



Shell & Tube Heat Exchangers

PRE-ENGINEERED SERIES: BCF/SSCF/SX2000/B300

Southgate
Process Equipment, Inc.

Standard **X**change
a xylem brand

Shell & Tube Heat Exchangers

As the recognized leader in heat exchanger products, systems and technology, Standard Xchange 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. Standard Xchange 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.

Standard Xchange Shell & Tube

heat exchangers
are manufactured
with the highest
standards of quality.

Some of Standard Xchange's code qualification options include:

ISO 9001

ASME Code

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

China ML

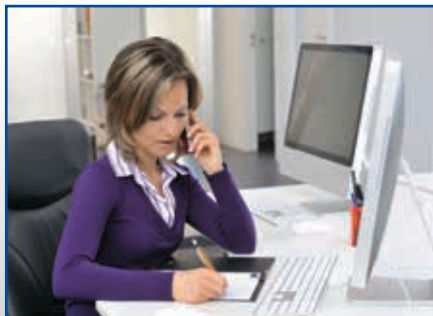
Korean KGS

Brazilian NR-10

Standard change



Standard Xchange 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.

THE NEW STANDARD IN COST-EFFECTIVE SOLUTIONS.



From water to oil to process fluid and corrosive fluid applications, there's an Standard Xchange heat exchanger that will get the job done. Our comprehensive range of shell & tube heat exchangers are 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 Standard Xchange 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, Standard Xchange'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.

BCF/HCF/HFF



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 & 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 |

DETAILS

- 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.

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.

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- Compact design with shell diameters 2" to 8", standard tube lengths 8" to 72" with custom tube lengths to 144".
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No packed joints.

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No provision for differential expansion of tubes and shell.

Shell side may not be mechanically cleaned.

SSCF/SSCF-C**MATERIALS**

| | |
|---------------------------|--|
| SHELL | Stainless Steel 316 |
| TUBES | Stainless Steel 316 with option for Copper, 90/10 or 70/30 CuNi Tube Diameter Options: 1/4", 3/8", and 5/8" |
| HUBS | Cast Stainless Steel 316 |
| BONNETS | Cast Stainless Steel 316 with Cast Iron and Cast Bronze options |
| FEET & 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 |

SX2000/ SX2000C



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 & BOLTING | Carbon Steel |

SX2000/SX2000C 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 |

DETAILS

- 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.

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.

DETAILS

- 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 Section VIII Div. 1 "U" Stamp as standard.

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.

SX2000U/B300



MATERIALS

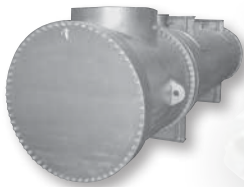
| | |
|---------------------------|--|
| SHELL | Fabricated Carbon Steel with Stainless options |
| TUBES SHEETS | Fabricated Carbon Steel with Stainless, 90/10 CuNi and Brass options |
| TUBES | Copper with option for Stainless Steel, 90/10 or 70/30 CuNi |
| BONNETS | Cast Iron with Cast Stainless Steel 316 and Cast Bronze options |
| FEET & 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 |

MODELS OF **EFFICIENCY.**



CENTURY SERIES®

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



BRAZEPAK®

Brazed 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.

Standard Xchange
a xylem brand

Southgate
Process Equipment, Inc.

FOR MORE INFORMATION, PLEASE CONTACT:

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Canton, GA 30115

Phone: (770) 345-0010

Email: Sales@southgateprocess.com

Website: www.southgateprocess.com

HEAT EXCHANGERS AND PRESSURE VESSELS

| | |
|---|--|
| STANDARD XCHANGE (formerly ITT STANDARD) | Commercial and engineered (TEMA) shell and tube heat exchangers. Plate and frame heat exchangers with various material combinations, gasketed, welded and double wall designs. Brazed plate heat exchangers with standard and customized designs. |
| MUNTERS/ DES CHAMPS | Air to air economizers , tubular and plate style for high temperature applications. |
| HEAT EXCHANGER DESIGN, INC | Longitudinally finned hairpin and double pipe heat exchangers, large shell and tube heat exchangers, tank heaters and suction heaters . TEMA B, C, and R. |
| INDUSTRIAL HEAT TRANSFER, INC | Finned tube heat transfer coils with continuous plate fin design. Many combinations of metals and custom designs. |
| ENERQUIP, LLC | Shell and tube heat exchangers, all stainless steel sanitary designs for pharmaceutical and food applications. |
| ELANCO | Spiral heat exchangers, welded plate and shell, ASME VIII. |
| J D COUSINS, INC. | Large fabricated tanks and shell and tube heat exchangers for chemical, power and general industrial. |
| FABSCO | Air cooled forced draft finned tube heat exchangers. ASME VIII and API 661. |
| CIRCLE-S PRODUCTS | Dry-Flo moisture separators , coalescers, receivers and dry types in stock and custom sizes. Surge tanks , small tanks and ASME VIII pressure vessels . |

PACKAGED SYSTEMS & COMPONENTS

| | |
|---|--|
| SPIRAX SARCO, INC. | Steam control and condensate recovery systems, steam traps, control valves, regulators . |
| ADVANTAGE ENGINEERING, INC | Industrial chillers , air and water cooled in complete packaged systems. Standard and custom designs. Cooling Towers, Temperature Control Units, Pump/Reservoirs Systems . |
| KERR PUMP & SUPPLY | Custom designed skid mounted packaged systems with controls, filters, tanks, pumps, heat exchangers, etc. |
| ITT NEO-DYN & ITT CONOFLOW | Regulators, transducers, actuators, positioners, temperature switches and pressure switches . |
| GAUMER COMPANY | Electric heaters , custom and stock. Immersion, circulation, duct, strip and band heaters . Packaged systems with optional controls. |