Thorburn Flex Inc

Flexible Piping Specialist

Proven Leader In Expansion Joint Technology

www.thorburnflex.com

Thin Wall Metallic Bellows Expansion Joints For Shell & Tube Heat Exchangers

Thoburn's multi-convolution high pressure ASME SEC VIII, DIV. I Appendix 26 pressure balanced metallic bellows expansion joint is used for critical hydrocarbon processing application for Shell Canada's Blackrock Project

N285.0 97/23/EC ASME ASME In Progress

Thorburn's Quality System is registered and certified to

ISO 9001 B31.1/B31.3

Thorburn, since its conception more than 50 years ago, has become a proven leader in the design and manufacture of custom metallic expansion joints. Thorburn's thin wall multi-convolution metallic expansion joints provide a flexible seal designed to absorb movement and neutralize stress in fixed sheet shell & tube heat exchangers and other critical pressure piping applications.

Thorburn's shell side heat exchanger bellows expansion joints are most commonly found on T.E.M.A., AEM, BEM and NEN fixed tubesheet heat exchangers such as the one shown above. Thorburn can also provide tube side heat exchanger expansion joints for customized floating head heat exchangers e.g. AET & BET configurations which are specially designed to resist both the internal pressure from the tube side as well as the external pressure buckling loads from the shell side.

Thorburn's ASME SEC VIII DIV. I App. 26 Expansion Joints are Custom Designed for Fixed Tubesheet Heat Exchangers

Thorburn thin wall multi-convolution expansion joints provide a leak tight seal and neutralizes all problematic differential movements in fixed tube sheet heat exchanger applications such as, tube buckling, media contamination caused by tube failure and excessive tubesheet stress and tube-to-tubesheet weld failure, etc.

Thorburn's Expansion Joint Advantages

- Registered and meets all ASME Section VIII, Div.1 Appendix 26 requirements
- Materials include austenitic stainless steels, high nickel alloys, zirconium, titanium, AL6XN, Alloy 20 and all other ductile code acceptable materials
- No circumferential welds providing a higher fatigue life
- External covers supplied preventing costly mechanical damage to the heat exchanger
- Welders and welding procedures to ASME Section IX
- N.D.E. to ASME Section V
- P.E.D. (Pressure Equipment Directive) certification available upon request
- Designed to mate with T.E.M.A. heat exchanger designs

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