



Data Sheet - Double Hinged Articulated Expansion Joints – Type DH

The DH range of Double Hinged Articulated Expansion Joints are specifically designed for accommodating large amounts of lateral movement while containing the pressure thrust forces, resulting in the lowest possible stress on anchors and adjacent machinery. Suitable for many liquids and gasses including LTHW, MTHW, HTHW and Steam.

The Double Hinged Articulated Expansion Joints are installed in changes in pipework direction and are designed to permit lateral movement in only one plane. The movements occur due to thermal expansion and contraction or building settlement.

The Expansion Joints ridged hinged mechanism allows them to accept full pressure thrust while being prevented from deflecting axially either in extension or compression. In piping system applications a Double Hinged Expansion joint can be used on its own or in a two or three pin system and can be used in conjunction with Single Hinged Angular Expansion joints as shown.

Constructed from 316 stainless steel membrane with 304 stainless steel flow sleeves, carbon steel centre tube and carbon steel hinge bars and pins welded to carbon steel EN1092-1 PN16 fixed in-line flanges.



Standard Construction

- 316 stainless steel membranes
- 304 stainless steel sleeves
- Carbon steel pipe
- Carbon steel flanges
- Carbon steel hinge bars and pins

Options

- Membranes in special alloys
- Flanges to suit BS, JIS, DIN, ASA
- External covers / insulation
- Weld Prepped Ends

Working Conditions

- Design Pressure: 16 Bar
- Design Temp: 300°C
- Cold Test Pressure: 24 Bar

DN		Overall length		Basic Lateral		Dim 'x'
(ins)	(mm)	Flanged	Weld End	Movement (+/-)	Spring Rate (N/mm)	(mm)
2	50	350	500	25	4.5	185
2 ½	65	350	500	25	8.5	185
3	80	350	500	25	12.6	185
4	100	350	500	25	15.3	185
5	125	400	550	25	38.2	200
6	150	400	550	25	45.4	200
8	200	450	600	25	44.2	220
10	250	500	600	25	123.6	220
12	300	500	650	25	143.6	230

By increasing the overall length by 'x' the lateral movement which the bellows is capable of is increased by +/-25mm.

Double Hinged Articulated Expansion Joints must be securely anchored & adequately guided to ensure their correct performance. Omitting anchors & guides may result in failure of the system. All Quick-Steel Ltd products should be installed in accordance with our fitting instructions.