Shell & Tube Heat Exchangers

SUNGOV

Inlet

Tube Sheet

Tube Bundle

Pass Partition

Outlet

Channel / Tube Side

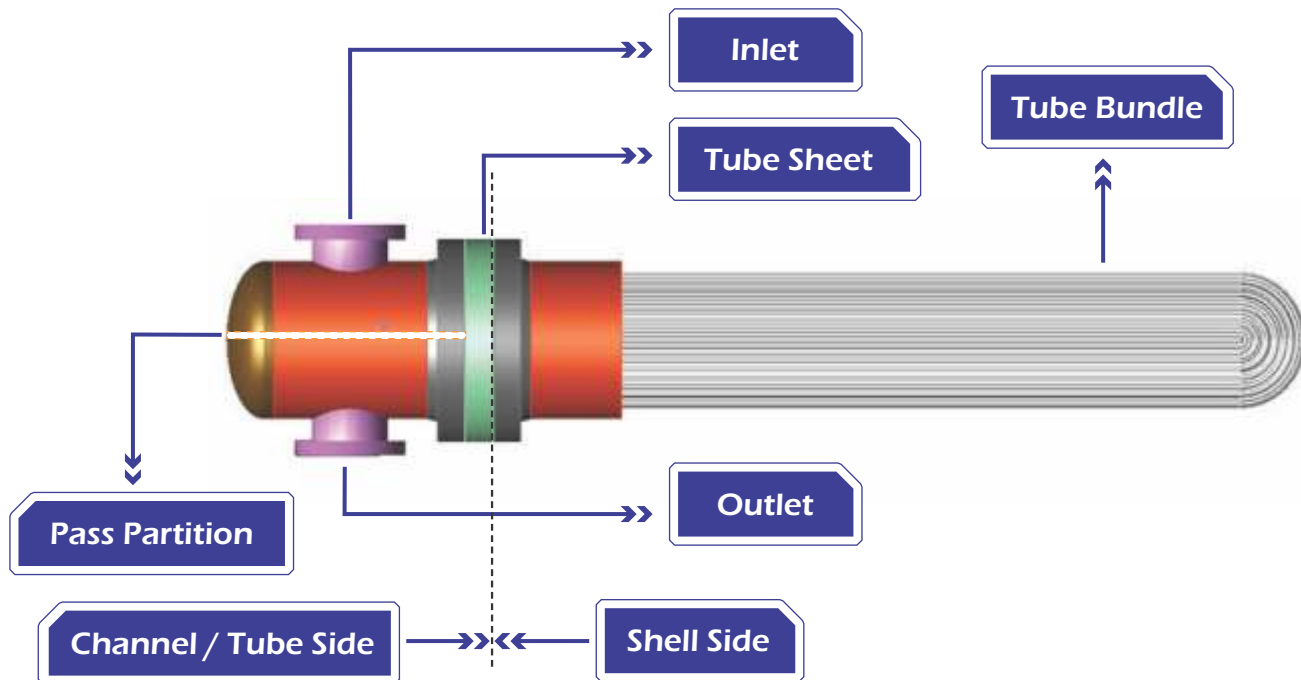Shell Side

BEU Two Pass Type Heat Exchanger

Application

Shell & tube type heat exchangers achieve heating, cooling, condensing or evaporation of distinct fluid streams by transfer of thermal energy through conductive tube bundles enclosed in a shell. One fluid flows though the tubes and a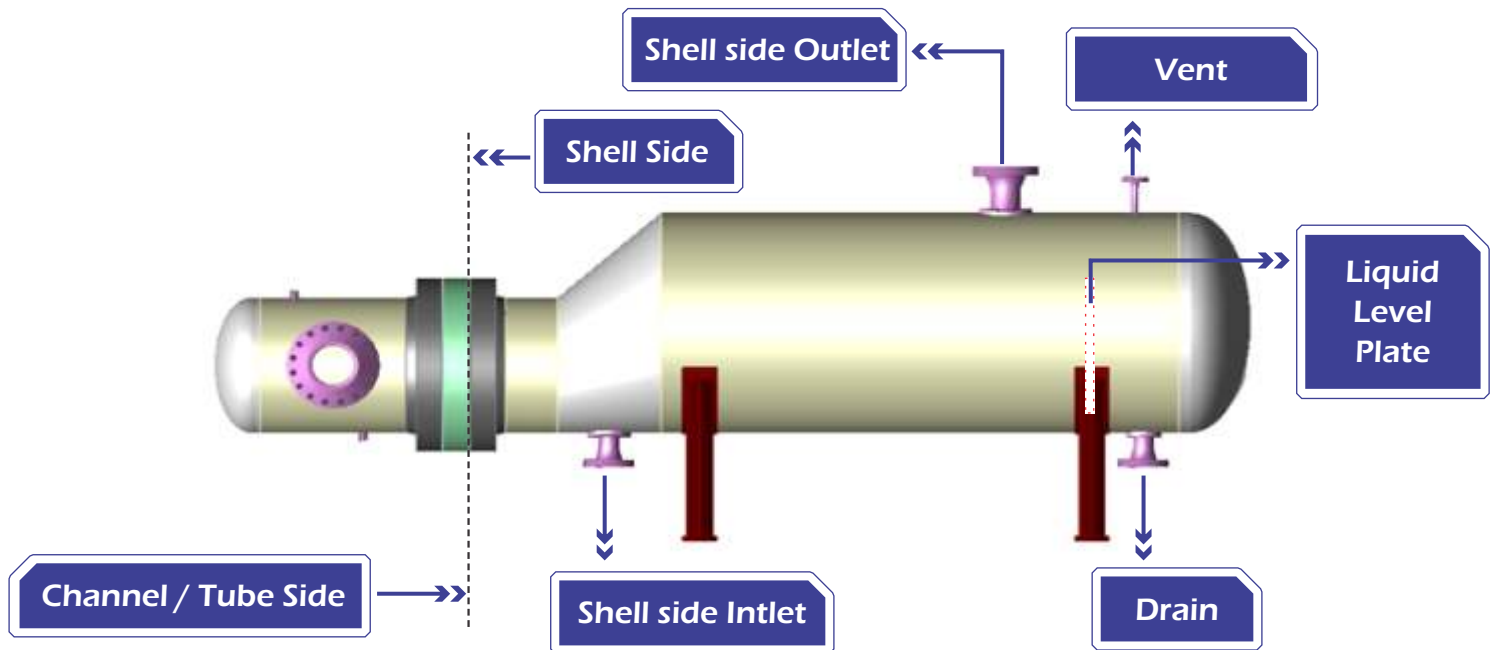nother between the shell and the tubes. The thermal energy is conducted across the tube walls from one fluid to the other. Baffles placed in the shell ensure improved heat transfer between the fluid streams

Salient Features

- In-house capability for mechanical and thermal design
- Suitable for high and low pressure applications
- Suitable for high and low temperature applications
- Easy maintenance
- Complete system design can be offered if required
- Clean room facilities for exotic alloy welding
- Close tolerance machining for improved performance
- ASME Sec IX qualified welders as standard

Design Features

- Designed to ASME Sec VIII Div 1 & TEMA as standard; ASME Code stamping as option
- Computer software verified mechanical design using PV Elite®
- Computer software verified thermal design using HTRI Exchanger Suite®
- Horizontal installation
- Custom design to API 660 as option
- Finite element analysis if required
- Corrosion resistant alloys suitable for intended service
- NACE MR0175 compliance as option

BKU Reboiler Type Heat Exchanger

Labels on diagram: Shell side Outlet, Vent, Shell Side, Liquid Level Plate, Channel / Tube Side, Shell side Intlet, Drain

Vessel Size

• Up to 120"

Pressure Ratings

• Up to ASME #2500

Inspection & Testing

• Weld inspection by certified welding inspectors
• NDE performance & interpretation by ASNT Level II certified inspectors
• RT & LPT examination as standard, MT & UT examination as option/supplement

• Helium leak testing as option
• PMI testing as standard
• Metallographic examination as option
• Eddy current testing of tubes as option
• In-situ hardness testing as option

Shell & Tube Sheet Materials of Construction

• ASTM A106 Gr. B
• ASTM A516 Gr. 70N
• ASTM A105N
• ASTM A312 TP304/304L/316/316L
• ASTM A182 Gr. F304/F304L
• ASTM A182 Gr. F316/316L
• ASTM A240 Type 304/304L/316/316L
• ASTM A266 Gr. 2

Tube Materials of Construction

• ASTM A179
• ASTM A213

Other Materials of Construction

• Other carbon steels including low temp. steels
• Austenitic-ferritic stainless steels
• Nickelalloys
• Copper alloys
• Titanium alloys

Used In

◆ Oil refineries   ◆ Natural gas processing plants   ◆ Petrochemical & Chemical plants   ◆ Power plants
◆ Steel, cement and fertilizer plants   ◆ Compressed air or gas systems