

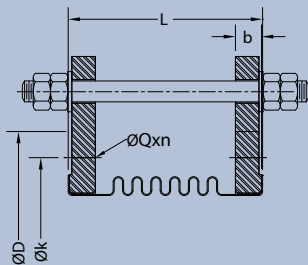
# VIBRATION ABSORBER

## Expansion Joints

Metal expansion joints can also be used to absorb vibration in systems. They are manufactured from thin, multi-layer bellows for excellent vibration absorbing capabilities. Multi-layer bellows help to dampen high frequency and low amplitude vibrations. While vibration absorbers are mostly used with flanged connections, they can also be supplied with welded connections.

A very typical accessory with this type of expansion joint is a limit rod / tie-rod to restrain pressure thrust of bellows or limit excessive design movements.

Metal expansion joints is an excellent choice for absorbing vibrations where temperatures or pressures are too high for rubber expansion joints. Rubber washers can be used to reduce noise.



### Applications

- » Pumps (suction or discharge)
- » Rotating machinery and equipment
- » Engines
- » Exhaust applications
- » Shipbuilding industry

### DESIGN VALUES

Bellows Material	304, 316, 321
Balance of Material	Carbon Steel, Stainless Steel
Design Pressure	16 barg
Design Temperature	300°C

Nominal Diameter	Length (L) (mm)	Effective Area (cm <sup>2</sup> )	Spring Rates		EN 1092				
			Axial (N/mm)	Lateral (N/mm)	ØD (mm)	Øk (mm)	b (mm)	n	ØQ (mm)
50	130	37	88	102	165	125	16	4	18
65	130	57	94	149	185	145	16	4	18
80	130	79	85	234	200	160	18	8	18
100	130	131	105	292	220	180	18	8	18
125	130	186	148	745	250	210	20	8	18
150	130	269	217	1.544	285	240	20	8	22
200	130	443	260	2.909	340	295	22	12	22
250	160	664	282	3.130	405	355	24	12	26
300	210	942	313	2.498	460	410	26	12	26
350	210	1143	529	5.138	520	470	28	16	26
400	220	1484	371	2.878	580	525	30	16	30
450	220	1845	530	7.196	640	585	32	20	30
500	270	2262	450	5.331	715	650	34	20	33

Please consult with our technical department for different working conditions and design parameters.