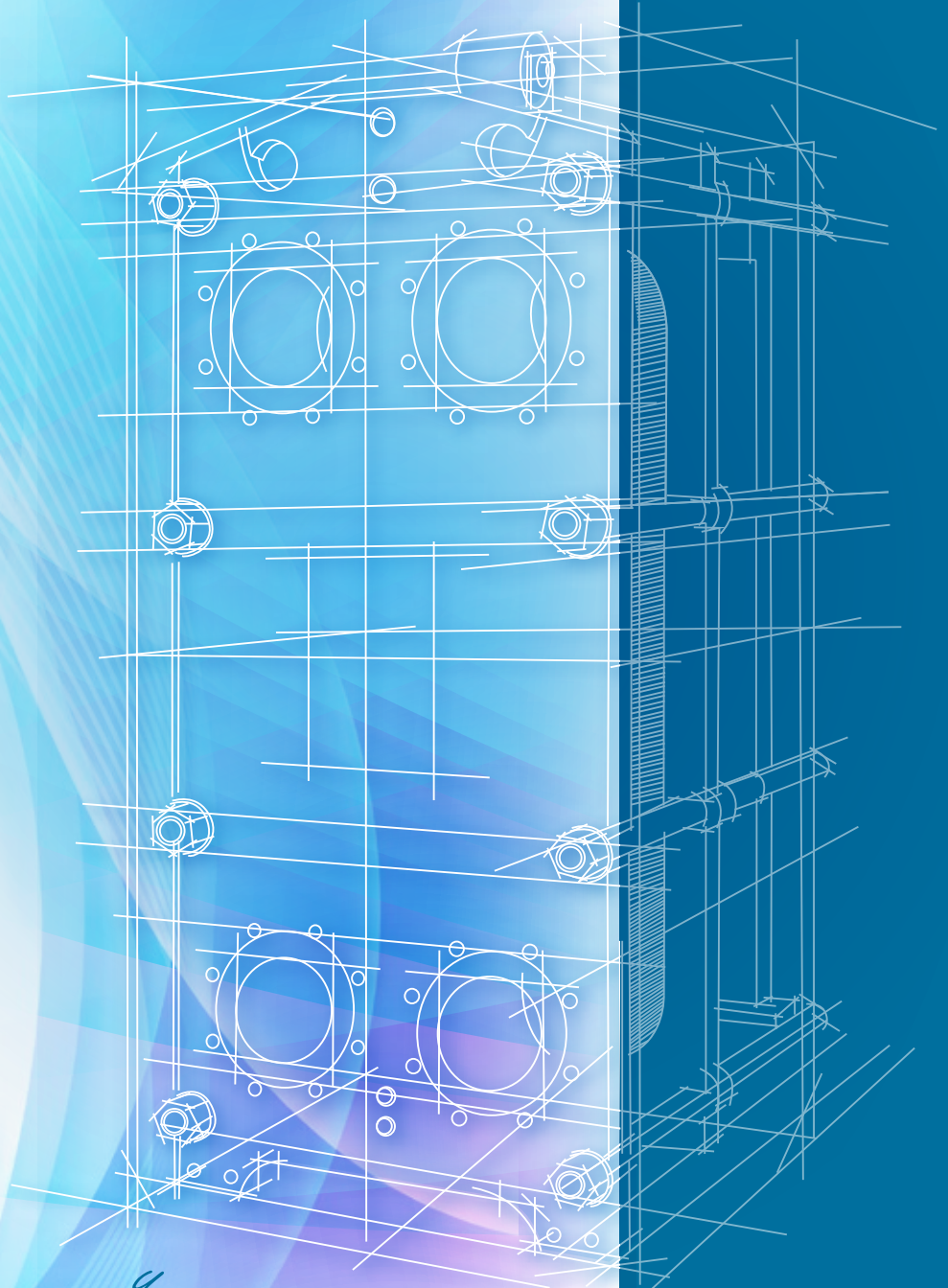


INNOVATION OF HEAT EXCHANGER



Your reliable heat exchanger



■ OUR COMPANY

IES Group was established in 1998 and headquartered in Hong Kong. With perseverance and commitment to the “creation of excellence” , IES has experienced steady development and continued growth since its establishment.

IES Group has over 20 years of industry experience manufacturing heat exchangers, as well as the integration of automated control systems. Our expertise ranges from R&D, manufacturing, and sales & service; offering our customers a complete product and service experience. We specialize in the design and manufacture of various types of high-efficiency heat exchangers, energy-saving and environmental protection products based on market requirements. Our design & products adhere to ISO 9001:2008 and other related industry standards. IES products are widely used in air conditioning, central heating systems, space heating and pool heating. Our products can be found across multiple industries including electrical, metallurgy, petrochemical, food, and pharmaceutical covering China, Hong Kong, Macau and Southeast Asia.

IES Group's production base is located in Guangdong. Our plant covers over 10,000 m², and features multiple production lines, providing customers with a combination of product solutions such as plate heat exchangers, shell heat exchangers, double tube sheet heat exchangers, plate heat exchanger package units, storage / semi-storage type heat exchangers and electric heaters.

As a leading supplier of heat transfer solutions, IES is committed to the improvement of living environments, work efficiency, and actively participates in the development of green energy-saving products, to consistently provide safe, reliable, cost-effective heat exchange solutions to customers.

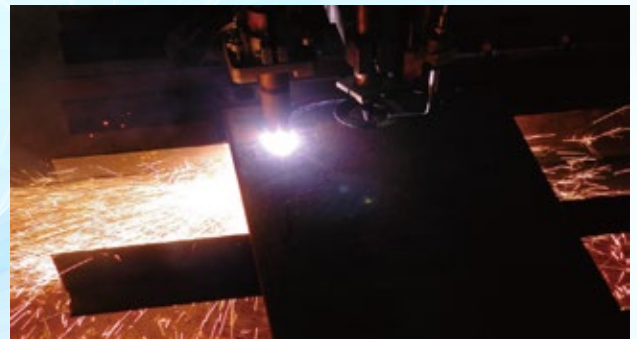
■ Specialist in Heat Exchanger

High quality - High performance gasketed plate heat exchangers

High performance plate heat exchangers consist of a number of formed, sealable high transfer flow plates, spaced by NBR or EDPM gaskets, to facilitate the transfer of heat between two fluids. The pressed plates and channel spacing creates highly turbulent flow behaviour, resulting in optimal self-cleaning and the highest possible heat transfer.

As a specialist in heat exchangers, IES's gasketed plate heat exchangers are available in various models and dimensions, offering the best solution to a great range of heat exchanger applications in HVAC and industry as well as district cooling and heating applications.

IES offers a wide range of plate heat exchangers to meet the needs of diverse industries.



• HVAC



• Chemical Plant



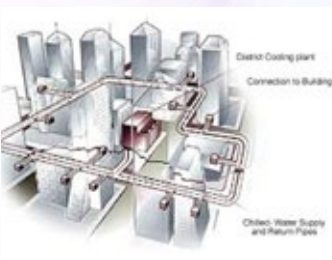
• Dairy, Food & Beverages



• Data Centre



• District Cooling & Heating



• Pharmaceutical



• Drinking Water



• Power Plant

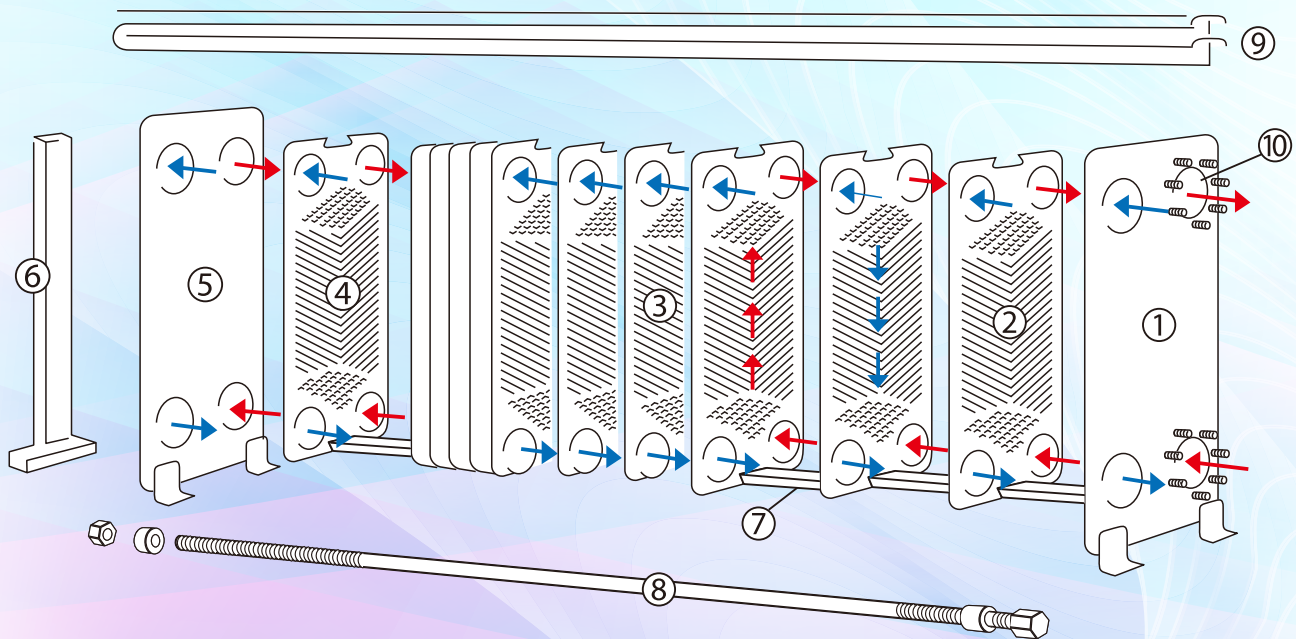


■ PHE Design & Construction

IES PHE is assembled in a full pack of heat transfer plates and spaced by gaskets for fluids isolation. The plates and gaskets are compressed together in a rigid frame to form an arrangement of parallel flow channels with alternating hot and cold fluids. The movable rear plate is tightened with several threaded rods and the two fluids flow through the plate side by side to facilitate the transfer of heat.

Single-Pass Design allows the two fluids to travel through the exchanger channels in counter flow. All connections are on fixed plates which allow the plates to be removed without affecting the existing pipe work.

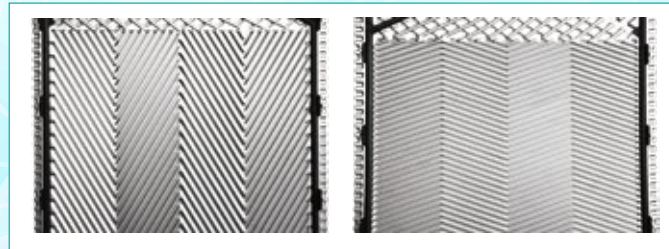
Multi-Pass design is also available in IES Plate design, which generates optimal thermal efficiency and replaces the need for multiple units.



- ① Fixed Plate ② Heat Transfer Plate ③ Gasket ④ Back Plate
- ⑤ Back Framework ⑥ Support Column ⑦ Lower Plate Guide Bar
- ⑧ Tightening Thread Rod ⑨ Top Bar ⑩ Connection Port

■ Plate Design

By adopting "Thermal Long" and "Thermal Short" designs, which allow fluids to distribute evenly over the heat plate, IES offers a wide range of plate patterns to meet different applications and specified heat transfer, flow distribution and pressure drop requirements. These plate patterns are designed to obtain a high thermal efficiency, create a higher turbulent flow behaviour, optimal self cleaning effect and reduce fouling.



■ Gasket Type



IES Gasket System is design for **rapid clip-on operation with long lifetime.**

Available Gasket Material includes NBR, EPDM, EPDM-HT, Viton, HNBR, FKM, BUTYL & Neoprene for different application.

Common Gaskets

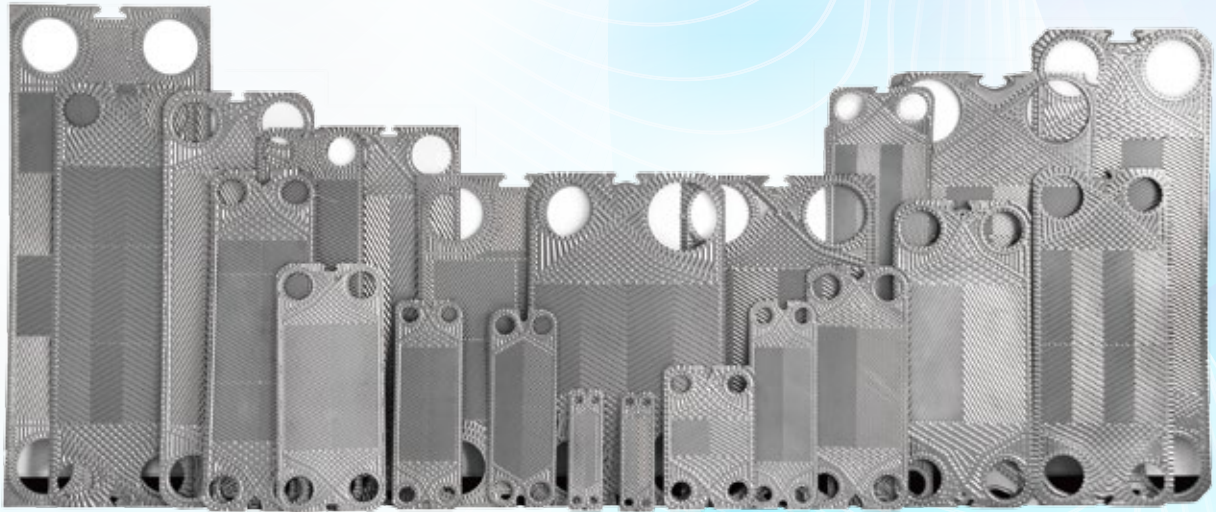
NBR - Application for Water, Lubricant, Refrigerant, Fuel, Brine water & etc...

Operating Temp: -25 to 100 °C

EPDM - Application for Water, Steam, Non-petroleum based lubricant, Acid & etc...

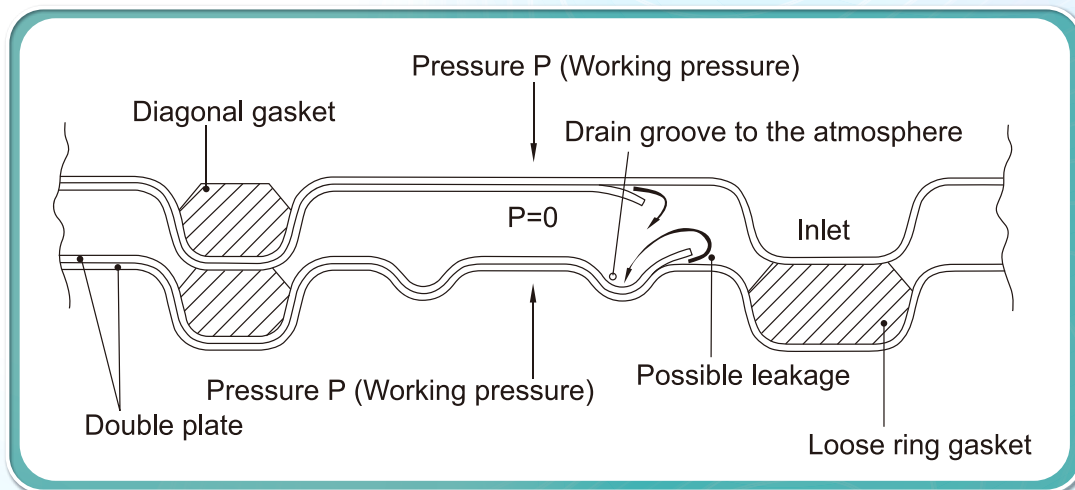
Operating Temp: -50 to 170 °C

■ PHE Model Family



Model	Connection size	Max. Flow	Dimension		
			Width (W)	Height (H)	Length (L)
IR45	DN32	18m ³ /h	200	535	110 - 520
IR50	DN50	60m ³ /h	300	675	430 - 2055
IR80			300	995	430 - 3045
IR49	DN65	72m ³ /h	395	625	440 - 1045
IR82			395	945	440 - 1045
IR121	DN80	150m ³ /h	495	1625	435 - 4100
IR88H	DN100	160m ³ /h	495	1235	435 - 4120
IR88S			495	1255	435 - 4120
IR152			495	1905	435 - 4130
IR110	DN150	410m ³ /h	608	1512	1120 - 4120
IR150			610	1855	675 - 6240
IR191			640	2355	690 - 6130
IR231			640	2755	690 - 6125
IR106	DN200	640m ³ /h	608	1506	677 - 4077
IR157			875	1995	1490 - 3290
IR175			875	2185	1490 - 3290
IR176			790	2100	655 - 6075
IR216			770	2505	655 - 6250
IR270			875	3210	1490 - 3290
IR146	DN300	1440m ³ /h	980	1805	675 - 6240
IR187			1080	2175	810 - 6260
IR251			1045	2860	850 - 6270
IR260	DN350	1380m ³ /h	1170	3150	1990 - 4390
IR246	DN450	2300m ³ /h	1390	3010	3085 - 6585

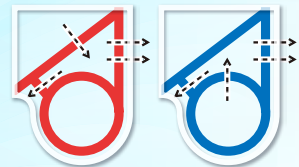
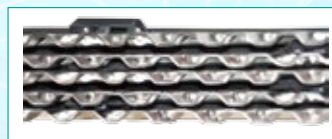
Double Wall Plate Design



"Double wall" consists of a twin-skinned seal, welded & pressed plates, which form a narrow safety gap. Each plate pair is fitted with a non-glued clip-on type gasket, which both seals and holds the pair together. If a leakage occurs, the process fluid will only be vented into the safety channel, preventing contamination of the secondary circuit.

"Double gasket"

design adopts "leak path design" to provide extra protection against cross contamination.



Benefits of IES Plate Heat Exchanger

Good performance
in heat transfer process

High Heat Transfer
Coefficient

Future expansion
for increasing capacity

Lower initial cost

Easy maintenance
with low cost

Plant space saving

Less operating weight

MATERIALS & CONFIGURATIONS

Max. Working Pressure

- Up to 25 Bar

Connection size

- DN32 to DN450

Heat Transfer Area

- Up to 2,400m²

Gaskets

- NBR, EPDM, FPM, Viton, Silicon

Plates

- Stainless steel AISI 304, AISI 316L, Titanium and Alloy 254 SMO
- Various thickness from 0.4~0.8mm

Connection Material

- Epoxy carbon steel, stainless steel, titanium, rubber

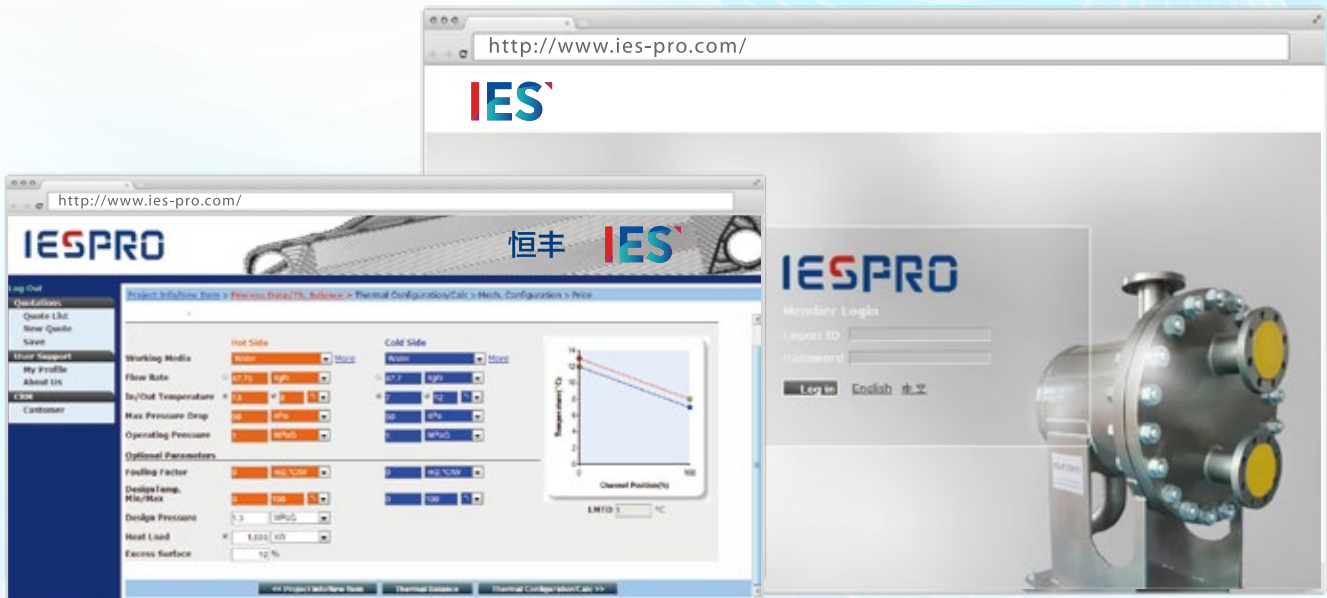


Frames

- Mild steel with epoxy painted, Stainless steel

Intelligent Selection Software - IESPRO

IESPRO is the state-of-the-art design software used to select Plate Heat Exchangers. By inputting the desired data, such as heat transfer, flow distribution or pressure drop, IESPRO immediately identifies the optimal heat exchangers to satisfy the unique requirements and applications for users. IESPRO can also provide to 6 alternative models for users to choose from. Users may also choose their own priority for selection such as price, height or weight. IESPRO is an online real-time Windows-based platform which can be accessed through the internet. Users will always receive the latest product range and up-to-date plate heat designs once they log-in to IESPRO.



www.ies-pro.com

Technical data sheets can be printed out or saved into your own project folder for easy reference.

Costing and budgeting functions are also provided by IESPRO for different users like developers, consultants and trading companies.

IESPRO can be accessed by authorized users through the internet without software installed.

Dimension drawings will also be provided for print out during the selection process. Users can convert the drawing into PDF files for easy reference.

■ IES Insulation Box

IES Cooling Insulation Box

Cooling Insulation Jacket consists of 50mm-100mm PU foam, phenolic foam or elastomeric foam with 0.8mm aluminum/stainless steel sheet. It is used to minimize the waste of energy and avoid condensation.



[Double skin thermal insulation jacket] [Elastomeric thermal insulation]

IES Thermal Insulation Box

Thermal Insulation Box consists of 50mm fiberglass or mineral wool with 0.8mm aluminum/stainless steel sheet. The aluminum sheet is clip locks design and can be possible to be dismantled for servicing.



■ Hydraulic Torque Unit

- **IES' s Hydraulic Torque Unit (HTU)** is designed for assembling and dismantling plate heat exchangers in a high efficiency and safe way.
- **Hydraulic Torque Unit** is recommended for use in assembling and dismantling any heat exchangers larger than DN100mm.
- Pressurized by electric pump, Hydraulic Cylinders compress the plates together to achieve proper tightening or loosening of gaps between the channels of the exchangers. It provides sufficient torque to assemble or dismantle the heat exchanger without damaging the flow plates with uneven torque.



Advantages of Hydraulic Torque Unit:

- Good reliability for loosen and tighten the thread rod
- Precise torque output
- Avoid damaging heat transfer plate
- No hammering effect
- User friendly and save operation time
- Safe in operation



[Electric Pump]



[Hand Pump]



[Hydraulic Cylinder]

■ Various Kind of Heat Exchangers

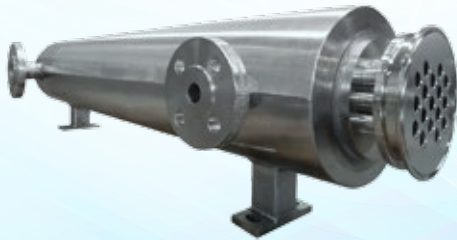
[Plate & Shell Heat Exchanger] ▶▶

A new trend of heat exchanger that combines the plate heat exchanger with shell & tube heat exchanger technologies. Plate & Shell Heat Exchangers are very versatile and are suited for higher-pressure applications of up to 50 bar.



◀◀ [Shell & Tube Heat Exchanger]

With traditional one-pass or two-pass designs, Shell & Tube Heat Exchangers are widely used in different industries including oil refineries and other large chemical processes. Our tailor-made & designed exchanger is an ideal cooling/heating solution to meet any plant room limitation or unique customer needs.



[Storage / Semi-Storage Heat Exchangers] ▶▶

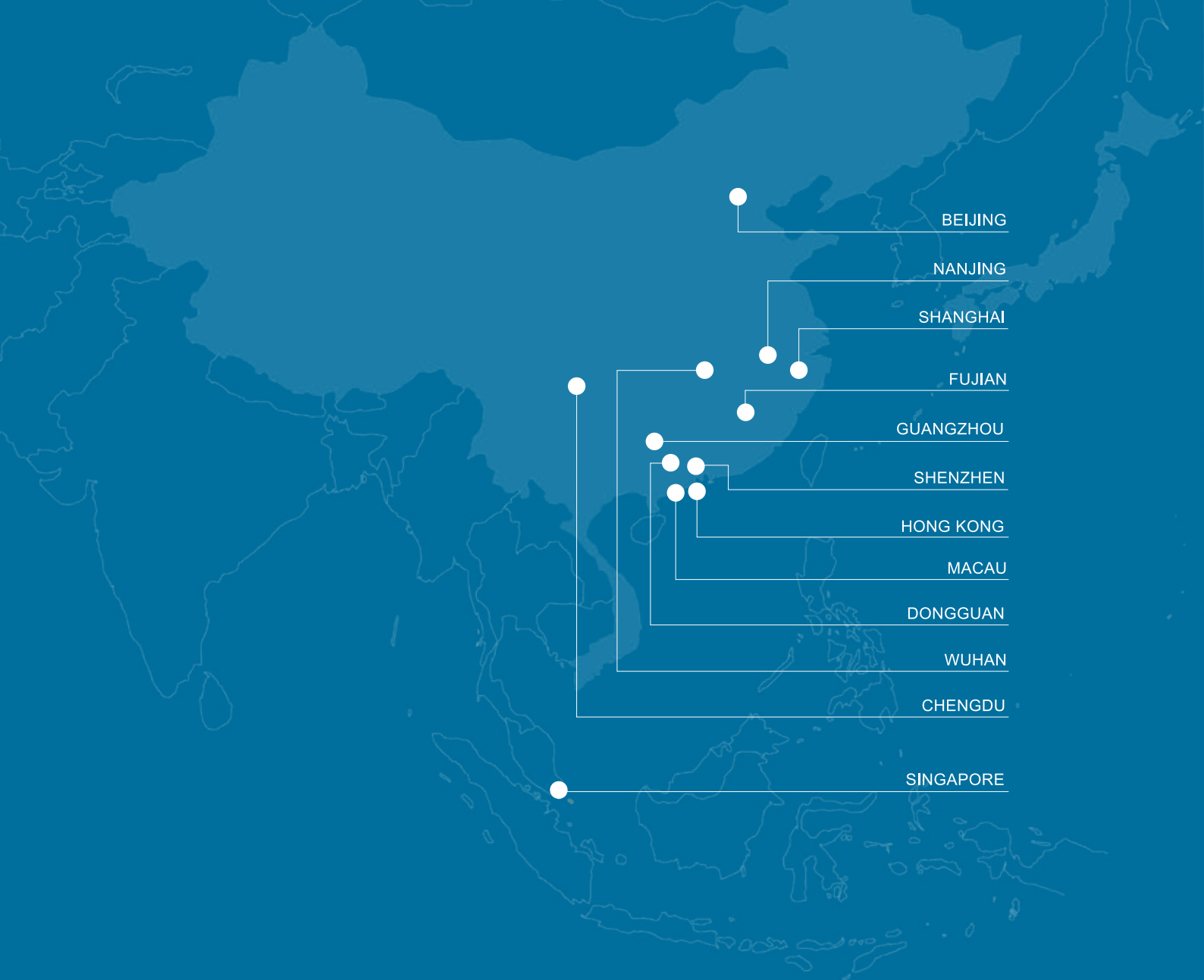
Different types of hot water calorifiers are designed for potable water application, especially for hygiene purposes and food industries. It can be coupled with any heat or renewable energy source or even with built-in electric heaters to provide sufficient and stable hot water supply in central hot water systems, boiler systems, heat pump systems and heat recovery systems.



◀◀ [Heat Transfer Station]

Heat Transfer Station is a total solution for the heat transfer process. Each station is equipped with heat exchangers, circulating pumps, temperature control, controlling valves and a built-in programmable logic controller.





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