STAINLESS STEEL EXPANSION JOINT, TYPE RFA-S

APPLICATIONS

A stainless steel expansion joint with carbon steel flanges for the use in thermal oil pipe systems. For applications where a thermal expansion of the piping has to be absorbed. This type of expansion joint is basically meant for axial movements only.

TECHNICAL DESCRIPTION

- Bellow (1) : AISI 316
- Flanges (2) : Carbon steel, PN 16
- Outer cover (3) : AISI 304L/AISI 316L
- Welding ends (4) : Carbon steel

DATA TABLE

<table>
<thead>
<tr>
<th>DN (mm)</th>
<th>TYPE</th>
<th>NL Neutral Length</th>
<th>d</th>
<th>Axial Compression</th>
<th>Flange connection</th>
<th>Max. Pressure 20°C</th>
<th>Max. Pressure 200°C</th>
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</thead>
<tbody>
<tr>
<td>80(3)</td>
<td>RFA-S 80-16-45</td>
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<td>200(8)</td>
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</table>

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STAINLESS STEEL EXPANSION JOINT, TYPE RFA-R

APPLICATIONS

A stainless steel expansion joint with stainless steel flanges for the use in thermal oil pipe systems. For applications where a thermal expansion of the piping has to be absorbed. This type of expansion joint is basically meant for axial movements only.

TECHNICAL DESCRIPTION

Bellow (1) : AISI 316
Flanges (2) : AISI 304/316, PN 16
Outer cover (3) : AISI 304L/316L
Welding ends (4) : AISI 304L/316L

DATA TABLE

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<thead>
<tr>
<th>DN (mm)</th>
<th>TYPE</th>
<th>NL Neutral Length</th>
<th>d</th>
<th>Axial Compression</th>
<th>Flange connection</th>
<th>Max. Pressure bar/20°C</th>
<th>Max. Pressure bar/200°C</th>
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</table>
STAINLESS STEEL EXPANSION JOINT, TYPE AX

CUSTOM MADE

APPLICATIONS

Axial expansion joints from AmniTec are available in type’s AX1S, with welding ends, AX1F with plate flanges and AX1H with welding neck flanges.

Our standard axial expansion joints are to be installed with only one expansion joint between each fixed point. Pipeline systems where axial expansion joints are used must be protected against sideways bending. By fitting guides, sideways bending is not possible.

AXIAL EXPANSION JOINTS FROM AMNITEC

- Only designed to absorb movements in axial direction
- Are not to be exposed to torsion
- Only one axial expansion joint between every two fixed points
- Design pressure: for standard type’s: PN6, PN10, PN16 and PN25

FIXED POINTS

The pipeline, in which the expansion joint is mounted, must be fixed by fixed points which are strong enough to absorb the reaction forces produced by:

- The inside pressure (the product of the effective bellows cross-section, mm²)
- The operating and/or test pressure (bar)
- The inherent resistance of the expansion joint (spring rate N/mm) x expansion (mm)

All stainless steel expansion joints, type AX1S, type AX1F and AX1H are custom made and thus all materials and/or welding ends, floating/fixed flanges, plate flanges, welding neck flanges etc. are upon request.
APPLICATIONS

Lateral expansion joints from AmniTec are available in a variety of design, type LA1 and LA2 have tie rods allowing lateral movement between bolt and flange. The number of tie rods is depending on the diameter and pressure. Our standard lateral expansion joints with tie rods are available in a design with minimal two tie rods. No axial movements are allowed in the system.

Type’s LA3 and LA4 have flat iron hinges which are fitted through the flanges and welded on the outside. A hinge which allows lateral movement is mounted on the fitting above the centre line of the bellows.

Our standard lateral expansion joints with hinges are available in a design with double bellows. Common to both models is the fact that tie rods and hinges alike have the task of absorbing the loads arising from the operating pressure. Hinges prevent axial expansions. This means that a lateral expansion joint can only move sideways (laterally) in one or more planes, making it possible for those movements which are perpendicular to the longitudinal direction to be absorbed. Lateral expansion joints are therefore ideal for installation in pipe line systems with bends. Don’t hesitate to ask AmniTec for further information.

GUIDES

Guides must ensure that the pipe line is moving in only one controlled and predetermined direction.

All stainless steel expansion joints, type LA1, LA2, LA3 and LA4, are custom made and thus all materials and/or welding ends, floating/fixed flanges, plate flanges, welding neck flanges etc. are upon request.

LATERAL EXPANSION JOINTS FROM AMNITEC

- Designed to absorb movements in lateral direction only
- Are not to be exposed to torsion
- Only one lateral expansion joint between every two fixed points
- Are available with flanges or welding ends
- Design pressure: for standard type’s: PN6, PN10, PN16 and PN25
APPLIEDS

Angular expansion joints from AmniTec are available in a variety of design, type AN1 (with hinges) and AN2 (with gimbal). Type AN1 is designed with flat iron fittings which are fitted through the flanges and welded on the outside. A cylindric bolt, which allows angular movement in one plane, is mounted on the fitting above the centre line of the bellows. The expansion joint is made with one bellows. Type AN2 is fitted with flat iron fittings. The fittings are secured to a middle ring with cylindrical bolts, which allow angular movement in all planes, above the centre line of the bellows. The expansion joint is made with a single bellow. Common to both types is the fact that the fittings have the task of absorbing the loads arising from the operating pressure. The fittings make axial expansions impossible, which means that the expansion joint can only absorb bending forces.

Angular expansion joints are suitable for installations where it is not possible to create sturdy fixing points, and in pipe systems where bending occurs.

ANGULAR EXPANSION JOINTS FROM AMNITEC

- Designed to absorb angular movements in all planes
- The hinges are designed to absorb the reaction forces from the internal pressure which means that fixed points are not necessary
- Are not be exposed to torsion
- Are available with flanges or welding ends
- Design pressure: for standard type’s: PN6, PN10, PN16 and PN25

GUIDES

Guides must secure that the pipeline is only moving in the predetermined direction

All stainless steel expansion joints, type AN1 and AN2, are custom made and thus all materials and/or welding ends, floating/fixed flanges, plate flanges, welding neck flanges etc. are upon request.