Metallic and Flue Duct
Expansion Joints
Design Technology

Teadit employs updated technology to develop their products. Advanced software allows creating 3D models to design the expansion joints and their hardware.

Besides the simulation of different operational conditions, it is possible to analyze the interaction between several expansion joints and their components, to do mechanical and thermal studies, to simulate operational conditions and validate the design.

The expansion joints are designed to solve the pipes thermal expansion, in the hardest operational conditions. Designed with the correct flexibility, to avoid fluid head and energy losses. Reducing implementation and assembly cost, while giving a high quality and safety level.

Teadit manufacture a complete range of expansion joints, including the types: axial, universal, hinged, gimbal and pressure balanced. All manufactured to EJMA and ASME standards, under surveillance of specialized engineers and technicians.

The expansion joint design is improved to achieve high performance and life expectancy.
Metallic and Flue Duct Expansion Joints

Metallic Expansion Joints

- Axial Pressure Balanced Expansion Joint, with Hot Blanket
- Universal Pressure Balanced Elbow Expansion Joint
- Universal Expansion Joint with tie rods
- Gimbal Expansion Joint
  Application: Refinery UFCC
- Universal Expansion Joints with Tie Rods
  Application: Carbon Black Plant Tail Gas
- Axial Expansion Joint with Tie Rods
  Application: Steel Mill Blast Furnace Gas Line
- Tied Universal with a Tee
  Application: Steel Mill
- In-Line Pressure Balanced Expansion Joint
  Application: Refinery UFCC Riser
- Hinged Expansion Joint
  Application: Iron Ore Mining Hot Air Line
Flue Duct Expansion Joints

Developed to be used in extreme operational conditions and manufactured in rectangular or circular shapes. The flue duct expansion joints are designed to absorb thermal expansion from air and process gases within the ducts.

They are frequently used in boiler, gas turbines, furnaces and burners. Fabric has applications in several industries: cement, petrochemicals, pulp & paper, refining, power, etc.

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<tr>
<th>FRAME STYLES</th>
<th>COMPOSITE FABRIC BELT TYPES</th>
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<tr>
<td>Flanged U Belt</td>
<td>Quality Type</td>
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<td>Flat Belt</td>
<td>Premium Type</td>
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Silicone Coated Fiberglass Fabric
PTFE Impregnated Fiberglass Fabric with PTFE Film Sealing

Flue duct expansion joints have applications up to 0.4 bar pressure and temperature of 1200°C. Specifically developed for individual operational conditions including heavy acid attack.
Refining Expansion Joints

Gimbal Cold-wall Expansion Joint - ID 64 in

Gimbal Universal Hot-wall Expansion Joint - ID 120 in / 50 ton

Hinged Cold-wall Expansion Joint - ID 64 in

Double Gimbal Hot-wall Expansion Joint - ID 66 in / 35 ton

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Teadit is a global leader in the development and production of a broad range of sealing solutions. Our mission is to assist you in achieving leak-free and low-emission levels of performance.

The application parameters indicated in this brochure are typical. Specific applications should be looked at independently for an evaluation on compatibility. Please consult Teadit engineering for recommendations about specific use.

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