# SEISMIC GIMBALS

## Expansion Joints

Metal expansion joints can also be used to absorb movements in piping systems due to earthquakes, ground settlements or landslides. These events can cause large movements in piping systems and cause critical piping systems to fail. Seismic expansion joints is an excellent choice for such applications. They are designed to absorb large axial and lateral movements.

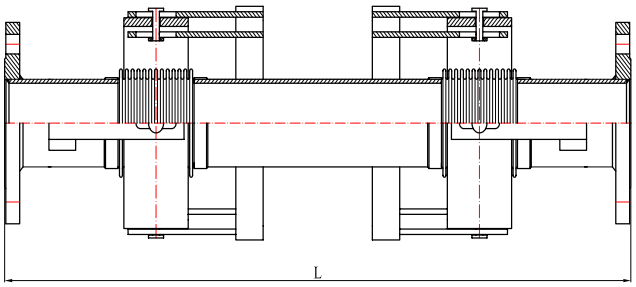
These seismic expansion joints come with gimbals to limit excessive movements. They can have pipe ends, or welded / rotating flange connections supplied in accordance with many industrial norms or special drillings.

### Applications

» HVAC industry
» Industrial applications
» Hot and cold water pipelines
» Firefighting systems
» Steam and condensate lines

# DESIGN VALUES

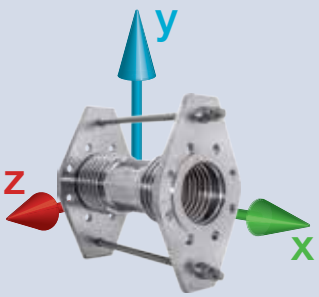
| | |
|---|---|
| DN | 32 – 250 |
| Bellows Material | 304, 316, 321 |
| Balance of Material | Carbon Steel, Stainless Steel |
| Design Pressure | 16 barg |
| Design Temperature | 400°C |



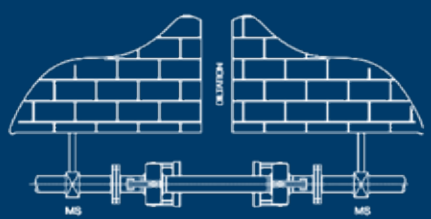

| Nominal Diameter (DN) | | Type 1 | | | | Type 2 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Movements (mm) | | | Length (L) | Movements (mm) | | | Length (L) |
| | | Axial x (+/-) | Lateral y (+/-) | Lateral z (+/-) | (mm) | Axial x (+/-) | Lateral y (+/-) | Lateral z (+/-) | (mm) |
| 32 | 1 1/4" | 50 | 100 | 100 | 750 | 50 | 200 | 200 | 750 |
| 40 | 1 1/2" | 50 | 100 | 100 | 790 | 50 | 200 | 200 | 790 |
| 50 | 2" | 50 | 100 | 100 | 790 | 50 | 200 | 200 | 790 |
| 65 | 2 1/2" | 50 | 100 | 100 | 940 | 50 | 200 | 200 | 940 |
| 80 | 3" | 50 | 100 | 100 | 940 | 50 | 200 | 200 | 940 |
| 100 | 4" | 50 | 100 | 100 | 940 | 50 | 200 | 200 | 990 |
| 125 | 5" | 50 | 100 | 100 | 940 | 50 | 200 | 200 | 1090 |
| 150 | 6" | 50 | 100 | 100 | 1100 | 50 | 200 | 200 | 1200 |
| 200 | 8" | 50 | 100 | 100 | 1130 | 50 | 200 | 200 | 1330 |
| 250 | 10" | 50 | 100 | 100 | 1130 | 50 | 200 | 200 | 1430 |

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

Movements are non-concurrent




In addition to thermal movements in pipe lines, there are mechanical movements due to earthquakes, ground settlements and landslides. These type of movements can cause significiant damage to the piping systems in dilatation points of buildings, pipe junctions between vessels and boilers.



These mechanical movements can be absorbed by using seismic expansion joints.