Gasketed plate heat exchangers

ITEX

Benefical for their ***high heat transfer*** *capacity, compactness and* ***fouling factor***
Particulary ***adapted for slight*** *temperature differences between the 2 fluids*

USE

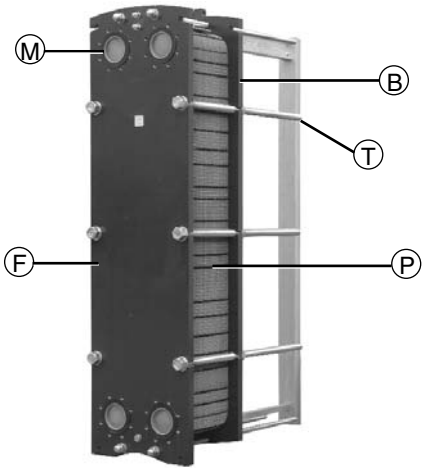
The ITEX plates and gaskets exchangers are particularly adapted to the exchanges between 2 liquids and the applications are numerous :

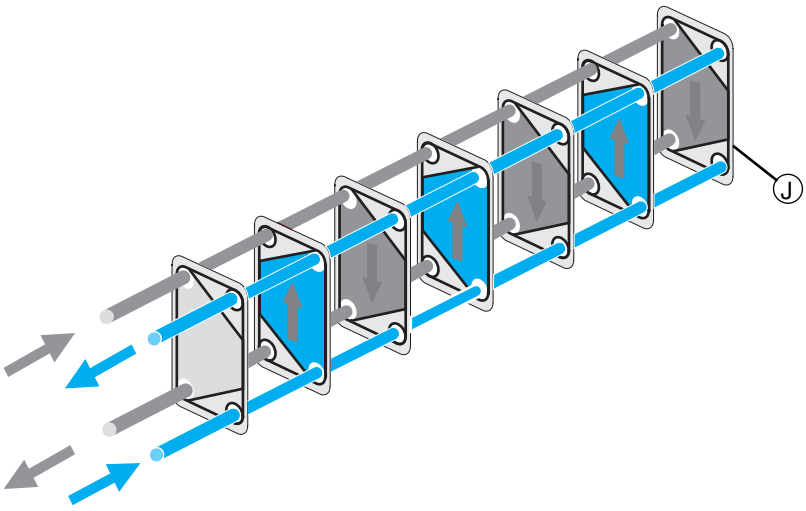
- Heating sub-stations
- Domestic water heating
- Swimming pool water heating
- Buffer on heat pump
- Recovery on corrosive rejects
- Geothermal science
- Oil cooling
- Industrial processes

PRINCIPLE

The unit consists of a number to stacked plates **(P)** and gaskets, tightened between 2 end plates, one is fixed **(F)** and the other one is mobile **(B)**, with rods **(T)**. The gaskets **(J)** ensure the circulation of fluids between the plates and the external sealing. The connection of fluids is made through 4 nozzles **(M)** integrated in the end plate or detached.

Note : The selection 1 pass / 1 pass is the only case where the 4 pipes are on the same end plate.





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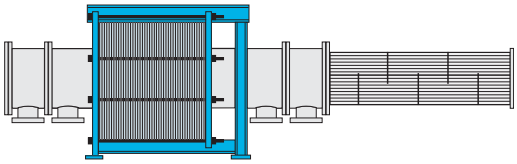
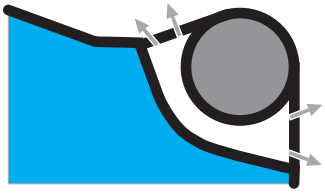


Reduced dimensions



Double gasket between the fluids

THERMAL SELECTION

Because of the large modularity of the range, the selection is optimised according to the thermal requirement and of the admissible pressure drop on fluids, primordial parameter for the selection. This last parameter must not be under-estimated as it influences the choice of the plates and their number, therefore the exchange surface.

The exchange surface varies also with the ratio height/width and the spacing between the plates, the angle and the depth of the chevrons.

The CIAT exchangers have a thermal guarantee.

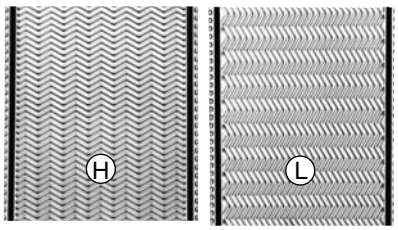
ADVANTAGES

- Very good exchange coefficient, hence a reduced surface.
- Possibility of very low temperature difference between cold and hot fluids
- High resistance to corrosion
- Reduced dimensions
- Ease of installation
- Low circuit capacity and volume of fluid retention
- Possibility of extending the surface
- Unit can be cleaned on site by circulation (CIP)

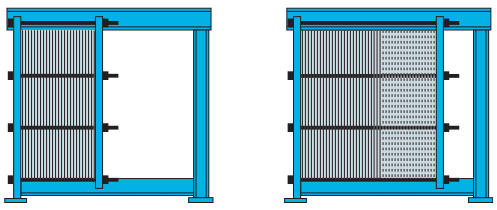
PRECAUTIONS

Take care not to damage the exchanger gaskets (one per plate): avoid hammerings and over-pressures, and limit the run/stop cycles.

- Avoid ¼ turn valves
- Do not use with steam (consult us)
- Use control adapted to the requirements and take into account the low capacity of circuits
- Keep the plates clean in order to maintain the thermal efficiency
- Filter the fluids containing suspended particles
- Always keep fluids circulation in the exchanger so as to avoid deposits or clogging
- Install nozzles on the pipes for CIP



Various plates shapes



Easy modification of the number of plates