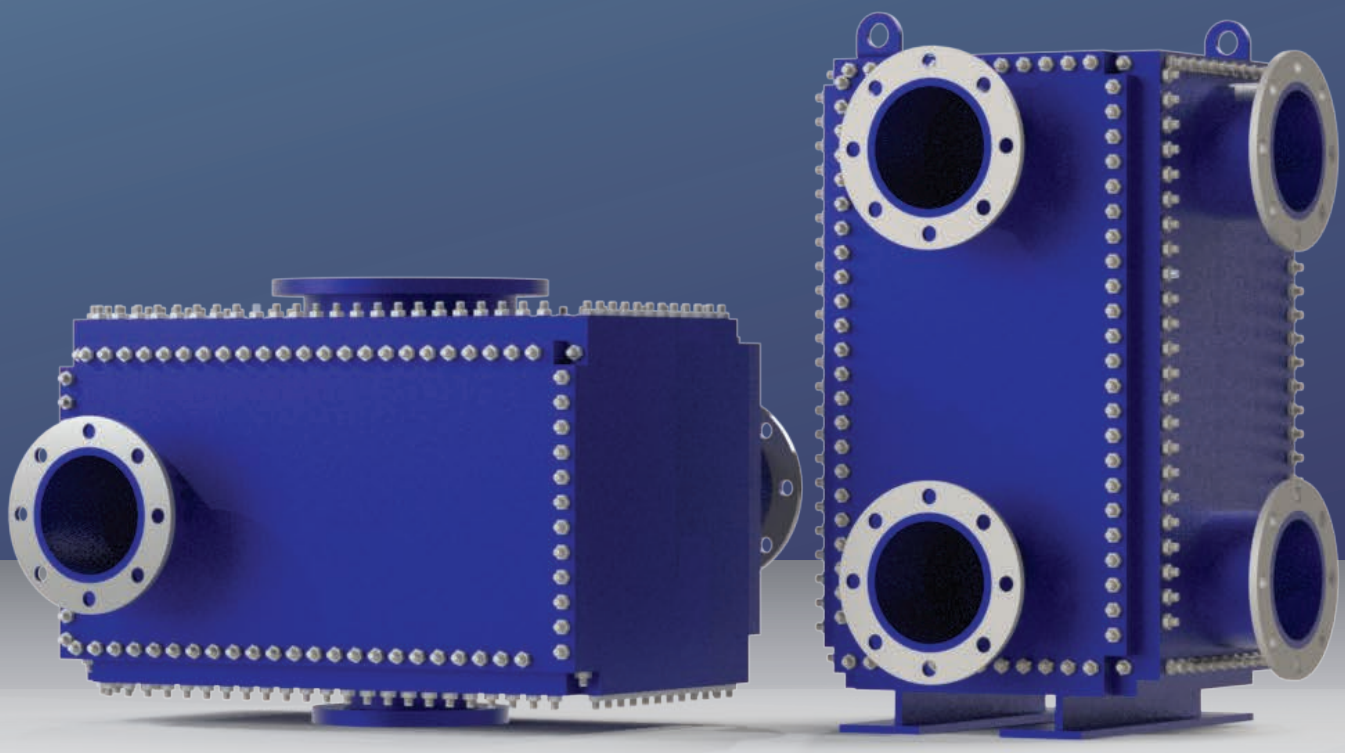
COMPABLOC WELDED HEAT EXCHANGER



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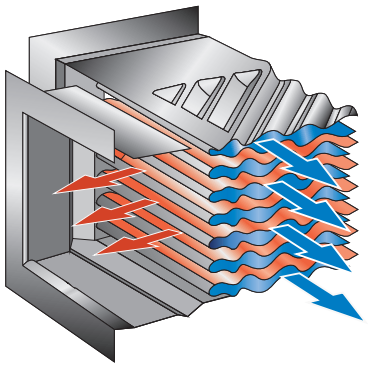
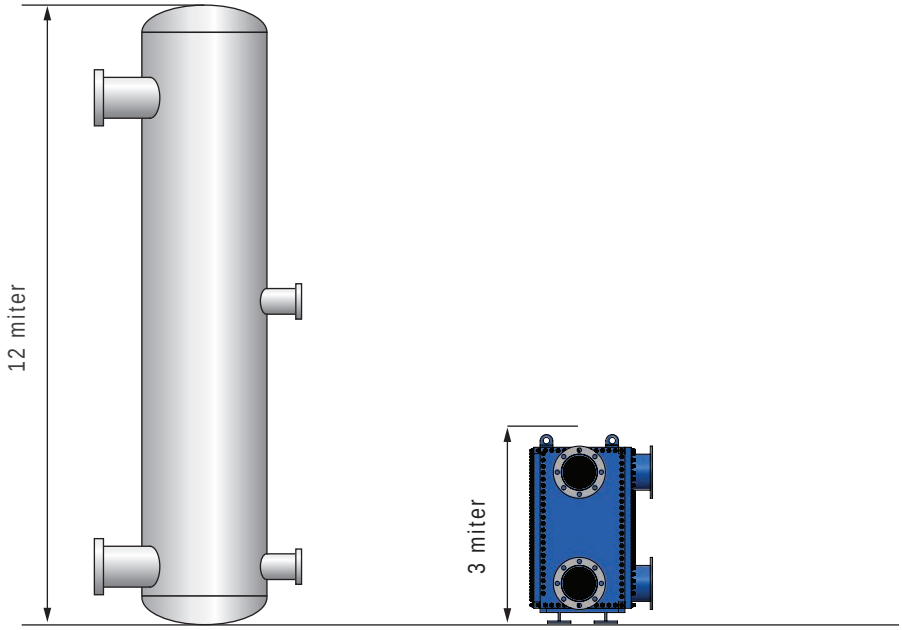
Why Compabloc:

-High Thermal Efficiency
-Compact & Space-Saving
-Fully Welded, No Gaskets
-High Pressure & Temperature Resistance
-No Cross-Contamination
-Easy Maintenance & Cleaning
-Low Fouling & High Reliability
-Multi-Duty Operation
-Cost Savings



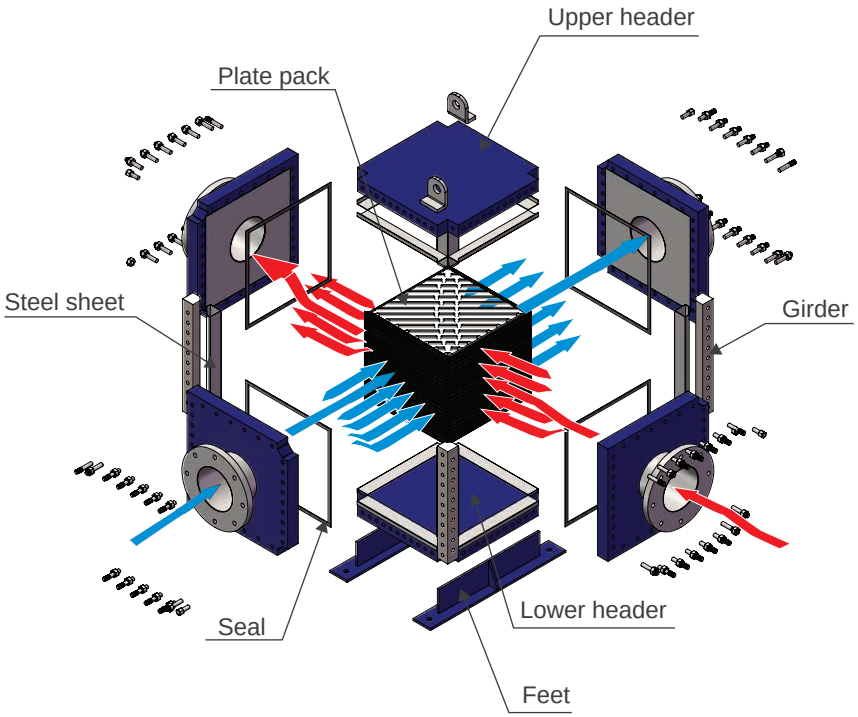
Two media flow in cross-flow in welded channels.

Shell & Tube HEX VS Compabloc

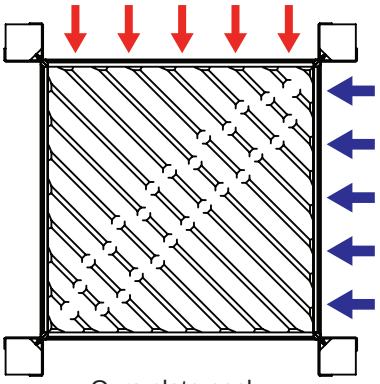


Feature	Compabloc	Shell & Tube
Efficiency	**High** (3-5x better)	Low
Size & Footprint	**Compact** (80% smaller)	Large
Cleaning & Maintenance	**Easy** (CIP & side access)	Difficult (requires disassembly)
Pressure & Temperature	**Up to 42 bar & 350°C**	Limited by gaskets
Fouling Resistance	**Low fouling**	High fouling
Fluid Separation	**Fully welded (no leaks)**	Possible leakage due to gaskets

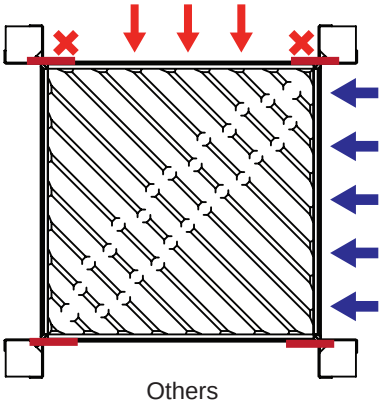
Construction



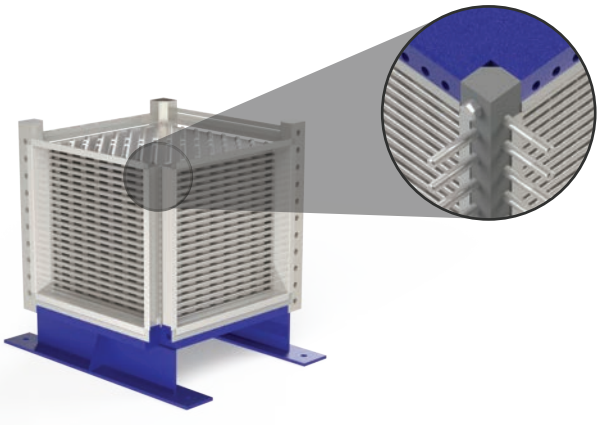
Our plate pack blocks has an open channel across the entire width of the plates ensuring the free flow of the working medium at the inlet (without stagnant zones) and efficient heat exchanger flushing.
In other manufacturers' designs, the edges of the plate pack are blocked at the inlet or part of the plate is cut, which reduces the heat exchange area.



Ours plate pack



Others



Replacable Plates pack

Welding

C Welding

others

C-Weld
Our End-to-end laser weld of the plates guarantees accessibility and protects against corrosion.

Applications

Oil & gas production

• Heat recovery in TEG systems (gas dehydration)

• Heat recovery, cooling, condensation & reboiling in amine systems (gas sweetening, sour service)

• Heat recovery, heating and cooling in crude oil dehydration and desalination systems

• Condensation in vapour recovery units

• Heat recovery, cooling, condensation and reboiling in NGL fractionation systems

Refineries

Various condensing & reboiling duties such as:

• Condensation in atmospheric and vacuum distillation

• Top condensing on fractionators in FCC, hydrocracking, H2S strippers, etc.

• Propane & butane overheads condensing in NGL and alkylation plants

• Reboiling in H2S strippers, sour water strippers and other columns

• Steam generation

Heat recovery, cooling & heating duties such as:

• Cooling of gasoline, kerosene, gas oil, diesel, pump-around etc

• Cooling & heating of bitumen, VGO (vacuum gas oil) and other heavy products

• Fractionator feed/bottom heat recovery

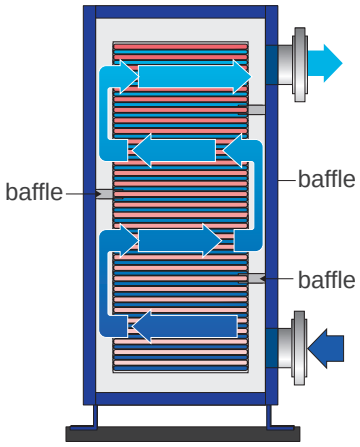
• Pre-heating of crude oil

• Desalted water/feed water heat recovery

Hydrocarbon Processing Industry

Heat exchangers play a crucial role in condensation, heating, cooling, heat recovery, and reboiling processes involved in the production of:

• Primary chemicals such as olefins, aromatics, aldehydes, acids, ethers, esters, ketones, and halogens.



A series of baffles force the media to reverse flow direction and create a multi-pass flow pattern

• Polymer production, including polyethylene, polypropylene, polystyrene, styrene copolymers, formaldehyde resins, polycarbonates, polyols, polyvinyl acetate, and polyvinyl alcohol.

Other organic chemicals, such as those used in the production of soaps, detergents, paints, and coatings.

Pharmaceutical & Specialty Chemicals Industry

• Special 2-pass condensers with an integrated gas/liquid separation chamber and mist eliminator for reactor overhead and vent condensation.

• Primary and vent condensation systems designed for hygienic applications.

• Solvent recovery systems.

• 2-pass condensers featuring dual cooling media for enhanced performance.

Coke Oven Plants

• Ammonia liquor scrubber cooling., Debenzolized oil cooling.

Chlorine Alkali Plants

• Chlorine gas cooling (drying process)., Hydrogen gas cooling (drying process).

Fertilizer Production

• Nitrogen gas cooling.

• CO_2 gas cooling, including a three-stage compressor interstage cooler for gas drying.

• Ammonia heat recovery and stripping column reboiler.

• Nitric acid cooling.

Hydrogen Peroxide Production

• Heat recovery and cooling of process streams.

Ammonium Nitrate Production

• Spent sulfuric acid heat recovery.

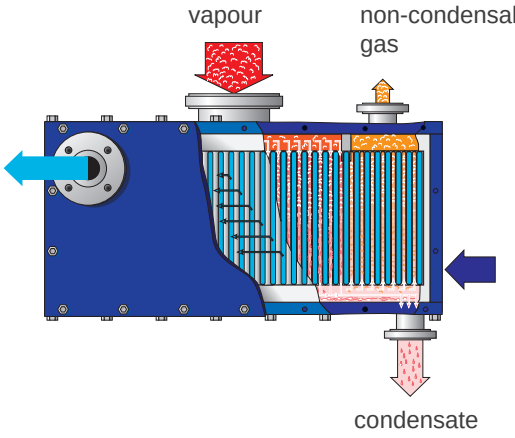
• Oleum cooling.

Mining Industry

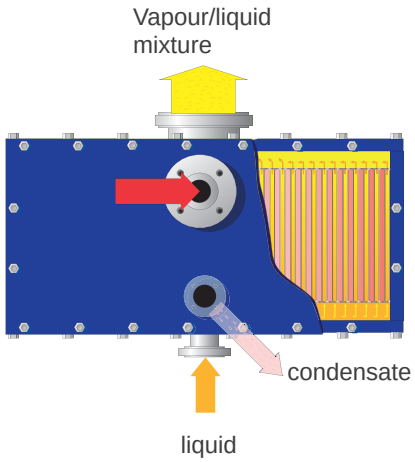
• Nickel refining solvent extraction processes.

Vegetable Oil & Fatty Acids Industry

• Feed and bottom stream deodorization.



Condenser



Reboiler

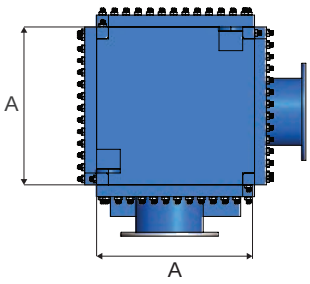
Material:

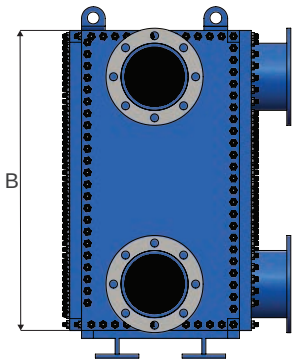
Plate:

- AISI 304L
- AISI 316L
- Titan
- Titan-Palladium
- Alloy C276 C22
- 254 SMO
- 904L

Seal:

- Graphite
- Polytetrafluoroethylene (PTFE)





Model	Standard Pressure (bar)	Standard Temp. Range (°C)	Max.Dimension (mm) A*A*B
CP15	FV-32	-40 - 300	280*280*540
CP20	FV-32	-40 - 300	430*430*730
CP30	FV-32	-40 - 300	500*500*1070
CP40	FV-32	-40 - 300	600*600*1400
CP50	FV-32	-40 - 300	840*840*2050
CP75	FV-32	-40 - 300	1240*1240*3600
CP120	FV-32	-40 - 300	2190*2190*3500