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ISO 14001
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OHSAS 18001
Certificate No. C 0082



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▶▶ Cryogenic Heat Exchanger and System Engineering **Global Leader**

Brazed Plate-Fin & Printed Circuit Heat Exchanger

- Compactness – space and weight savings
- Variable temperature service
& close temperature approachment
- Multiple process streams into a single unit



DongHwa Entec

Brazed Plate-Fin & Printed Circuit Heat Exchanger

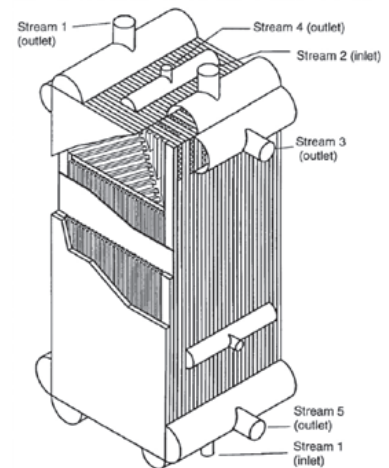
• Brazed Plate-Fin Heat Exchanger (PFHE)

○ General overview

Plate-fin heat exchanger consists of corrugated fins, separated parting sheets, nozzles and manifolds. Its principal use has been in oil & gas process, cryogenics and aerospace where high performance with low mass and volume is important. Plate-fin heat exchanger can treat multi-streams in only one unit.

Features are as below

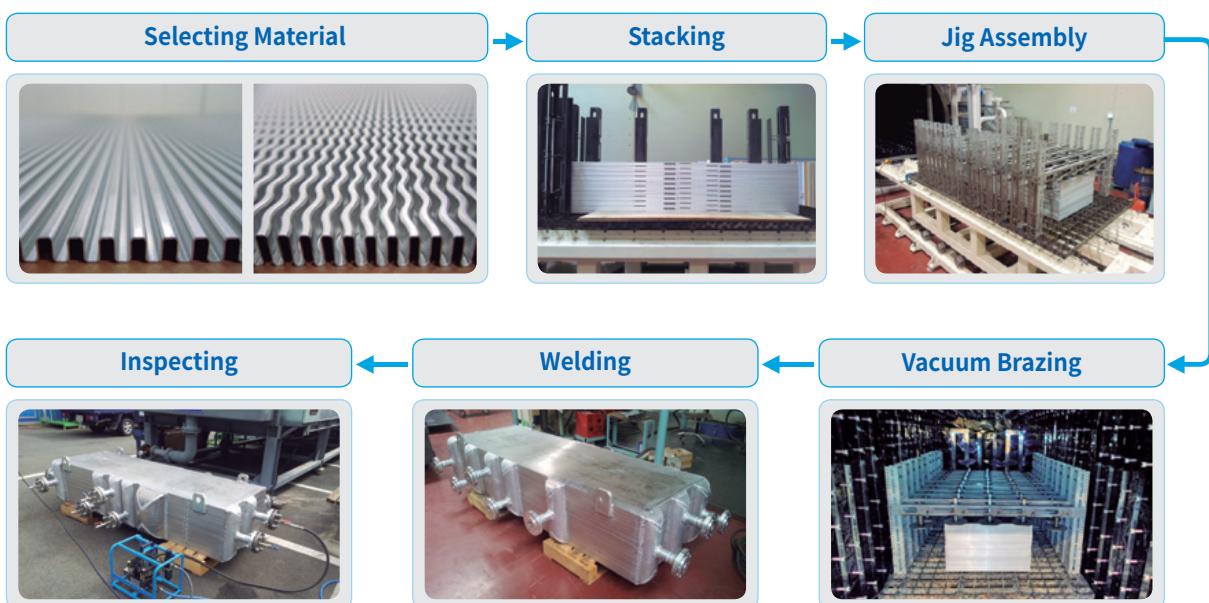
- Compactness – space and weight savings
- Variable temperature service & close temperature approachment
- Multiple process streams into a single unit

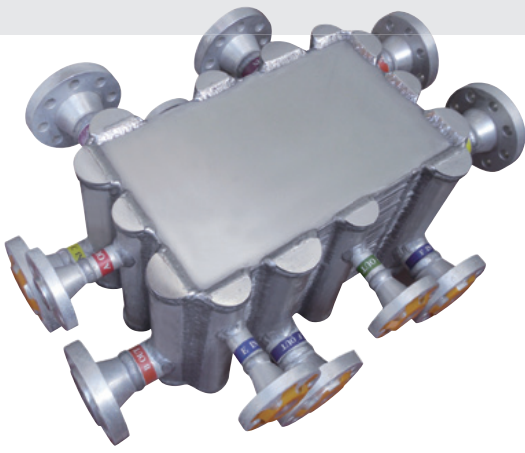


○ Manufacturing Procedure

Core part is built by stacking layers of corrugated fins, parting sheets and side bars. And then it is brazed under vacuum condition, nozzles and manifolds are welded on core part finally.

Donghwa Entec heat exchangers are manufactured according to quality standards such as KGS and ASME. Standard Manufacturing Procedure is as below chart.





• Printed Circuit Heat Exchanger (PCHE)

○ General overview

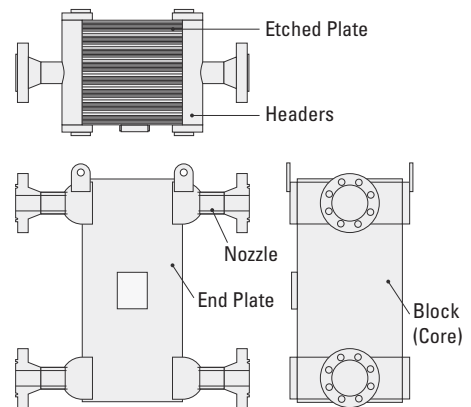
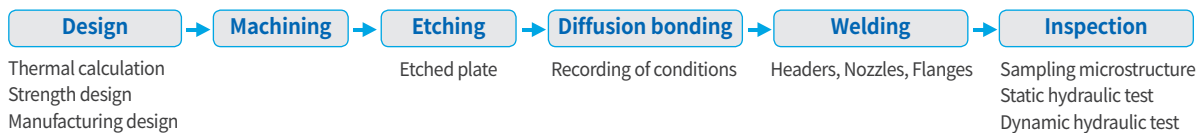
Printed Circuit Heat Exchanger is manufactured by etching processing for a number of channels on the metal plate and diffusion bonding on plates.

Features are as below

- Compactness
- High Pressure capability of over 1,000bar
- High efficiency

○ Manufacturing Procedure

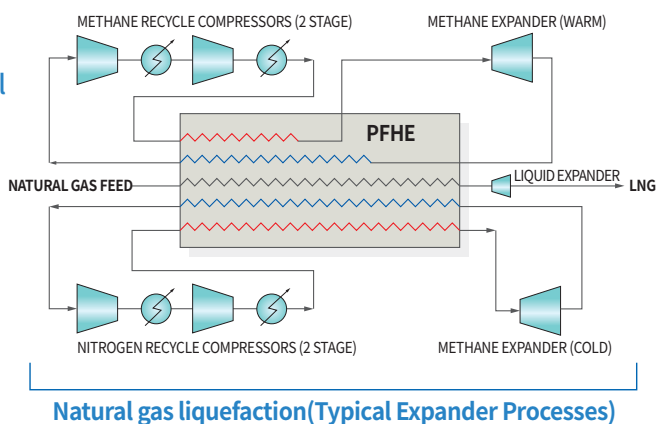
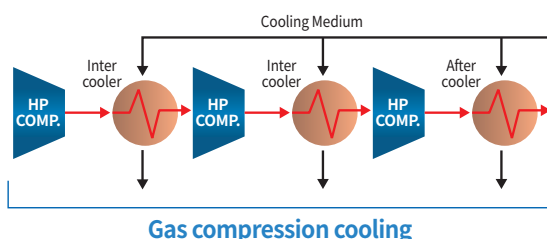
Core part is built by stacking layers of etching plate. And then diffusion bonding is performed, nozzle and header are welded on core part.



○ Applications

DongHwa Entec designs and manufactures compact Brazed Plate-Fin & Printed Circuit Heat Exchanger for use in gas and hydrocarbon process.

- Gas compression cooling
- Main cryogenic heat exchanger in natural gas liquefaction
- High pressure vaporizer and trim heater in re-gasification for LNG RV/FSRU
- Air separation unit
- Heat exchanger in aero space
- Heat exchanger on high temperature for fuel cell





Head Office and Factory (Land Area: 15,574 m² / Building Area: 13,845 m²)



Hwajeon Office and Factory (Land Area: 20,127 m² / Building Area: 20,087 m²)



Energy, Environmental Tec. Lab. (Land Area: 4,465 m² / Building Area: 3,365 m²)



DongHwa Entec (Shanghai) Co., Ltd. (Land Area: 33,350 m² / Building Area: 18,457 m²)

DongHwa Entec

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