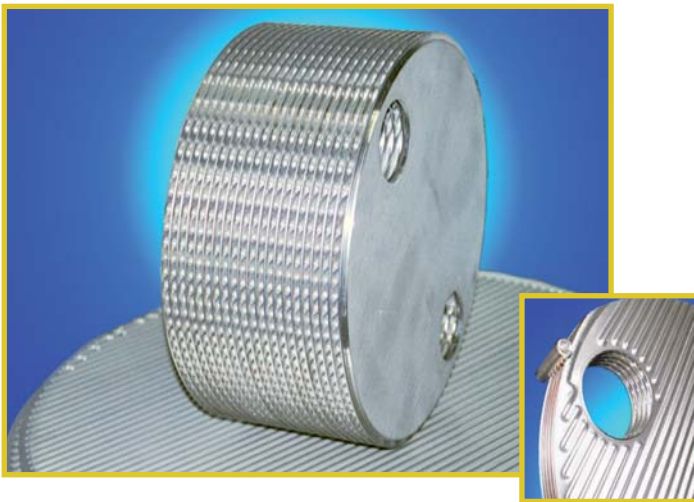


Plate & Shell Heat Exchangers

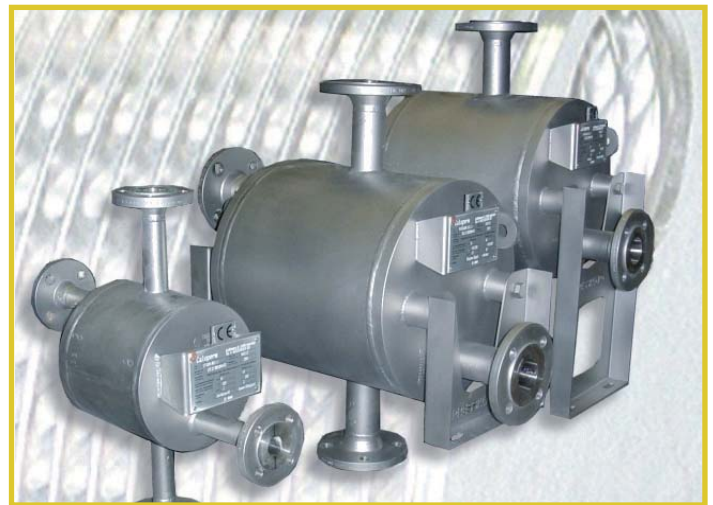
PROCINT knows the special demands on applications for plate heat exchangers in the oil & gas industry. Thermal equipment must not only withstand corrosive media and environments but also be extremely compact. PROCINT offers the fully welded Calopyx plate/shell heat exchanger. This patented design enables us to optimise the thermal and hydraulic design to bring you the best solution with regards to price, compactness and maintenance requirements.

The Calopyx plate heat exchanger is a totally welded plate heat exchanger designed to work with liquids, gases and gas/liquid phases. Aggressive and critical media on both sides can be handled. Each Calopyx plate heat exchanger is designed and manufactured in accordance with all major design codes, specifically ASME Section VIII Division 1 with U stamp, PED 97/23/EU with CE stamp and API 662 / ISO 15547. Material selection and positioning of the connections is done in accordance with customer requirements. Our Document Control Department produces documents in accordance with requirements of the most demanding clients.



With an unique welding system the heat exchanger plates of the Calopyx are welded together automatically. Non destructive test procedures during the manufacturing ensure un-changed high quality of the plate packages. The production process is controlled by a quality system according to EN ISO 9001:2000.

With operation temperatures between -200°C and 900°C and operation pressures up to 150 bar, the Calopyx plate heat exchanger allows the use of plate technology in installations and applications which were traditionally limited to shell and tube heat exchangers or printed circuit exchangers. Installing a totally welded plate package in a shell creates the gas tight Calopyx plate heat exchanger unit. It can be operated in the hydrogen- and other chemical applications. Based on high grade materials each unit will be correctly applied to your process requirements.



Materials:

Shell Side:

- Carbon Steel
- Stainless Steel
- Duplex SS
- Other materials on customer request

Plate Side:

- Stainless Steel
- Titanium
- Hastelloy
- Monell
- Other materials on customer request



Titanium Plate Crude Oil Coolers

The key features of the Calopyx heat exchanger design are:

Fully welded construction

- optimal process security
- operating pressures up to 150 bar
- operating temperatures between -200 °C up to +950 °C
- gastight
- total elimination of elastomeric gaskets

High efficient

- optimal thermal performance
- high heat transfer capacity
- wide capacity range
- suited to many applications

Compact design

- reduction of weight, about 30% of a shell/tube design
- reduction in footprint, about 20% of a shell/tube design
- high grade of materials
- low filling quantity
- low backlog volume

Benefits:

Cost reductions

- with installation
- during operation
- at service and maintenance

Operation security

- fully welded pressure vessel
- gastight
- suitable for aggressive and critical media

Applications:

- Crude Oil Coolers and Heaters
- Gas Coolers Heaters
- Amine Coolers
- Refrigeration Applications
- Heat Exchanger for Dehydration Packages
- LPG Coolers and Heaters
- LPG Condensers
- Evaporators



Crude Oil Heater FPSO Cidade de Santos Petrobras