



EMFLEX[®]

Angular Expansion Joints

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Angular Expansion Joints

EMFLEX angular expansion joints are effectively a hinged bend in the pipeline and allow the pipe to bend through an angle in one plane only of up to +/-6 degrees. These units are pressure restrained, being fitted with hinges, so they impose only small forces within the system and light anchors are sufficient. The main applications are where large movements have to be accommodated in the piping system or where it is impossible to fit heavy anchors.



TYPE BHF

For use on steel pipelines and is suitable for steam and hot water for heating. This unit has stainless steel bellows and inner sleeve with carbon steel flanges and hinges.

TYPE BHFN

For use on copper pipelines and is suitable for condensate and domestic hot water. This unit has stainless steel internals comprising stainless steel bellows, inner sleeve and van-stone ends with carbon steel backing flanges and hinges.

Nominal Size	Installed Length	AngularRate	Force required forMaximum Deflection
mm	mm	Nm / degree	Newtons
50	133	4.1	21
65	133	4.8	24
80	133	13.6	68
100	133	26.6	133
125	202	30.7	154
150	202	50.3	252
200	218	105.0	525
250	218	192.0	960

Other lengths and sizes are available. External protective sleeves are available.

Working Pressure: 16 bar (1600 kPa).

Test Pressure: 1.5 x Working Pressure.

Press./Temp. ratings for carbon steel PN16 Flanges.

Design Temp.	(°C)	120	150	200	250	300
Working Press.	Bar	16	14	12	11	9

Material Specifications:

Bellows and internal sleeve are stainless steel.
For steel service the flanges and hinges are carbon steel.

For copper service van-stone ends are stainless steel,
backing flanges and hinges are carbon steel.

Design Consideration:

Force for maximum deflection is based on two joints with a distance of one metre between the hinge pins of the joints.

Maximum angular movement of each joint is +/- 6 degrees.

For details of layouts, pipe anchors and alignment guides see our design book.