



ITT

ITT Standard

the new
standard in

Shell & Tube Heat Exchangers

Pre-Engineered Series: BCF/SSCF/SX2000/B300



Engineered for life

Shell & Tube | HEAT **Exchangers**

As the recognized leader in heat exchanger products, systems and technology, ITT Standard has been providing state-of-the-art solutions to heat transfer problems for more than 90 years.

Today, the company is devoted exclusively to the design, engineering and manufacture of shell-and-tube, gasketed plate, brazed plate and air-cooled heat exchanger products. ITT Standard heat exchangers are engineered and manufactured by experienced craftsmen who have been devoted to the science of heat transfer not just for years, but for generations. And because we offer such a wide assortment of different heat exchanger designs, we can assure you of getting the optimum heat transfer solution to your specific application, without bias toward any one particular (or proprietary) product line.

*ITT Shell & Tube
heat exchangers
are manufactured
with the highest
standards of quality.*

Some of ITT Standard's code
qualification options include:

ISO 9001

*ASME Code
Pressure Equipment
Directive (97/23EC)*

China ML

Korean KGS

Brazilian NR-10



the new standard in

COST-EFFECTIVE SOLUTIONS.



From water to oil to process fluid and corrosive fluid applications, there's an ITT Standard heat exchanger that will get the job done. Our comprehensive range of shell & tube heat exchangers is dependable, rugged, and proven – with more than 90 years of research and engineering backing every design. With state of the art computerized design and configuration integrated with our advanced lean manufacturing cells, hundreds of design options are available through our Quick Ship Program providing unparalleled yet cost-effective lead-times.

the new standard in

INNOVATION.



It's true that ITT Standard has been leading the way in state of the art heat transfer solutions. Our advanced thermal research lab is one of the largest and best equipped facilities in the industry. Staffed with a team of highly qualified engineers, ITT Standard's research efforts are used to analyze complex heat transfer solutions and advanced new product development. It is also made available to industry groups, to develop standards and guidelines for product design and testing.



ITT Standard is headquartered in one of the largest and best-supported heat exchanger centers in the world.



Our design staff and computerized selection process will help you choose the best heat exchanger for your application.



Advanced computerized design integrated with lean manufacturing processes provides for the industry leading Quick Ship Program.



High standards of quality are found in every aspect of manufacturing, packaging and shipping.

QUALIFIES FOR THE
Quick Ship Program

BCF/HCF/HFF HEAT EXCHANGERS

Exchanger Type:

Straight Tube

Fixed Tubesheet

Advantages:

Less costly than removable bundle exchangers.

Provides maximum heat transfer surface area per given shell and tube size.

Easily interchangeable with designs of various manufacturers.

Flanged lip baffles ensure close tolerance, high efficiency and additional tube support.

Enlarged bundle entrance area of hub/tubesheet design lowers entrance velocity and pressure loss.

Tube side can be steam or mechanically cleaned.

Only tube side fluids exposed to gaskets.

No packed joints.

Limitations:

No provision for differential expansion of tubes and shell.

Shell side may not be mechanically cleaned.

- Compact design with shell diameters 2" to 8", standard tube lengths 8" to 72" with custom tube lengths to 144".
- Available in 1, 2 & 4 tube side pass configurations.
- Same day, three-day, or five-day Quick Ship Program available.
- ASME Code options available.
- Materials

Shell	Brass
Tubes	Copper with option for 90/10 or 70/30 CuNi Tube Diameter Options: 1/4", 3/8", and 5/8"
Hubs	Brass with optional SAE four bolts connections
Bonnets	Cast Iron with option for Cast Bronze
Feet and Bolting	Carbon Steel

BCF/HCF/HFF Standard Design Capabilities

	Design Pressure	Design Temperature
Tube Side	150 psi 10.5 kg/cm ²	300 °F 148.9 °C
Shell Side	300 psi 21.1 kg/cm ²	300 °F 148.9 °C



SSCF/SSCF-C HEAT EXCHANGERS

- Compact design with shell diameters 2" to 8", standard tube lengths 8" to 72" with custom tube lengths to 144".
- Available in 1, 2 & 4 tube side pass configurations.
- Same day, three-day, or five-day Quick Ship Program available.
- ASME Code options available.
- Flanged connection options available.
- Materials

Shell	Stainless Steel 316
Tubes	Stainless Steel 316 with option for Copper, 90/10 or 70/30 CuNi Tube Diameter Options: ¼", ⅜" and ½"
Hubs	Cast Stainless Steel 316
Bonnets	Cast Stainless Steel 316 with Cast Iron and Cast Bronze options
Feet and Bolting	Carbon Steel with Stainless option

SSCF/SSCF-C Standard Design Capabilities

	Design Pressure	Design Temperature
Tube Side	150 psi 10.5 kg/cm ²	450 °F 232 °C
Shell Side	225 psi 15.8 kg/cm ²	450 °F 232 °C



Exchanger Type:

Straight Tube

Fixed Tubesheet

Advantages:

Less costly than removable bundle exchangers.

Provides maximum heat transfer surface area per given shell and tube size.

Easily interchangeable with designs of various manufacturers.

Flanged lip baffles ensure close tolerance, high efficiency and additional tube support.

Enlarged bundle entrance area of hub/tubesheet design lowers entrance velocity and pressure loss.

Tube side can be steam or mechanically cleaned.

Only tube side fluids exposed to gaskets.

No packed joints.

Limitations:

No provision for differential expansion of tubes and shell.

Shell side may not be mechanically cleaned.

QUALIFIES FOR THE
Quick Ship Program

SX2000/SX2000C HEAT EXCHANGERS

Exchanger Type:

Straight Tube

Fixed Tubesheet

Advantages:

All welded rugged carbon steel shell side construction provides maximum durability.

Less costly than removable bundle exchangers.

Provides maximum heat transfer surface area per given shell and tube size.

Easily interchangeable with designs of various manufacturers.

Tube side can be steam or mechanically cleaned.

Only tube side fluids exposed to gaskets.

No packed joints.

Limitations:

No provision for differential expansion of tubes and shell.

Shell side may not be mechanically cleaned.

- Compact design with shell diameters 2" to 8", standard tube lengths 8" to 72" with custom tube lengths to 144".
- Available in 1, 2 & 4 tube side pass configurations.
- Same day, three-day, or five-day Quick Ship Program available.
- ASME Code options available.
- Flanged connection options available.
- Materials

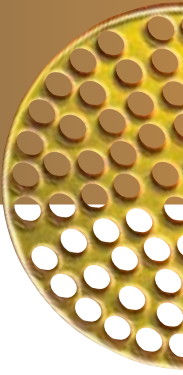
Shell	Fabricated Carbon Steel
Tube sheets	Fabricated Carbon Steel with option for Stainless Steel 316 or 90/10 CuNi
Tubes	Copper with option for Stainless Steel 316, 90/10 or 70/30 CuNi. Tube Diameter: 1/4" and 3/8"
Bonnets	Cast Iron with cast Stainless Steel 316 and Cast Bronze options
Feet and Bolting	Carbon Steel

BCF/HCF/HFF Standard Design Capabilities

	Design Pressure	Design Temperature
Tube Side	150 psi 10.5 kg/cm ²	300 °F 148.9 °C
Shell Side	300 psi 21.1 kg/cm ²	300 °F 148.9 °C



SX2000U/B300 HEAT EXCHANGERS



- SX2000U utilizes compact 3/8" OD tubes for compact selections. Pre-engineered units 4" thru 12" shell diameters.
- B300 utilizes larger 3/4" OD tubes to handle wide range of fluids. Shell diameters from 4" to 30" OD.
- Available in 2, 4 or 6 pass arrangements to optimize performance requirements.
- ASME Code options available.
- Materials

Shell	Fabricated Carbon Steel with Stainless options
Tube sheets	Fabricated Carbon Steel with Stainless, 90/10 CuNi and Brass options
Tubes	Copper with option for Stainless Steel, 90/10 or 70/30 CuNi
Bonnets	Cast Iron with Cast Stainless Steel 316 and Cast Bronze options
Feet and Bolting	Carbon Steel

SX2000U/B300 Standard Design Capabilities

	Design Pressure	Design Temperature
Tube Side	4" thru 8" Dia.—150 10" Dia. and up—150 psi (10.5 kg/cm ²)	375 °F 190.6 °C
Shell Side	150 psi 10.5 kg/cm ²	375 °F 190.6 °C



Exchanger Type:

U-Tube
Removable Floating Bundle

Advantages:

Allows for differential thermal expansion between shell and tubes as well as between individual tubes.

Capable of withstanding thermal shock.

All welded rugged carbon steel shell side construction provides maximum durability.

Provides maximum heat transfer surface area per given shell and tube size.

Easily interchangeable with designs of various manufacturers.

Limitations:

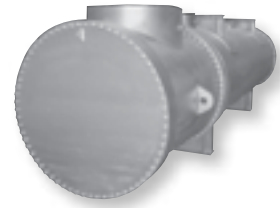
Individual tube replacement not always possible.

Cannot be made single-pass on tube side, so true counter current flow not possible.

Tube side can be cleaned by chemical means only.

Models of efficiency.

Century Series®
Engineered/customized
heat exchangers
for process and other
heating/cooling
applications.



Brazepak®
Braze plate
heat exchanger.



Plateflow®
Gasketed plate & frame
heat exchanger.



AirEx® and FanEx®
Air/oil, air/air, or air/water
heat exchangers.



Pre-Engineered Series
BCF®/SSCF®/SX2000®/B300®
Pre-engineered shell and tube
heat exchanger.



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Lit #104-74
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