District Cooling

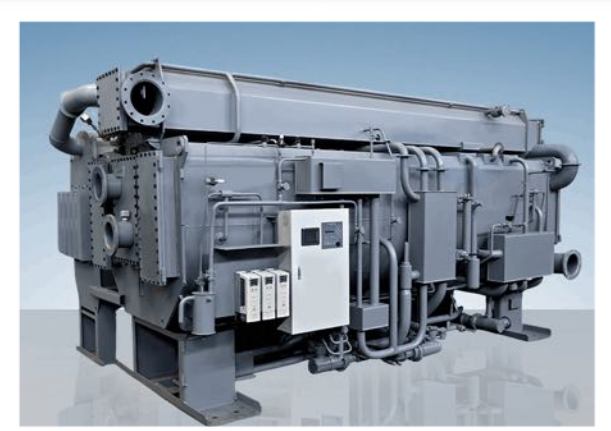
Plate heat exchanger application

Since heat exchanger has been invented, it was applied to creating comfortable environment and manufacturing. Increasing variety on application and efficiency has been driven by human needs.
Nowadays, densely-populated cities consume enormous energy for cooling, which even leads to environmental change. On the other hand, along with the thriving development of IT industry, huge cooling need makes governments start using policy to restrict its PUE and pay attention on optimizing cooling system.
Centralized cooling will be a smart option.

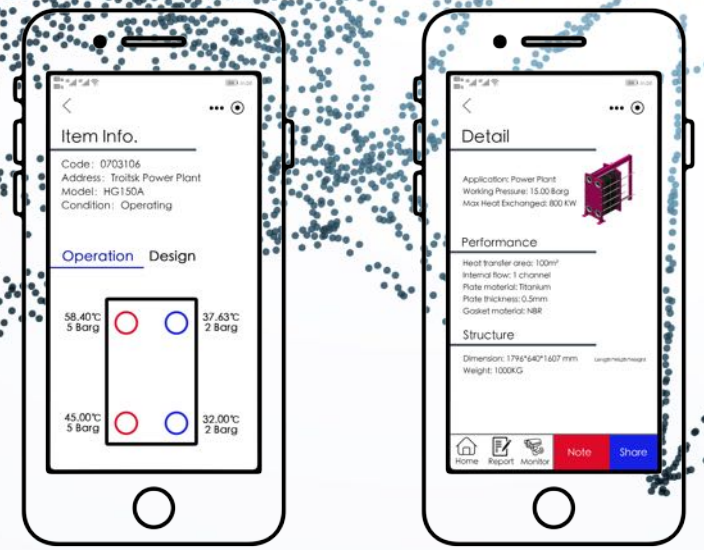
HFM Industry

The centralized production of chilled water is driven by renewable energy, compressor-based chillers, absorption chillers or natural sources such as deep lake cooling.
On one hand, district cooling system could save you capital and maintenance costs. On the other hand, it decrease the demand on the grid, which is contribution to lower the consumption on electricity during peak hours and energy security.

The heart of district cooling system is chiller, and compared to the chillers with compression using mechanical way to create pressure difference. absorption chillers use heat, any form of heat, such as waste heat and solar, which is attractive, cause in this way, it output cooling.

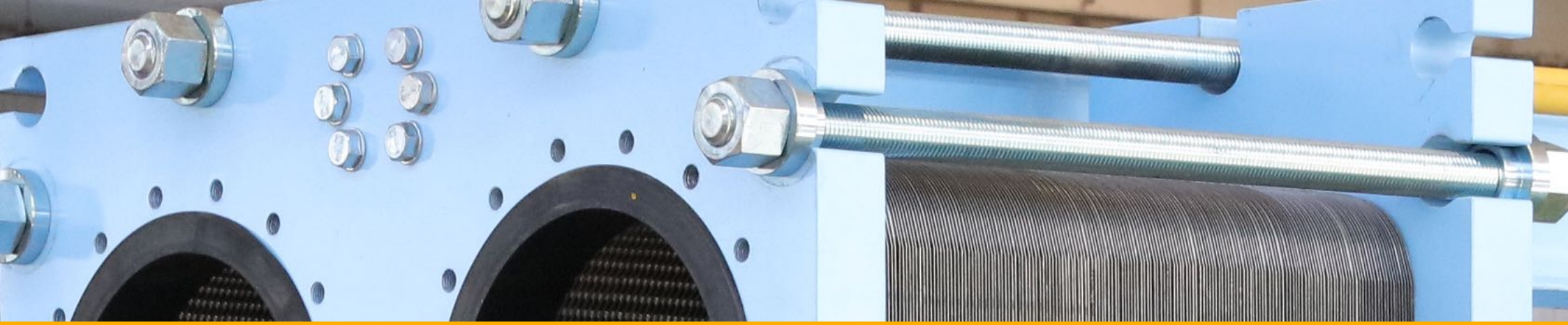


HX BOX

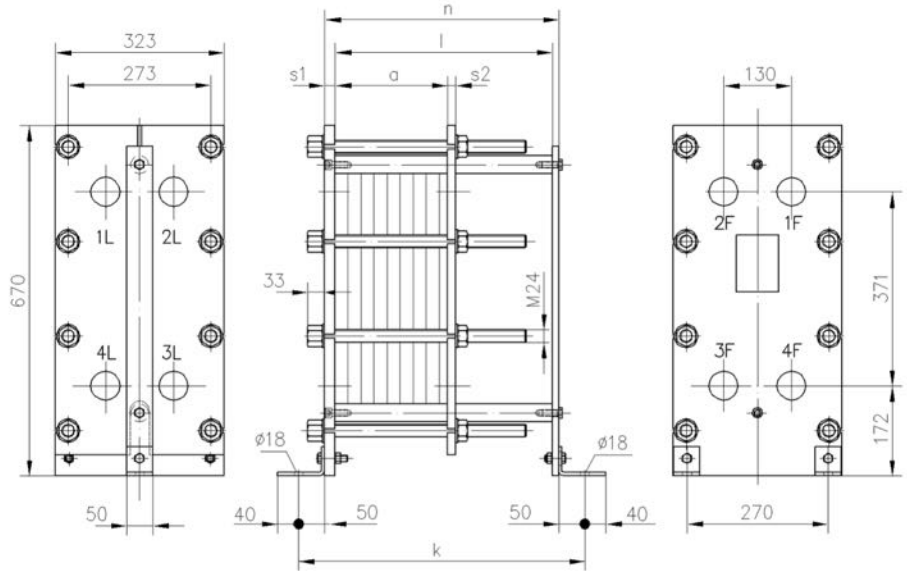


In HVAC or district cooling system projects, raising the efficiency of energy utility and chilling performance are always endless pursuits.
Hofmann has never stopped working on the perfection of new solution, because every project is new page for us, based on 20 years experience, we stress innovation across the team.

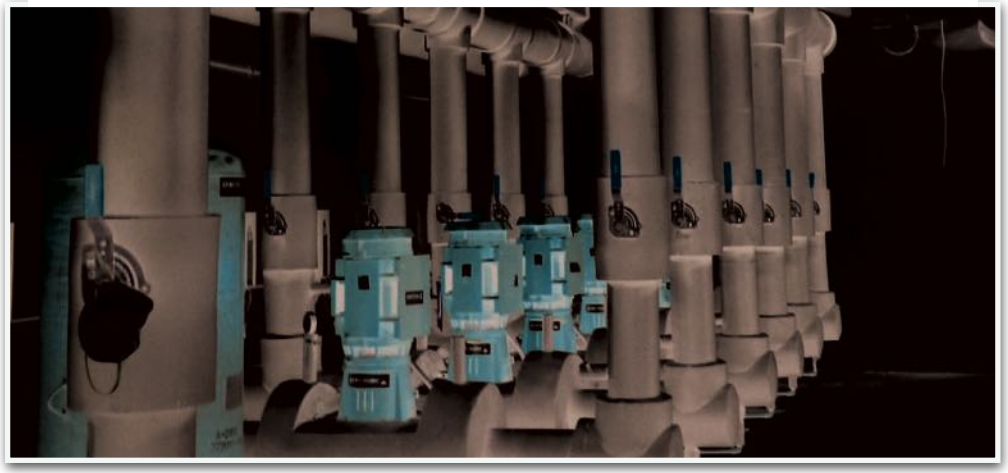
Hofmann has now developed a whole new IOT system aims to integrate single heat exchanger unit with global thermal statistic analysis algorithm, which could help our customers detect thermal exchanger inefficiency and acquiring diagnosis before it's too late.
Have you encounter repeated modifying the inlet temperature every time you change the material, or complicated power and data cable you could never fix by yourself, or absence of monitoring?
HX Box is carrying high-precision sensors, with independent power supply and network which could adapt harsh environment, you could remotely access the real time data through the APP.



	Water/ Hot	Water / Cold
Actual volume flow m³/h	21	21
Design pressure MPa	1.0	1.0
Temperature inlet/ outlet °C	35/ 30	7/ 12
Pressure drop mbar	347	357
Connection diameter DN	50	



This is a 120KW plate chiller in a big multifunctional sugar factory, the heat from manufacture processes and office areas is collected from AHU(Air Handling Unit), and decreased to 35 °C in chilling tower, then chilled by 7 °C cold water in this plate heat exchanger.



PHE Standard Range General Specifications

	Gasket plate heat exchanger	Brazed heat exchanger
Max connection diameter/DN	500	100
Max. volume flow m³/h	4000	160
Max. Heat transfer surface/m²	1520	65
Designed Pressure rate MPa	2.5	4.5
Temperature °C	-40-180	-196~225
Plate material	304 SS, 316 SS, Titanium	316 SS
Frame material	Carbon Steel, 304 SS, 316 SS	316 SS

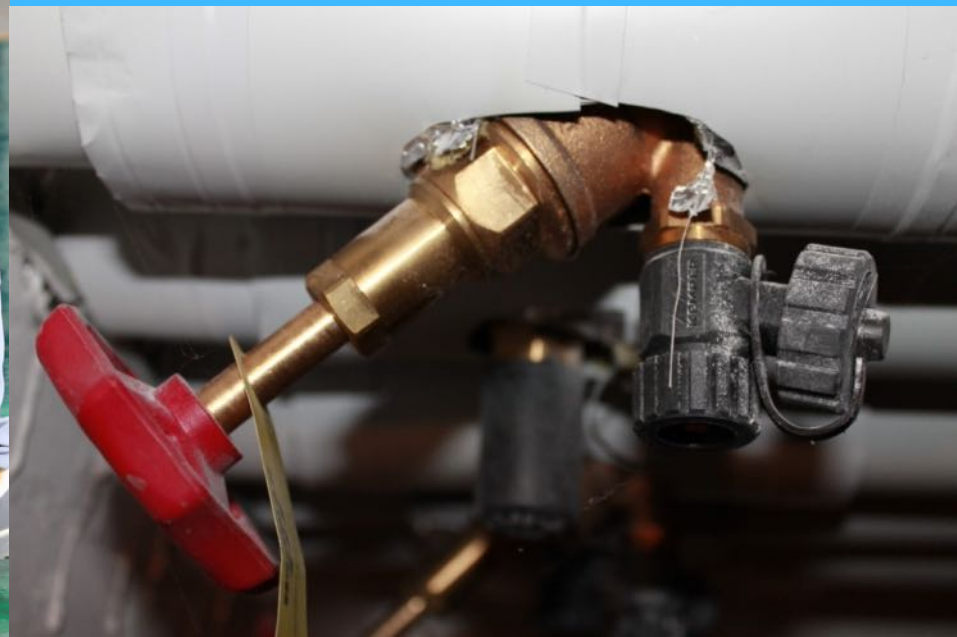
The BHE used on absorption chiller is a copper-brazed and extremely compact heat exchanger. Due to its gasket-free design and wide performance range, it is easy to handle.

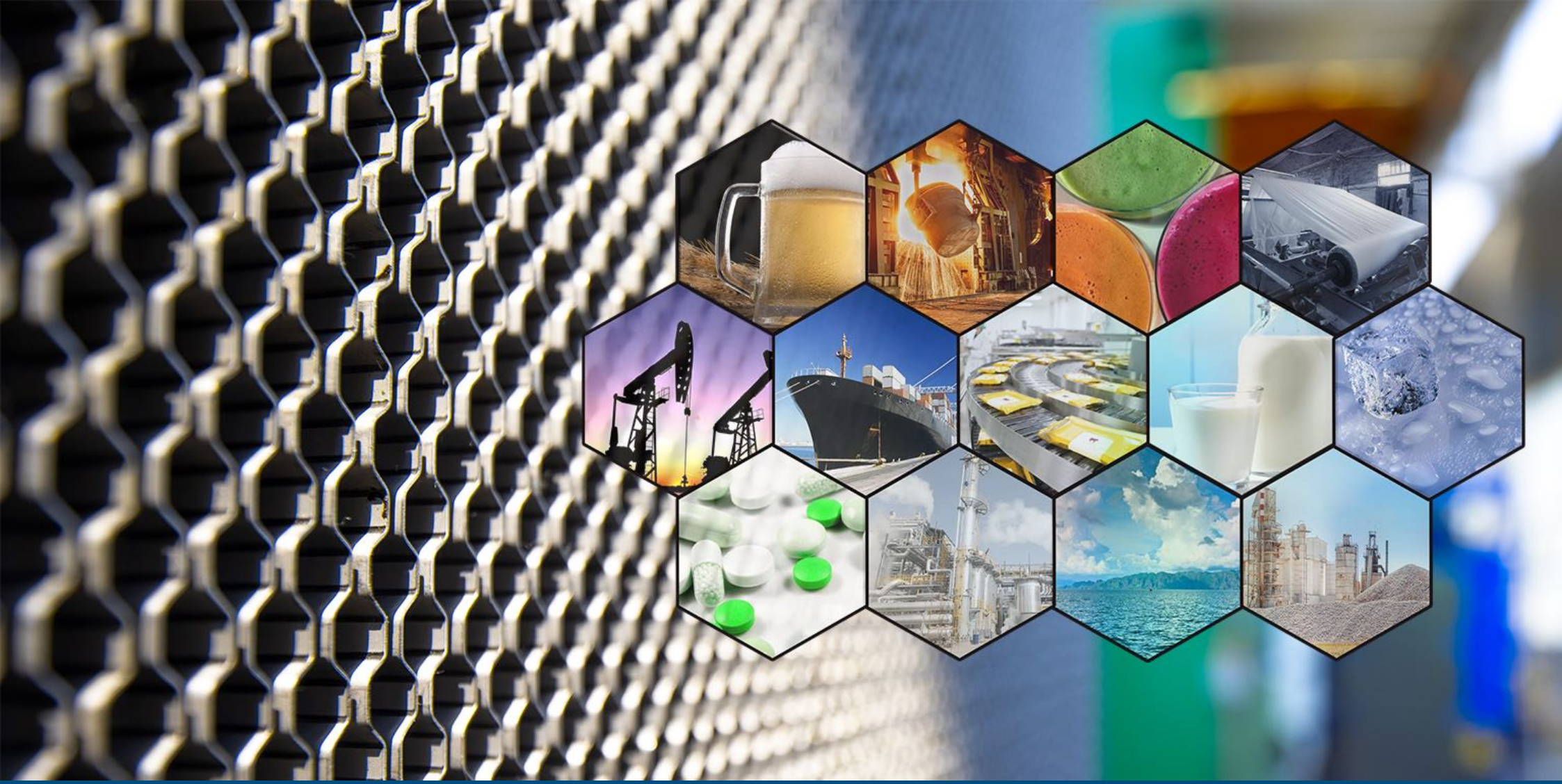
Gasket plate heat exchanger's temperature bearing range is between -40-180°C, which is depending on gasket material. It's qualified of the process of heat exchanging and waste heat recovery in district heating system. Its volume capability is variable by simple increase or decrease the number of the plates.

Our service is better than you expected

HFM offers rich experience in HVAC businesses. We have multiple global warehouses and service teams around the world, the delivery time and freight are reduced to the largest extent, and spare parts can be delivered at the fastest speed. Manufacturing is merely one part of our business, knowing our customers requirements and acknowledge various kinds of working conditions is our daily life.

1, Inventory management
In order to ensuring delivery effectiveness, based on the acknowledge of PHE market and supply chain management, HFM has distributed the warehouses around the world.
2, Spares replacement
HFM has the full range of plate heat exchanger spares, our service engineers could either travel to the scene or remote guid your team to replace.
3, Cleaning service
HFM can provide both CIP(cleaning in place) and disassembling cleaning services depending on your circumstances.





Professional design solution:

Our technical department dealt with various application year after year, the accumulative experience forged a special team with exploring spirit and critical spirit. The gasket plate heat exchanger is our core business, thousands of units have been in services for many years in different fields.

Service is our cornerstone：

We consider customer as our priority, understanding customers' real needs and rapid feedback are the basics.
We and customers are bound to each other for learning and developing, sharing knowledge keeps us growing, which makes accomplishing projects easier and faster.

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