

Pressure Balanced

MPB-I series

A pressure balanced expansion joint accommodates axial and lateral movements and counteracts the bellows pressure thrust. An additional bellows is incorporated into the unit and is subject to the line pressure to generate a force equal and opposite to that on the main bellows. Tying these bellows together neutralises the pressure load on the unit.

The Pressure Balanced Expansion Joints are used in situations similar to those described for the Axial and/or Lateral Expansions although this particular type of Expansion Joint offers the additional advantage of not transferring the thrust

caused by the internal pressure to the pipes or adjacent equipment. This characteristic is especially important when it comes to joining the pipes to turbines or other delicate equipment which, by their nature, are unable to withstand these extra loads.

The only loads on the equipment are the sum of the forces required to move the line bellows and balancing bellows of the expansion joint.

This type of Joint can be fitted between intermediate fixed points so main anchoring of the pipe or adjacent equipment is not required.



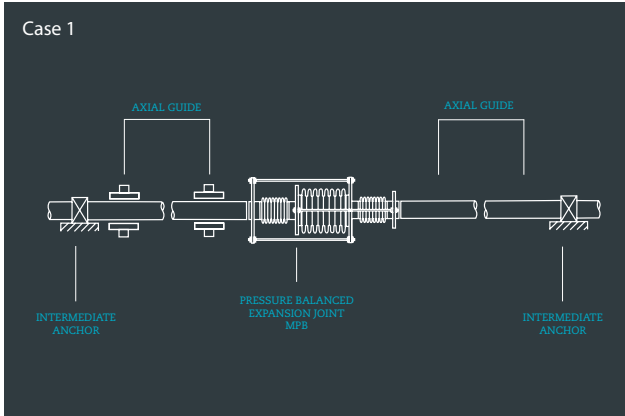
MPB-I

Absorbs Axial and/or Lateral Movements while restraining the pressure thrust.
This type of Expansion Joint is used in a straight run of pipe.

Features

TYPE	SERIES	
Pressure balanced	MPB-I	
PRESSURE THRUST RESTRAINT	MOVEMENTS	
✓	Axial	✓
	Lateral	Single-plane ✓
		Multi-plane ✓
	Angular	Single-plane ✓
		Multi-plane ✓
		With 2 tie bar only
		Eliminates change in pressure
		Pressure forces remain in balance
		No main anchors required

Typical applications



This case involves absorption of axial movement in a straight section of piping by using an In-line Pressure Balanced Expansion Joint.

Sample images

