Bulletin C-50G

Bell & Gossett

B&G Heat Exchangers

A complete line of efficient heat exchangers

- **“OC” and “OF” (straight tube) heat exchanger**
- **“TS” tank suction heater**
- **“TCW” and “TCS” tank heaters**
- **“CHX/CHS” compact heat exchangers**
- **“WU” and “SU” heat exchangers**
- **Diamondback heat exchangers**
- **Honeycomb™ brazed plate heat exchanger**
- **“MEA” liquid cooler**
- **“GPX” plate heat exchanger**
- **“ACA” and “ACFR” aftercoolers**
- **“GC” gas cooler**

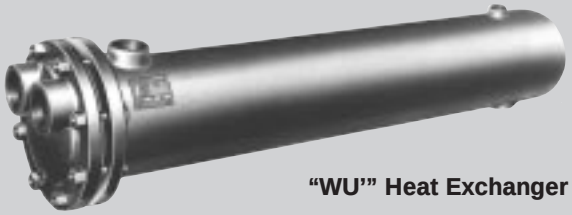
Part of the ESP CAD and ESP PLUS Equipment Selection Programs

ITT **Bell & Gossett**

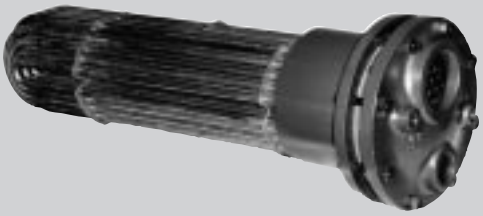
ITT Fluid Technology Corporation

HEATING COMPONENTS

“SU’” Heat Exchanger



“WU’” Heat Exchanger



“TCW” and “TCS” Tank Heaters

“SU” Models through 14" and “WU” models through 10" diameter are carried in stock for immediate shipment.

“SU” HEAT EXCHANGER

The “SU” Heat Exchanger is an instantaneous type, designed to heat liquids with steam. No space-wasting, expensive storage tank is needed.

Although the “SU” is used for heating many types of fluids, its widest application is for heating water. The “SU” can also be used as a converter for use with radiation, radiant panels and snow melting systems. Available in diameters 4" through 30".

“WU” HEAT EXCHANGER

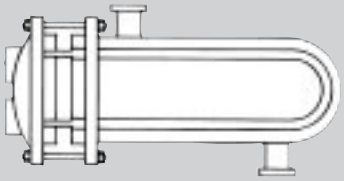
Instantaneous water-to-water heat transfer — with pumped boiler water circulation. The “WU”, equipped with a B&G Booster Pump, pumps boiler water through the shell, thereby greatly increasing the capacity of the heater. Large volumes of hot water are produced by an amazingly small unit. Sizes range from 4" diameter through 30" diameter.

“TCW” AND ”TCS” TANK HEATERS

B&G Tank Heaters are 2 pass U-bend heat exchangers.

Heads are furnished with tappings for steam, condensate, vacuum breaker and vent connections. Available in 3/4" O.D. tube diameter. Heads on 3/4" O.D. tube series only are also furnished with tappings for water connections. Type “TCW” head style for boiler water in tubes. Type “TCS” head style for steam in tubes.

DOUBLE WALL HEAT EXCHANGERS



Diamondback™ Double Wall Heat Exchanger Patent No. 4,744,412

Double Wall “GPX” Plate Heat Exchangers

Bell & Gossett double wall heat exchangers are designed to give a positive indication of potential cross-contamination of potable water and other liquids in an economical and thermally efficient way.

DIAMOND BACK™ DOUBLE WALL HEAT EXCHANGER

Vented double wall construction for use on potable water systems and process applications. Unique diamond shape pattern provides multiple vented leak ports for positive indication of potential contamination. Double wall tubes available on “SU,” “WU” and Tank heater units.

Diamondback double wall tube options include copper, 90/10 Cu-Ni, and 316 SS materials.

UL LISTED

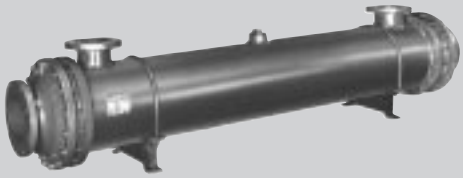
All Bell & Gossett Diamondback Double-Wall heat exchangers are UL Listed for use on potable water or other process systems where steam, water, and/or glycol/water solutions are the working fluids.

DOUBLE WALL “GPX” PLATE HEAT EXCHANGER

Double wall “GPX” plate heat exchangers share the same features and benefits with other “GPX” plate heat exchangers in addition to providing a vented air space for positive indication of potential cross-contamintation. Double wall “GPX” plate heat exchangers are available in seven different frame sizes.

INDUSTRIAL PRODUCTS

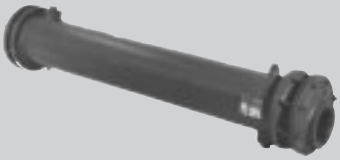
“OF” (Straight Tube) Heat Exchanger



“OC” (Straight Tube) Heat Exchanger

“TS” Tank Suction Heater

“Honeycomb™” Heat Exchanger Brazed Plate Design



“GC” Gas Cooler

“CHX/CHXS” Compact Heat Exchangers

“GPX” Plate Heat Exchanger

“OF” (STRAIGHT TUBE) HEAT EXCHANGERS

“OF” fixed tube sheets having straight tubes of 5/8" and 3/4" O.D. are excellent where the heavy fouling fluids are inside tubes and light fouling fluids in the shell. An expansion joint must be used when wide temperature differences exist or abrupt temperature changes occur between tube and shell side fluids

“OC” (STRAIGHT TUBE) HEAT EXCHANGERS

These units feature removable tube bundles with an internally packed floating head. They have a wide range of applications involving transfer of heat between fluids. Sizes range from 6" through 32" in diameter; lengths from 2' through 24'. Standard materials include steel shells and tube sheets, cast iron heads and copper or steel tubes. Alternate tubing materials are available on request. The design can be varied for channel-or bonnet-heads in both single and two-pass construction.

“TS” TANK SUCTION HEATER

This Tank Suction Heater preheats liquids of heavy viscosity held in storage tanks so that the liquids may be pumped. The removable “U” tube bundle has either 3/4" O.D. copper or steel tubes.

“HONEYCOMB™” HEAT EXCHANGER BRAZED PLATE DESIGN

A revolutionary type of plate heat exchanger constructed of 316 stainless steel plates brazed together to eliminate gaskets, heavy frames, weight, and bulk. The “Honeycomb™” (Model BP) design is an “Off-the-Shelf” corrugated plate design for quick delivery. Design pressures to 435 PSIG and temperatures to 365°F. Flow rates to 190 GPM.

“GC” GAS COOLER

Using cooling water, these Gas Coolers are adapted to cooling of gases entering tubes at 1000°F or lower. They have the same design features as the “OC” with 1/2" or 5/8" O.D. tubes.

“CHX” COMPACT HEAT EXCHANGERS

These units are ideally suited for engine oil cooling, mechanical seal cooling, injection molding machine cooling, hydraulic oil cooling and other similar applications. All non-ferrous construction Shellside, this fixed tube sheet design gives optimum thermal efficiency for specific flow conditions. The CHX Series are available in various lengths in several diameters starting at two inches. In smaller diameters, 2, 3, and 4 inch, the tubes will be 1/4" O.D. The larger sizes will employ 3/8" O.D. tubing. The utilization of smaller diameter tubes permit maximum heating surface in a given diameter shell enhancing compactness and minimizing mounting space. Units also available with brass heads.

“CHXS” COMPACT HEAT EXCHANGERS

Same design features as the “CHX” heat exchanger except “CHXS” is all stainless steel construction, 2" – 12" diameters.

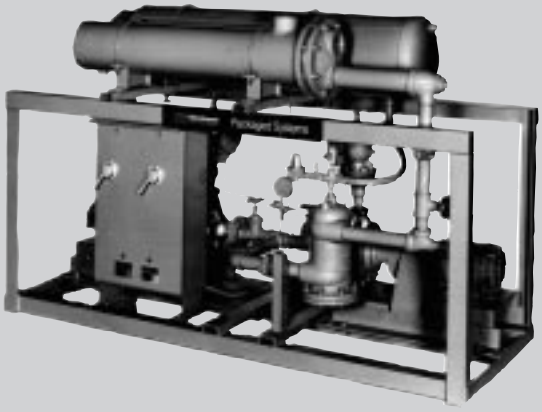
“GPX” PLATE HEAT EXCHANGER

“GPX” heat exchangers are of a gasketed plate pack design. Some features and benefits of this design are its small size, light weight and high efficiency in transferring heat with either large or small fluid temperature differences. Design produces high turbulence resulting in high heat transfer coefficients, full counterflow of hot and cold fluids, and low fouling – which means minimum surface area requirement. Flows from 10 GPM to 10,500 GPM. Eleven plate sizes available to meet a wide variety of applications.

AIR HANDLING HEAT EXCHANGERS

“ACA’” Aftercooler

“ACFR’” Aftercooler



“HTP” Heat Transfer Package

“ACA” AND “ACFR” AFTERCOOLERS

Bell & Gosset aftercoolers are designed to cool compressed air for safer handling of pneumatic equipment and to remove moisture and oil from compressed air. Full size air connections for reduced pressure drop and easy removal of condensed water. Counterflow design for close approaches. Model “ACA” is designed with a floating rear tubesheet to compensate for expansion or contraction of the tube bundle. The bundle is removable. Model “ACFR” is fixed tubesheet type aftercooler of compact design, maximum length 50".

“HTP” HEAT TRANSFER PACKAGE

The “HTP” Package is ideally suited to process heating and cooling applications, radiation heating systems and most heat transfer conversion systems. The unit is factory engineered and assembled and includes all the necessary components for accurate temperature control. The packge arrives on the job site as a completely assembled unit requiring only that connections be made to utilities. Extensive savings are realized in the elimination of engineering design and field installation time.

For further information, contact ITT Bell & Gossett Heat Transfer Products — 175 Standard Parkway, Cheektowaga, NY 14227, Phone: (716) 862-4171 — Facsimile: (716) 862-4176

PRINTED IN U.S.A. 8-95

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