Universal tied

MWL & MFL series

This model is made up of two bellows joined together by a central pipe and a system of tie rods able to withstand the thrust produced by the internal pressure.

This model is used to absorb lateral movements in all planes. In addition and with a special design and/or positioning of the tie rods system this type may be used to absorb some axial and angular movements.

The tie rods are provided in sets of two or more, equally distributed around the circumference of the expansion joint. When the Expansion Joint is supplied with 2 tie rods at 180 degrees, the expansion joint is free to deflect angularly and laterally. With three or more tie rods only lateral deflections are possible.

The amount of lateral deflection depends on the amount of angulation each bellows can absorb and the length or the central pipe. The amount of lateral deflection capability can be increased or decreased by simply changing the length of the spool pipe and the thermal expansion of the central pipe is taken by the bellows elements.

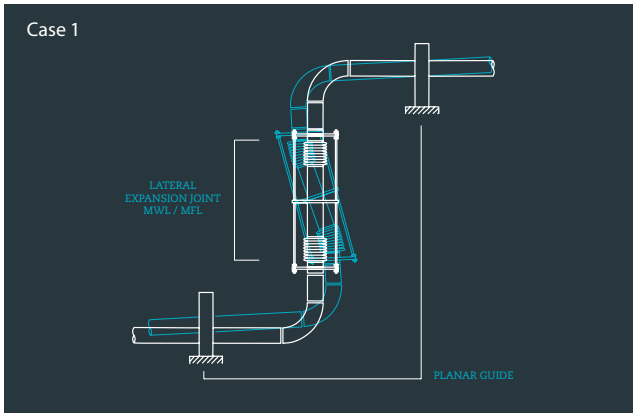
MWL

Universal Lateral Tied Expansion Joint with welding ends.

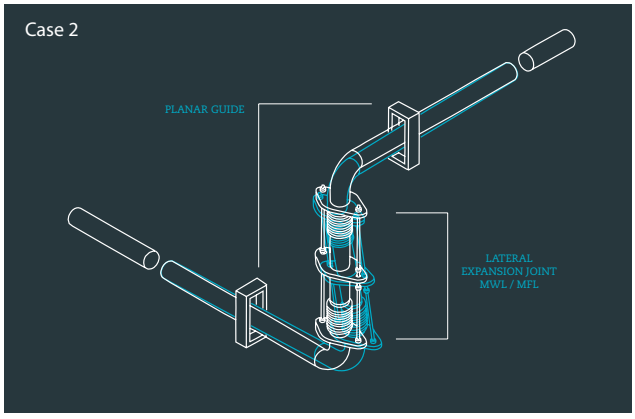
MFL

Universal Lateral Tied Expansion Joint with flanged ends.

Typical applications



This case illustrates how one MWL or MFL Expansion Joint can be used to absorb the thermal Expansion in a Z-shaped section of piping which only occurs in one plane.



This case shows how an MWL or an MFL Expansion Jont can be used to absorb the thermal Expansion in a Z- shaped section of piping which occurs in three different directions. The fact that this type of Expansion Joint is captable of absorbing lateral movements in more than one direction means that two horizontal pipes can form any angle in that plane.

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MACOGA
ENGINEERED EXPANSION JOINTS

Universal tied
MWL & MFL series

Features

Type	Series
Universal tied	MWL, MFL

Pressure thrust restraint	Movements				
✓	Axial		●	Some axial movements may be absorbed with a specific design	Adequate anchors and guides must be provided
	Lateral	Single-plane	✓		
		Multi-plane	✓		
	Angular	Single-plane	●	Angular movement can be absorbed providing 2 tie rods at 180 degrees only	
		Multi-plane	✗		

Sample images

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