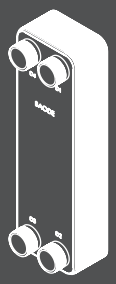
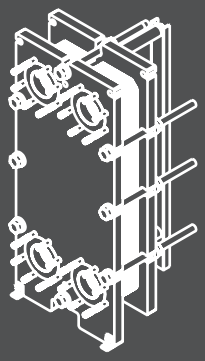
BAODE

YOUR PARTNER IN HEAT EXCHANGER SOLUTIONS SINCE 2004

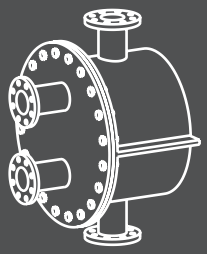


BPHE

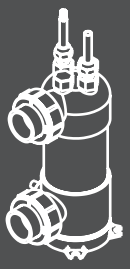


GPHE

S&T HEX



S&P HEX



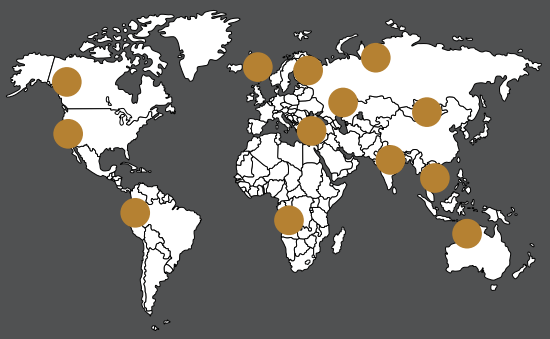
PVX HEX

HVAC | Refrigeration | Oil & Gas | Power | Data Center | Food & Beverage | Chemicals | Transportation | Marine | ... and more

YOUR GOALS DEFINE
OUR FOCUS

www.baode-hex.com

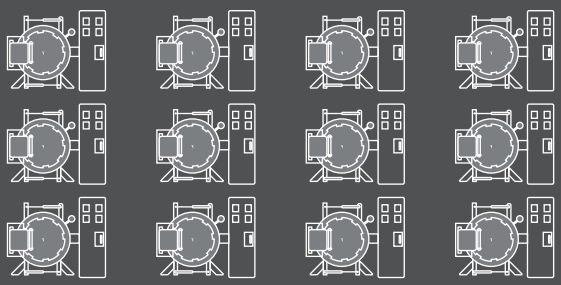
SALES WORLDWIDE



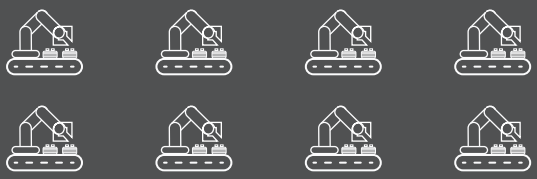
300 EMPLOYEES

500,000+ UNITS
ANNUAL PRODUCTION

12 VACUUM FURNACES



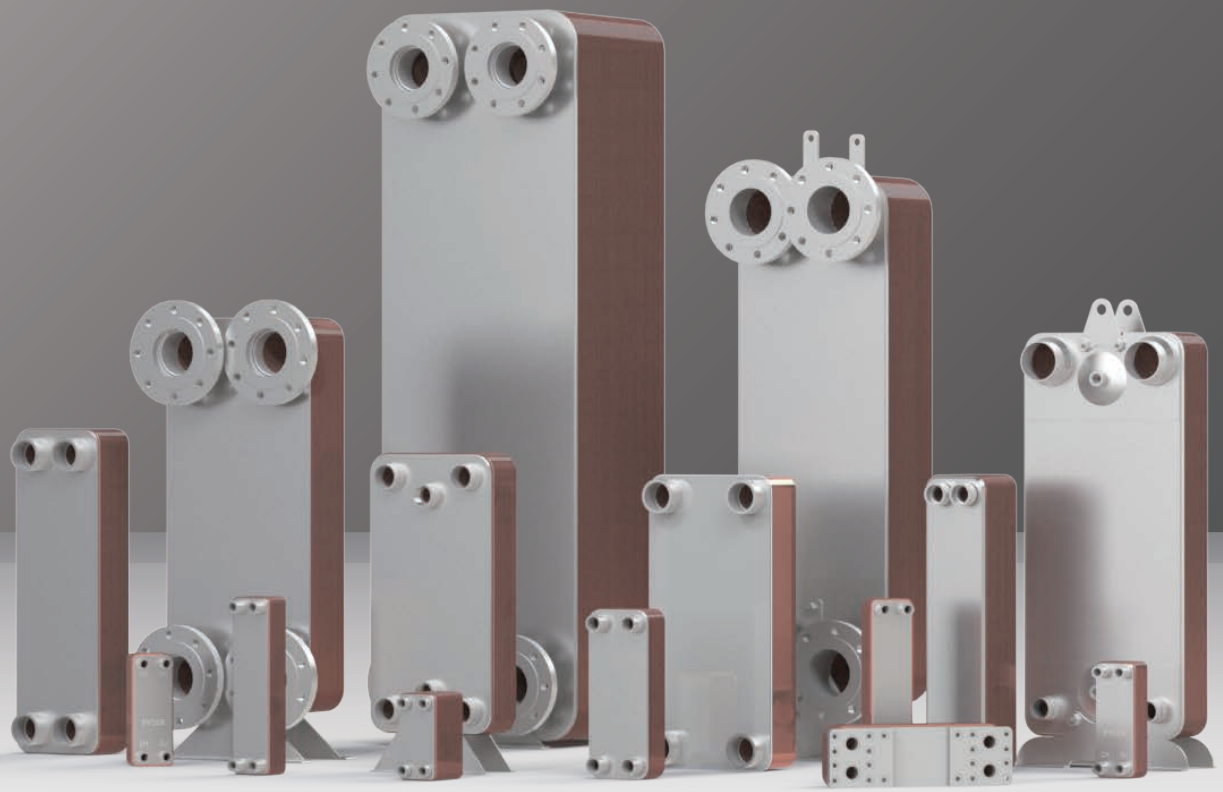
8 FULLY AUTOMATIVE LINES



BAODE HISTORY

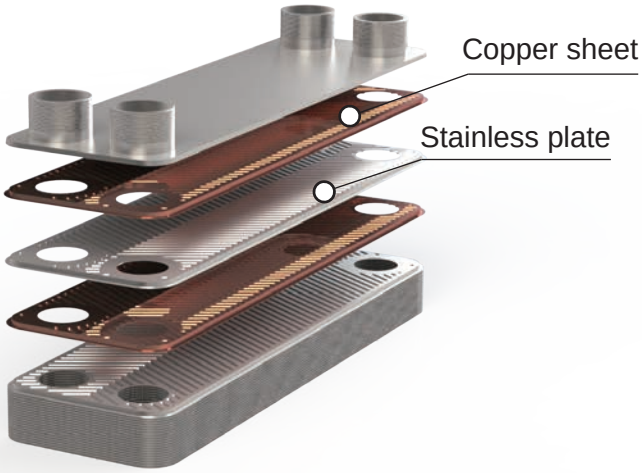
- 2022 Full Automative BPHE lines
- 2019 Mold CNC certer
- 2016 Listed on the NEEQ
- 2008 Performance LAB
- 2004 Founded

BRAZED PHE



Brazed Plate Heat Exchanger

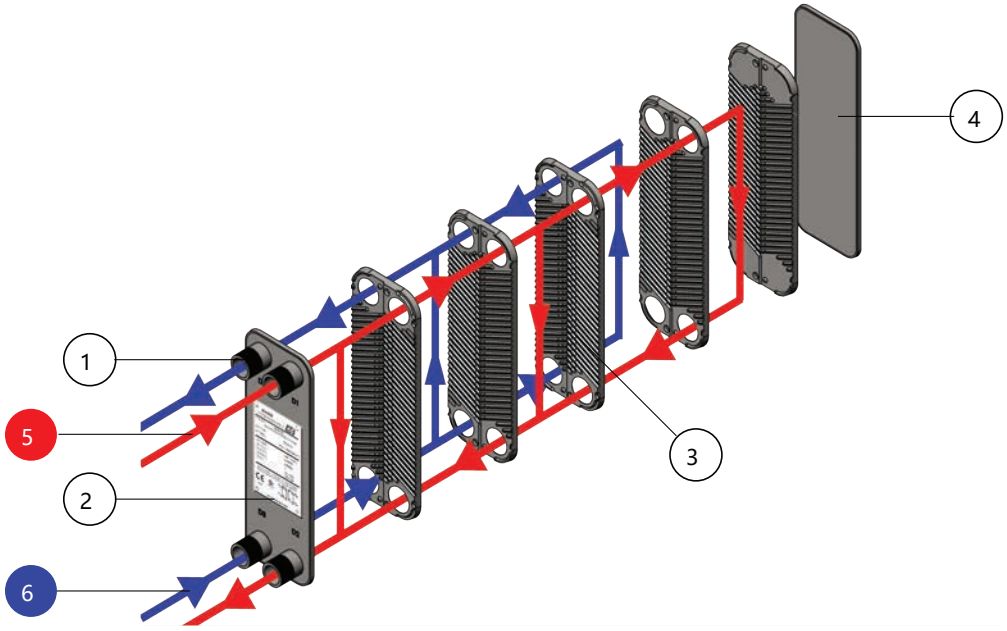
Brazed heat exchanger (BPHE) is a type of compact heat exchanger that consists of corrugated metal plates that are brazed together to form a single unit. The brazing process involves melting a filler material, tipically copper-based alloy (Stainless or Nickle are available) between the plates to create a strong and leak-proof joint.



Benefits
- Compact size & light weight
- Easy to install
- High compression resistance
- Robust construction
- High corrosion resistance
- High application diversity
- Efficient heat transfer

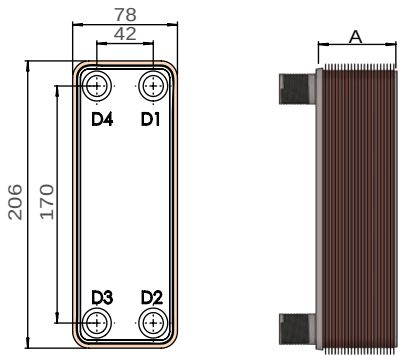
Applications:

Chemicals | Food & Beverage | Refrigeration | Marine | Oil & Gas | Data Center | Power | Transportation | HVAC



1. Connection 2. Front pressure plate 3. Channel plates 4. End pressure plate 5. Hot fluid 6. Cold fluid

BL14

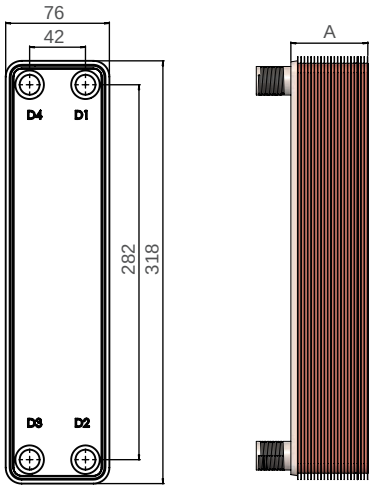


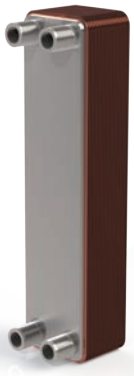
A measure (mm): 8.6+ 2.3×N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 3.6
Volume per channel (L): 0.027
Port Size (mm): 20
Plate Combination Options: D

FLOW DIRECTION

BRAZING

BL20



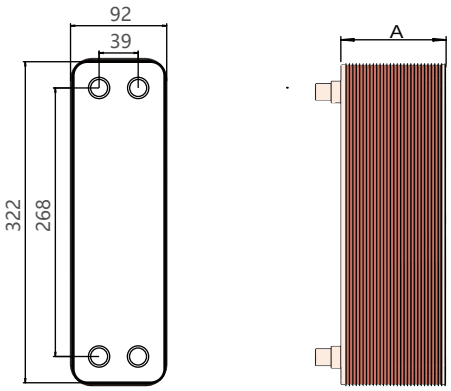


A measure (mm): 8+ 2.31×N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 4.6
Volume per channel (L): 0.039
Port Size (mm): 20
Plate Combination Options: D

FLOW DIRECTION

BRAZING

BL25



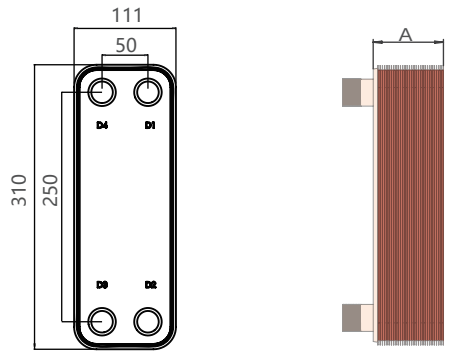
A measure (mm): 8+ 1.55N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 3.6
Volume per channel (L): 0.032
Port Size (mm): 25
Plate Combination Options: D

FLOW DIRECTION

BRAZING

DISTRIBUTOR

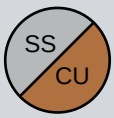
BL26



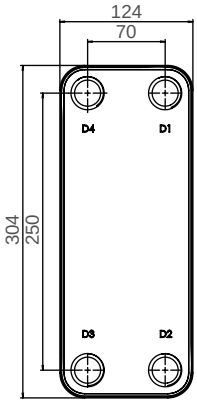
A measure (mm): 9+ 2.29×N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 14
Volume per channel (L): 0.05
Port Size (mm): 32
Plate Combination Options: D,H,X

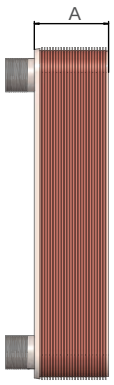
FLOW DIRECTION

BRAZING



BL30



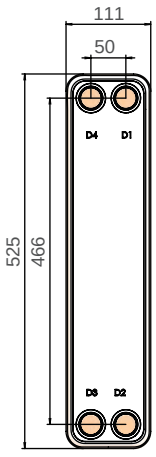


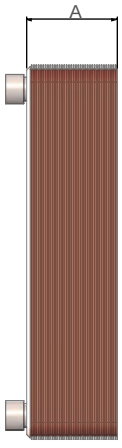
A measure (mm): 12+ 2.31×N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 14.2
Volume per channel (L): 0.069
Port Size (mm): 32
Plate Combination Options: D

FLOW DIRECTION

BRAZING

BL50 (C,D)



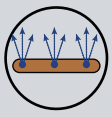


A measure (mm): 9.5+ 2.31×N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 14
Volume per channel (L): 0.097
Port Size (mm): 32
Plate Combination Options: D

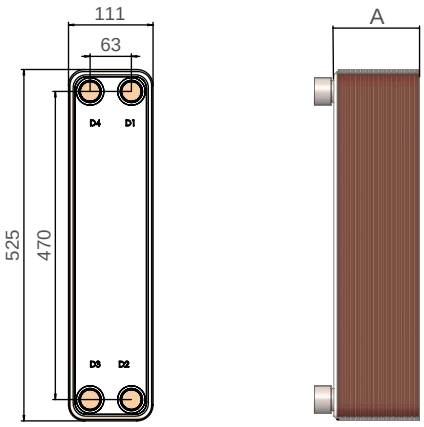
FLOW DIRECTION

BRAZING

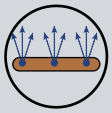
DISTRIBUTOR



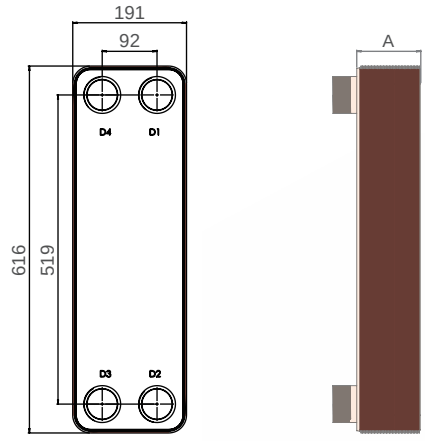
BL60



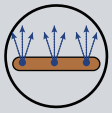
A measure (mm): 9.4+ 2.31×N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 14
Volume per channel (L): 0.11
Port Size (mm): 32
Plate Combination Options: D

FLOW DIRECTION	BRAZING	DISTRIBUTOR
		

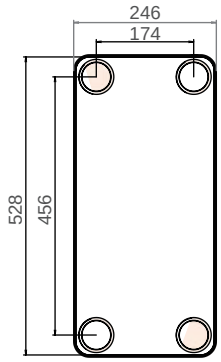
BL95 (A, B,C)



A measure (mm): BL95A=10.2+ 2.31×N; BL95B=11+2.81×N: BL95C=11+2.81×N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 34/ 60
Volume per channel (L): 0.2 / 0.25
Port Size (mm): 50/ 65
Plate Combination Options: D,H,X

FLOW DIRECTION	BRAZING	DISTRIBUTOR
		

BL120

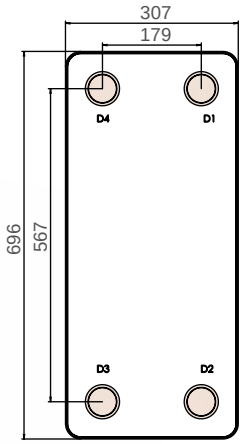


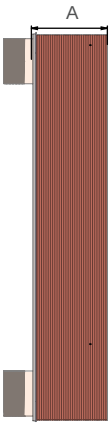
A measure (mm): 12.4+ 2.31×N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 34
Volume per channel (L): 0.24
Port Size (mm): 50
Plate Combination Options: D

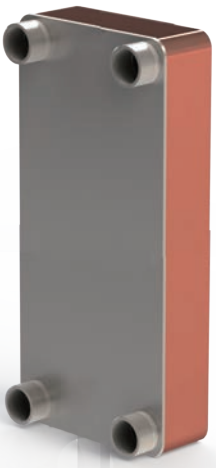
FLOW DIRECTION

BRAZING

BL190





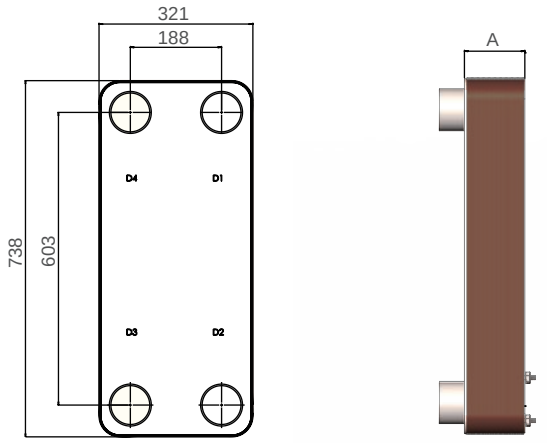


A measure (mm): 9+ 2.81×N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 90
Volume per channel (L): 0.49
Port Size (mm): 80
Plate Combination Options: D,H,X

FLOW DIRECTION

BRAZING

BL200

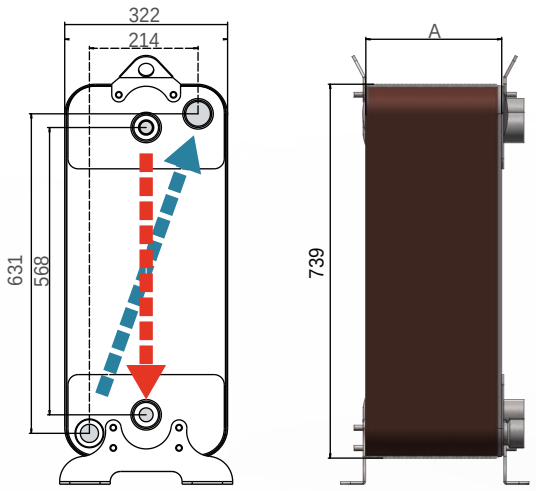


A measure (mm): 12+ 2.75×N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 140
Volume per channel (L): 0.54
Port Size (mm): 100
Plate Combination Options: D,X,H

FLOW DIRECTION

BRAZING

BL210E



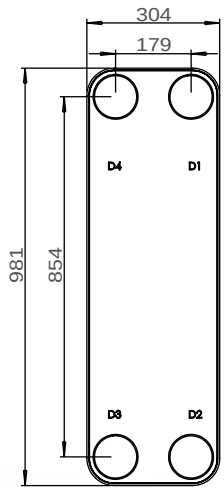
A measure (mm): 8.6+ 2.61×N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 90
Volume per channel (L): 0.5
Port Size (mm): 80
Plate Combination Options: D

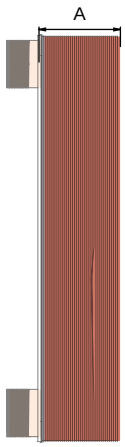
FLOW DIRECTION

BRAZING

DISTRIBUTOR

BL350





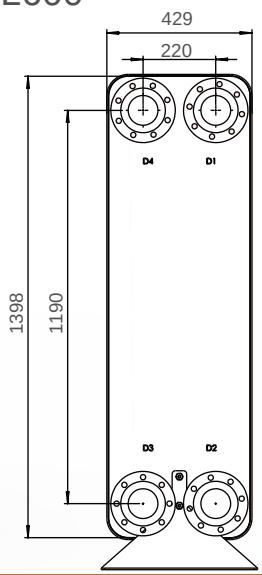
A measure (mm): 11.5+ 2.31×N
Max pressure (bar): 30
Max flowrate (m³/h): 140
Volume per channel (L): 0.55
Port Size (mm): 100
Plate Combination Options: D,X,H

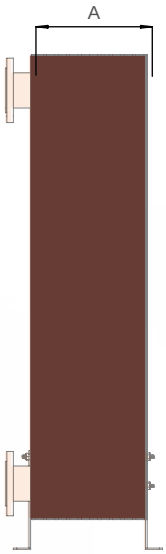
FLOW DIRECTION

BRAZING

CU

BL600





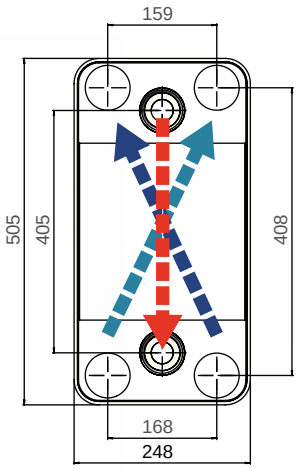
A measure (mm): 16.3+ 2.8×N
Max pressure (bar): 15 / 21
Max flowrate (m³/h): 220
Volume per channel (L): 1.4
Port Size (mm): 125
Plate Combination Options: D,X,H

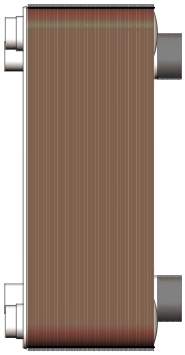
FLOW DIRECTION

BRAZING

CU

BL100

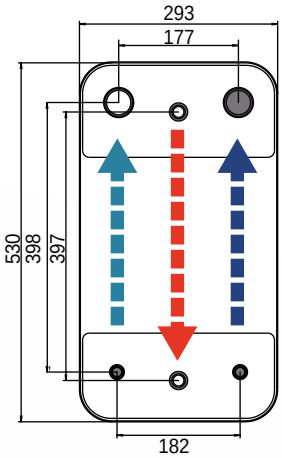


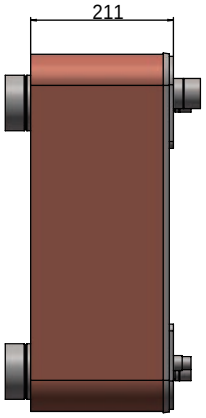


A measure (mm): 10+ 2.09
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 34
Volume per channel (L): 0.2
Port Size (mm): 50
Plate Combination Options: D

FLOW DIRECTION	*BRAZING*	*DISTRIBUTOR*
TRUE DUAL SYSTEM	CU	

BL130

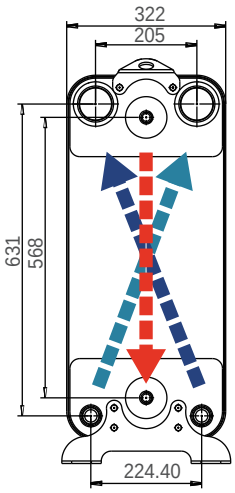


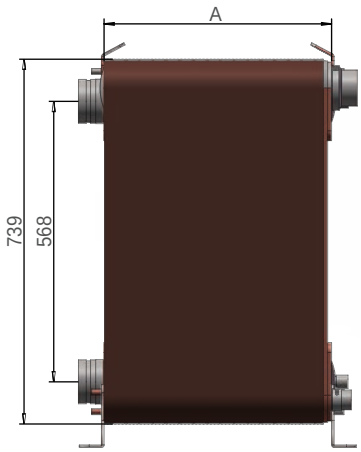


A measure (mm): 12.3+ 2.05×N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 60
Volume per channel (L): 0.27/ 0.24
Port Size (mm): 65
Plate Combination Options: D

FLOW DIRECTION	*BRAZING*	*DISTRIBUTOR*
TRUE DUAL SYSTEM	CU	

BL210



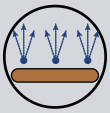


A measure (mm): 8+ 2.61×N
Max pressure (bar): 30 / 45
Max flowrate (m³/h): 90
Volume per channel (L): 0.5
Port Size (mm): 80
Plate Combination Options: D

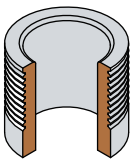
FLOW DIRECTION

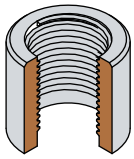
BRAZING

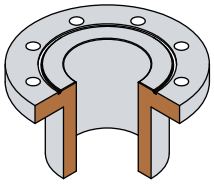
DISTRIBUTOR

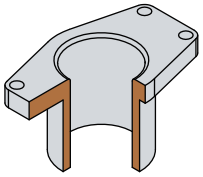


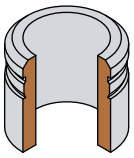
Connections Available:


Male thread

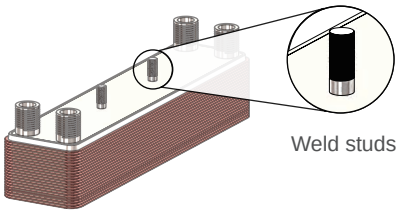

Female thread

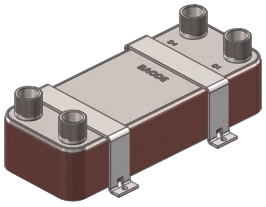

Flange


SAE flange


Solder

Mounting Accessories:


Weld studs


Mounting bracket


Support stand feet

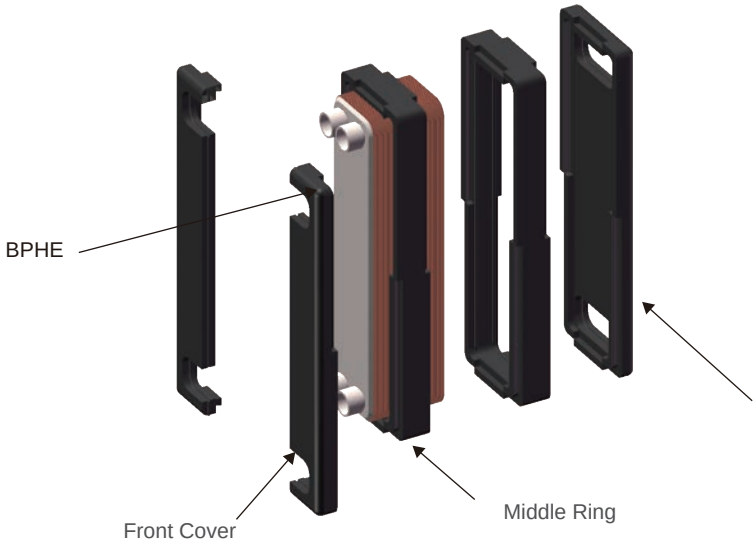
HEATING INSULATION

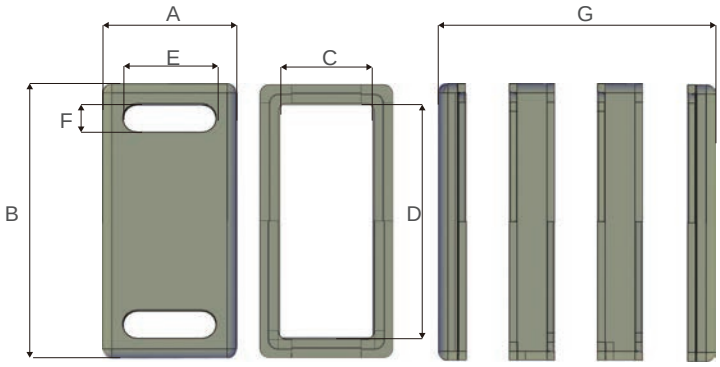
The heating insulation for brazed plate heat exchangers is easily assembled and dismantled. The heating insulation provides protection from the heatpack and keeps the climate in the operating room dry andnot too hot.

The Advantage of Baode PHE insulation.

Heating insulation is expandable thanks to the mould design. It can suit for any plates number BPHE.

Our heating insulation can fit for different connection location BPHE.





Technical data	
Material	Expanded Polypropylene (EPP)
Fire protection class	DIN 4102
Density	45-60 KG/ m3
Heat conductivity	0.035 W/mk
Thickness	20mm
Max. Temperature	80°C

Size	A	B	C	D	E	F	G
B26	175	358	127	310	125	58	30+38 N
B50	168	576	120	528	166	56	30+38 N
B95	249	660	200	620	198	63	30+38 N
B120	295	577	247	529	245	63	30+38 N

Ultra High Pressure BPHE

CO2 APPLICTIONS

F-BL SERIES BPHE is specifically designed to work in air conditioning and other refrigeration applications, where the pressure requirements are extremely high applications, maximum pressure can reach 120 bar...
Because of their high-pressure performance, they are particularly well-suited to CO2 applications, such as transcortical gas cooling.

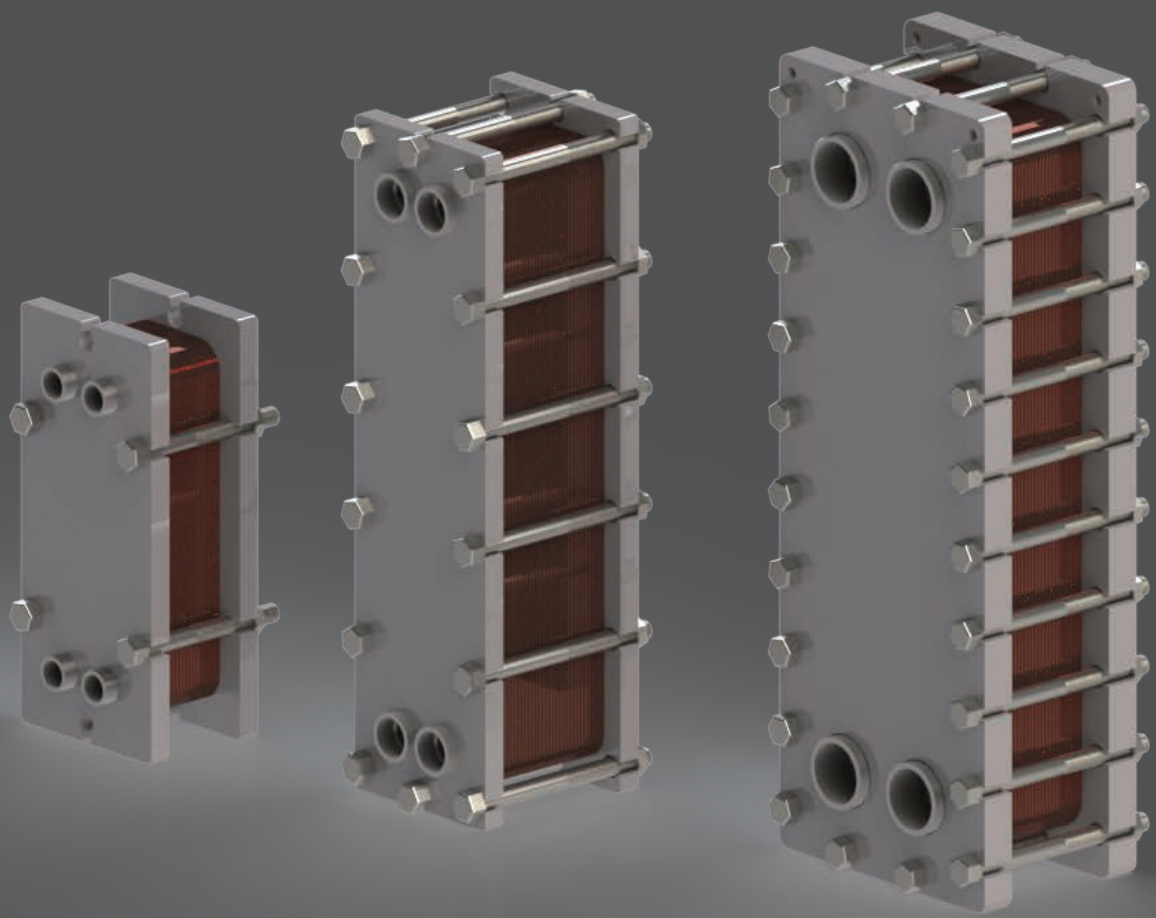
Benefits:

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

Design:

The brazing material seals and holds the plates together at the contact points ensuring optimal heat transfer efficiency and pressureresistance. Using advanced design technologies and extensive verification guarantees the highest performance and longest possible service life. F-BL SERIES BPHE are brazed plate heat exchangers with thin external frames in carbon steel that are able to withstand extremely high operating pressures. The unit can be supplied with a refrigerant distribution system. Always delivered with lifting lugs for easy handling.

UP TO 120 Bar



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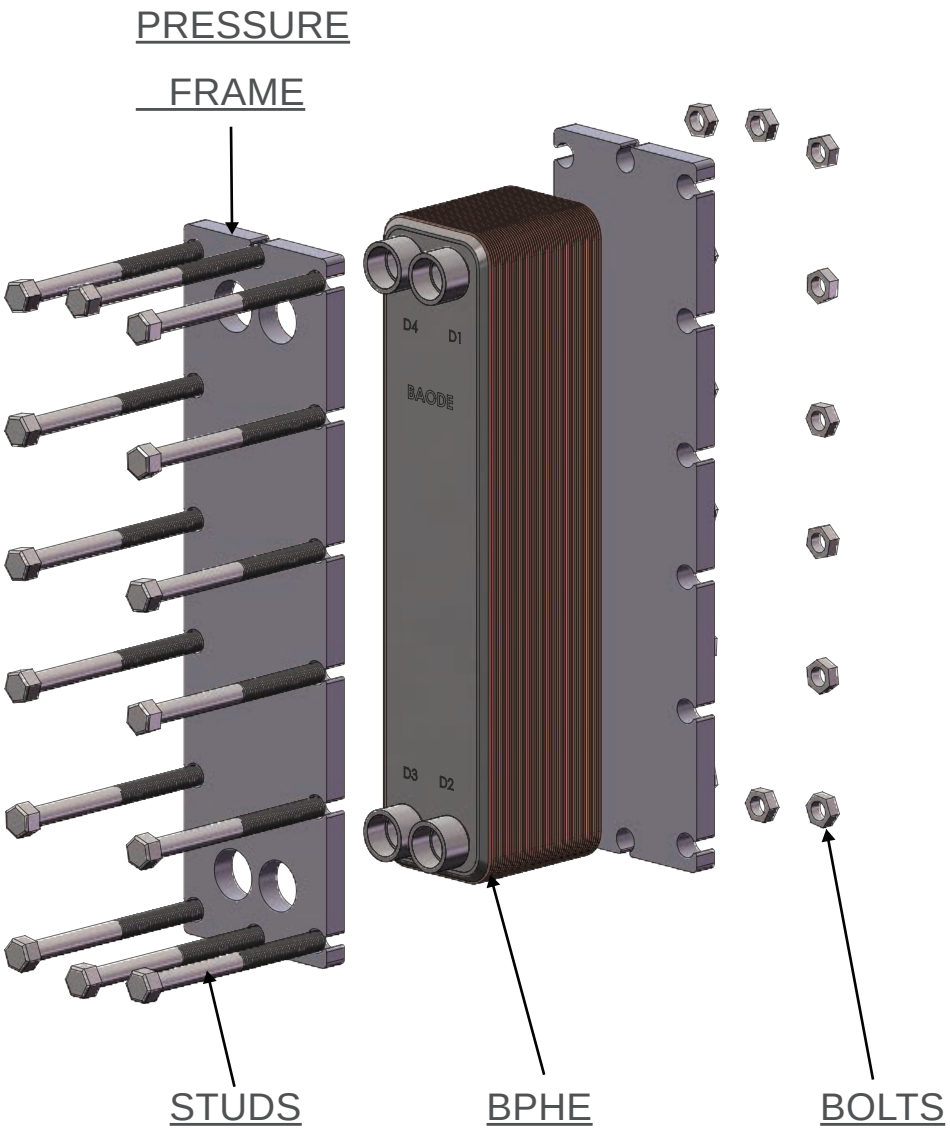
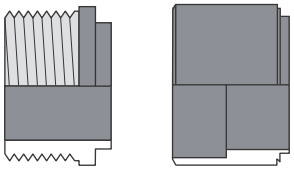
Exploded View Diagram



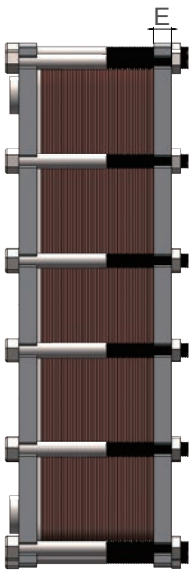
Technical Data	
Standard materials	
Cover Plates	Stainless
Connections	Stainless
Plates	Stainless
Brazing material	Copper 99.99%
External Frame	Carbon steel, Zinc electroplated

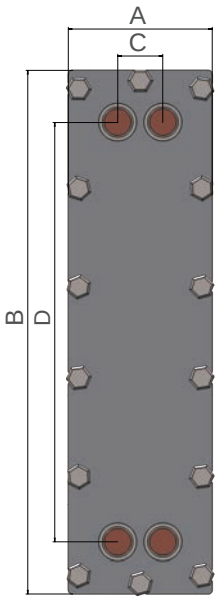
Examples of connections

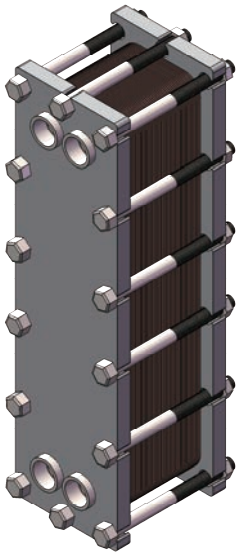


External thread Soldering

Dimensions (mm)	F-BL26	F-BL50C	F-BL50D	F-BL95A	F-BL95B
A	16	160	160	252	252
B	363	578	578	685	685
C	50	50	50	92	92
D	13+(2.4*n)	466	466	519	519
E	21+(0.13*n)	14+(2.37*n)	14+(2.37*n)	23+(2.07*n)	23+(2.07*n)
Distrobutor	No	No	Yes	Yes	No
Volume per channel, L (gal)	0.05 (0.0132)	0.095(0.0251)	0.095(0.0251)	0.18(0.0476)	0.18(0.0476)
Max particle size, mm (inch)	1.2 (0.047)	1.2 (0.047)	1.2 (0.047)	1 (0.039)	1 (0.039)
Max flow rate, m3/h (gpm)	14 (61.6)	14 (61.6)	14 (61.6)	51 (224.5)	51 (224.5)
Flow direction	Parallel	Parallel	Parallel	Parallel	Parallel
Min. number of plates	6	6	6	10	10
Max. number of plate	150	150	150	200	200







OIL COOLERS FOR MOBILE AND INDUSTRIAL APPLICATIONS

Brazed plate heat exchangers are specifically engineered for hydraulic oil cooling applications, offering efficient heat transfer and supporting high flow velocities for handling viscous fluids effectively.

PRODUCT FEATURES

Brazed plate heat exchangers are constructed from stainless steel corrugated plates bonded with copper using advanced vacuum brazing technology. This design eliminates the need for seals and thick frame plates. The plates are securely joined at contact points, ensuring superior efficiency and pressure resistance. The unique plate stamping pattern promotes turbulent flow, enhancing heat transfer efficiency while providing a self-cleaning effect. These plates are engineered for extended durability and reduced maintenance costs, ensuring a long service life

BENEFITS

The high thermal efficiency of brazed plate heat exchangers enables the design of smaller, more compact units, making them ideal for installations in confined spaces. Without gaskets, these heat exchangers are well-suited for applications requiring high temperature and/or pressure resistance. Brazed heat exchangers function as high-performance oil coolers, ensuring a long, maintenance-free lifespan for hydraulic power pack cooling systems or lubrication oil systems. A variety of oil connection options, including BSPP and SAE connections, are available to meet diverse application needs.

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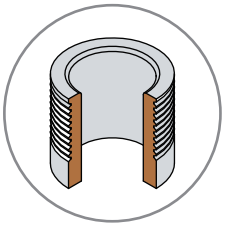
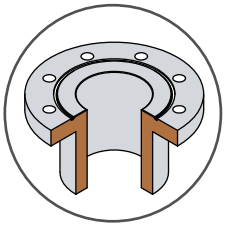
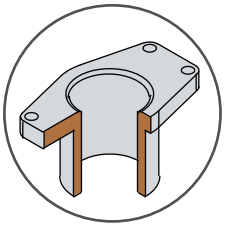
CONNECTIONS



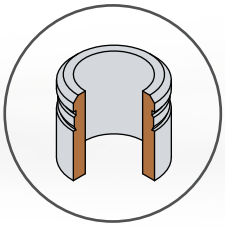
Thread



Flange



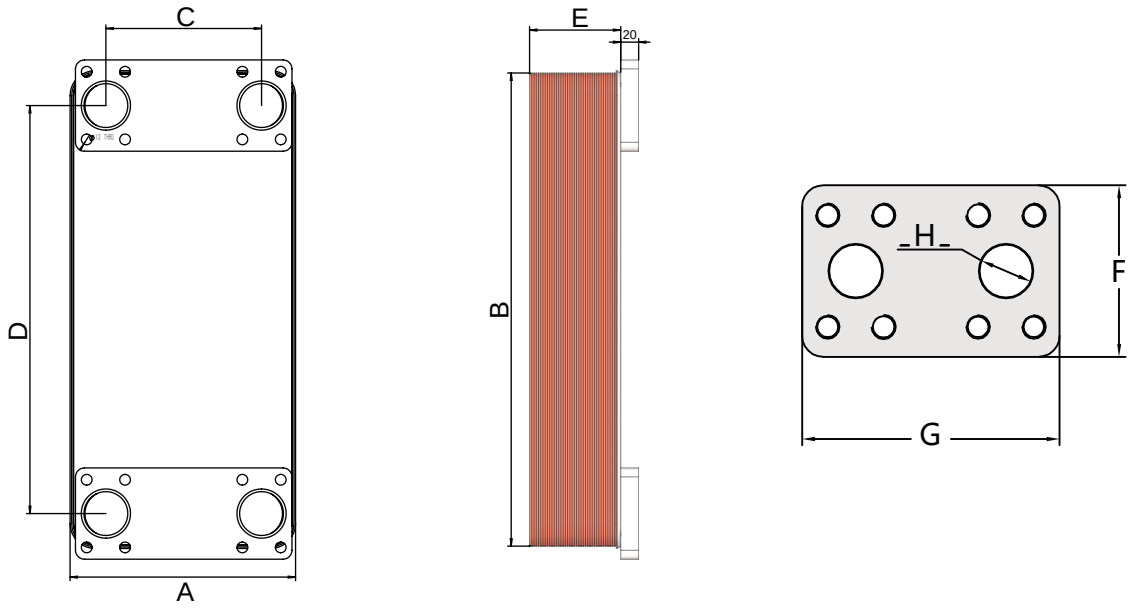
SAE Flange



SAE O-Ring

* SPECIAL CONNECTIONS ARE AVAILABLE

TECHNICAL PARAMETERS



Model	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Max pressure bar	Max plates No pcs
BL26	109	310	50	250	10.9+2.29N	100	103	23	45	200
BL30	124	304	72	243	12+2.31N	80	120	25	45	200
BL120	246	528	174	456	9+2.31N	102	242	49	45	200

GEARBOXES

AUTOMOTIVE

INDUSTRIAL

RAILWAYS

CONSTRUCTION

POWER GENERATION

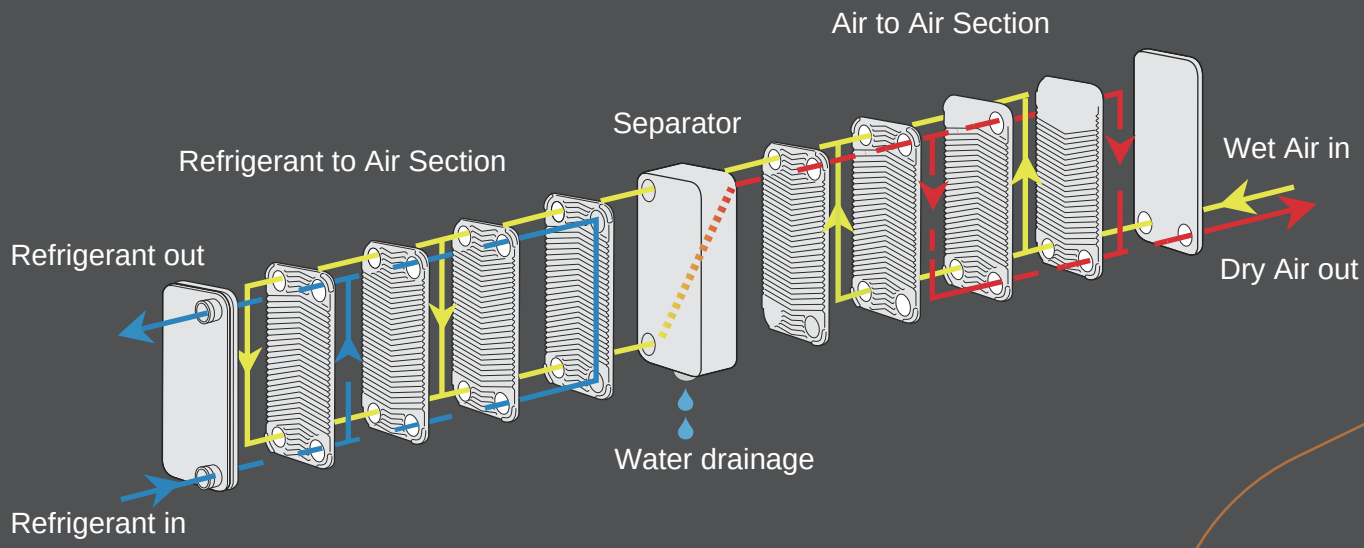
HYDRAULIC SYSTEMS

PULP & PAPER

STEEL/HEAVY INDUSTRY

AIR DRYER

Refrigerated air dryers separate humidity from compressed air by cooling the air in an evaporator. This cooling effect comes from the evaporation of the refrigerant. As the air cools, it looses its ability to hold moisture. The condensate is then collected and removed in a separator.
A heat recovery air to air heat exchanger that reheats the air to ambient temperature is in the Airdryer for optimal efficiency.
This humid air then moves into a separator and then dry air is preheated in the heat recovery side. The total air side pressure drop is typically 20-30 kPa (3-4 psi)



Introduction
AL series Air dryer are brazed plate heat exchangers designed for separation of humidity in compressed air.

Applications
Compressed air drying

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