



challenge for innovation

Jumbo

Plate Heat Exchanger



challenge for innovation
HISAKA WORKS, LTD. Heat Exchanger Div.

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Hisaka Works, Ltd., Heat Exchanger Division, are ISO9001 certified for its quality management system for all products including plate type heat exchangers.

Hisaka Works, Ltd., is ISO14001 certified for its environmental management system.

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Agent

HISAKA

HISAKA, as a world pioneer of JUMBO Plate Heat Exchangers, has provided highly reliable products through its sophisticated manufacturing technology.

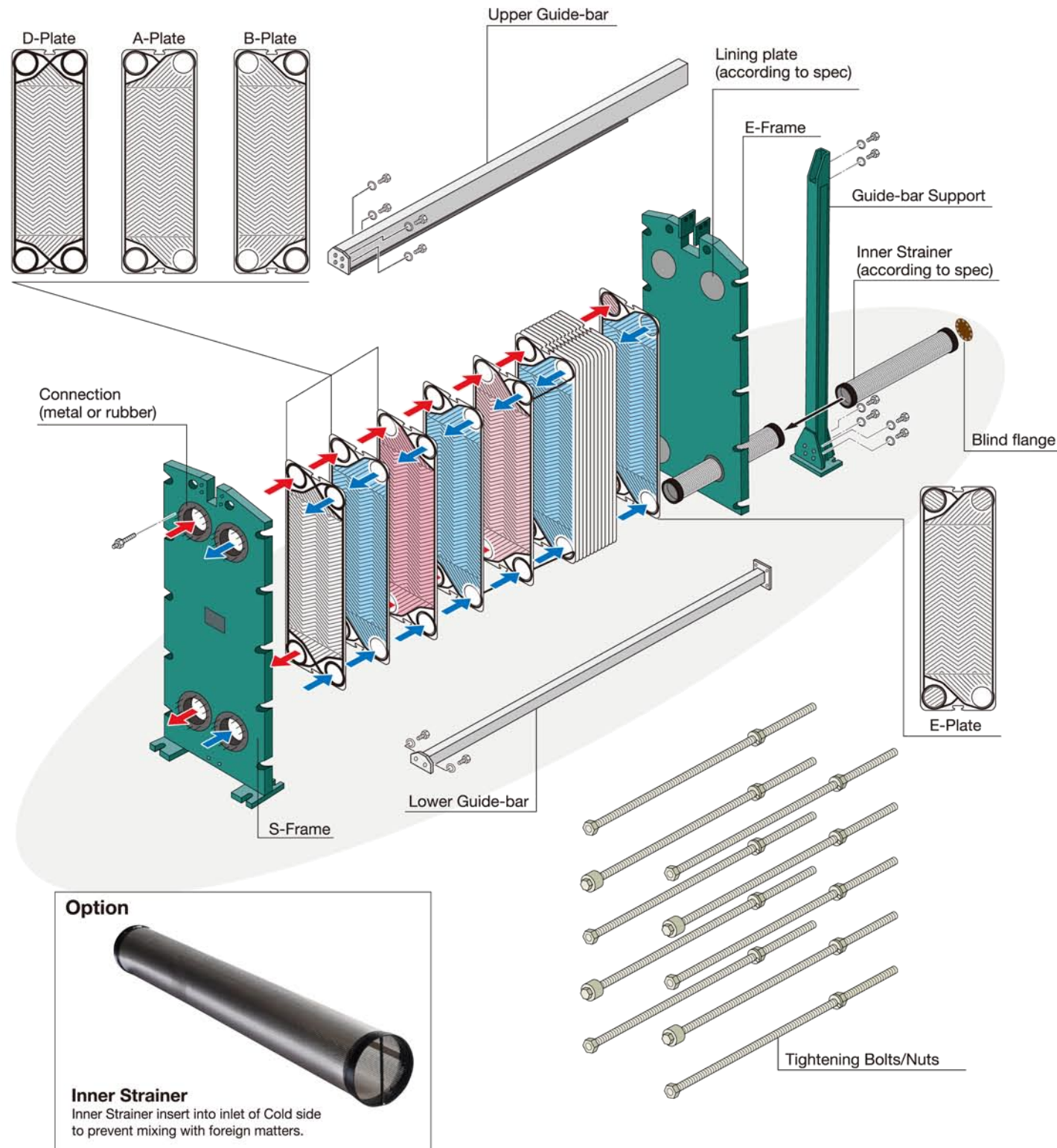
誠心
MAGOKORO

- We promote environmental activities with company motto "Sincerity (Magokoro)" as basic philosophy.
- Manufacturing products that are "people and environment friendly."
 - Making the company "people and environment friendly."
 - Become "people and environment friendly" Corporate Citizens.

Construction and Features

Construction of Plate Heat Exchanger

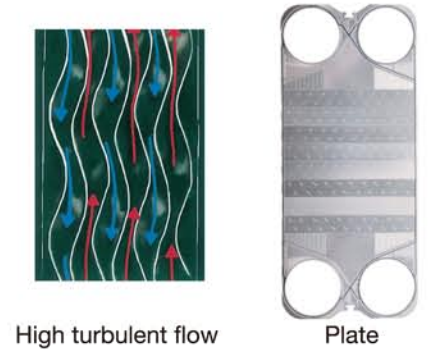
The heat transfer plates are thin sheets of corrosion resistant metals such as stainless steel or titanium and etc. that are press-formed with a corrugated pattern on their surfaces, and sealed with synthetic rubber gaskets in their groove, which seal the flow channel and direct the fluids into alternate channels. Such plates are suspended, supported and aligned by guide bars, and tightened by bolt and nut between fixed and movable frames. The equipment can adjust the number of plates so as to meet the heat duty.



Features

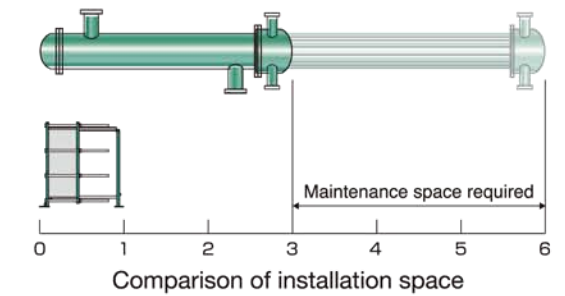
High Performance

The overall heat transfer co-efficient (U-value) ranges from 4,000 to 9,000 W/m²·C in water application, since the plate corrugation provides high turbulent flow. This is one of the reasons why plate heat exchanger performs so high heat transfer coefficient. In addition, this turbulent flow also acts to prevent scales from the plate surface.



Less Installation Space

The lightweight and compact construction saves the installation space to 1/6 and the weight to 1/3 of shell & tube heat exchanger respectively. In addition, lightweight and thin heating plate with less liquid hold-up volume facilitates the installation work. The Plate Heat Exchanger can be disassembled for cleaning without piping work, while the shell & tube type needs an additional space for drawing out the tube bundle.



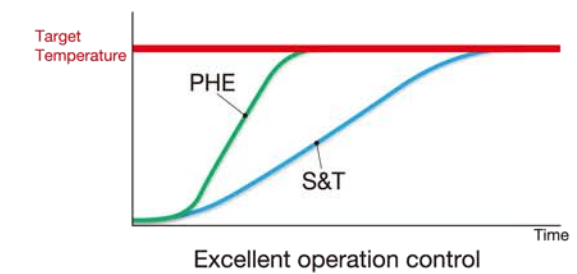
Easy Maintenance

The plate heat exchanger can be easily opened for inspection and maintenance by loosening the tightening bolts and nuts. Assembly and opening of the unit are also easily performed.



Quick Start-up

Less liquid hold-up volume makes quick response for start-up of the process, and changes operating conditions.



JUMBO and SUPER JUMBO

As a pioneer, HISAKA has led to the new world of JUMBO Plate Heat Exchanger in all the time, since we first launched JUMBO Plate (MODEL:UX-100 with 500mm Dia.) in 1996. In 2014, SUPER JUMBO Plate with 600mm Dia. brought to you herein and will make new history of Plate Heat Exchanger.

Flow
7,300m³/h



UX-160L SUPER JUMBO

Flow
5,000m³/h



UX-160M SUPER JUMBO

Flow
5,000m³/h

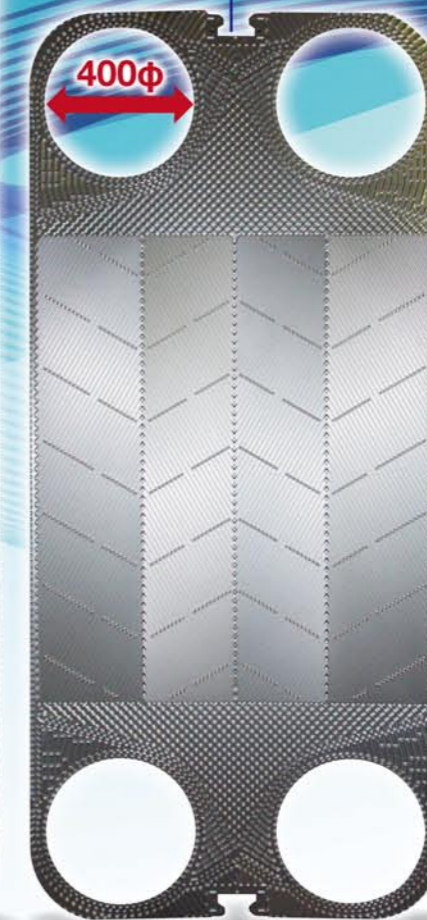


UX-130



UX-100

Flow
2,000m³/h



RX-90



LX-90

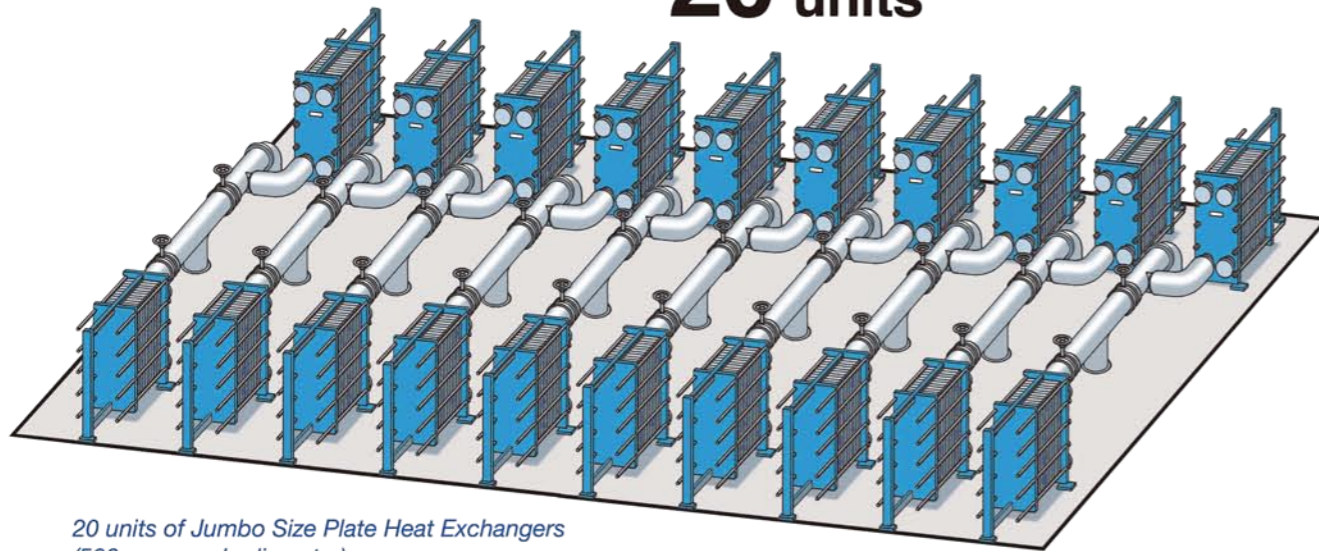
Advantages of SUPER JUMBO

HISAKA SUPER JUMBO PHEs assist less installation space and works, maintenance works and initial cost saving for the equipment itself as well as piping, pumps, valves and instruments.

High performance, high flow rate and space saving

The below installation layout is an example for total flow rate of 70,000m³/h case.

20 units

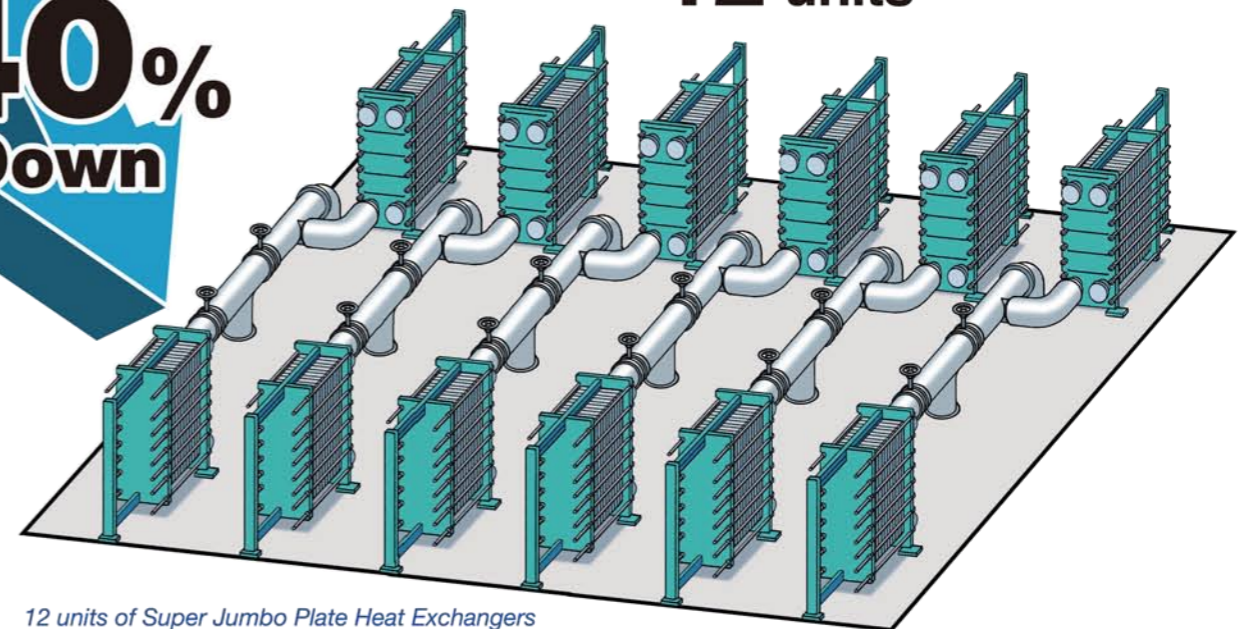


20 units of Jumbo Size Plate Heat Exchangers (500 mm nozzle diameter)

cuts down on installation area

40% Down

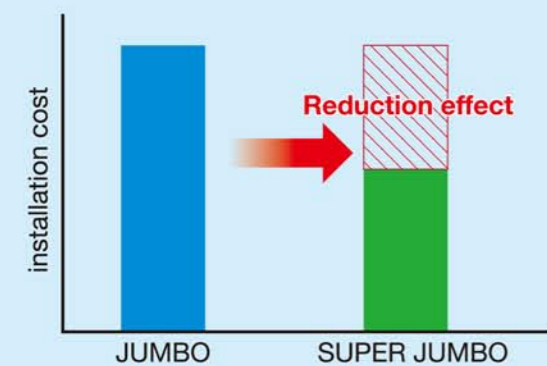
12 units



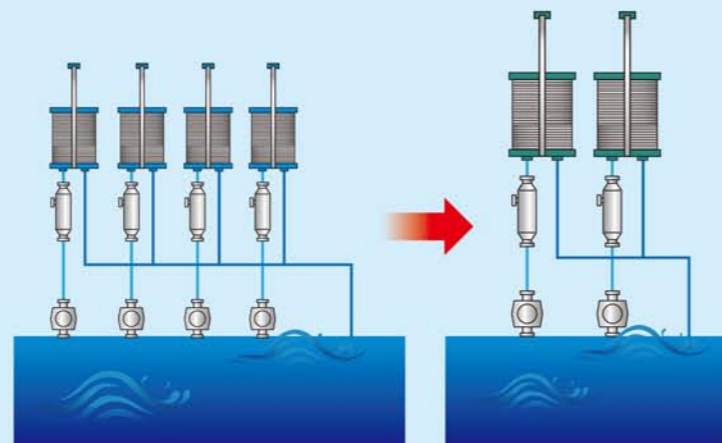
12 units of Super Jumbo Plate Heat Exchangers (600 mm nozzle diameter)

Benefits in less number of units ?

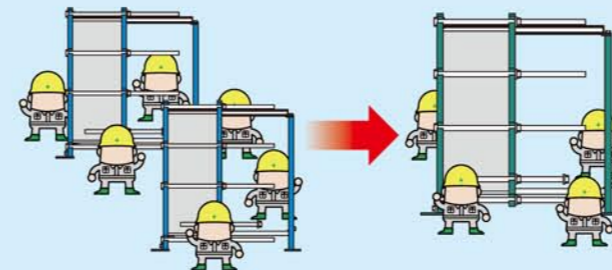
● Cost saving of Transportation / handling to the site



● Purchase cost saving of piping, pumps, valves, instruments, etc



● Cost and time saving of maintenance work



Suitable for vessels, offshore plants, FLNG plants, and other facilities with limited installation space.



Supply References in CCS

HISAKA **JUMBO** and **SUPER JUMBO** Plate Heat Exchangers are working in the variety of industries for many process applications. HISAKA is always aiming at further satisfaction and trust with our spirits "challenge for innovation".



Ammonia/Urea Plant



Methanol Plant



Power Plant



Energy center



LNG Plant



Olefin Plant

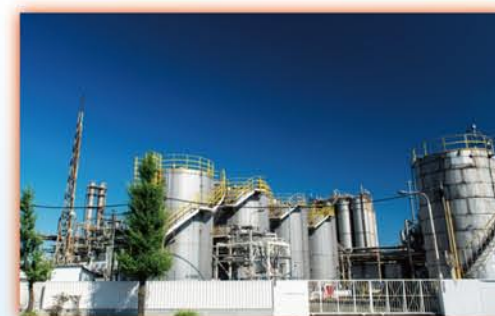


Ethylene Plant

Central Cooling System (CCS)

Central cooling system is an excellent system for cooling the fresh water circulating in the plant by means of seawater and/or low quality water. Fresh water is circulating in the closed loop. This cooling system will be free from clogging and fouling, and also made in inexpensive material. Accordingly, fouling, clogging and corrosion are managed only in CCS, then this system will offer economical maintenance and total operation cost saving.

Anywhere
PHE is used for...



Petrochemical Plant



Oil Refinery Plant



Power Plant



写真提供:三井海洋開発

FLNG Plant



Facilities

The Konoike Plant – central hub of HISAKA WORKS, LTD.'s manufacturing – has introduced facilities with original HISAKA technology and is moving ahead with drastic raising of the efficiency of its manufacturing processes. As the HISAKA Group's mainstay factory possessing sophisticated manufacturing technology that creates high quality products recognized by around the world, the Konoike Plant aims for tireless progress in the future as before.



40,000-ton automated press line

Its 40,000-ton press – the largest class in the world – is an automated line composed of a forming press, crack detector and conveying devices. It produces the world's largest SUPER JUMBO plates for use in LNG plants and similar, as well as various different types of large size titanium plates. It's the production line that supports "Pioneer of Jumbo plate".

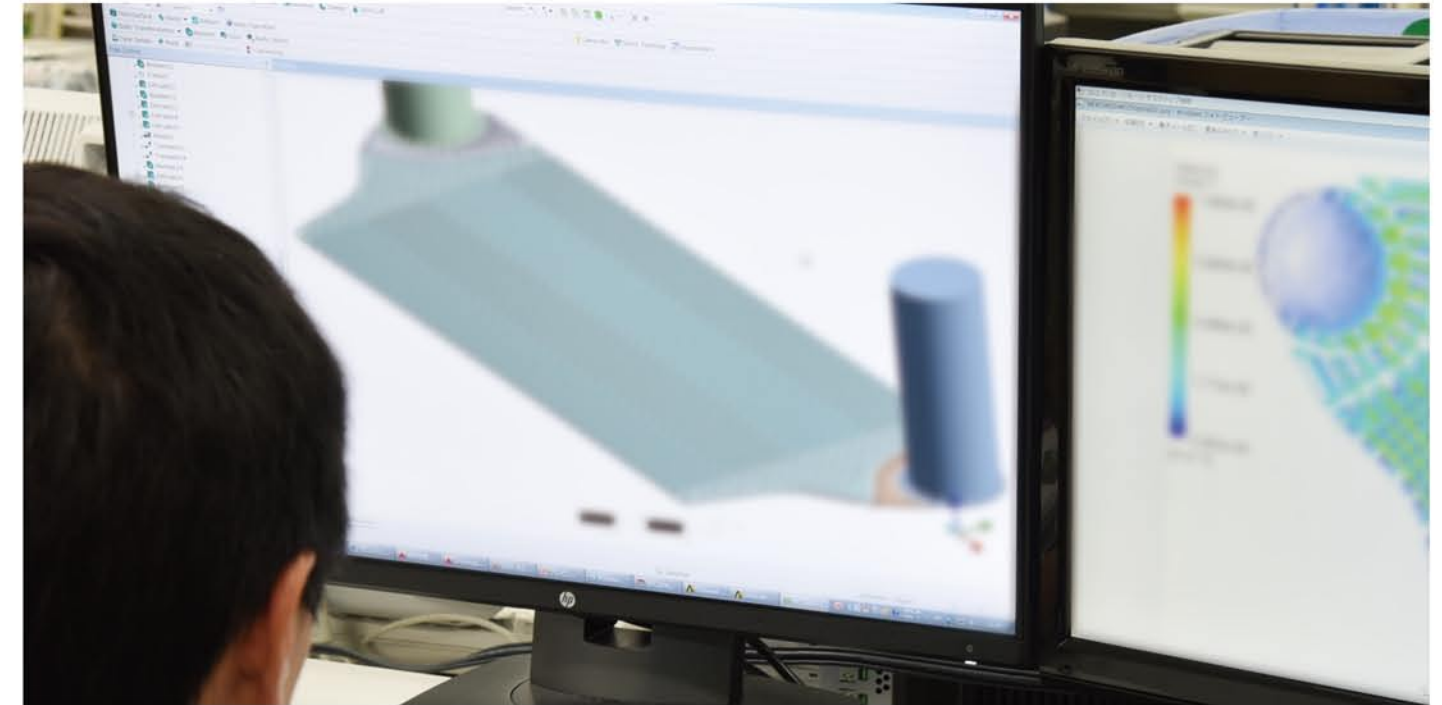


20,000-ton automated press line

A totally automated, unmanned press line composed of a forming press, trimming press, crack detector, conveying plates, plate collecting device, pressing die replacing device. This high efficiency, state-of-the-art press line achieves productivity 1.5 times higher than previous lines and can cope with plate sizes ranging widely from medium to large size.

R&D

HISAKA WORKS, LTD. with proud of its high level technology, we continually conduct research and development for increasingly diverse and sophisticated needs by utilizing advanced technology.



PBP

HISAKA WORKS, LTD. newly established a project team named "PLANT BUSINESS PROJECT". Project members are selected by their specialty to meet customer's various demands.

- As Plant Business Project, we
- optimize the design of our products to provide an attractive price.
 - integrate procurement & engineering to produce Global Standard products.
 - promise high quality and smooth project execution.



Code and Standard

Our products keep the highest engineering standards and quality by acquiring certifications of various international standards such as ASME, JIS, CE, etc.



Global Network

— Original proprietary technology to the world —

“Global leading company, HISAKA”. This is our goal.

Since we started our research and development in 1953, we have been engaged in manufacturing and its improvement of Plate Heat Exchangers over 60 years in Japan and supplying our equipment to the foreign countries more than 70.

As of today, HISAKA has become a worldwide manufacturer providing after-sales services in 9 countries around the world.



Group Company

Malaysia

HISAKAWORKS S.E.A. SDN. BHD.
HISAKAWORKS S.E.A. SDN. BHD. PENANG BRANCH
HISAKAWORKS S.E.A. SDN. BHD. JOHOR BRANCH

Thailand

HISAKA WORKS (THAILAND) CO., LTD.
HISAKA WORKS (THAILAND) CO., LTD. RAYONG BRANCH

Singapore

HISAKAWORKS SINGAPORE PTE. LTD.

Vietnam

HISAVINA Ho Chi Minh
(Representative Office of HISAKAWORKS S.E.A. SDN. BHD.)
HISAVINA Hanoi
(Representative Office of HISAKAWORKS S.E.A. SDN. BHD.)

Philippines

HISAPINO Manila Representative Office

Indonesia

PT. HISAKA WORKS INDONESIA

South Korea

HISAKA KOREA CO., LTD.
HISAKA KOREA CO., LTD. BUSAN BRANCH

China

HISAKA WORKS (CHINA) CO., LTD.
HISAKA WORKS (CHINA) CO., LTD. SHANGHAI BRANCH
HISAKA WORKS (CHINA) CO., LTD. GUANGZHOU BRANCH

Saudi Arabia

HISAKA MIDDLE EAST CO., LTD.

★ Headquarters / production base (Japan)
● Branch Office (Japan)

● Group Company / production base
● Group Company and local sales office



HISAKA ME



HISAKA WORKS S.E.A.



HISAKA WORKS(CHINA)