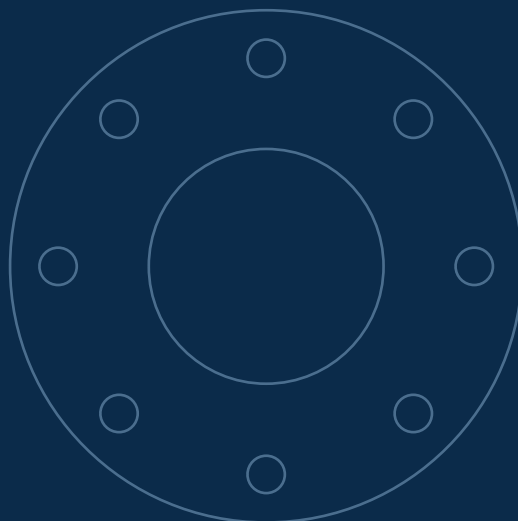


PRODUCT OVERVIEW

Expansion Joints

Gimbal, multi-plane, pressure-balanced, thermal, bellows, hinged and rubber expansion joints.



DOCUMENT

Product overview

FAMILY	Expanders
RANGE	Expansion Joints
TYPES	8
REVISION	Rev. 04
ISSUED	15 September 2026

Expansion Joints

Gimbal, multi-plane, pressure-balanced, thermal, bellows, hinged and rubber expansion joints.

Expansion joints absorb axial, lateral and angular movement in piping systems. The range covers metallic bellows joints for high-temperature and pressure duty, and rubber joints for vibration isolation and corrosive service. Each joint is specified by movement, pressure class, temperature, media and cycle life, with tie rods, liners and limit rods available as required.

STANDARDS AND SUPPLY SCOPE

- Primary standards: EJMA; ASME B31.3; ASTM A240 / A312.
- Product types: Gimbal Expansion Joint, Multi-Plane Expansion Joint, Pressure Balanced Expansion Joint, Thermal Expansion Joint, Bellows Expansion Joint, Hinged Expansion Joint, Mechanical Pipe Expander, Rubber Expansion Joint.
- Standard and made-to-order configurations; project documentation on request.
- Material certificates, inspection records and test reports issued with the order where specified.

SELECTION INPUTS

- Duty, media, pressure and temperature.
- Size, pressure class and connection detail.
- Material and any sour-service or NACE requirement.
- Documentation, NDE and test requirements.

Ordering and technical support

sales@belvantaglobal.com · +1 (713) 555-0140 · www.belvantaglobal.com

1200 Industrial Parkway, Houston, TX 77032, United States

Quotations are prepared against the released specification. Certified drawings are issued with the order.

PRODUCT TYPES

Each type below has a dedicated datasheet in the product library. Open the range page for specifications, ordering data and drawings.

Gimbal Expansion Joint

EJMA · ASTM A312 TP304 / ASTM A312 TP316L

Two-plane angular movement with gimbal rings and pinned hinges.

Multi-Plane Expansion Joint

EJMA · ASTM A312 TP304 / ASTM A312 TP316L

Universal joint for combined axial, lateral and angular movement.

Pressure Balanced Expansion Joint

EJMA · ASTM A312 TP316L / ASTM A240 321

Balanced bellows arrangement that removes pressure thrust from anchors.

Thermal Expansion Joint

EJMA · ASTM A312 TP316L / ASTM A240 321

High-temperature bellows joint for thermal growth in process piping.

PRODUCT TYPES

Each type below has a dedicated datasheet in the product library. Open the range page for specifications, ordering data and drawings.

Bellows Expansion Joint

EJMA · ASTM A240 321 / ASTM A312 TP304

Standard metallic bellows joint for axial movement and vibration.

Hinged Expansion Joint

EJMA · ASTM A312 TP316L / ASTM A240 321

Single-plane angular movement with hinge pins and structural supports.

Mechanical Pipe Expander

ASME B31.3 · Carbon steel / Stainless steel

Packed slip-type joint for axial movement in low-maintenance piping.

Rubber Expansion Joint

ASME B31.3 · EPDM / NBR

Elastomeric joint for vibration isolation, movement and corrosive service.

DOCUMENTS

- Expansion Joints Overview (this document)
- Expansion Joints General Arrangement Drawing
- Gimbal Expansion Joint Datasheet
- Multi-Plane Expansion Joint Datasheet
- Pressure Balanced Expansion Joint Datasheet
- Thermal Expansion Joint Datasheet
- Bellows Expansion Joint Datasheet
- Hinged Expansion Joint Datasheet
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