

HEATING & COOLING

HEAT EXCHANGERS



About ITS



Industrial Trading Solutions Ltd are hygienic equipment specialists with over 100 years of combined technical knowledge and applied skills in the food & beverage, brewery, distillery, dairy, pharmaceutical and personal care industries.

Formed in 2002 and based in the Midlands UK, ITS now distribute a multitude of top industry brands with a fast service, at competitive prices and all with an unmatched customer ethos.

Our technical team can support you with large system projects, one-off product purchases and maintenance & repair services.

As an ISO9001, ISO14001 & ISO45001 accredited business, you can expect the very best service and the highest standards from Industrial Trading Solutions Ltd.

"Operating within a safe and transparent culture of respect and innovation, we are dedicated to positively conduct ourselves with high ethical standards and integrity. We will continue to invest in and develop our staff, reliable product ranges and services provided, to ensure the high standards expected with the market we operate are upheld or exceeded. As the complete solutions supplier of choice, we value all stakeholders of the business and build strong relationships to reinforce our unrivalled reputation and future growth."

Peter Jeans, Company Founder and Chairman



DISTRIBUTING SOLUTIONS ◆ PROCESSING EXCELLENCE



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Our Approach to Sustainability

Climate change and sustainable development are vital and urgent global issues facing us today - as an industry leading Hygienic Flow Equipment Specialist, ITS has a key responsibility to adhere to frameworks, legal requirements and enforcement mechanisms to respond to these and other global challenges and help create a more sustainable society. ITS applies sustainable practices not only on a day to day basis, but embeds them within the underlying company infrastructure and ethos.

Ask us about Sustainability Audits and let ITS support your sustainability activities.



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Our Sustainability Goals

Our sustainability goals continually drive us to improve on all aspects of our sustainable development.



Heating and Cooling Overview

In heat transfer, getting the most energy-efficient and reliable performance comes down to having the ideal technology for your specific conditions.

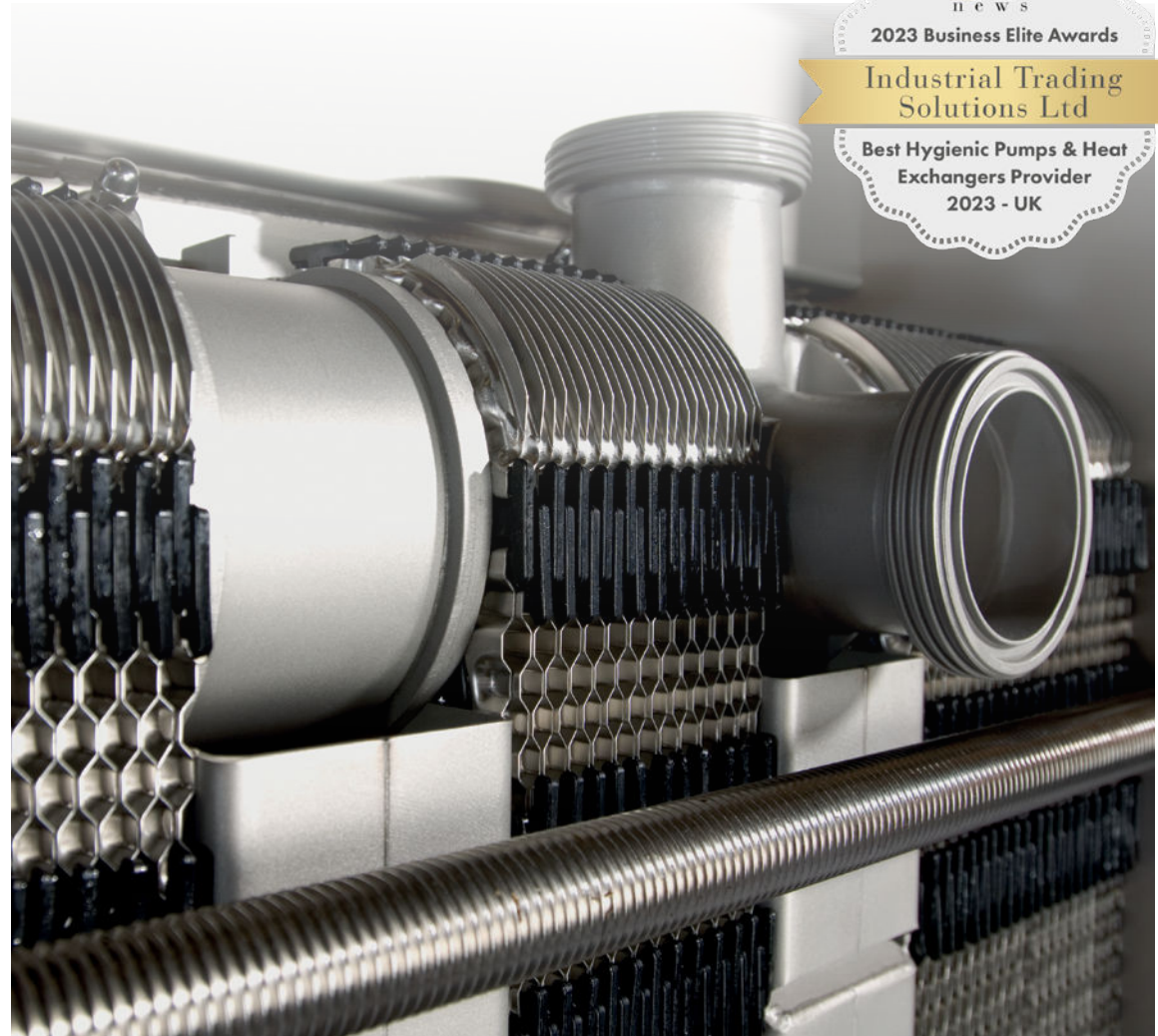
Several factors can influence what type of plate heat exchanger offers the best fit for a specific duty. These can include type of media and refrigerant, design pressure, capacity needs, efficiency demands, serviceability requirements, and many more. Based on the specific needs and conditions of your operation, we can work with you to find the optimal plate heat exchanger for your duty.

ITS are one of the leading distributors of heat exchangers for heating and cooling duties.

With our in-house sizing software we are able to size and configure heat exchangers to best suit customers processes whilst still maintaining maximum performance and efficiency.



Scan the QR Code to visit our website page:



Use the Alfa Laval Heat Exchanger selector tool to help choose the most efficient product for your needs.

Brazed Heat Exchangers

Copper brazed plate heat exchangers provide efficient heat transfer with a small footprint. They are maintenance free, provide a long service lifetime and can withstand high temperatures and extremely high design pressures. They are used in a range of duties including cooling, heating, evaporation and condensing.

How it works

Our brazed plate heat exchangers are carefully engineered to ensure the greatest possible thermal performance within the smallest possible footprint.

Watch this animation to learn more about their basic operation:

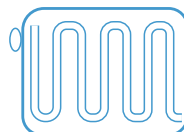
Video:



CB-canva

Features & Benefits

- Lightweight brazed construction offers much greater thermal efficiency and 75% smaller footprint than comparable shell-and-tubes.
- FlexFlow plate design provides channel asymmetry that can be tailored to fit the application
- We help you select the optimal pressing depth, plate pattern and configuration for your application
- An ideal solution for use with natural refrigerants, thanks to the compact footprint, optimized plate design and high design pressure



CB Range

The CB range of brazed plate heat exchangers feature efficient heat transfer with an extremely small footprint, making them ideal for demanding installations where space is at a premium. The CB range is used in HVAC heating/cooling, refrigeration, process heating/cooling, oil cooling, solar heating and many other applications.

CB brazed plate heat exchangers provide efficient heat transfer with a small footprint.

Applications

- VAC heating and cooling
- Refrigeration
- Oil cooling
- Industrial heating and cooling

Benefits

- Compact
- Easy to install
- Self-cleaning
- Low level of service and maintenance is required
- All units are pressure and leak tested
- Gasket free



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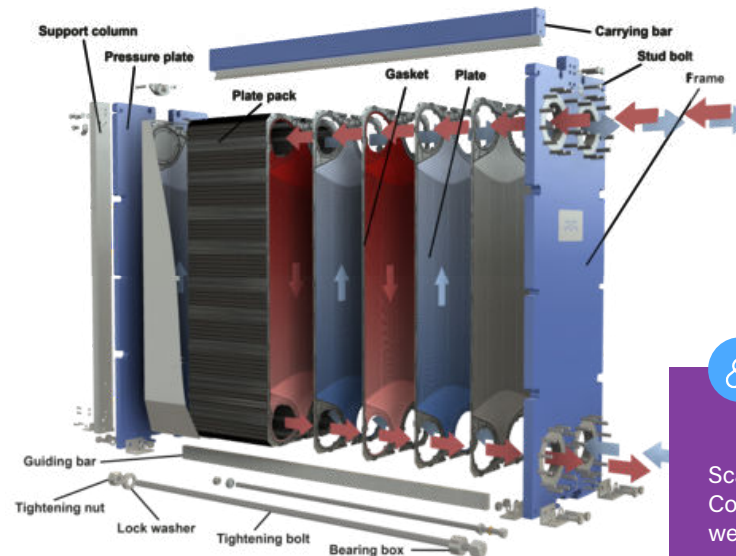
Gasketed Plate Heat Exchangers

Gasketed plate-and-frame heat exchangers provide efficient heat transfer in compact equipment with a small footprint. The units have a flexible design and are easy to service and maintain. The product range is extremely wide and is used in duties for heating, cooling, heat recovery, evaporation and condensation in industries ranging from HVAC, refrigeration, engine cooling, dairy and food to heavier processes like chemical processing, oil production and power generation.

How it works

Our Gasketed plate heat exchangers are optimising heat transfer by large surfaces of corrugated plates drawing heat from one gas or liquid to the other. The high efficiency and an outstanding reliability in a compact design, offers an investment with the most attractive TCO over the product life time. Not to forget the energy saving capabilities and low environmental footprint.

In a gasketed plate heat exchanger, the plates are fitted with elastomeric gaskets which seal the channels and direct the media into alternate channels. The plate pack is assembled between a frame plate and a pressure plate, and compressed by tightening bolts fitted between these plates. The channel plates and the pressure plate are suspended from an upper carrying bar and fixed in position by a lower guiding bar, both of which are fixed to the support column. The design allows easy cleaning and simple capacity modification (by removing or adding plates).



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Video:



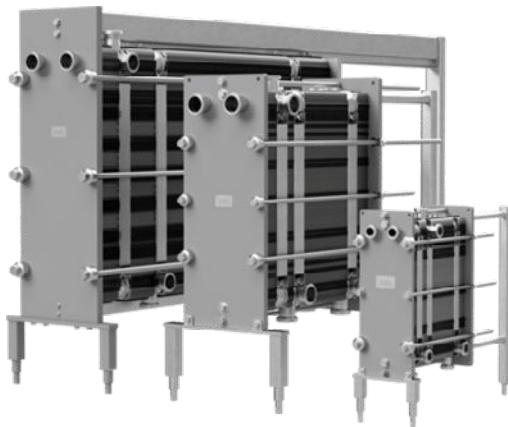
Features & Benefits

- Highest thermal efficiency and close temperature approach
- Compact units - space saving, easy to service and maintain
- Maximum uptime - less fouling, stress, wear and corrosion
- Flexible - easy to adapt to changed duty requirements

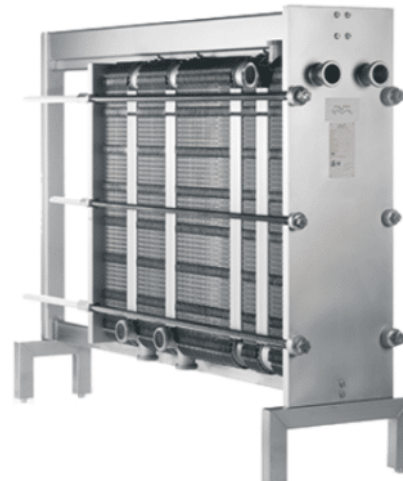
Gasketed Plate Heat Exchangers

Hygienic Line (H-Line)

Take process hygiene and product safety to a higher level with the Alfa Laval Hygienic line. This premium range of plate heat exchangers optimises process hygiene and energy efficiency. Specifically developed for hygienic applications, it raises the bar on hygiene overall while reducing the carbon footprint for food, beverage, pharmaceutical and other manufacturers who demand outstanding performance and total efficiency.



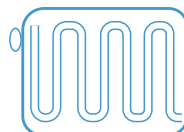
H-Line-Gasketed-Plate-Heat-Exchangers



Frontline

Frontline

FrontLine is the premium range of heat exchangers used in dairy, food, beverage and other hygienic applications requiring gentle product treatment, long operating times or superior cleanability. A large range of plate and gasket types is available.



Frontline Widegap

Our WideGap gasketed plate-and-frame heat exchangers are suitable for fibrous fluids and for fluids containing coarse particles. Typical applications for Alfa Laval WideGap heat exchangers are sugar, bioethanol and pulp and paper processes. Depending on the duty, WideGap heat exchangers can be configured either with wide-wide or wide-narrow channels. This makes the units suitable for heating, cooling and interchanging duties.



Frontline Widegap

Gasketed Plate Heat Exchangers

M-Line

The M line range of gasketed plate-and-frame heat exchangers are used in dairy, food, beverage and other hygienic applications. M line is used when the design pressure is above 10 barg (145 psig) or when long plate packs are required. A large range of plate and gasket types is available.



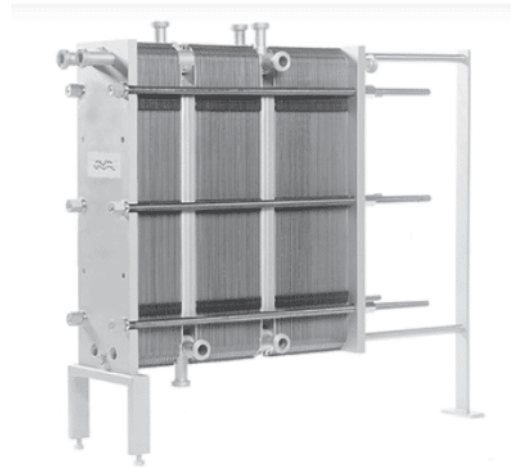
M-Line



BaseLine

BaseLine

Our BaseLine range of gasketed plate-and-frame heat exchangers are used in dairy, food, beverage and other hygienic applications requiring thermally efficient performance. A large range of plate and gasket types is available. In addition to normal single plate configuration, this model is also available with Gemini double wall plates. Gemini plates are fully cleanable and accessible and are used as an extra precaution to avoid intermixing of fluids.

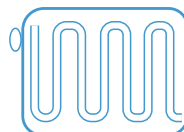


ClipLine

ClipLine

ClipLine is a premium range of heat exchangers for smaller duties in dairy, food, beverage and other hygienic applications requiring gentle product treatment, long operating times or superior cleanability.

The Clip plate has a chevron type of plate pattern designed for hygienic conditions. The entry points, the distribution area and the shape and pressing depth of the plate pattern give optimal performance.



Industrial Line

Industrial line is an extremely wide range of gasketed plate-and-frame heat exchangers used in all types of industries. The number of sizes, plate and gasket materials and available options are enormous. Every detail is carefully designed to ensure optimal performance, maximum uptime, and easy maintenance



Industrial Line

Fusion Bonded Heat Exchangers

Fusion-bonded plate heat exchangers are made of 100% stainless steel and provide efficient heat transfer with a small footprint. They are maintenance free and provide a long service lifetime. They are suited in applications which put high demand on cleanliness, applications where aggressive medias such as ammonia are used or where copper and nickel contamination is not accepted. Can handle very high temperatures or extremely high pressures.

How it works

Alfa Laval fusion-bonded plate heat exchangers are carefully engineered to ensure the greatest possible thermal performance within the smallest possible footprint.

Watch this animation to learn more about their basic operation.

Video:



Fusion Bonded



AlfaNova

Features & Benefits

- 100% stainless steel construction means 100% recyclability
- Resists corrosion from aggressive media and process fluids
- Prevents nickel or copper-contamination when working with drinking water or any other hygienic fluid
- AlfaFusion technology enables higher temperature resistance than traditional brazed heat exchangers with same high-pressure capabilities
- Optimised plate design with asymmetric channel configuration provides maximum efficiency in demanding heating and cooling applications

AlfaNova

The AlfaNova is the first plate heat exchanger in the world to be made completely of stainless steel – made possible by the unique active diffusion bonding technology patented by Alfa Laval.

AlfaNova fusion-bonded plate heat exchangers are made of 100% stainless steel. They are suitable for applications which place high demand on cleanliness, applications where aggressive media like ammonia are used or where copper and nickel contamination is unacceptable. AlfaNova provides efficient heat transfer with a small footprint, has an extreme pressure fatigue resistance and covers high temperatures, up to 550°C/1022°F.



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Shell and Tube Heat Exchangers

Our shell and tube heat exchangers are used in many comfort and industry applications for heating and cooling fluids. They consist of a shell with traditional plain tubes or enhanced surface tubes for high thermal performance. The fluids can be liquids or gases, one of which flows inside the tubes while the other flows outside the tubes within the shell. There are single-phase or two-phase heat exchangers, and the latter is used to either boil or condense fluids.

How it works

The fluids are separated by a solid barrier and flow through separate channels. One fluid travels through tubes while the other flows around the tubes in the shell. During the flow of these fluids, they exchange heat with each other, with the hot fluid transferring its heat to the cold fluid.



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PharmaLine



Viscoline

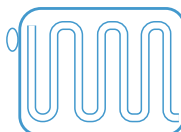
PharmaLine

Pharma-line is a high-quality shell-and-tube heat exchanger especially developed to meet the high hygienic demands of the pharmaceutical industry. Flexibility in the design makes it suitable for many hygienic applications, whatever the demands.

Viscoline

Alfa Laval ViscoLine™ is a range of highly efficient tubular heat exchanger types that incorporate corrugated tubes or other advanced profiles designed to increase turbulence in the flow of the media to be cooled. This substantially increases the overall heat transfer coefficient.

For thermal solutions for viscous food the ViscoLine range is a series of highly efficient heat exchangers that have been designed to handle your food processes in the gentlest manner.



Scraped Surface Heat Exchangers

Contherm* represents the most versatile heat transfer solution on the market, suitable for a wide range of applications and industries. The unique design provides low hold-up volumes and can handle product pressures up to 21 bar (300 PSI), with rotational scraping speeds ranging from 25 to more than 1000 rpm. This flexibility creates countless opportunities for the production of food products, protein by-products, chemicals, pharmaceuticals, personal care products, and much, much more.

How it works

In scraped-surface heat exchanger applications, the product enters the cylinder at the bottom and flows upwards. The heating or cooling medium travels in a counter-current flow through a narrow annular channel.

Rotating blades continuously remove product from the cylinder wall to ensure uniform heat transfer. The product enters the cylinder in a corkscrew pattern in the same direction as the rotating scraping assembly. This preserves product quality by reducing shear, providing gentler product handling and reduced pressure drop across the inlet. Finally, the product exits the cylinder at the top.

Both product flow and rotor speed can be adjusted to suit the particular properties of the product in the cylinder.



Contherm Core



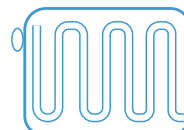
Contherm HP



Contherm Max



Convap



Features & Benefits

- Versatile solution that can handle particles up to 36 mm and viscosities well in excess of 50,000 cP.
- Easy-to-clean design can flexibly transition between products with limited downtime.
- Multiple material options ensure efficient heat transfer and reliable mechanical performance.
- Flexible installation with horizontal or vertical configuration to meet space limitations.
- Vertical installations include a built-in hydraulic system that allows for fast and safe inspection with low service costs.

Video:



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Servicing and Maintenance

We aim to be the technical service provider of choice to our customers. By maintaining their process equipment, saving on costly breakdowns, and further supporting customers with their processes, we will bring a wealth of technical knowledge coupled with a data driven approach, allowing them to make informed decisions.

Services we can offer include:

- Maintenance / Repair Works
- Breakdown Support
- Servicing / Maintenance Packages (With Monthly Pay Options)
- Plant Audits / Site Surveys
- Inventory Recommendations
- Equipment Health Checks
- Onsite / Remote Troubleshooting
- Face to Face / Online Training



Packages

Our packages are provided to give customers peace of mind that somebody is always at hand to help. ITS can be called out for planned maintenance needs along with any emergency requirements that may arise. 24/7 365 days a year.

With options to suit all budgets, not only do our packages offer technical support, we also include training, equipment health checks, inventory logs and discounts on any spares purchased through ITS for your equipment. You can also choose to pay for your package on an annual or monthly basis, making it easy to plan costs and section budgets.



SPARES

ITS offers a complete range of genuine OEM spares for all products supplied, with access to the knowledge and expertise to keep your equipment running at peak performance throughout its lifetime. Our high-quality, durable parts put productivity first and therefore provide:

- Increased uptime and productivity
- Longer lasting parts for a longer lifespan
- Reduced cost of ownership





Industrial
Trading
Solutions

Industrial Trading Solutions Limited

6 Station Road
Coleshill
Birmingham
B46 1HT

e: sales@industrialtradingsolutions.com

t: 01675 465191

