



GPX Plate and Frame Heat Exchangers

C-310F

GPX technology offers maximum efficiency in less space, with outstanding application flexibility.

Innovative plate design allows GPX heat exchangers to provide more heat transfer using less space. They perform with one-third to one-fifth the surface area of conventional shell and tube heat exchangers designed for the same application.

- GPX models have higher surface area to volume ratios than conventional shell and tube heat exchangers.
- GPX offers superior heat transfer coefficients compared to shell and tube heat exchangers.
- GPX offers “true” countercurrent flow, which maximizes the mean temperature difference between the fluids.

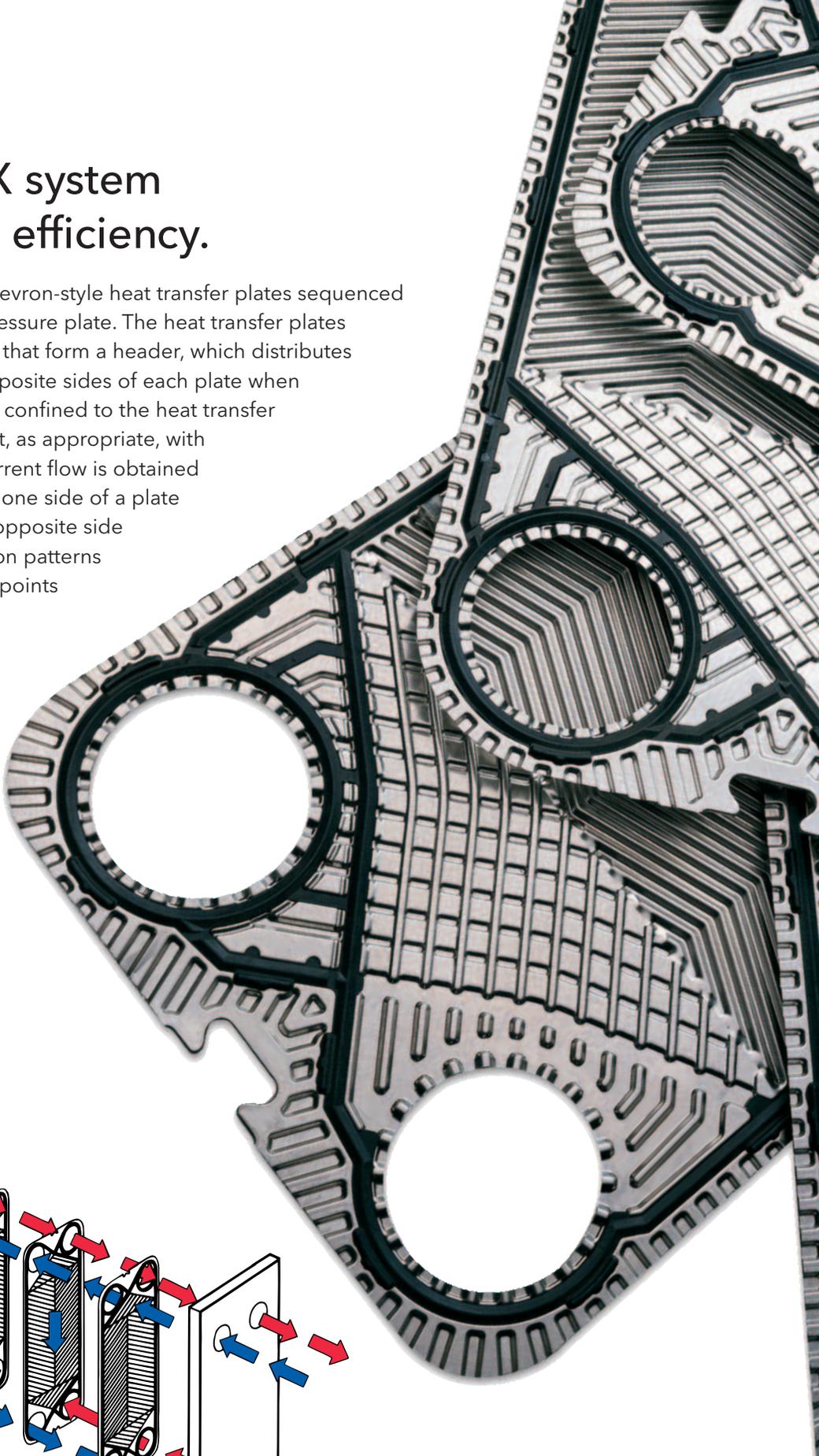
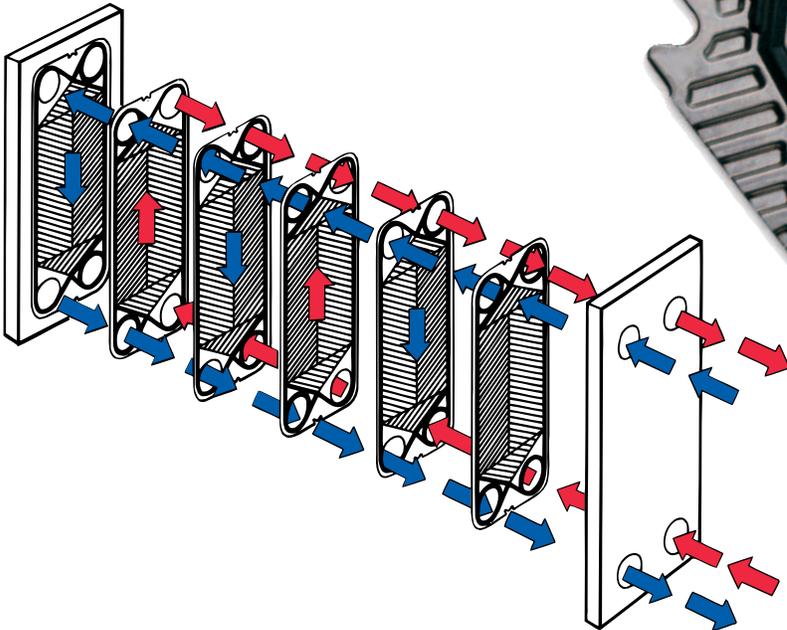
Expansive product line meets a variety of needs.

The GPX line has the capability to meet any size application, and it offers a wide variety of plate construction materials and connection types. You can choose products constructed from 304 or 316 stainless steel, titanium, Hastelloy,[®] Incolloy[®] or other metals. Plates can be gasketed, semi-welded, double wall, or free flow, depending on your particular application.



Advanced GPX system offers superior efficiency.

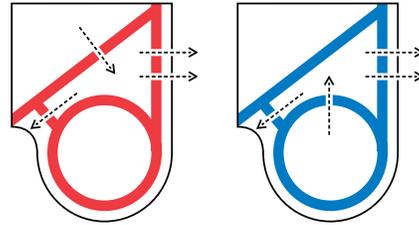
GPX uses a combination of chevron-style heat transfer plates sequenced between a frame plate and pressure plate. The heat transfer plates have holes at the four corners that form a header, which distributes the respective fluids to the opposite sides of each plate when the plates align. The fluids are confined to the heat transfer surface of the plate or the port, as appropriate, with elastomer gaskets. Countercurrent flow is obtained with a given fluid traveling up one side of a plate and the other fluid down the opposite side of the plate. The plate's chevron patterns create metal-to-metal contact points between adjacent plates for added strength. This allows differential pressures equal to the design pressure. The entire assembly is held together with tightening bolts. Carry/guide bars are used to obtain the proper alignment.



Adaptable construction offers superior versatility.

Double gasket prevents cross-contamination.

GPX models include a one-piece molded gasket. This standard gasket is designed with two rings to confine each fluid to the appropriate port region of the plate, a field region of the gasket to confine the fluid to the heat transfer area of the plate and a vented region in between. This design creates a double gasket with a leak path to atmosphere through the vented region to prevent any cross-contamination of the fluids due to a gasket failure. A leak due to a gasket failure is detected as a leak to atmosphere prior to any chance for cross-contamination. Bell & Gossett offers a variety of glueless and glued gaskets.



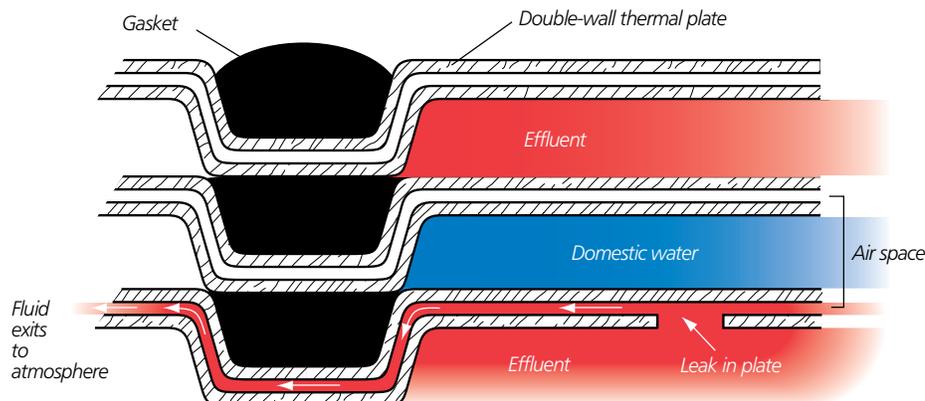
Double gasketing prevents cross-contamination.



Glueless gasket option.

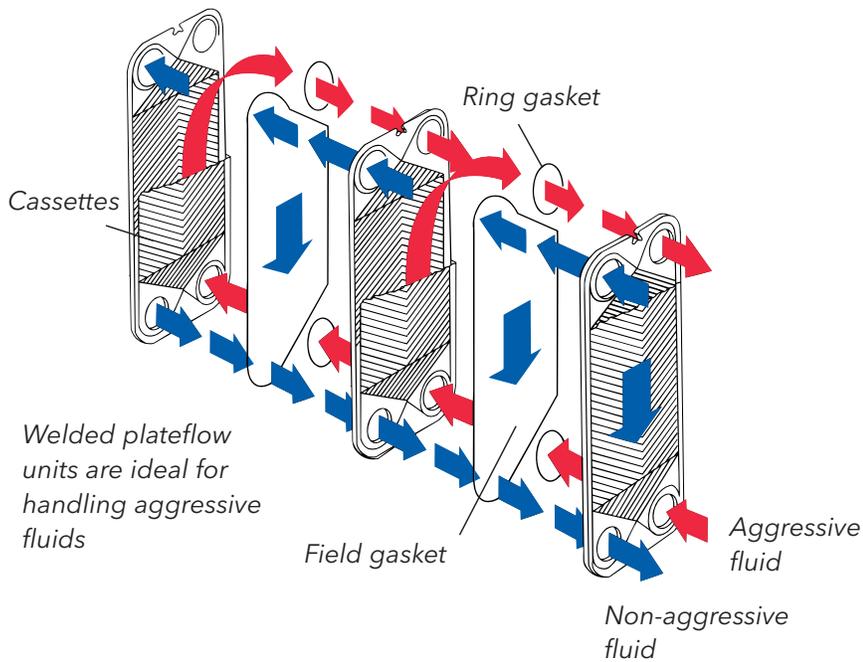
Double Wall Option

The basic GPX design includes a double gasketing feature for extra protection against gasket failure. With double-wall units, that additional protection is extended to guard against plate failure as well. Two plates are positioned together with a unique sealing mechanism at the port holes to form one assembly with air space between the plates. This unique feature protects against contamination of one fluid by another. If one of the plates should corrode and develop a leak, the fluid enters the air space and exits to the atmosphere, instead of entering the opposing passageway.

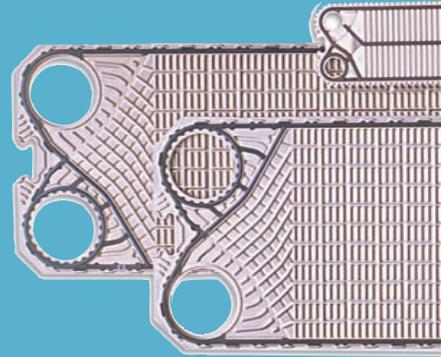


Welded Plate Option

The semi-welded GPX design expands the application envelope of plate heat transfer technology to applications that are aggressive to standard elastomers and other applications where leak prevention is critical. The semi-welded GPX design utilizes two plates laser-welded together to form a cassette. The cassettes form channels within which the welded-side fluid flows. Two ring gaskets and a field gasket are used between adjacent cassettes in the same fashion as gaskets in the standard GPX design. The ring gaskets confine the welded-side fluid between the adjacent cassettes and can be made of highly resistant Teflon® or a more traditional elastomer gasket. The design eliminates the welded side's exposed gasket surface by approximately 90%.

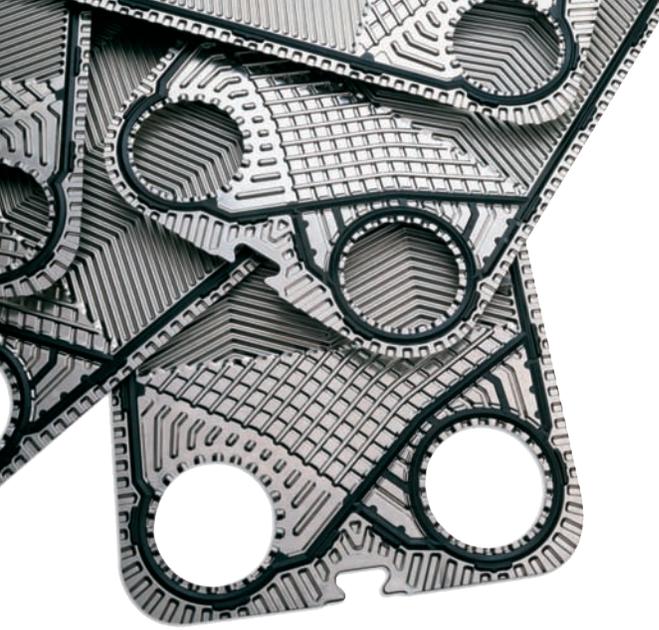


Laser welded plate cassette.



Free Flow Option

Free-flow units offer the same features of basic GPX models, with the added benefit of exceptional clog-resistance. Bell & Gossett free-flow models feature minimum or no metal-to-metal contact points between adjacent plates to reduce points for particles to catch on the plates. Free-flow models can handle fluids with particulate up to 6mm diameter.



Advanced GPX HVAC Solutions

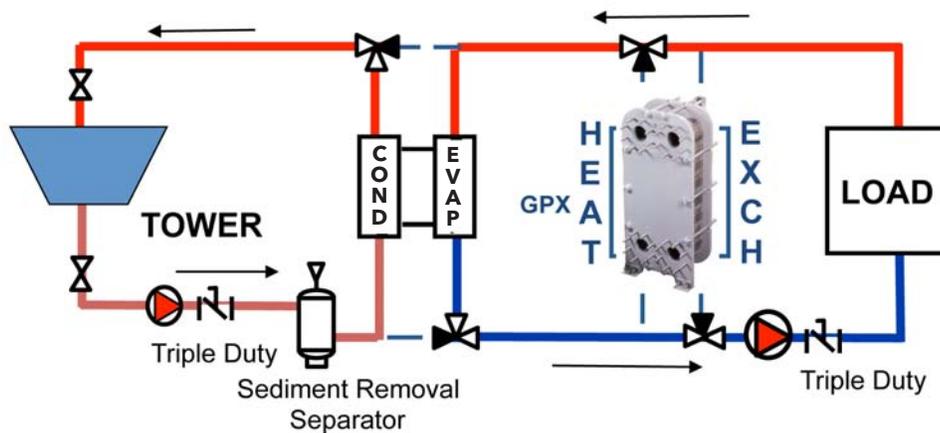
Bell & Gossett is a leading supplier of total HVAC solutions and the GPX gasketed plate heat exchanger is designed to meet the industries needs. Web-based computerized thermal design software provides solutions with the highest rates of heat transfer. These solutions result in smaller units with lower pressure drops. Bell and Gossett provides one of the greatest selection of models for gasketed plate heat exchangers to meet all you HVAC needs.

Typical list of HVAC Applications

- Waterside Economizers
- District Cooling and Heating
- Thermal Storage
- Pressure Interceptor
- Heat Pump

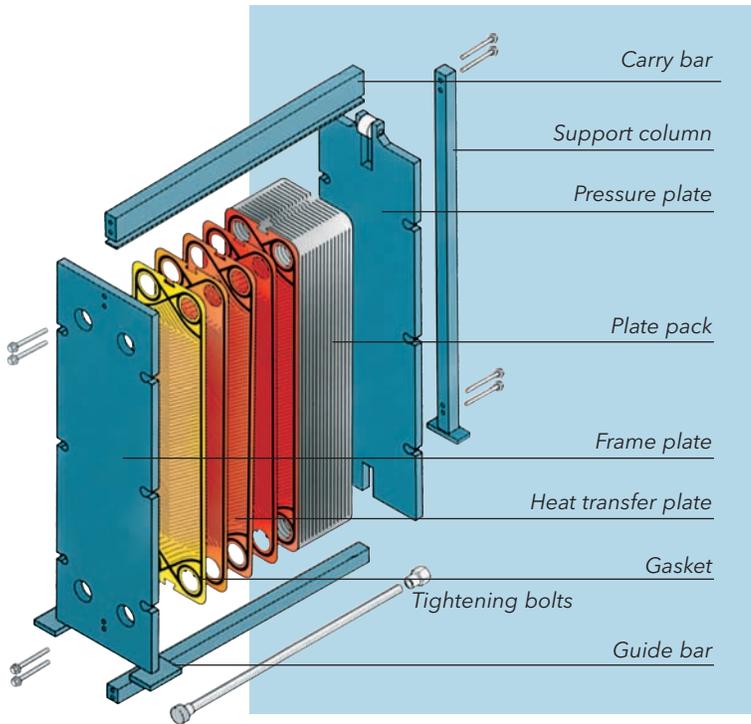
Waterside Economizers

Let Bell & Gossett design a GPX heat exchanger for your waterside economizer system. A water side economizer can utilize climate conditions that minimize chiller operation providing significant savings to the building owner. Bell & Gossett can help you meet the requirements of LEED, ASHRAE 90.1, and AHRI Standard 400.



Modular design allows for easy installation and maintenance.

The GPX design makes assembly, inspection and cleaning easy.



- Easy to install and move.
- Readily expandable and easy to inspect or clean.
- With studded connection, no welding is required.
- Opening or closing the unit does not require disconnecting the piping.
- No special tools needed to tighten plate pack.
- Tightening bolt design allows opening and closing the unit from frame plate.
- GPX has vertical flow, so inlet and outlet connections are above and below each other and on the same plane for easy installation.
- Studded connections withstand higher piping loads than nozzles.

Connection Options



Standard threaded connection



Threaded connection with alloy nozzle



Standard studded connection



Studded connection with alloy lining



Flanged connection

Industry Codes Available

- AHRI Standard 400
- ASME Section VIII Division 1 with U-1 Stamp Construction
- Canadian CRN
- EC Pressure Equipment Directive CE Mark
- China ML

Technical Data

Performance: Maximum Flowrate (GPM)	18,000 GPM
Max. Heat Transfer Area (Sq.Ft.)	Up to 20,000 Sq. Ft.
Connections: NPT Nozzles - Size (Inches)	1 Inch to 2.5 Inch
Connections: ANSI Studded Size (Inches)	3 Inch to 18 Inch
Frame Materials	Primed and Epoxy Coated Carbon Steel
Plate Materials	Stainless Steel, Titanium, Hastelloy™, Other Higher Alloys
Gasket Materials	Nitrile, EPDM, Viton™
Frame Design Pressure	150 psi and 300 psi Standard. Up to 450 psi by request
Design Temperatures	-31F to 338F
Bolting Materials	Zinc Plated Carbon Steel
Plate Pack Shroud	Aluminum with option for Stainless Steel

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're 12,000 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

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