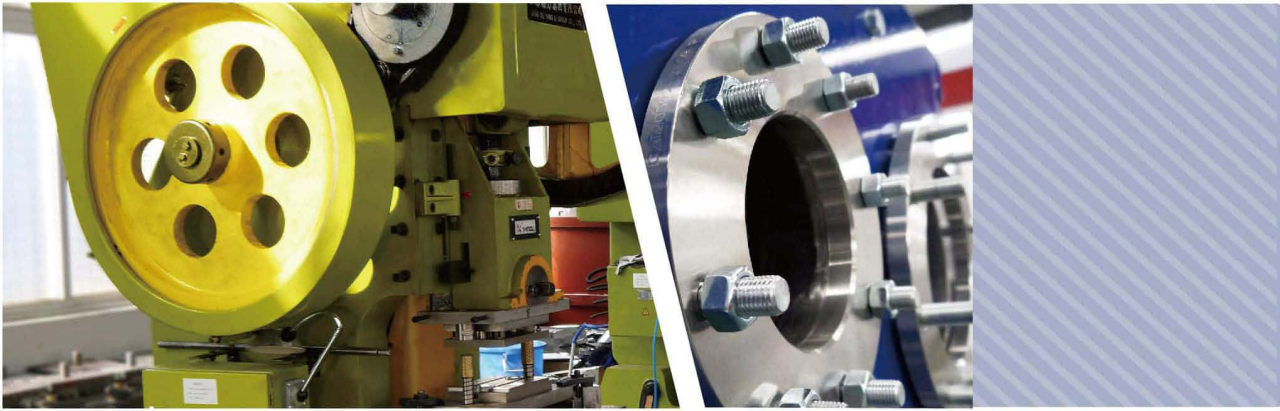




# Plate Heat Exchanger



Jiangsu Yuanzhuo Equipment Manufacturing Co.,LTD

# ABOUT US

Jiangsu Yuanzhuo Equipment Manufacturing Co.,LTD was established in Jiangyin City (China) 2013. The company is also simply known as Alfa Members of Alfa are the specialists who have gained rich experience in the heat transfer sector for many years and are holding the most advanced technology for the plate heat exchanger: research, design and production.



## LASER SEMI-WELDED PLATE HEAT EXCHANGERS

### Semi-welded PHE features



- Laser welds that take the pressure

Created with computer-guided precision, the laser-welded seam hermetically seals the flow field. In contrast to normally sealed units, the cassettes remain immune to aggressive media. Each cassette is subject to a strict quality control procedure that ensures the strictest safety standards.

- The technology of separate paths

Plate heat exchanger works on the principle of 100% separate flow paths. The critical medium moves through a hermetically welded flow path, transferring heat to the less critical medium in its own, conventional sealed path. Without this strict separation, many industrial applications simply would not be possible.

- **Glue-free seals that last longer**

Neoprene sealing rings with a high resistance to chemical attack are fitted to the joints of the last-welded cassettes. The Glue-free system 'hides' these seals in a special groove, minimising direct contact with the medium and extending their life. The sealing rings also provide access for cleaning, and improve stability against thermal tension.

- **The advanced flow principle**

This innovative flow path geometry generates turbulence in the media flowing through the gaps. This results in very high efficient heat transfer with minimum pressure drop. Excellent heat transfer is possible—even with moderate flow rates. Plate types with different heat transfer values are available for different applications.



## Type table



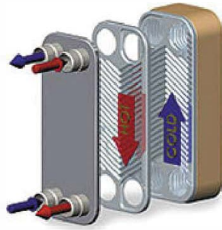
		B60HW	B100BW	B150BW
Length	mm	940	1180	1650
Width	mm	340	440	620
Connection		DN50	DN100	DN150
Max. volume flow	M³/h	40	155	340
Max. pressure	bar		40	
Plate material		SUS304, SUS316L, SMO254, Titanium, C-276		
Main body gasket		Laser welded, EPDM, NBR, Viton		
Port ring gasket		Neoprene ( CR ) , LT-NBR, HNBR, PTFE		
Frame		extended: 16, 25, 40bar		

# BRAZED PLATE HEAT EXCHANGER

Brazed plate heat exchanger is formed by stainless steel and purity higher than 99% of copper solder integrally at the high temperature in the vacuum brazing furnace.

Technological advantage: compact structure, easy installation, light weight, high bearing temperature, high bearing pressure

>Sketch Map



>Flue heat exchanger



>Unilateral flow



>Diagonal flow

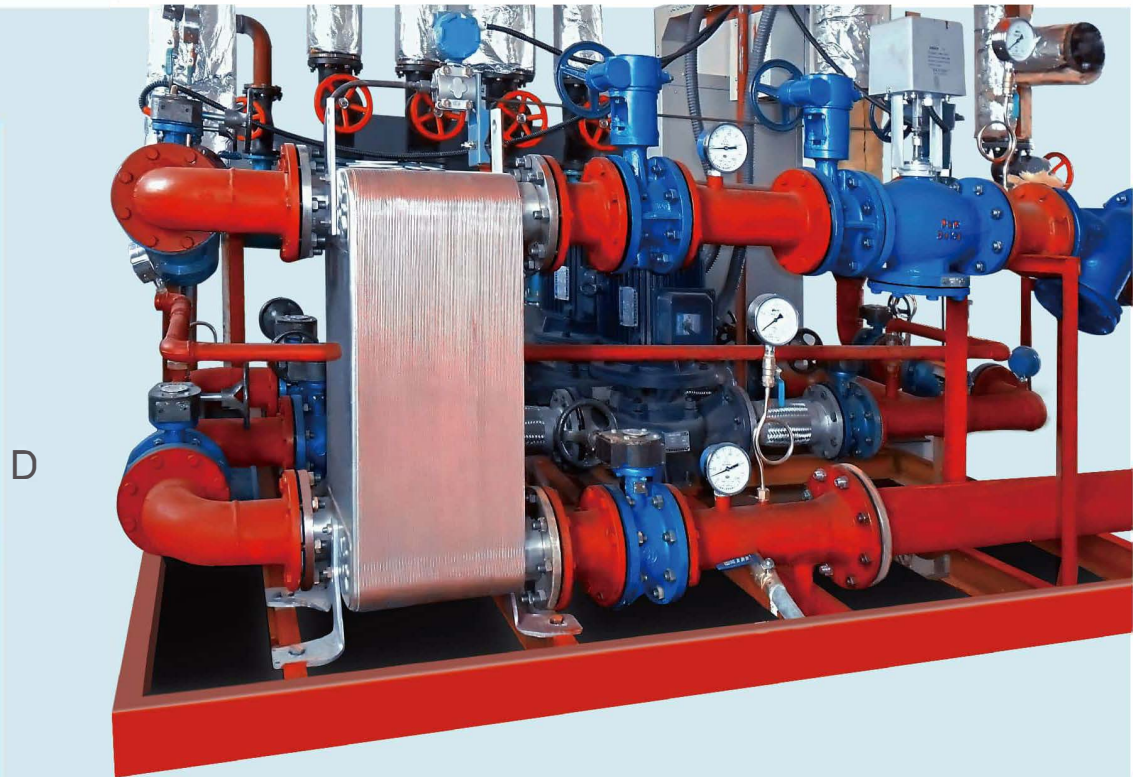


### Nickel BHE

Plate material: AISI316L  
 Connection material: AISI304  
 Brazing material: Nicker  
 Max design temperature: 225°C  
 Min design temperature: -196°C  
 Max design pressure: 15barg

### Copper BHE

Plate material: AISI316L/304  
 Connection material: AISI304  
 Brazing material: Copper  
 Max design temperature: 225°C  
 Min design temperature: -196°C  
 Max design pressure: 45barg

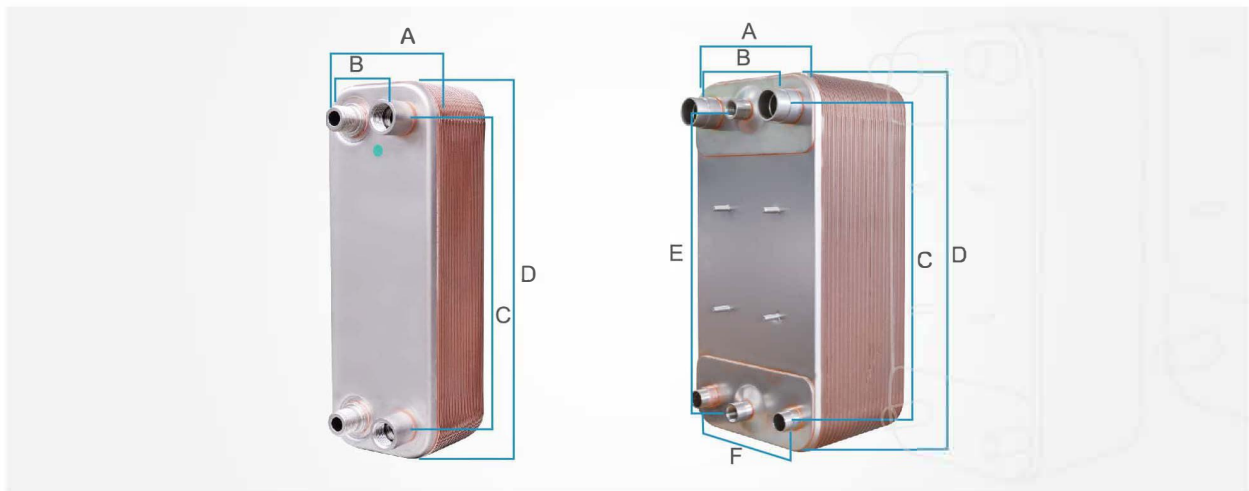


Model	A (mm)	B (mm)	C (mm)	D (mm)	thickness (mm)	weight (mm)	Stagnant fluid volume (L)	Design pressure(Mpa)	Max fluid(L)
ZL14	76	42	172	206	9+2.3N	0.6+0.056N	0.010(N-2)	1/3/4.5	8m3/h
ZL18	95	50	165	210	9+3.1N	0.3+0.06N	0.010(N-2)	1	8m3/h
ZL20B	78	42	282	318	9+2.3N	0.9+0.088N	0.018(N-2)	3/4.5	8m3/h
ZL26	111	50	250	310	10+2.36N	1.3+0.12N	0.025(N-2)	3/4.5	18m3/h
ZL30	124	70	250	304	13+2.4N	2.2+0.146N	0.032(N-2)	3/4.5	18m3/h

Model	A (mm)	B (mm)	C (mm)	D (mm)	thickness (mm)	weight (mm)	Stagnant fluid volume (L)	Design pressure(Mpa)	Max fluid(L)
ZL52A	111	50	466	525	10+2.35N	1.9+0.215N	0.047(N-2)	3/4.5	18m3/h
ZL52B	111	50	466	525	10+2.35N	1.9+0.213N	0.047(N-2)	3/4.5	18m3/h
ZL62B	119	63	470	526	10+2.35N	2.4+0.223N	0.051(N-2)	3/4.5	18m3/h
ZL95A	191	92	519	616	11+2.76N	6+0.415N	0.125(N-2)	3/4.5	42m3/h
ZL95B	191	92	519	616	11+2.76N	6+0.413N	0.125(N-2)	3/4.5	42m3/h
ZL120A	246	174	456	528	13+2.36N	7+0.472N	0.98(N-2)	3/4.5	42m3/h
ZL120B	246	174	456	528	13+2.36N	7+0.472N	0.98 (N-2)	3/4.5	42m3/h
ZL200A	321	188	603	738	9+1.58N	13+0.74N	0.22(N-2)	1.5/2.1/3	100m3/h
ZL200B	321	188	603	738	13+2.7N	13+0.73N	0.22(N-2)	1.5/2.1/3	100m3/h

## High efficiency heat exchanger

Our ZL20, ZL62 series, ZL130, ZL250 are specifically developed for R410A refrigerant, which is ideal alternative of R22. R410A efficient heat exchanger is not only resistant to high pressure, but also with less refrigerant to achieve the same cooling effect. ZL20 and ZL62 are unilateral flow. ZL130 and ZL250 are diagonal flow. They can work from the power range of 1KW to 250KW.

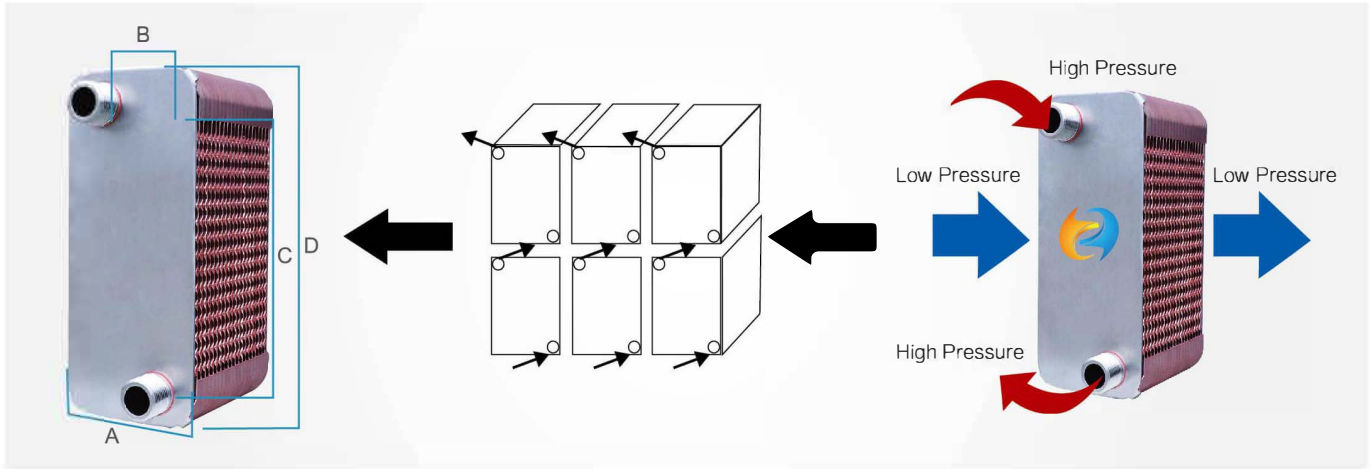


Model	A(mm)	B(mm)	C(mm)	D(mm)	Thickness(mm)	Weight(mm)	Stagnant fluid volume (L)	Design pressure (Mpa)	Max fluid(L)
ZL20A	86	40	269	315	9+1.58N	1+0.084N	0.018(N-2)	3/4.5	8m3/h
ZL62A	119	63	470	526	10+2.35N	2.4+0.225N	0.051(N-2)	3/4.5	18m3/h

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Thickness (mm)	Weight (mm)	Stagnant fluid volume (L)	Design pressure(Mpa)	Max fluid(L)
ZL130	247	161	495	414	369	172	10+2.15N	4+0.424N	0.080(N-2)	3/4.5	42m3/h
ZL250	322	205.2	739	631.7	568	224.4	13+2.7N	16+0.711N	0.22(N-2)	3/4.5	100m3/h

# Aircross

Aircross is a cross flow plate heat exchanger vacuum with pure copper or nickel based material. The top and bottom plates including side A connections are brazed to the plate package. This model can be asymmetrical for 1) applications with a smaller flow rate at high pressure on the one side ( Side A), and a larger flow rate at with lower pressure on the other ( Side B): different sizes for the connections In and Out, different channel lengths, different channel areas and volumes; 2) applications with a constant and defined gas flow on one side and medium with higher density on the other side. Normally Alfa AirCross is used with a liquid on side A and gas on side B.



Model	Thickness (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Weight (mm)	Stagnant fluid volume (L)	Exchanger area (M2)	Design pressure (Mpa)	Test pressure (Mpa)
ZY35	11+3.1N	123	52	281	227	1.64+0.124N	0.032(N-2)	0.030(N-2)	3	4.5

# GASKETED PLATE HEAT EXCHANGER

## Product Material

Frame plate: Carbon steel/Stainless

Nozzles: Carbon steel/Stainless

Metal lined: Stainless steel, Titanium

Gasket: NBR ( Nitrile ), EPDM, F26, FTP etc.

Plate: Stainless steel 316L/304/Titanium/ti-Pd SMO254/Ni/HASTELLOY ( C276, C22)

Gasket fastening solutions: Clip-on gasket/Tape-on gasket

Detachable decomposition map

Food grade multi segment

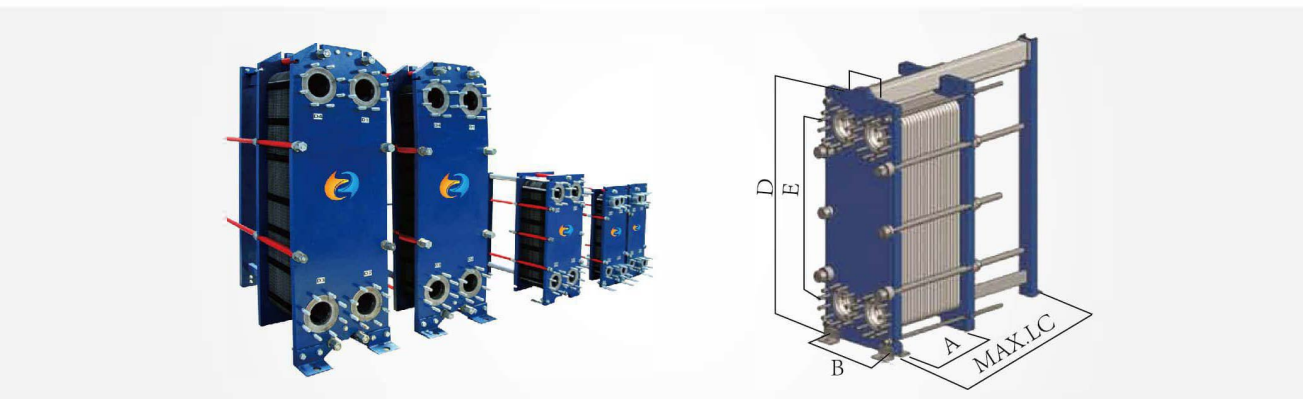
Detachable model diagram



Plate material	suitable fluid
Stainless steel (SUS304,316L etc.)	pure water, river water, edible salt water, mineral oil
Ti,tι-pd	brine, sea water, salt water,
SMO254	dilute sulphuric acid、 Salt water solution、 Inorganic aqueous solution
Ni	High temperature、 High concentration of caustic soda
HASTELLOY (C276,C22)	concentrated sulfuric acid、 hydrochloric acid、 phosphoric acid

Main body gasket	operating temperature ( °C )	suitable fluid
NBR	-15~+135	water、 sea water、 mineral salt、 brine
EPDM	-25~+180	Hot water、 vapour、 acid、 base
F26	-25~+230	acid、 base、 fluid
FTP	0~+160	Concentrated acid、 base、 high temperature oil、 vapour

Plate type	application
Low runner (B)	Temperature drop of heat-transfer medium too large、 temperature difference of logarithm too small
High runner (H)	Request of viscosity, fibroid, pressure drop too small



Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)			Exchange area (m <sup>2</sup> )	MAX NO. Plates	Max volume flow (m <sup>3</sup> /h)	Design Pressure
B30B	N(2.5+X)	180	60	480	357	500	32	0.032	95	18	1.6
S60H	N(4+X)	400	203	704	380	1200	65	0.086	147	50	1.6
B60B/B60H	N(2.0+X)/N(3.0+X)	320	140	920	640	1200	50	0.15	250/203	36	1.6
K60B/K60H	N(2.0+X)/N(3.0+X)	320	140	950	689	1200	50	0.2	250/203	36	1.6
B100B/B100H	N(2.55+X)/N(3.95+X)	470	225	1069	719	1600	100	0.25	278/180	140	1.0/1.6/2.5
K100B/K100H	N(2.55+X)/N(3.95+X)	470	225	1099	763	1600	100	0.3	278/180	140	1.0/1.6/2.5
S200H	N(4+X)	800	363	1405	698	3000	200	0.3	400	600	1.6
L100B	N(2+X)	480	225	1888	1338	3000	100	0.5	400	140	1.0
K150H	N(3.95+X)	610	298	1616	1095	3000	150	0.5	600	360	1.0/1.6/2.5
B150B/B150H	N(2.5+x)/N(3.95+X)	610	298	1815	1294	3000	150	0.65	600	360	1.0/1.6/2.5
B200H	N(4+X)	780	353	2260	1478	3000	200	0.85	400	600	1.0/1.6
B250B	N(2.5+X)	920	439	2895	1939	3000	250	1.5	500	750	1.0/1.6/2.5
B350B	N(3.3+X)	1150	596	2882	1842	4800	350	1.85	700	997	1.0/1.6

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