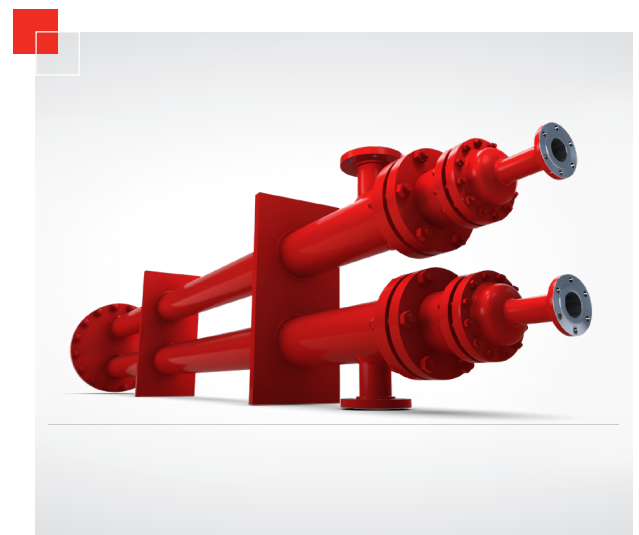


# Basco® Hairpin Heat Exchangers.

A hairpin design is often more thermally efficient than a traditional shell and tube, which results in a lower up-front cost and lower overall weight. Our experienced designers and engineers can meet any custom cooling requirement.

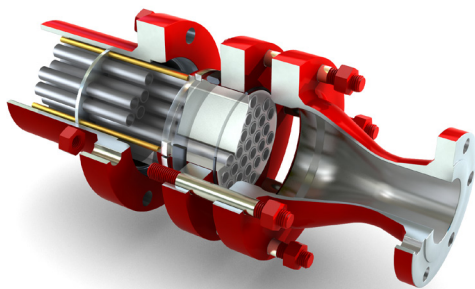
## Performance notes.

- Ideal for applications that require high thermal performance and a compact footprint
- True countercurrent flow allows for a close temperature approach between the shell side and tube side fluids, as well as a temperature cross
- Removable bundles are available in two closure options, separated or common, for required cleaning on both the shell and tube sides
- Non-removable bundles are the cost-effective option when a fixed tubesheet design is feasible
- Wide temperature differentials are handled without an expansion joint
- Ease of maintenance with a long radius U-bend
- All connections are at one end of the heat exchanger
- Sizes up to 60 in. (150 cm) in diameter and 480 in. (1200 cm) in length
- Materials include carbon steel, 300 series stainless steel, Duplex stainless steel, copper alloy, chrome-moly alloys, Hastelloy, Inconel, Monel, 254 SMO, alloy clad/weld overlay
- Designed and fabricated per ASME, TEMA, CRN, PED, CML

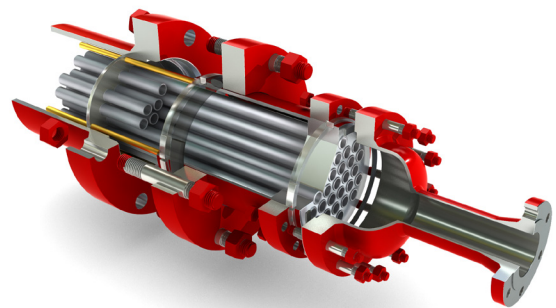


### Applications.

- Oil and gas processing
- Chemical processing
- Petrochemical processing



Common closure



Separated closure