STOURFLEX
Technically Advanced Flexible Solutions

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Type JP115 Stainless Steel Axial Expansion Joint Screwed.

Now Available With Precision Fit Flexible Lagging Jackets To Suit JP115.

Specification

Axial expansion joint consisting of stainless steel grade 316 bellows assembly fitted with stainless steel grade 316 male B.S.P.T. end connections.

Application

Stourflex axial expansion joints are designed to accommodate pipe movements in an axial plane (straight runs) due to thermal expansion. The Type JP115 is manufactured to have all stainless steel wetted surfaces and is suitable for use on non ferrous pipework installations including L.T.H.W., M.T.H.W., steam and other hot liquids and gases.

Maximum working temperature 300ºC.
Maximum working pressure 6 bar at 120ºC.
Maximum working pressure 10 bar at 82ºC.
Stourflex axial expansion joints should not be used at both their maximum working temperature and pressure respectively.
Maximum test pressure = 1.5 x working pressure or 1.5 x end connection rating, whichever the lower.

WRAS APPROVED PRODUCT Certificate No: 1401322

Lagging - Stourflex are now able to offer a tailor made flexible lagging jacket to help reduce heat losses on LTHW systems and heat gains & condensation on CHW systems. Please ask for more information.

Part number	N.B. (mm)	Total Movement (-mm)	Overall Length (mm)	Outside Diameter of Convolutions (mm)	Force to Compress (N/mm)	Effective Area (Cm²)	Working Pressure @120°C (bar)	Cold Test Pressure (bar)
JP115-15	15	25	182	32	30	7	6	9
JP115-20	20	25	182	39	30	7	6	9
JP115-25	25	30	185	46	60	10	6	9
JP115-32	32	30	200	58	60	15	6	9
JP115-40	40	30	215	58	70	22	6	9
JP115-50	50	50	247	70	85	35	6	9
JP115-65	65	50	283	97	126	62	6	9

Stourflex Type JP115 axial expansion joints are available with internal and external sleeves as required.

Suffix : I.S. - Fitted with internal flow sleeve stainless steel grade 316.
E.S. - Fitted with external telescopic protective sleeve carbon steel.

Stourflex axial expansion joints are supplied at their maximum overall length and must not be extended.

Expansion joint convolutions should be protected from damage caused by rotational forces during installation.

Axial expansion joints must be securely anchored and adequately guided to ensure their correct performance.

Omitting anchors and guides may result in failure of the system.

Please refer to guidance notes for the correct use and installation of Stourflex axial expansion joints.

All Stourflex products should be installed in accordance with our fitting instructions.

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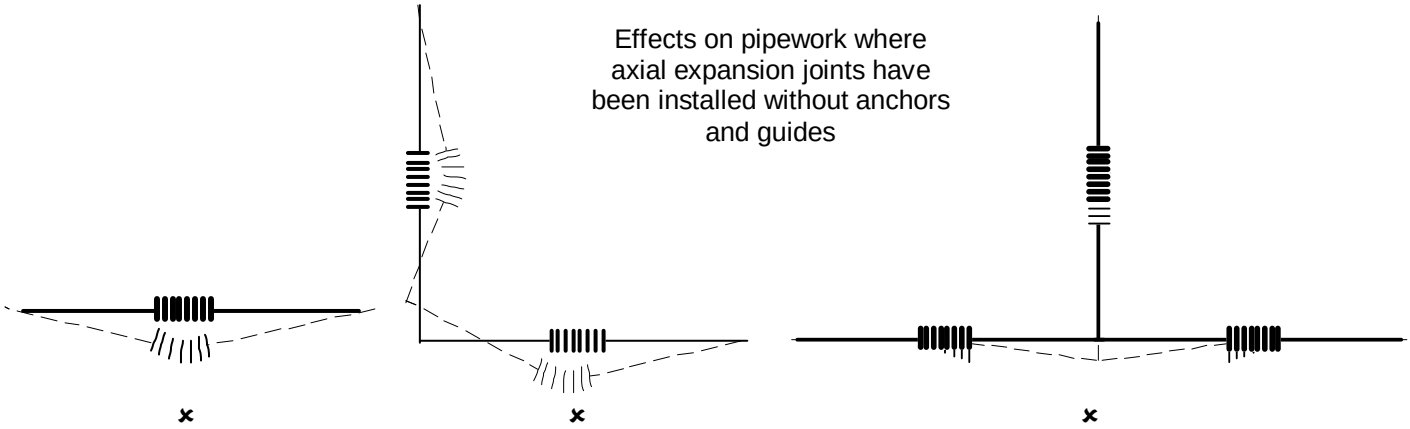
Installation, Operation and Maintenance Instructions for Stainless Steel Axial Expansion Joints

Storage Stainless steel axial expansion joints should be stored in a clean dry area and be protected from damage caused by other items of plant and equipment.

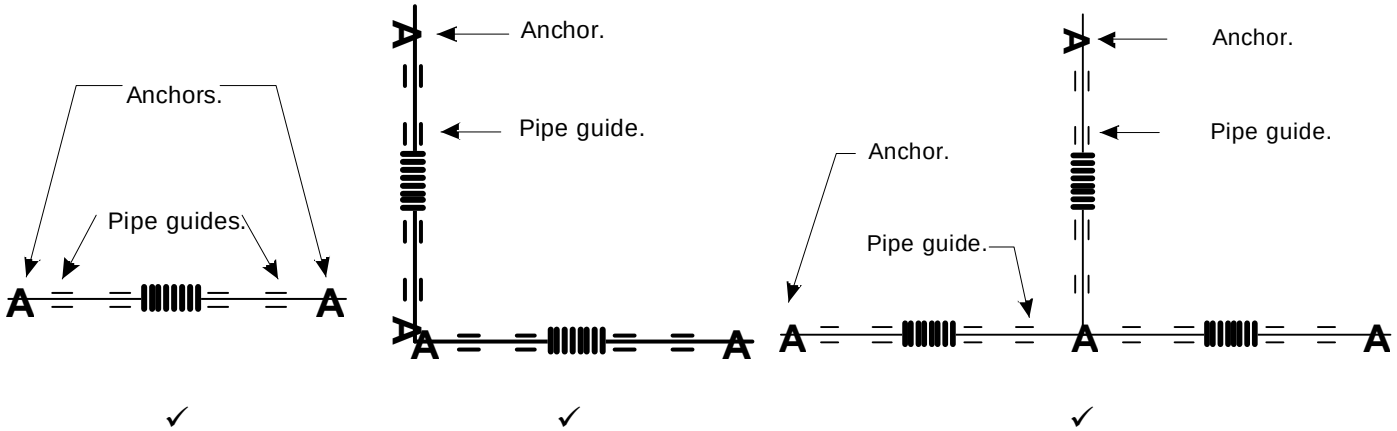
Inspection Stainless steel axial expansion joints should be inspected for any internal or external damage to the bellows convolutions.

Selection The Stourflex range of stainless steel axial expansion joints are designed to be used on a wide range of industrial applications. Check that the correct axial expansion joint has been selected for the operating conditions that exist. Temperature, pressure and movement should all be confirmed as the wrong selection may result in failure of the system. Check that the correct number of axial expansion joints are being installed to accommodate the total amount

Installation Stainless Steel expansion joints should be fitted at their correct installation length. They should not be extended. If an expansion joint has been supplied with internal flow sleeve, it should be installed with the " → " in the correct flow direction. Bellows convolutions should be protected from damage during installation due to rotation or weld spatter etc. Stainless steel axial expansion joints should only be installed in straight pipework runs. Stainless steel axial expansion joints require anchors and guides to ensure their correct performance.



Anchors and pipe guides are essential to ensure the correct performance of the axial expansion joints. Ensure that only one axial expansion joint is installed between anchors.



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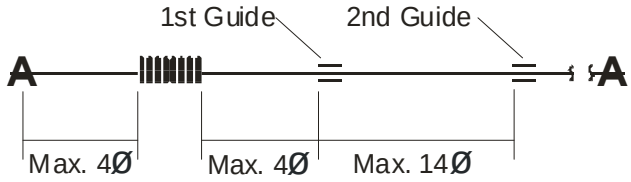
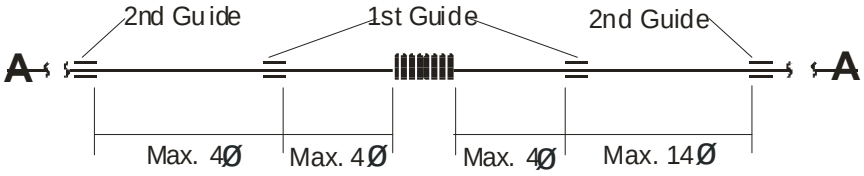
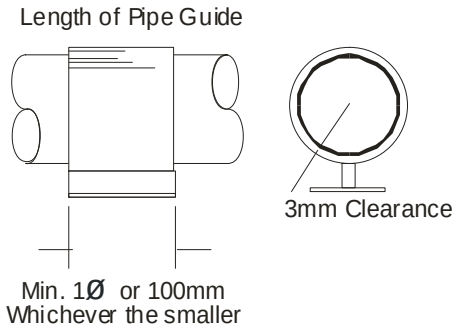
Installation, Operation and Maintenance Instructions for Stainless Steel Axial Expansion Joints Continued

Installation Continued

Pipework should be correctly aligned with guides being installed to prevent buckling whilst allowing movement to be directed into the axial expansion joint. Details are given below for 1st and 2nd guide spacing. Remaining pipe guides should be installed as per specification or details given in guidance notes.







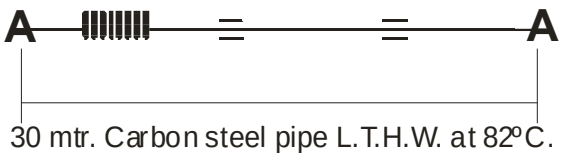
Test Pressure

If a hydraulic pressure test is to be carried out on a system containing axial expansion joints ensure that anchors and guides have been correctly fitted before the test is carried out. Ensure that the test pressure (usually 1.5 x working pressure) does not exceed the test pressure of the axial expansion joint being installed.

Anchoring

Axial expansion joints must be securely anchored and adequately guided to ensure their correct performance. Anchors must have sufficient strength to withstand the forces created by internal pressure, total pipe weight, thermal expansion and spring rate of the bellows. See guidance notes for details and calculations on anchoring of pipework. Anchors are used to divide the system into manageable sections. Anchors must be spaced to suit the axial expansion joints being installed.

Example



Carbon steel pipework run 30 meters between anchors.
Nominal bore 65mm.
L.T.H.W. system at 82ºC .
Installed at 0ºC.
Maximum 27mm thermal expansion.

For this application a 65mm nominal bore Stourflex Type JP116VS axial expansion joint should be selected.
Movement capability +20/-40mm axial.

Maintenance

When properly installed and used at their correct operating temperature and pressure, stainless steel axial expansion joints will give many years of trouble free service. However the expansion joints should be periodically inspected for signs of deterioration. Anchors and pipe alignment should also be examined. Anchor failure can result in a breakdown of the system. If insulation is to be used it should be removable to allow inspection to be carried out.