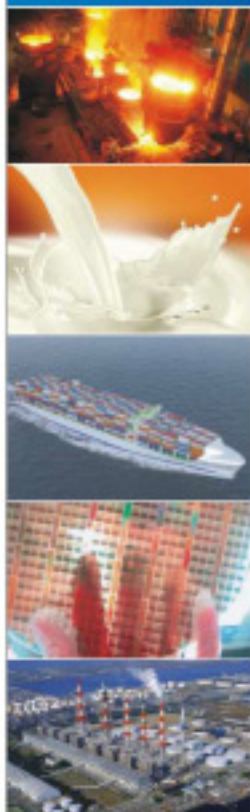




Gasket Type Plate Heat Exchanger 組合型板式熱交換器



www.kaori.com.tw

流路設計

板式熱交換器的流路方式可以是單面流或兩面流。單面流表示兩個流體以相同的方向流經轉輪內部的板片，而兩面流則可以改變方向。單面流適用於各種的熱傳應用，但是在需要低速率或低溫差的情況下則是兩面流更適合。

Flow arrangements

While hot and cold fluids flow in opposite directions across a single plate, the flow pattern between plates can vary. Plate heat exchanger flow patterns can be single or multi-pass. A single-pass arrangement means each fluid flows in the same respective direction across all the plates in the unit. A multi-pass arrangement is designed so fluids can change their respective flow directions. Single-pass units are suitable for most applications, but very low flow rates or extremely close-approach temperatures may call for the multi-pass configuration.

為何使用組合式熱交換器？

- 經設計後能使用極薄且具高耐壓。
- 高流通性能，高壓力。
- 保有再擴充之能力及空間。
- 江蘇廣式或組合式熱交換器體積小，
且具有更佳之熱傳導能力。
- 永遠具有相當的發展潛力。

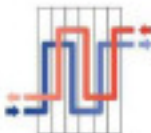
Why use a plate heat exchanger?

The advantages of the plate heat exchanger begin with its design. Plate heat exchangers, or PHEs, deliver greater efficiency, lower cost, easier cleaning and maintenance, and closer approach temperatures than any other heat transfer technology.

Compared to spiral and shell-and-tube heat exchangers, PHEs of similar capacity also take up little floor space and are easy to expand. The vertical swing-out plates allow you to pack thousands of square feet of heat transfer area into a small space, while still allowing room for future growth.



單面流適用於各種的熱傳應用
Single-pass arrangement Suitable for most application.



多面流適用於流量小，出入口溫度之熱傳應用
Multi-pass arrangement for application with low flow rates or close-approach temperatures.

組合式熱交換器 PLATE HEAT EXCHANGERS



ATRO 熱交換器

應用範圍 Applications

汽車車業 AUTOMOTIVE

汽車製冰機加濕器、水浴器、電熱水浴器、液料加熱器、烘箱水浴器、烘箱加熱器(高溫型)冷卻器、液壓水浴器、浮水浴熱交換器以及冷卻器隔層加熱器。

Phosphate tank heaters, seal water coolers, plating solution cooling, paint heating, wetter water cooling, induction heater cooling, hydraulic oil coolers, quench oil heat exchangers, and cooling tower isolator.

釀造業 BREWING

鹽水冷卻器、麥汁離心器、麥汁加熱器、麥酒發酵水浴器及鹽水冷卻器裝置。

Brine cooling, water heating, and wort cooling. Cautic soda coolers, acid coolers, hydrogen gas coolers, and brine heaters and coolers.

化工業 CHEMICAL

製程加工熱交換器、鹽水冷卻及加熱器、鹽浴槽、製程水浴器、離子膜電析熱交換器及瓦斯洗滌塔熱交換器。

Process interchangers, brine heating and cooling, salt refining, process water isolation vapor condensers, acid heating and cooling, and gas scrubber heaters and coolers.

食品業 FOOD

酒精糖、液體淨化及冷卻器、威士忌酒再蒸、麥酒冷卻器、玉米糖及酒精糖、食品包裝冷卻及加熱器。

Sugar refining, frodoze solution heating and cooling, whiskey recuperators, yeast coolers, starch coolers and heaters, corn syrup cooling, and edible oil heaters and coolers.

造紙業 PULP AND PAPER

紙漿加熱器、吹乾機冷卻器、水性紙冷卻器、紙漿吹乾機加熱器、浮水可水處理。

Digester heaters, blowdown liquor coolers, caustic soda coolers, boiler blowdown heat recovery, white water, and black liquor heating.

海運業 MARINE

海水隔離交換器。

金屬加工業 METAL WORKING

浮水浴冷卻器、電鍍加熱及冷卻、鹽浴水浴、酸洗液加熱器。

Quench oil coolers, plating heaters and coolers, anilizer heaters and coolers, strike solution cooling, and pickling tank heating.

石化業 煉油業 PETROLEUM

天然瓦斯處理、原油處理、石化產品處理。

Oil refining, natural gas processing, offshore drilling, and petrochemical processing.

發電業 POWER

電氣冷卻隔層裝置、冷卻器水浴器裝置、土地熱能應用裝置、廢棄物熱能回收器、回收裝置。

Axillary cooling circuit isolation, condenser water isolation, cogeneration applications, geothermal applications, refuse burning applications, lubrication oil cooling, and diesel engine cooling and heat recovery.

紡織業 TEXTILE

蒸餾回收器、鹼液熱交換器、洗滌器、染料集中加熱器。

Heat recovery, caustic solution heating and cooling, washers, and dye concentrate heating.

鋼鐵業 STEEL

清洗機冷卻器、水基水浴器、鋼板加熱器冷卻器、液壓油冷卻器、連續式冷卻器、耐火爐水浴器、耐火爐水浴器、連續式冷卻器。

Scrubber coolers, jacket water coolers, slab induction heating coolers, hydraulic oil cooling, mold water cooling, refracting heat cooling, roll oil cooling, and cooling of continuous casting installations.

冷凍空調 HVAC

冷卻隔層、自然空調、冷凍系統、儲熱系統、冷卻器熱水浴器、區域加熱及冷卻、海水隔離、地熱加熱、引擎冷卻、爐油冷卻、燃料冷卻、發電機冷卻、和加熱水與蒸汽。

Cooling tower isolation, free cooling, heat pump systems, thermal storage systems, condenser water heat recovery, district heating and cooling, seawater isolation, geothermal heating, engine cooling, lube oil cooling, fuel oil heating, generator cooling, and heating water with steam.

我們的客戶與實績

台灣(核)電廠、台灣糖業、台灣菸酒、中國、中船、中遠、中鐵、海運及水務局、新加坡海關、華僑醫院衛生中心、台北海關、高雄二崙片機車道、彰化青洲糖廠、台灣建設管理處、中研院人文園、中研院生醫、國光北港、康隆科技、中華凸版、台糖公司、聯電、鴻海精密、日月光半導體集團、宏達國際、茂德中科、富貴中科、廣科茂科、廣科茂科、廣科茂科、竹科園區管理、軟體工業、宏華食品、統一食品、民生食品、遠東紡織、屏東海運管理局、台北海關、海峽淡濱尼、文裕國際集團、宏達國際社五仁豐物產、台灣大學、交通大學、嘉義大學、工研院、核能研究所、中科院等。

Our customers and actual business achievement

Taiwan (Nuclear) Power Plant, Taiwan Sugar Corp., Taiwan Tobacco and Liquor Corp., China Steel Corp., China Shipbuilding Corp., China Petroleum Corp., Chuanen Company, Tamu Memorial Hospital, Hsinchu Tzu Chi Hospital, Veteran General Hospital and Biological Technology Center, National Taiwan University Hospital, Nankang Station of Three Railways, Changhua Show Chen Memorial Hospital, Taiwan Historical Museum, Social Science Building of Academia Sinica, Formosa Plastics Enterprise, Allied Material Technology Corp., Kinva Interconnect Technology Corp., Toppan-Chingwa Electronics, #12 Factory of TSMC, #7 Factory of UMC, Honhai Enterprise, ASE, Chengli Factory, Han-Tier Yungmai Factory, PM208 Technologies at Central Industrial Park, Takahashi Inc. at Central Industrial Park, Hsueh-Waike Inc. at Southern Industrial Park, Chomei Inc. at Southern Industrial Park, Texas Instrument, ChipOS Technologies at Hsinchu Industrial Park, Chin Peen Industrial, King of Food, President Food, WeiKuan Food, Far East Textile, Pingong Ocean Museum, Taipei Ocean Museum, Te Shue Resort, Tien Lai Spring Resort, Taipei Jen-ai Diase of Hung Sheng Construction, National Taiwan University, National Chiou Tung University, National Chiayi University, Industrial Technology Research Institute, Nuclear Energy Research Institute, Chung-shan Institute of Science and Technology etc.

板式熱交換器的優點 Plate Heat Exchanger Benefits

高熱傳效能

特殊加強型設計即使在低流速時也能造成紊流。這種的紊流可以產生高於2000的U值效能。



High Efficiency Heat Transfer Performance

The embossed pattern of the Mueller Accu-Therm heat transfer plates promotes high turbulence at low fluid velocities. The high turbulence results in very high heat transfer coefficients. "U" values of 2,000 and greater are common.

低阻高率

板式熱交換器具有平滑的表面及連續的流道，可降低阻礙狀況且更易於清洗。

Reduced Fouling

The Accu-Therm plate heat exchanger's high turbulence, uniform fluid flow, and smooth plate surface reduce fouling and the need for frequent cleaning.

體積小

由於板式熱交換器的高熱傳效能，使它可以比一般熱交換器節省20%~50%的體積，同時比更易於現場的維修作業。



Compact Size

Because of the high thermal efficiency and high surface density, the plate heat exchanger requires 1/5 to 1/2 less floor space than other types of equivalent-duty heat transfer equipment. You can also service and maintain the plate heat exchanger in the same area it occupies when in operation.

易於維修檢驗

在維修各種組件的流體時，只需將螺絲鬆開，移開板面，就可以檢查並清潔每一板面。這種對流體檢查及清潔更經濟又簡便的方法。

Easy to Inspect and Clean

By simply removing the compression bolts and sliding away the movable end frame, you can visually inspect every square inch of the plate heat transfer surface. The unit also lends itself to easy and economical clean-in-place (CIP) procedures because the amount of retained liquid is very low.

對向流設計

在板式熱交換器中，對向流體是於一種完全對向的流道來作熱交換，因此可以獲得更有效的熱傳效果，並減少所需的熱傳面積。

True Counterflow

In the plate heat exchanger, fluids flow in opposite directions, resulting in greater effective temperature differences. This reduces the amount of heat transfer surface required.

低溫差的熱傳效能

在熱再生與熱回收的應用上，熱溫差輸出量是一個非常重要的設計要求。板式熱交換器因為其高熱傳效能的板片與完全對流的設計，可以達到熱溫差比0.5-1.0°C的微小溫差。



Close-Approach Temperatures

An important factor in regeneration and heat recovery applications is the approach temperatures of the heat transfer media. In the Accu-Therm, very close-approach temperatures of 1-2°F (0.5-1.0°C) are possible because of the true counter-flow and high heat transfer efficiency of the plates.

單機多迴路的設計

只需於熱交換器中增加一組「中



隔板」，就可以形成多迴路的設計，而利用於同時加熱或冷卻兩種以上的高黏滯液。

經濟

在相同的操作條件下，高表面積式熱交換器比其他熱交換器經濟，因為它的製造成本較低。

質量輕

在相同的操作條件下，組合型板式熱交換器因為使用的材料少，在機組內的質量也較少，所以比其他熱交換器的質量輕。

可擴充

板式熱交換器

的又一個好處

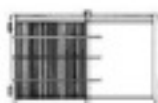
是能夠適應熱

傳遞需求的變化，只需鬆開

螺栓，藉由增

加或減少板片，就可以改變其熱傳效率，

以節省多餘的熱能。



適用高黏稠度的液體

由於板式熱交換器的性能可以在低流速時製造湍流，所以有利於高黏稠度液體的應用。

排除逆流互滲

板式熱交換器板片間的墊圈在組裝時必須保持在一大氣壓，可避免，熱劑的洩露在壓力恢復時，藉由「爆裂」帶出而造成逆流互滲的狀況。



Multiple Duties With a Single Unit

It is possible to heat or cool two or more fluids within the same unit by simply installing inter-mediate divider sections between the heat transfer plates.

Lower Cost

Plate heat exchangers are generally more economical than other types of equivalent-duty heat exchangers due to the higher thermal efficiency and lower manufacturing costs of plate heat exchangers.

Lightweight

The plate heat exchanger is lighter in total weight than other types of heat exchangers because of reduced liquid volume and less surface area for a given application.

Expandable

The expandable feature of the plate heat exchanger protects your investment. If your heat transfer requirements change, your plate heat exchanger will not become obsolete. Instead, you can adjust the unit's thermal performance by releasing the compression bolts, rolling back the end frame, and adding or removing heat transfer plates.

High Viscosity Applications

Because the plate heat exchanger induces turbulence at low fluid velocities, it has practical application for high viscosity fluids.

Cross Contamination Eliminated

In the plate heat exchanger, each medium is individually gasketed. The space between gaskets is vented to atmosphere, eliminating the possibility of any cross contamination of fluids. This feature makes the plate heat exchanger especially ideal for applications where product contamination cannot be tolerated.

板式熱交換器結構特性 Plate Heat Exchanger Construction

多樣的板片選擇

高力提供在板式熱交換器上有更多樣化的選擇。板式熱交換器的單片板片熱傳表面積廣從僅小 1/2 至最大 27 平方英尺 (0.04-2.8 平方公尺)。主要尺寸的選擇有組合型式和變化功能型式，在不同的加熱或冷卻需求均有最佳的品質。

高流量率

板式熱交換器的最大流量可達到 16,000 gpm (加侖/分)，可省去在大流量需求時，所可能發生的安裝作業和費用。

框架的組裝

高力的框架結合專業的組裝與精確的尺寸規範設計，以確保板片的密合，避免洩漏與故障的發生。

Most Extensive Selection

Kaoli offers an extensive selection of plate heat exchangers. The single plate heat transfer surface area is available in sizes from less than 1/2 to more than 27 square feet (0.05-2.8 square meters). This broad selection of sizes, combined with multiple embossed patterns and varying flow capacities, guarantees the best technical solution to satisfy heating or cooling requirements.

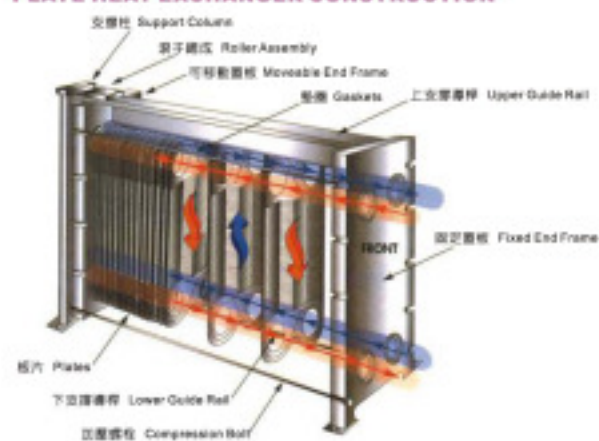
High Flow Rates

Flows up to 16,000 gpm (60,000 lpm) are possible with the largest plate heat exchanger. This high flow capacity generally eliminates the need for multiple units in large flow applications, greatly reducing installation costs.

Frame Assembly

The frame assembly is a heavy-duty construction, built to very strict tolerances. This ensures optimum plate pack compression and leak prevention.

PLATE HEAT EXCHANGER CONSTRUCTION



更多的熱傳面積

一個組合式熱交換器的單機最大可達到 2,323 平方呎的熱傳面積。表面面積具高效率傳熱，提供巨大熱傳能力。



熱傳導板片

高力組合型板式熱交換器皆採用經過精密工程設計的優質板片。它的標準特性包括高熱效率、平均流體分布、最小的阻塞、方便清洗作業以及適用於各種不同的壓力。

墊圈

組合式熱交換器所使用的墊圈必須經過連續不斷的化學性質並符合板片之質。確保流體不會滲漏或反應。同時嵌入式之墊圈使安裝與拆卸簡便。

接頭

除了最小型的板式熱交換器外，內新式的接頭即可選擇於所有的標準機型。且此型式的接頭可保護交換器板片不受液體機械或腐蝕。此外各種尺寸的外空殼與接管、法蘭接頭，都可供客戶需求選用。



護罩

堅固的護罩是每一個熱交換器必須有的基本配備，並且必須通過 CGHA 的認證。它的作用是在保護板片與墊圈的清潔，並給予機組一個獨特的外觀。

檢驗與測試

每一個出廠的組合式熱交換器機組必須經過嚴格的品質測試。在設計壓力即額定標準下，每一條流體迴路必須先經過單獨的測試，再同時做壓力測試。不得有滲漏的現象，所有通過檢測的機組才可獲得美國機械工程師協會 (ASME) 註冊認證的標記。

More Square Feet of Heat Transfer Surface

A single unit can have up to 23,000 square feet (2,323 square meters) of heat transfer surface. This extensive surface area, combined with high thermal efficiency, offers potential for tremendous heat transfer capacity.

Heat Transfer Plate

The plate heat exchanger is a precision-engineered, high-quality plate. Its performance criteria include high thermal efficiency, uniform fluid distribution, minimal fouling, clean operation, and suitability for full differential pressure.

Gaskets

Gaskets are designed to positively locate in gasket grooves. Also, gaskets are fabricated of carefully selected compositions to ensure trouble-free performance. The snap-in Performance (available on most models) is useful for easy gasket removal and replacement.

Connections

The studded port is the standard construction on all but the smallest unit. This design provides absolute protection for heat transfer plates under all pipe loading conditions. In addition, all studded ports can be fully lined to protect against erosion of these materials and corrosion of heat transfer plates. Lap-joint, weld-neck, and ferrule connections are available.

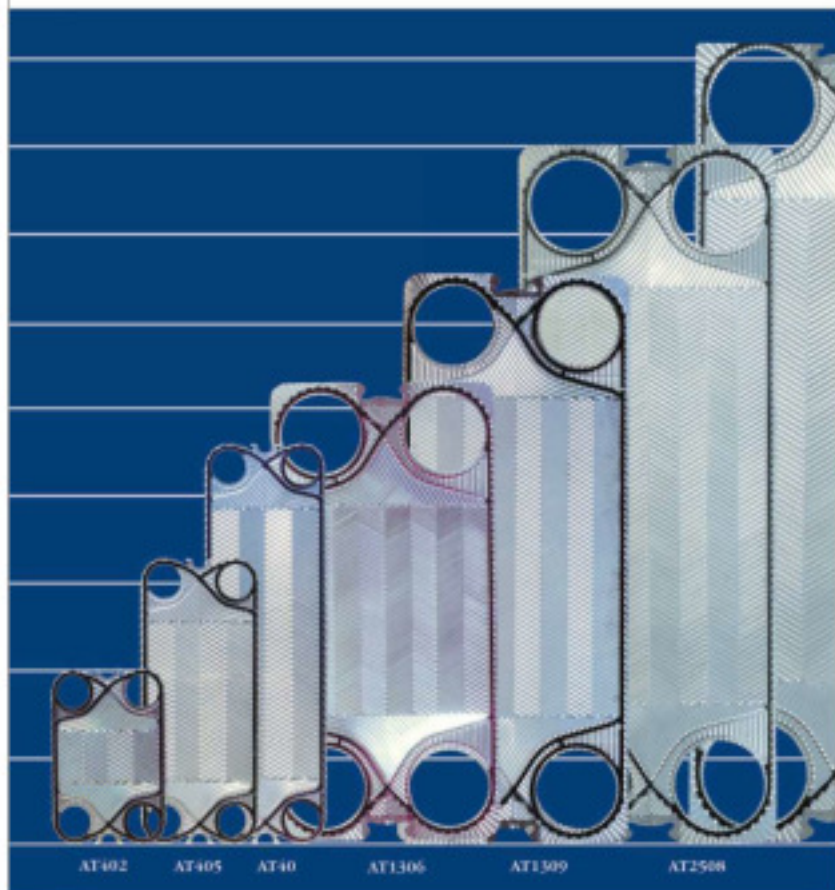
Shrouds

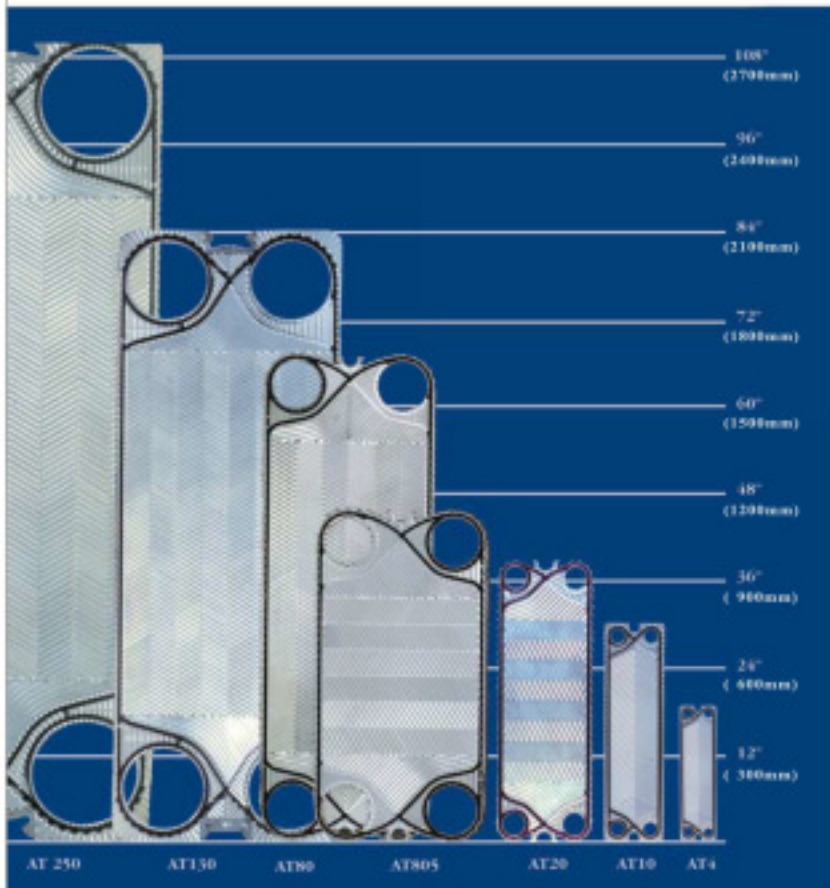
Durable shrouds are standard on all units and are OSHA approved. These shrouds protect plates and gaskets and help to maintain a clean, distinctive appearance for the life of the heat exchanger.

Inspection and Testing

The unit is subjected to rigorous quality assurance inspections. For example, to ensure all units are leak tight under all possible operating conditions, each circuit is independently tested at full design pressure with the other circuit open to atmosphere. Then, all circuits are tested simultaneously at full test pressure. ASME registration is available on all of our heat exchangers.

多樣的板片選擇
Large Selection of Plates Available

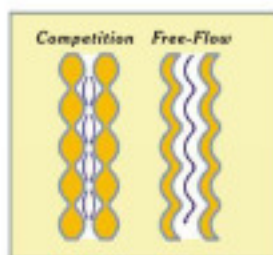




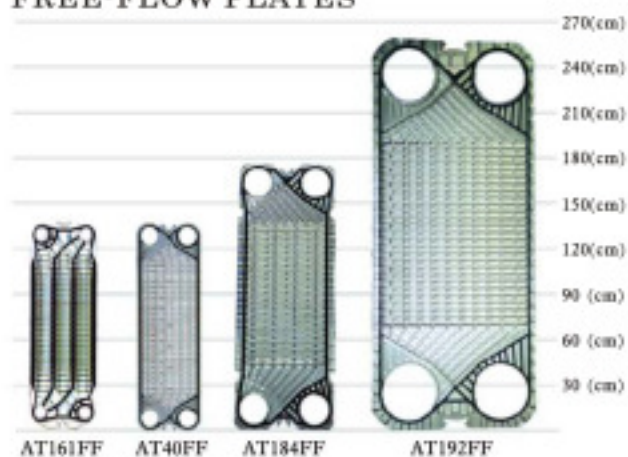
專有的自由流設計 Exclusive Free-Flow Design

其他的競爭對手雖然也有較大流道的板換設計，但其內部流道形式還是採用圓形。而我們特有的自由流設計，則可處理含有較大顆粒的液體而無須經常清理維修。

Competitive plate heat exchanger designs claim wide-gap advantages, but pinch points in their design can block flow and create slurry buildup. The Free-Flow's channels handle bigger particles and require less maintenance because they are a constant width.



FREE-FLOW PLATES



Specifications

PLATE HEAT EXCHANGER				
MODEL	HEIGHT (mm)	WIDTH (mm)	TYPICAL LENGTH (mm)	STANDARD CONNECTION SIZE (in.)
AT4	950	188	305-521	1 (in.)
AT10	916	279	388-1263	2 (in.)
AT20	1348	441	508-4048	3 (in.)
AT40S	1348	533	821-4061	4 (in.)
AT40	1714	533	880-4061	4 (in.)
AT60S	1583	749	879-4080	5 (in.)
AT60	2182	749	879-4080	6 (in.)
AT130S	2181	941	1288-4489	10 (in.)
AT130R	2527	941	1288-4489	10 (in.)
AT130	2721	941	1288-4489	10 (in.)
AT188	3228	1372	1680-4186	14 (in.)
AT250S	3048	1445	1651-6223	18 (in.)
A4250	3454	1445	1651-6223	18 (in.)
AT40FF	1784	686	880-4061	4 (in.)
AT184FF	2182	749	879-4080	5 (in.)
AT130	2654	686	881-4712	6 (in.)
ATX7S	1921	648	881-4712	6 (in.)
ATX180	2882	876	881-4712	10 (in.)

Based on selection: Design pressure up to 350 psig (24.8kg/cm²) (full differential pressure rating).
Design temperature up to 419 °F (219 °C).
ASME code standard available.

FREE-FLOW CONNECTIONS AND PRESSURES		
MODEL	STAGGED PORT SIZE* (in.)	OPERATING PRESSURE†
AT181FF	3	up to 88 psig (6.9 bar)(8kg/cm ²)
AT40FF	4	up to 150 psig (11.3 bar)(10.5kg/cm ²)
AT184FF	5	up to 88 psig (6.9 bar)(8kg/cm ²)
AT192FF	12	up to 88 psig (6.9 bar)(8kg/cm ²)

* Standard staggered port type connections provide maximum cost effectiveness and are available from stock.
Lap joint and weld neck flanged connections are available at additional cost with longer delivery.

† Temperatures up to 380 °F (148.90 °C) are available on all models.

MATERIALS OF CONSTRUCTION	
PLATES	GASKETS
T304 stainless steel	Nitrile (NBR)
T316 stainless steel	Ethylene Propylene Rubber (EPDM)
Titanium	Silicone
Avesta SMO 254	Viton
Hastelloy C-276	Butyl (Resin Cured)
Nickel	Hypalon
Incoloy	

半焊型板式熱交換器 Laser Semi-Welded Module

背景

在過去，當需要應用板金型熱交換器時，解決方案通常是採用應用範圍不穩定性流體的應用，熱體的應用範圍一直是板金型熱交換器在應用上的一個弱項。為了滿足特殊、高力特種提出一套運用雷射焊接的板金型板片組。這套新系統打開了許多以前結合板金型熱交換器所無法應用的市場，並且在確保與安全上達到最高的境界。

工作原理

雷射雷射焊接的技術，將板片或片焊接成密封不透漏的板片組，高不穩定性流體（危險流體）便在這種內板片之中流動，在整個板式熱交換器中，每一組危險流體流動的樣態都與其他的兩相出口處的高壓抗腐蝕墊圈。

工作流體同樣在流體會在組合的板片中流動，而每個板片因為特殊的材質而有許多防護，墊圈也會因應而有所不同，在搭配上有助密封。或是嵌入式密封，在出入口有“雙層墊”和“雙墊圈”的設計，以形成互通的密封，因此，所有的流體都會達到密封的效果，您可以瞭解的密封效果且修正。

應用雷射焊接的板片組，一樣可以達到板金型熱交換器的效率彈性的特點，應客戶的要求，熱交換器可以增加到減少焊接板片組，達到實際上的雙倍，雷射焊接板片組的應用溫度範圍為攝氏 -43 度到 173 度，壓力最高為 25bar。

優點

- 體積小、重量輕。
- 高密封彈性。
- 組合板片清洗容易。
- 安裝簡單、費用低。
- 結構簡單。
- 高熱傳導數。
- 抗腐蝕。
- 不積垢。
- 彈性化容量擴展。

Background

In the past no satisfying solution was offered using gasketed plate heat exchangers for special process conditions or aggressive media. The limitation was always the gasket material. For this reason, the laser plate heat exchanger program was also made available in a laser welded configuration. Thus, a new field of application was opened for special process conditions, also taking into account environmental and safety requirements.

Working Principle

Two heat exchanger plates are welded together to a gas-tight module by means of laser technology. By doing this, a flow channel for the aggressive (or the gasket attacking media) is built, which is hermetically closed to the outside. Only two ring gaskets, made of high resistant material located in the port holes between two welded modules, are in contact with the aggressive media.

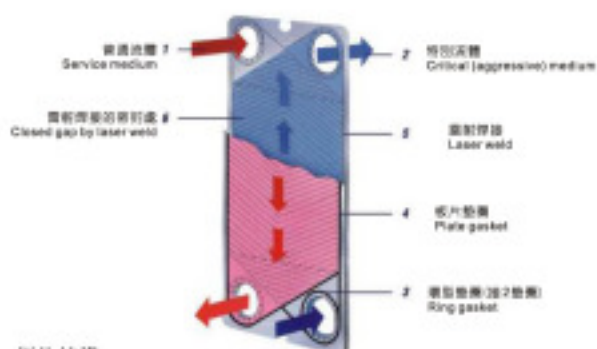
The other flow channel for the non-aggressive media is sealed by various elastomer gaskets, depending on the individual application. The gaskets are normally fixed without the need for glue but are also available in the glued-on-version. Interleakage between the two media is prevented by a double weld, and a double ring gasket in the port holes. If a leakage occurs for any reason, the leak will be external and easily detected.

In spite of the use of welded modules, the proven flexibility of plate heat exchangers is maintained. By adding or changing modules, the heat exchanger capacity can be adjusted to the individual requirements. The laser welded modules can be used for temperatures from -43°C + 173°C , and for pressures up to 25 bar.

Advantages

- Compact design, low weight.
- High flexibility.
- Gasketed heat transfer surface easy to clean.
- Quick and low cost installation.
- Low hold-up volume.
- Excellent heat transfer coefficient.
- High corrosion resistance.
- Minimum risk for leakages.
- Flexible capacity extension.

LASER SEMI-WELDED CONSTRUCTION



板片結構

Plate Structures

板片型式 PLATE TYPE	板片深度與厚度 CORRUGATION DEPTH, L_p (mm) PLATE THICKNESS, S (mm)		板紋角度 CORRUGATION ANGLE A	
	L_p (mm)	S (mm)	H	W
Power Line PL	2...3.5	0.5...0.8	30°	-
Standard Line SL	3.5...4	0.5...0.8	30°	60°

半焊型板片材質

Laser Semi-Welded Plate Material

標準材料 STANDARD MATERIALS	厚度 THICKNESS	特殊材料 SPECIAL MATERIALS	厚度 THICKNESS
1.4301 (AISI 304) 1.4404 (AISI 316L) 1.4871 (AISI 318Ti)	0.5 mm - 0.8 mm	1.4529 1.4529 (UNS N08904) 1.4541 (AISI 321) 1.4547 (AISI 304) 2.4068 Alloy 201 2.4082 Hastelloy C-22 2.4610 Hastelloy C-4 2.4619 Hastelloy C-276 2.4698 Alloy 825 2.7025 Titanium Gr. 1	0.5 mm - 0.8 mm

Laser Semi-Welded Plate Types




Plate type TL	95	150	400	250	500	690	850
Part hole (DN)	46	40	80	100	106	200	200
Length (mm)	721	981	1380	1014	1485	1495	2034
Width (mm)	244	244	369	437	437	585	585
Length / Width	2.95	4.02	3.75	2.32	3.42	2.55	3.47

半焊型 R22 / R134a / NH3 冷媒超低溫冷凍應用

Laser Semi-Welded in R22 / R134a / NH3 Refrigeration Application

R22/R134a	溫度範圍 TEMPERATURE RANGE	墊片材質 GASKET MATERIAL
蒸發器 Evaporator	-30°C 至 -20°C	CR-LT CR-NI / CR-HT
冷凝器 Condenser	< 130°C	CR-HT
加熱器 Desuperheater	< 130°C	CR-HT
Ammonia	溫度範圍 TEMPERATURE RANGE	墊片材質 GASKET MATERIAL
蒸發器 Evaporator	-40°C 至 -20°C	NBR/LT / CR-LT CR-NI / CR-HT
冷凝器 Condenser	150°C 至 150°C	CR-HT NBR
加熱器 Desuperheater	< 130°C 150°C 至 150°C	CR-HT NBR
油冷器 Oil Cooler	< 110°C 110°C 至 150°C	NBR NBR

高力完善的維修服務

合理的設計和高品質的產品可大幅度的降低高力經典型板式熱交換器的維修保養工作量。

根據使用狀況的不同，密封墊圈會經歷一個磨損老化的過程，這是正常的現象。

如果沒有必要更換墊片，可以通過多次拆裝板片組的方式，使舊組合型板式熱交換器達到舊有的熱交換效率和密封性，但不可以放過少的時間，在一定的使用時間後，可以更換密封墊圈，以達到最佳的密封性，確保熱交換效果。

一般的維修保養工作可由經銷商制冰人員進行，如深層次，請與高力商業部門聯絡，我們將給予您專業的建議與支持。

服務內容：

清洗：沖洗/現場機械清洗/化學方法清洗（漂洗池）、高力公司可為客戶提供專業的清洗工具（包括清洗用化學劑），對舊密封墊片的新板片（板片經過動靜試驗）。

供應操作：整台設備完整檢驗、持續性能改進、根據需求增加板片組數/調整板片結構。



板式熱交換器設計所需參數

注意-

為了能夠選擇出最符合過程熱交換器，請從供應商提供給的設計參數，如果您提供的數據不滿足上述條件（流體大壓力損失、流體次的進入溫度保證可利於過程等），我們能夠協助您選擇最佳性價比的產品。

如有圖例示，請提供出熱介質進口溫度、流量以及冷介質流量等七項數據的五項（具體介質至少二項），並請提供出設計壓力損失、設計材料力圖，請給予計算過程特性。



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http://www.kasb.com.cn

板式熱交換器設計問卷

公司：_____ 日期：_____

承辦人：_____ 姓名：_____

電話：_____ 數量：_____

傳真：_____ E-mail：_____

請在選擇時標註 01-4520031，如有專人為您處理。

	熱側		冷側	
	IN	OUT	IN	OUT
流體				
流量 Kcal/hr				
流量 Kg/hr				
溫度 °C				
密度 Kg/m ³				
比熱 Kcal/kg°C				
熱傳導係數 kcal/m ² °C/hr				
粘度 Cp				
最大允許壓力 Bar				
設計壓力 Bar				
設計溫度 °C				
是否有含氯離子(氯、氯離子)等?	溫度: 是 <input type="checkbox"/> 否 <input type="checkbox"/>	溫度: 是 <input type="checkbox"/> 否 <input type="checkbox"/>	溫度: 是 <input type="checkbox"/> 否 <input type="checkbox"/>	溫度: 是 <input type="checkbox"/> 否 <input type="checkbox"/>
流體中是否有其他特殊化學?	是 <input type="checkbox"/> 否 <input type="checkbox"/>	是 <input type="checkbox"/> 否 <input type="checkbox"/>	是 <input type="checkbox"/> 否 <input type="checkbox"/>	是 <input type="checkbox"/> 否 <input type="checkbox"/>
指定材料材質	板片: _____		墊圈: _____	

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2011.08/100

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