

INSTALLATION AND MAINTENANCE MANUAL

Expansion Joint Installation and Maintenance Manual



This manual covers the handling, installation, anchoring and inspection of metallic and rubber expansion joints supplied by Belvanta.

DOCUMENT
Installation manual

DOCUMENT	MANUAL-EXPANSION-JOINT-INSTALLATION
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SCOPE AND SAFETY

Expansion Joint Installation and Maintenance Manual

This manual covers the handling, installation, anchoring and inspection of metallic and rubber expansion joints supplied by Belvanta.

SAFETY

- Expansion joints may contain stored energy from pre-compression or pressure thrust.
- Do not remove shipping bars or tie rods until the joint is installed and the piping is anchored.
- Use lifting equipment and personal protective equipment appropriate to the site.

BEFORE YOU BEGIN

- Confirm the correct manual, drawing and product revision for the equipment.
- Check that the required tools, lifting equipment and personal protective equipment are available.
- Record the product identification, serial or heat number and installation date.

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.

01 · HANDLING AND STORAGE

Keep the joint in its shipping packaging until installation. Do not use the bellows or the tie rods as lifting points, and do not drop or deform the joint.

Store in a dry, ventilated area away from ozone sources, solvents and direct sunlight for rubber joints.

02 · ANCHORS AND GUIDES

Confirm the anchor and guide arrangement against the piping design. Expansion joints do not replace anchors; pressure thrust and movement must be directed into the structure.

Check that the pipe is aligned and supported before the joint is connected.

CHECKS

- Main anchors at the correct locations and load capacity.
- Guides at the specified spacing and clearance.
- No unintended restraint from insulation, cladding or supports.

03 · INSTALLATION AND PRE-COMPRESSION

Install the joint at the specified pre-compression or pre-extension. Use the shipping bars to hold the setting until the joint is bolted and the anchors are engaged.

Do not use the joint to pull the pipe into alignment. Correct pipe misalignment before final connection.

04 · TIE RODS AND LIMIT RODS

Tie rods carry pressure thrust and must remain in place where specified. Limit rods permit movement up to the set gap and must not be fully tightened.

Remove shipping bars only after the joint is installed and the piping is anchored.

05 · INSPECTION AND MAINTENANCE

Inspect the bellows, flanges, tie rods and external covers at the intervals defined by the site procedure. Look for corrosion, dents, discoloration, leakage and loose fasteners.

Rubber joints should be checked for cracking, swelling, hardening and separation from the flange. Replace any joint showing signs of degradation.

Inspection and records

Maintain an installation and inspection record for each joint or nozzle. Record the product identification, installation date, torque or pre-compression setting, test result and any replacement parts.

INSPECTION CHECKLIST

ITEM	RESULT	INITIALS
Product identification and revision confirmed		
Installation alignment and supports checked		
Fasteners and torque or pre-compression recorded		
Leak or pressure test completed		
Inspection record filed with order documentation		

MAINTENANCE INTERVAL

Inspect at the interval defined by the site procedure. In severe service, inspect more frequently during the first operating cycle and after any abnormal event.

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