

Shell & Tube Heat Exchangers

ENGINEERED SERIES: CENTURY® C500 Series

Southgate
Process Equipment, Inc.

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Standard **X**change
a xylem brand

DETAILS

- Straight tube, internal clamp split ring, floating head, removable bundle.
- Multi-pass tube arrangements for maximum efficiency over a wide variety of tube flow volumes.
- Standard shell sizes from 6 inches through 42 inches in diameter; custom designs up to 60 inches in diameter.
- Available for horizontal or vertical mounting.

ADVANTAGES:

Higher heat transfer surface area per given shell and tube size than pull-through designs (AET or BET Types).

Allows for differential thermal expansion between the shell and tubes.

Lack of packed joints allows for handling volatile and/or toxic fluids.

Provides multi-pass tube arrangements.

Bundle can be removed for shell side cleaning and maintenance.

LIMITATIONS:

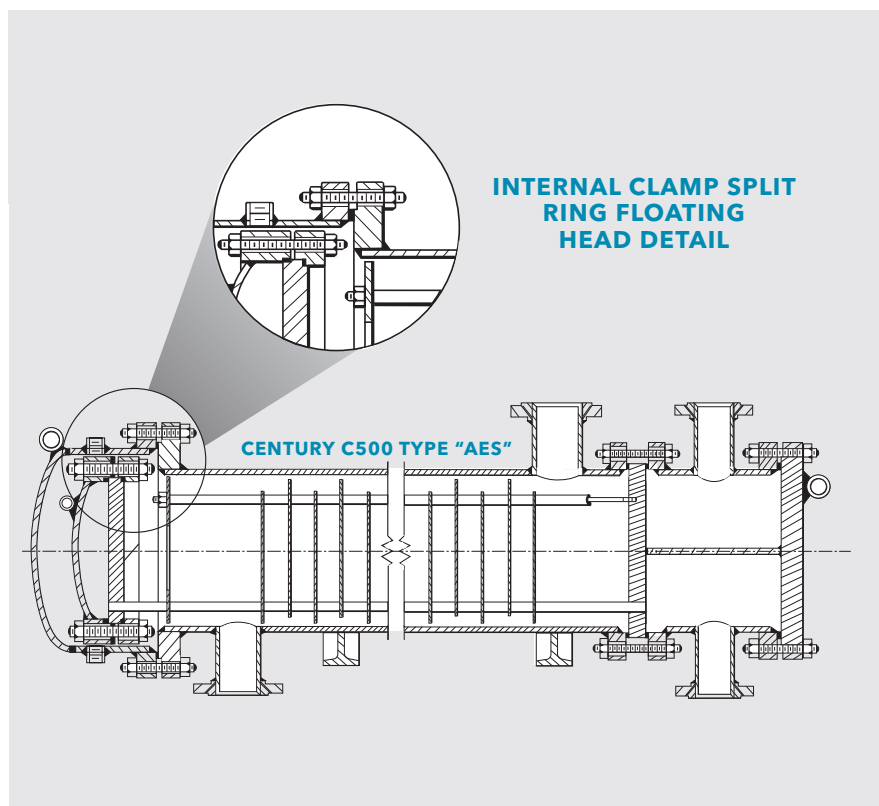
Shell cover, clamp ring and floating head cover must be removed prior to removing bundle. This results in higher maintenance cost compared to "pull-through" designs (AET or BET)

More costly than fixed tubesheet and U-tube designs.

TEMA Type AES or BES.

Can meet TEMA "B", "C" and "R", ASME Section VIII Div. 1 and ASME Section III "N" stamp.

CENTURY® C500



CENTURY® C500 STANDARD DESIGN CAPABILITIES

	DESIGN PRESSURE	DESIGN TEMPERATURE
Tube Side	75 - 450 psi 517 - 3,102 kPa	-20 - 650°F -29 - 343°C
Shell Side	75 - 300 psi 517 - 2,068 kPa	-20 - 650°F -29 - 343°C

Note: Custom designs to 3,600 psi/24,816 kPa and 1000°F/538°C, depending on shell diameter and design temperature.

MATERIALS

Standard Designs

Shells

- Shells - Steel, 304SS, 316SS, 304LSS, 316LSS up to 42-inch diameter

Bonnets/Channels

- Bonnets/channels - Steel, 304SS, 316SS, 304LSS, 316LSS, Cast Iron, Cast Bronze, Ductile Iron.

Tubesheets

- Tubesheets - Aluminum Bronze, 90/10 CuNi, Muntz, RNB, 304SS, 316SS, 304LSS, 316LSS Steel.

Tubes

- Tubes - Carbon Steel, Stainless Steel, Nickel and Nickel Alloys, Titanium and other Alloys. Bare and Lo-Fin Tubing.

CAPABILITIES

- Hydraulic tube expansion
- Seal and strength welding of tubes to tubesheet
- Expansion joints (flanged and flued head as well as bellows type)
- Surface finish analysis
- Heat transfer test laboratory (4,000 ft²)
- Helium leak testing
- Radiographic, ultrasonic and magnetic particle testing (sub-contracted)
- API oil flushing

DESIGN CAPABILITIES

Custom Designs

Materials

- Stainless steel(s) (including Alloy 20, 317SS, AL6XN, 904LSS, etc.)
- Hastelloy • Titanium • Monel
- 90/10 CuNi • 70/30 CuNi • Inconel
- Incoloy® • Avesta 254SMO

(Note: Weld qualifications may have to be developed)

Diameter

- Up to 42 inches for standard designs; custom designs up to 60 inches

Length

- Up to 30 feet for standard steel designs and 21 feet for standard stainless steel designs; custom designs up to 40 feet.

Temperature

- From -20°F (-29°C) up to 655°F (343°C) with standard designs; custom designs from -300°F (-184°C) up to 1000°F (538°C).

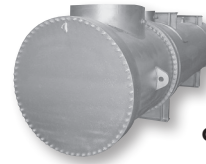
Weight

- 50 tons maximum

SPECIFICATIONS

- ASME Section III "N" stamp
- ASME Section VIII Division 1
- TEMA Classes "B", "C" and "R"
- API
- ABS
- US Navy (Mil C-15730)
- The Pressure Equipment Directive (97/23/EC)

MODELS OF EFFICIENCY



CENTURY SERIES®



BRAZEPAK®



PLATEFLOW®



AIREX® AND FANEX®



PRE-ENGINEERED SERIES



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