

RISER SYSTEMS

Tecoustics has a full range of design solutions to meet any riser specification. Through consulting, our solutions are tailored to the customer's needs and requirements. Our full cycle design team can provide a complete design package including pipe stress analysis, structural loading, thermal analysis, riser layouts, branch line analysis, and custom bracket design. Through experience, our project management and design team can bring you cost cutting solutions that outperform competitive designs. As a benefit to our customers, we also offer design and consulting services at the tender stage to increase coordination between trades and ease installation burden.

Spring Riser Systems

Tecoustics has built a reputation offering spring riser systems, a state of the art vertical riser system that incorporates spring mounts strategically placed to support the riser, isolate the system from structure and allow for thermal expansion and contraction. This support design eliminates many of the problems associated with traditional expansion compensator, or expansion loop designs. The spring support systems can be designed to utilize a central isolated anchor which remains neutral during operation, or a totally free-floating system with spring support only. A spring riser system allows the load at each support point to be known under all conditions (empty, full, and operating at both temperature extremes). Shown on the left, Vertical Sliding Guides on a spring riser system.



With a Spring Riser System, you eliminate:

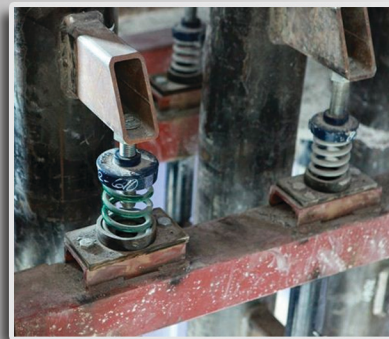
- Costly and labour intensive expansion loops
- Excess transmission paths to structure
- Potential failure of expansion compensators
- Higher horsepower equipment required to overcome additional friction and direction changes from expansion loop design

While Gaining:

- A thermal, vibration and seismic solution
- A system which is neutral on the anchor at operating
- A piping system with no locations for failure
- Reduced labour

Pipe Design Solutions

Tecoustics can provide a variety of design solutions for the customer including pipe stress analysis, thermal expansion analysis, thrust force analysis, branch and offset design, and static analysis of your piping system on the structure. We offer fully customized pipe supports where required, designed to the project's requirements. Tecoustics carries a wide range of thermal control and mounting products, such as a full line of flexible connectors and spring hangers.



HORIZONTAL EXPANSION

Tecoustics prides itself on being on the leading edge of technology and offering innovative solutions that reduce labour and material costs. Our expansion compensation systems for horizontal piping eliminate the need for traditional expansion loops by offering a time, material and labour savings coupled with a higher performing design. Custom designed with the material cost and installation in mind, our full service design team and product line will exceed your expectations.

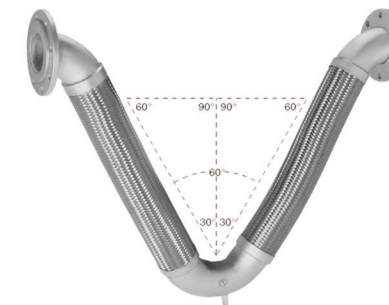
Anchors and Guides

Focusing on improving designs through feedback led to the creation of the adjustable sliding guide (ASG) which has one size per pipe diameter and adjusts to allow varying thicknesses of insulation. A rated load capacity also allows the ASG to be used as a support point on the run of piping. With movements equal to or greater than spider guides, the ASG is superior to all traditional guide designs. Pictured to the right - An adjustable Sliding Guide.



In a thermal expansion application, anchors are relied upon to take the massive weight and thrust loads in the system. Traditional options may not meet the performance requirements of modern systems. Tecoustics can provide the customer with a custom designed anchor for any application.

Stainless Steel Flexible Hose



There are many applications which can benefit from the addition of flex connectors. They can compensate for misalignment, provide vibration control, compensate for thermal movement and seismic movement and act as a reducer/coupler. Flexible hose is available in various fitting options and can be customized to any length or diameter. The Mason Vee Joint pictured left, can take 4" of movement in all directions, and produces almost zero thrust forces. It is an ideal application for higher movement or multi-directional movement such as building seismic joints.

Expansion Compensators

Our design team ensures that your expansion compensation system meets or exceeds the original design by providing full analysis of the system. Our expansion compensators have published test data that allows us to ensure our system outperforms our competitors. The Mason HEJFFL carries many advantages over typical expansion compensators including locking bolts for servicing and externally pressurized bellows with a superior bellow weave. Pictured on the right -- Mason HEJFFL Expansion Compensators.



**Riser Design and Supply | Material Savings | Custom Anchor Design | Labour saving designs
Better Performing Design | Integrated Vibration and Seismic Control | Full Product Line**

