



# KLINGER Expansion Joints

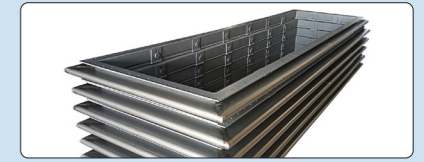
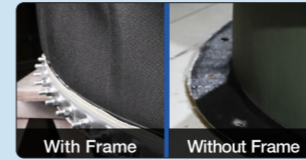


# KLINGER Expansion Joints - Select the correct product for the job.



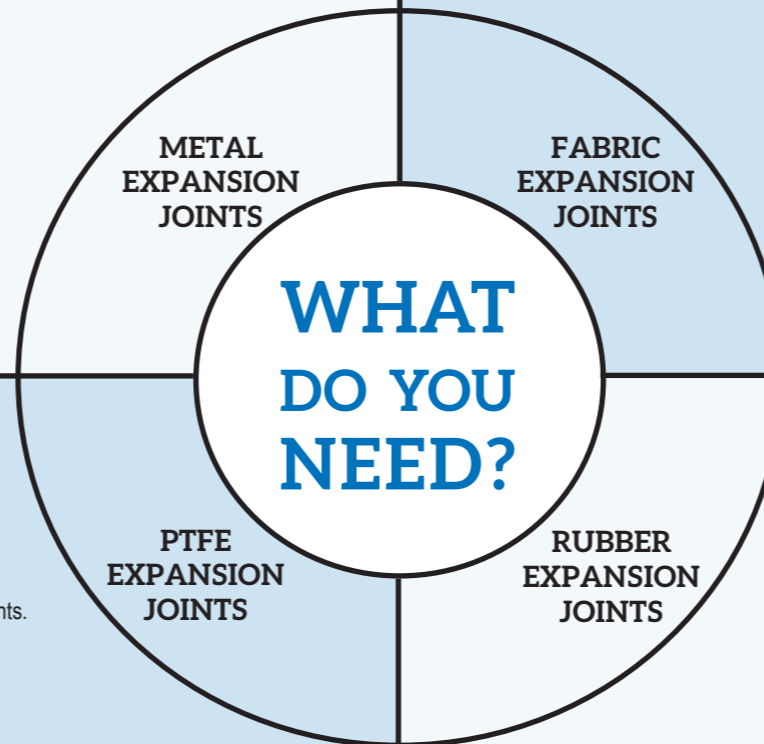
- » Metal expansion joints consist of a flexible bellow element with end fittings such as but weld or flanges to allow connection to the adjacent piping or equipment.
- » Metal expansion joints are manufactured from relatively thin-walled tubing to form a corrugated cylinder.
- » KLINGER supplies a wide variety of expansion joints from 80 mm nominal diameter to 6000 mm with process temperatures from 0°C to 900°C.
- » Pressures for these designs range from full vacuum to 150bar.
- » Single-ply, multi-ply, root ring, equaliser ring and spun bellows designs are also available.
- » Expansion joint designs are in accordance with latest edition of international design codes such as EJMA (Expansion Joint Manufacturers Association), ASME VIII Appendix 26, ASME B31.3.
- » End connection options:
  - Weld ends
  - Fixed flanged
  - Floating flanges

- » Fabric expansion joints are flexible connectors designed to provide stress relief and seal in gaseous media in ducting systems.
- » Fabricated from a wide variety of materials, including synthetic elastomers, fabrics, insulation materials and fluoroplastics.
- » Fabric expansion joints provide flexibility in ductwork and are used to:
  - Allow for the expansion or contraction of the duct due to temperature changes.
  - Minimize the effects of vibration or noise.
  - Compensate for movement of components during process operations.
- » Layers of different fabrics and insulation may be combined to accommodate the temperature and pressure in the system.



## Applications of Fabric Expansion Joints:

- » Chemical process plants
- » Cement manufacturing
- » Pulp and paper industry
- » Power stations
- » Refineries
- » Steel plants
- » Sugar refineries
- » Gas turbine installations

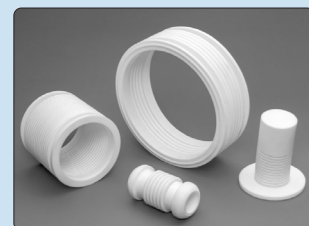


- » PTFE expansion joints are used where the chemical properties of other materials are not sufficient.
- » PTFE expansion joints are installed in steel and PTFE-lined steel pipelines.
- » PTFE expansion joints are designed to compensate for mechanical and thermal movements.
- » PTFE expansion joints provide a high degree of reliability, long service life and maximum resistance to chemicals and solvents.



## Industries:

- » Chemical industry
- » Pharmaceutical industry
- » Food and beverage industry



- » In order to offer a complete product range for our customers, we also supply rubber expansion joints.
- » Rubber expansion joints are flexible units that are manufactured from natural or synthetic elastomers.
- » Rubber expansion joints are the perfect solution for pipe systems to absorb movements, vibrations or noise, resulting in a significantly prolonged service life of the pipework and connected equipment.



## Advantages of Rubber Expansion Joints:

- » Good solution to vibration, noise and misalignment problems.
- » Up to 16bar pressure and 110°C temperature working conditions.
- » Flanges - electro galvanized carbon steel / stainless steel.
- » Flanges with limit rod connections or limit rod kits are available.
- » Safe, reliable, durable and maintenance free.
- » Temperature, chemical and corrosion resistant.

## Applications of Rubber Expansion Joints:

- » Power stations
- » Process plants
- » Pulp and paper plants
- » Heating and ventilating systems
- » Chemical / petrochemical plants

