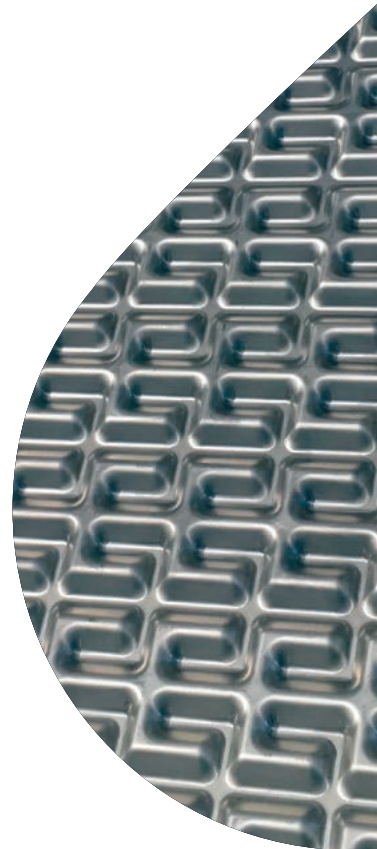




# Fully Welded Plate Heat Exchangers

IWC is a thermal solutions provider with an extensive range of heat exchangers for all applications and industries.

Our primary goal is customer satisfaction, and we achieve this by providing bespoke, affordable solutions to solve particular requirements.



# Plate Heat Exchangers

Fully Welded Plate Heat Exchangers (WPHE) combine the best of two heat exchanger technologies. The high efficiency of a Gasket Plate Heat Exchanger and the robustness and gasket free solution for high pressures and temperatures of Shell and Tube HE's.

## Heavy Duty Application

- Maximum Operating Temperature: 400°C
- Maximum Work Pressure: 35 bar

## Compared to S&T HE

- Compact (up to 3-4 times less heat transfer area) which can save big when exotic materials are to be used.
- Smaller footprint.
- Lower operating and maintenance costs.

## Compared to Gasket PHE

- No rubber gaskets are used thus lower maintenance cost and less chance of external leaks.
- Capable of operating at much higher operating temperatures & pressures.

The plates of the fully welded Heat Exchangers are thicker than the plates of a Gasket type Plate Heat Exchanger. This to allow for welding the plates together. Our standard thicknesses are 0.8mm and 1.0mm, standard plate materials are 304L or 316L, however more exotic materials can be used. The Welded Plate Heat Exchanger has a channel gap of 5mm and combined with turbulent flow, fouling is less prominent compared to S&T HE's for the same application.

Another feature is the special design between connections and plate entry eliminating "dead zone" in the corners of the plates. These dead zones are often seeding points for fouling and sedimentation.

## Cleaning & Maintenance

Depending on the configuration of the Heat Exchanger, either one side or both sides can be opened for cleaning, inspections and maintenance.

Model	Plate Size (mm)	Area per plate (m2)
SHD20	661 x 260	0.2
SHX26	587 x 386	0.26
SHX39	878 x 386	0.39
SHD45	985 x 395	0.45
SHX40	585 x 595	0.40
SHD80	1165 x 595	0.80
SHX120	1745 x 595	1.20
SHX160	2035 x 595	1.60
SHX180	2615 x 595	1.80



## Advantages



Cost effective, small footprint and light weight compared to Shell & Tube HE's



Very close temperature approach achievable, up to 1 degree Celsius



Max operating temp. 400 C  
Max operating pressure: 35 bar



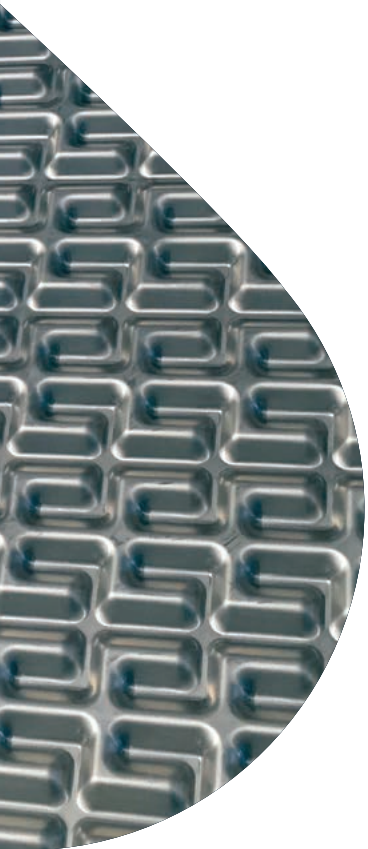
Low energy consumption due to low hold up volumes and quick response to process fluctuations



Easy to maintain



Compact and light design results in simple, economical installation



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