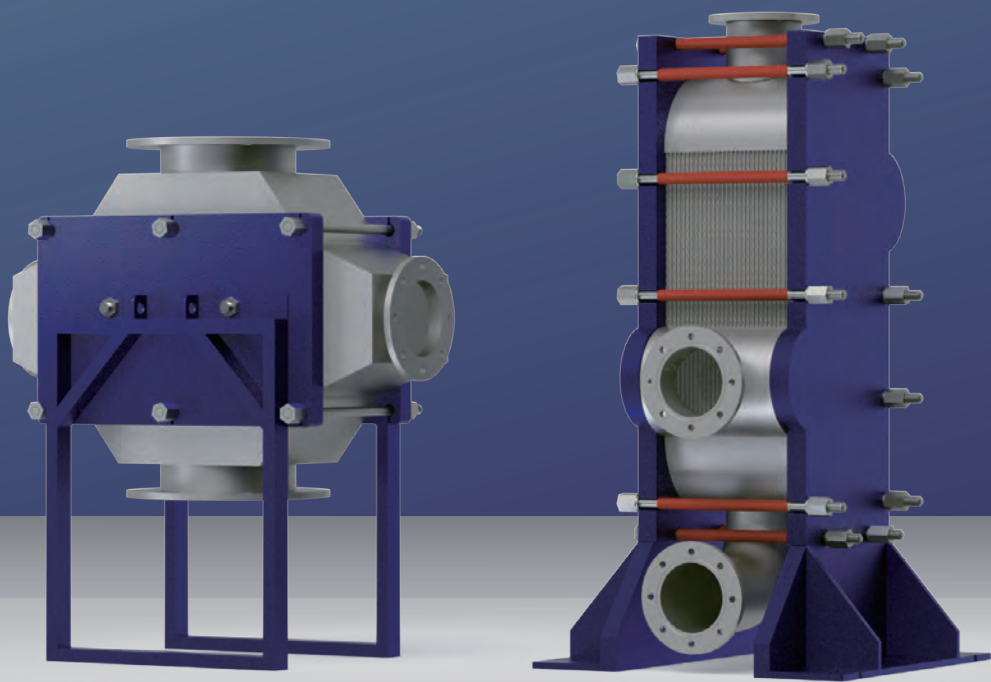


PLATE & BLOCK HEAT EXCHANGER



What is a Plate Block Heat Exchanger?

A Plate Block Heat Exchanger is a fully welded plate-type exchanger. It consists of corrugated metal plates welded together to form a compact block, with no gaskets, and enclosed in a pressure-retaining shell.

Advantage:

- No gaskets – suitable for high temperature and pressure
- Handles corrosive media
- Compact with high thermal efficiency
- Low maintenance and leak risk
- Well-suited for phase-change duties

Available Material:

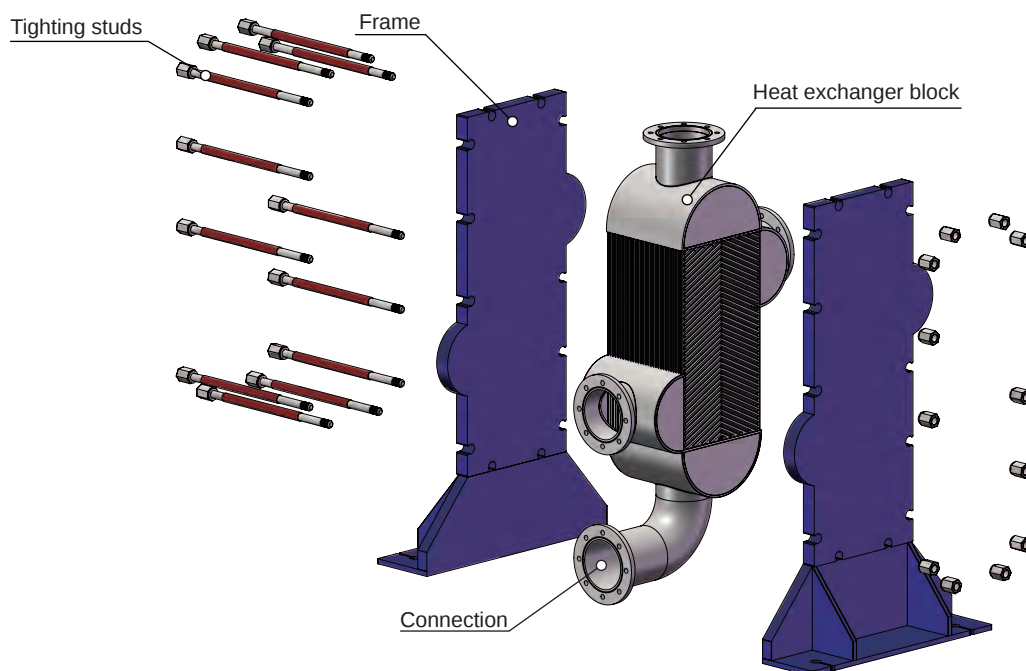
- 304 / 316L stainless
- SMO
- C276/C22
- Ti

PBPHE vs Gasket PHE

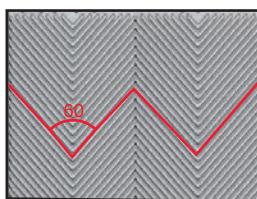
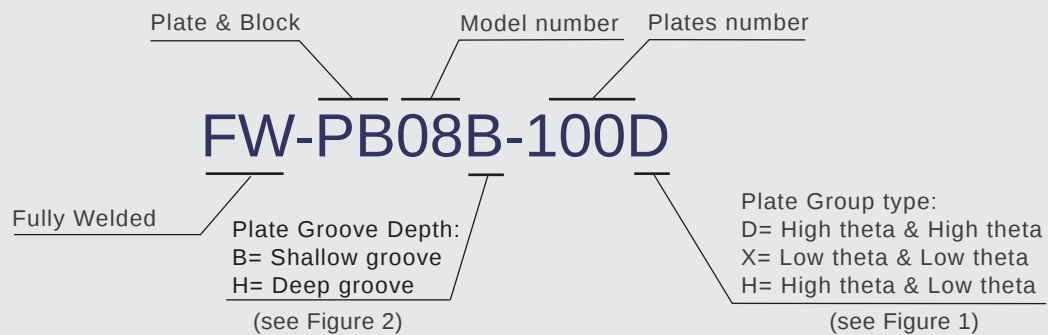
which plate heat exchanger is right for your application?

Feature	PBHEX	GPHE
Plate group	Plates & Block	Gasketed Plate Pack
Temperature	Max 400 C	Max 200 C
Pressure	40 Bar	16 Bar
Maintenance	Fully welded, no maintenance required	Periodic Gasket Replacement
Leakage Risk	Very Low	Potential aging, Leakage risk
Typical Fluids	CO ₂ , NH ₃	OIL, WATER
Cost	High	Low

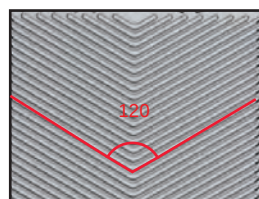
Consturction:



Model Code Explanation:



X : Low theta plate



D : High theta plate

(Figure 1)

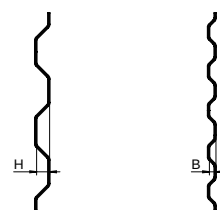
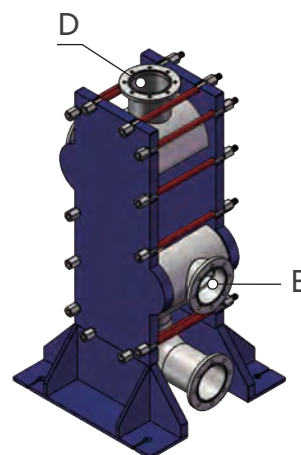
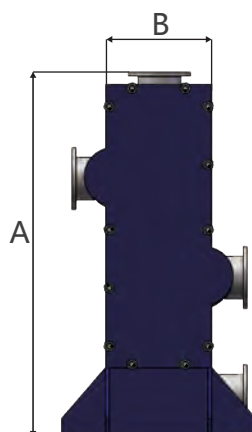
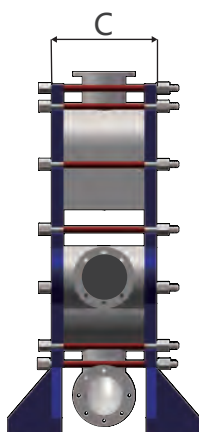


Plate Groove Depth

(Figure 2)



Specification Data

Model	A (mm)	B (mm)	Max C (mm)	Plate Area(m ²)	Channel Depth (mm)	Max D Size	Max E Size
FW-PB08	910	262	960	0.08	4	DN150	DN80
FW-PB20	1425	367	1050	0.2	2/4	DN200	DN80
FW-PB33	1664	427	2750	0.33	4	DN250	DN125
FW-PB65	2186	511	2900	0.65	4	DN350	DN200
FW-PB96	2560	718	3100	0.96	4.5	DN500	DN300
FW-PB119	2860	718	3300	1.19	4.5	DN500	DN300
FW-PB140	3160	718	3500	1.4	4.5	DN500	DN300
FW-PB165	2950	1300	3200	1.65	4.5	DN600	DN300
FW-PB185	3250	1300	3500	1.85	5	DN600	DN300

Main industries



Pharmaceutical Industry

- Reactor cooling systems
- Modular heat exchanger application
- Process fluid heating and cooling
- Sterile and hygienic processes



Petroleum Industry

- Applications in refining units
- Catalytic/cracking unit processes
- Hydrogenation unit processes
- Regenerator cooling systems
- Crude oil preheating and material heating
- Gas shift reaction processes
- Acid water cooling processes
- Natural gas preheating applications



Oil Refining Industry

- Degumming and deacidification processes
- Deodorization processes
- De-soaping processes
- Oil heat exchange processes
- Oil cooling processes



Coal Chemical Industry

- Coal-to-Methanol Processes
Steam system
- Dry quenching system applications
- Methanol distillation process
- Ammonia synthesis processes
- Coal-to-Synthetic Ammonia
Applications in MDBA and DHP systems
- Ammonia recovery processes
- Compound fertilizer production processes



Inorganic Chemical Industry

- Hydrogen Peroxide Production Process
- Hydrogenation systems
- Oxidation systems, Extraction and purification systems
- Condensation and heat exchange systems
- Waste heat recovery processes



Organic Chemical Industry

- Organic and food processing reactions, especially in nitration towers, stripping towers, saponification towers, evaporators, vacuum systems, and distillation towers.