



Bellows Expansion Joints For Heat Exchangers

Expansion Joints are an integral part of many shell and tube heat exchanger designs where process condi-

tions produce differential expansion between the shell and the tubes. Movements are in an axial direction in

The tubes in heat exchangers are typically hotter than the shell, creating stress where the thermal expansion is generated. Depending on service conditions, the tube bundle may be a Nickel alloy and the shell a carbon or stainless steel. These materials have different expansion rates, which is part of the design movement.

Flanged & Flued Bellows...

Flexider USA provides high quality flanged and flued bellows elements for use in almost every industry.



Flexider USA manufactures a full range of bellows used in Heat Exchangers...

- Thin Wall multi Convolutions in single or multi ply
- Thick wall formed bellows
- Flanged and Flued Expansion Joints

Flexider USA Clamshell Bellows Solutions...

Clamshell Bellows are typically used in situations where an existing expansion joint is no longer adequate. When the failing joint can be cut out and removed from system, a new clamshell joint can be placed over the breach opening and welded into place.



either compression or extension conditions.

When the existing expansion joint is difficult or too costly to remove, a new, larger clamshell bellows can be placed over the failing joint to seal the system and maintain flexibility.

These two options allow for the heat exchanger to remain in place, and more importantly, eliminate the need to remove the tube bundle.





Flexider USA is proud to hold an ASME certification to design, engineer and fabricate ASME Section VIII, Division 1 pressure vessels and expansion joints. When applying our Certification Mark, we do so with integrity, knowing the customer's safety, requirements and satisfaction are our priority.

The design for the actual exchanger is part of Tema and or ASME codes.



For more information regarding our products and services, visit our website, or call us and a friendly customer service representative will be happy to assist you.



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