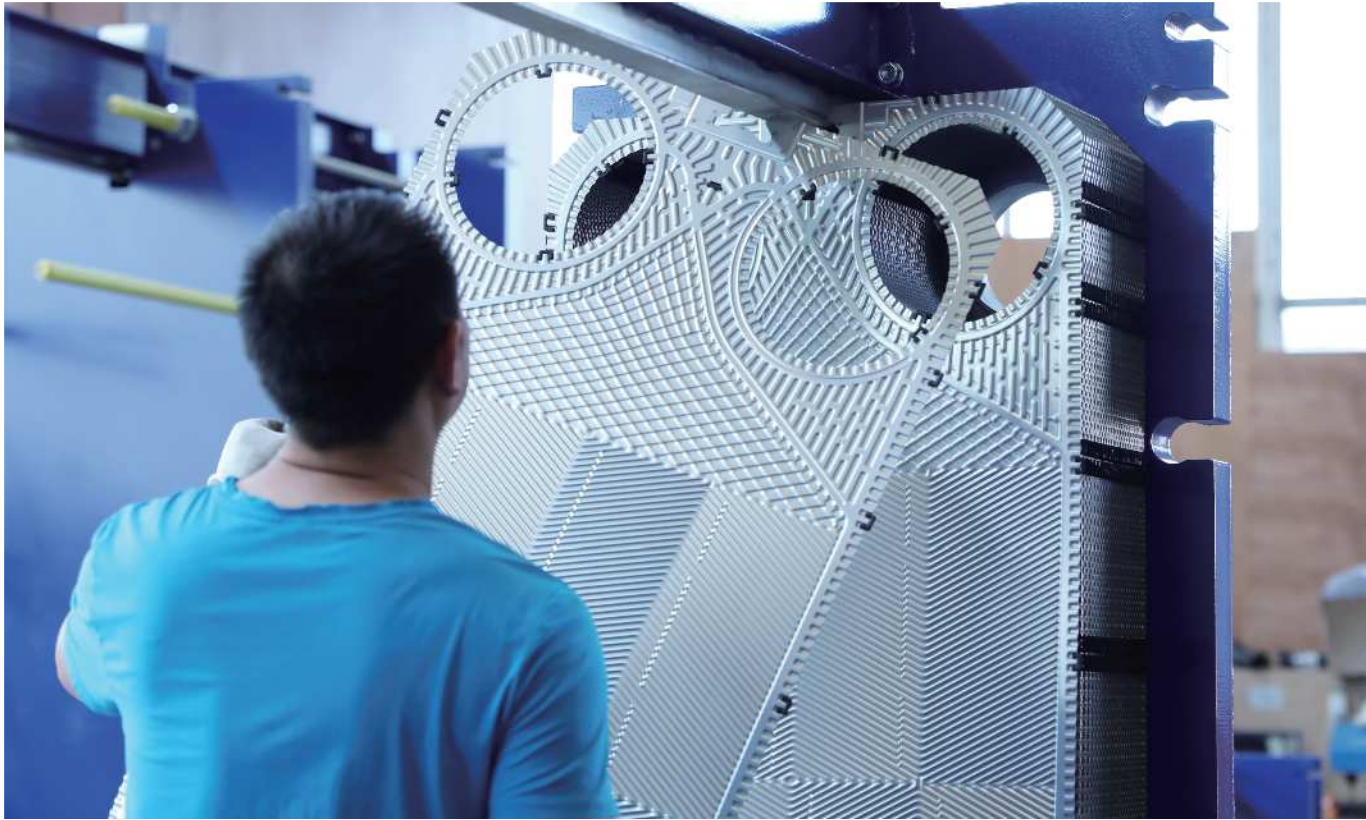
Pneumatic Pressure Testing of Brazed Plate Heat Exchangers



Vacuum Helium Leak Testing



Pressure Testing



Assembling process of a Plate Heat Exchanger



Inspecting and adjusting the tightening dimensions of a Plate Heat Exchanger



Pressure testing procedure of a plate heat exchanger

Our dedicated team of quality control experts continuously monitors the manufacturing process, conducting real-time inspections and audits to maintain the highest standards of accuracy and reliability. We adhere to strict international certifications and standards, reflecting our commitment to quality and customer satisfaction. Through continuous improvement initiatives and employee training programs, we ensure that our processes remain at the cutting edge of technological advancements, delivering exceptional quality in every heat exchanger we produce.



Solutions

HFM custom design solutions for plate heat exchangers and fluid handling equipment, helping the industries to achieve better heat transfer and energy saving.

High-speed turbulence flow plate channel design and even flow distribution area

make the high efficient heat transfer of plate heat exchangers. The compact-structure construction, good quality alloy-made plate packs and rubber sealings ease the maintenance and installation and prolong the life cycle of plate heat exchangers.

Find out more about
HFM choices for the following
application processings.



Oil and Gas



Data Center Cooling



HVAC



Petrochemicals



Power Plant



Marine



Wastewater Treatment



Metallurgy



Fertilizers



Pharmaceutical Production



Dairy Processing



Beverage Processing



Sugar Production



Ethanol Processing



Wine and Distilled Alcoholic
Beverages Production



Pulp & Paper



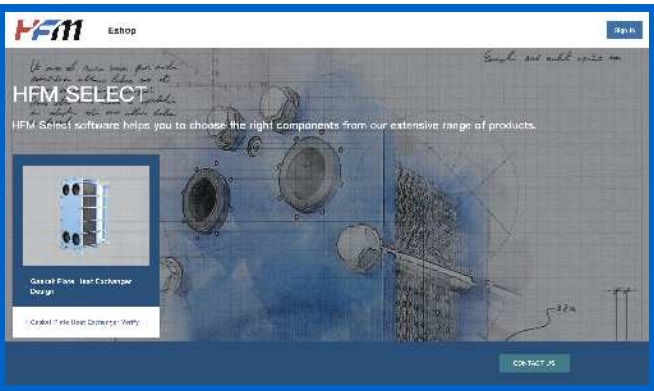
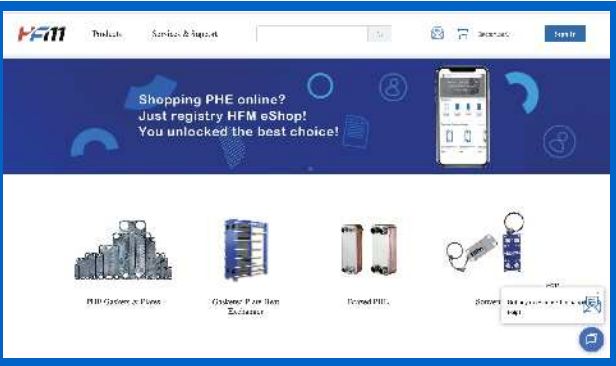
Yeast Production



Fuel Cells

HFM Digital Tools

HFM Selector is a professional engineering tool for fast and accurate plate heat exchanger selection. By entering operating parameters and application requirements, users receive model recommendations, thermal calculations, pressure-drop analysis, and efficiency comparisons—helping optimize performance, reduce errors, and shorten project cycles.



Designed for faster, easier procurement, the HFM E-Shop lets you browse heat exchangers and spare parts, check compatibility and availability, access technical documents, request quotes, and place orders—all in one place. Supported by global delivery and local service, it helps minimize downtime and keep operations running efficiently.

Innovation and Intellectual Property

100+ Intellectual Property Rights

HFM holds over 100 intellectual property rights, including invention patents, utility model patents, and software copyrights. Covering heat exchanger design, manufacturing processes, performance optimization, and digital engineering tools, these achievements demonstrate our continuous commitment to technological innovation. By transforming engineering expertise into practical solutions, HFM delivers more efficient, reliable, and cost-effective heat transfer solutions across a wide range of industries.



Who Admits Us?

Our quality system is supported by internationally recognized certifications and approvals, including ASME, AHRI, 3-A, ISO, and CE. We also work with independent inspection organizations such as SGS and Bureau Veritas (BV) to meet project-specific quality and compliance requirements. Together, these credentials and third-party inspections demonstrate our ability to support customers across global markets.



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.

