



WideGap Plate heat exchanger

Gasketed plate heat exchanger for fibrous fluids

Introduction

WideGap plate heat exchangers offers an ideal solution for handling thick, fibrous, viscous, coarse, dirty, rough, crude, and clumpy fluids in your work. By incorporating wide gaps between its plates, this heat exchanger enables seamless passage of fibers and particles, minimizing clogging and maximizing process uptime. Compared to conventional alternatives, a WideGap heat exchanger exhibits superior thermal efficiency and enhanced flow geometry. Consequently, it delivers numerous advantages, including a smaller footprint, improved heat recovery, reduced cooling water usage, the potential utilization of lower grade steam, and increased production capacity

The wide gaps between the plates, the plate pattern and the smooth port design allow fluids with fibres and particles to easily flow through the heat exchanger. The channel gap sizes for this model are 7.5/7.5 mm

Applications:

Fuel ethanol

WideGap is the optimal selection for fibrous raw materials such as grain, cassava, or cellulose. It optimizes both the fermentation and distillation processes, allowing for the efficient utilization of heat and the recovery of valuable energy. By employing WideGap for cooling liquefied mash, heat recovery becomes feasible from any stream within the plant, including process water, beer, or mash. This significantly contributes to the reduction of overall energy consumption. Furthermore, when cooling fermented mash with WideGap, the need for chilled water is eliminated. In the pulp and paper industry, where heat recovery is of great importance, WideGap heat exchangers outperform conventional technologies by efficiently recovering and reusing a substantial amount of energy from the industry's warm, fibrous waste streams.

Sugar

WideGap proves to be a highly effective choice for handling raw juice and limed juice that contain fibers. It offers versatility in terms of heating media, allowing the use of liquid, steam, or low-pressure vapor. Traditionally considered as waste heat, pan vapor or vapor from the last evaporation effect can now be harnessed efficiently with a double-sided WideGap heat exchanger. By utilizing this energy, valuable heat sources are conserved for other purposes, such as generating electricity that can be supplied to the national grid or producing hot water for the local district heating network. As a result, WideGap maximizes energy utilization and enhances overall system efficiency

Petrochemicals

WideGap offers an unmatched solution as a pellet water cooler in the petrochemical industries, providing an optimal "buy-and-forget" experience. Additionally, it can serve as a partial condenser, effectively eliminating vapors from inerts. Notably, WideGap excels in this application by offering a low-pressure drop and enhancing the subcooling efficiency of process media. Its design ensures efficient and reliable operation, requiring minimal maintenance and delivering superior performance in cooling and condensing applications within the petrochemical sector.

Condensers for heat recovery

WideGap represents the ultimate heat exchanger solution for condensing medium and low-pressure process vapors to heat process media. Its wide channel design effectively minimizes pressure drop on the vapor side, while offering flexibility to select the appropriate channel width on the process media side. This unique configuration creates opportunities for energy recovery from low-grade vapors, enabling efficient utilization of thermal energy. With WideGap, the condensation process becomes highly efficient, allowing for effective heat transfer and maximizing energy recovery from low-pressure process vapors.

Applications

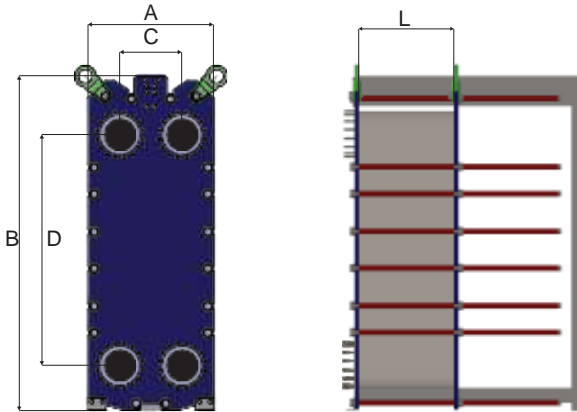
- Biotech and Pharmaceutical
- Chemicals
- Energy and Utilities
- Food and Beverages
- Mining, Minerals and Pigments
- Pulp and Paper
- Water and Waste treatment

Benefits

- Maximum uptime for fouling applications
- High energy efficiency – low operating cost
- Flexible configuration – heat transfer area can be modified
- Easy to install – compact design
- High serviceability – easy to open for inspection and cleaning and easy to clean by CIP



Dimensional drawing (mm)



Technical data

Plates	Type	Free channel, mm (inches)
T20S	Wide-gap	7.5 / 7.5
TL35S	Wide-gap	7.5 / 7.5

Materials

Heat transfer plates	316/316L Ti
Gaskets	NBR, EPDM, FKM Carbon steel
Flange connections	Metal lined: Stainless steel, Titanium
Frame and pressure plate	Carbon steel with painted

Other materials may be available on request

Operational data

	Max. Pressure	Max. temperature
	10.0 bar	180 °C

Model	A	B	C	D	L	Plate thickness
T20S	780	2145	353	1478	8*N	1mm
TL35S	1154	3210	578	2177	8*N	1mm

*n is the plates number