



SUPERMAX® For Amazing Efficiency In A Small Footprint



The Removable Cover and Standard SUPERMAX units are shown above. Contact the Tranter factory for additional information on the removable cover option.

The SUPERMAX® shell & plate heat exchanger is designed for pressures to 70 barg (1,015 psig) and at temperatures up to 537°C (1,000°F) for standard range units. Extended range units are available for higher temperature and pressure applications. With alternating channels for hot and cold media, the SUPERMAX can be configured to provide true countercurrent or co-current flow. The SUPERMAX line offers three different diameters of circular plates.

The SUPERMAX is particularly suited to applications having a large flow imbalance, allowing higher flow rates on the shell side. Horizontal orientation makes the SUPERMAX an excellent choice for condenser/evaporator/boiling applications.

Accordion-like core thrives through thermal expansion cycles

The chevron-type plates are fabricated into a cassette by a resistance seam weld, whose burst test strength is stronger than parent metal. Cassettes are then placed together and perimeter welded to each other, producing an accordion-like core that is highly tolerant to thermal expansion. A patented compression bellows option allows for extreme thermal expansion in high temperature applications.

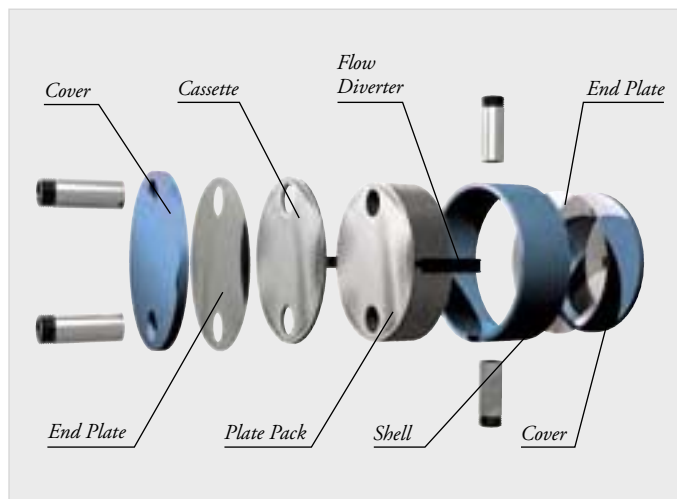
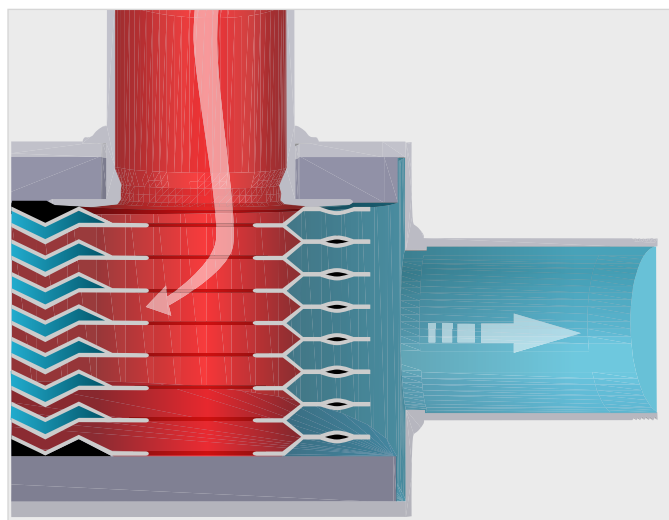


Plate cassettes are welded together in an accordion pattern, producing a core of up to 300 plates that is highly tolerant of thermal cycling stresses. The SM-07 Standard unit is shown.



SUPERMAX flow patterns can be either countercurrent or co-current for higher efficiency.



The plate pack is then inserted in a cylindrical shell. The shell and plate pack is fitted with special fluid diverters to ensure proper flow throughout the unit. End plates, nozzles and top and bottom covers are welded to the shell to form a pressure vessel of high integrity. Extra-large nozzle sizes can be accommodated on the shell side of the exchanger.

The right materials for the job

SUPERMAX plate materials may be Type 316L stainless steel, titanium or other alloys; shells may be fabricated of carbon steel, Types 304, 316, 316L stainless steel or titanium. The unit can be fabricated from dissimilar metals when only one side will be exposed to corrosive conditions.

Optional configurations meet special needs

Various optional configurations of the SUPERMAX unit enable this versatile exchanger to meet wide-ranging application needs. The Removable Cover SUPERMAX exchanger provides full accessibility to the plate pack for inspection and/or mechanical cleaning by removing the plate pack bundle.



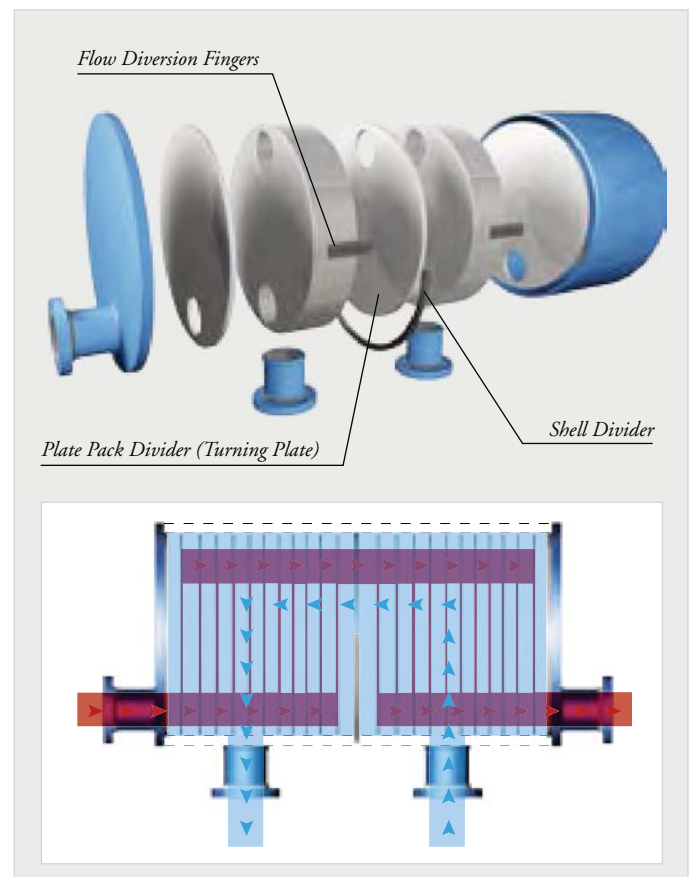
The Removable Cover SUPERMAX exchanger is fully accessible for inspection and/or mechanical cleaning by removing the cover plate assembly.



The Two-In-One SUPERMAX unites two independent plate packs in a single shell.

The Two-In-One SUPERMAX has two separate plate packs that share one shell. These cores can handle different or identical fluids. For flows that require a high flow rate, the two inlets and outlets can be piped together.

The Multi-Pass SUPERMAX establishes multiple passes through separate plate pack zones on both the plate and shell sides.



The Multi-Pass SUPERMAX has separate plate pack and shell zones with countercurrent (shown above) or co-current flow.