

Pacific Hoseflex Pty Ltd

Safety Recommendations

This section was prepared in order to better inform the user of those factors which many years of experience have shown to be essential for the successful installation and performance of piping systems containing Pacific Hoseflex expansion joints.

Inspection Prior to Start-Up or Pressure Test

Expansion Joints are usually considered to be non-repairable items and generally do not fall into the category for which maintenance procedures are required. However, immediately after the installation is complete a careful visual inspection should be made of the entire piping system to ensure that there is no evidence of damage, with particular emphasis:

1. Are anchors, guides and supports installed in accordance with the system drawings?
2. Is the expansion joint in the proper location?
3. Are the expansion joint's flow direction and pre-positioning correct?
4. Have all of the expansion joints shipping devices been removed?
5. If the system has been designed for gas, and is to be tested with water, has provision been made for proper support of the additional dead weight load on the piping and expansion joint? Some water may remain in the bellows convolutions after the test. If this is detrimental to the bellows or system operation, means should be provided to remove this water.
6. Are all guides, pipes support and the expansion joints free to permit pipe movement?
7. Has any expansion joint been damaged during handling and installation?
8. Is any expansion joint misaligned? This can be determined by measuring the joint overall length, inspection of the convolution geometry, and checking clearances at critical points on the expansion joint and at other points in the system.
9. Are the bellows and other movable portions of the expansion joint free of foreign material?

Warranty

Pacific Hoseflex Pty Ltd warrants that all bellows in this contract will be free from defects and will operate satisfactorily for a period of 12 months from date of dispatch under the conditions for which the assembly was designed.

Pacific Hoseflex Pty Ltd will accept no other charges, other than negotiated freight, for labour, materials or damage and shall have no liability whatsoever for payment of consequential or incidental damages including installation costs and damages for personal injury or property.

No other warranty is expressed or implied.

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Installation Instructions for Non-Metallic Expansion Joints With Beaded End Flanges

| Nominal Pipe Size Expansion Joint I.D. Inch / (mm) | Bolt-Torque | | | | |
|--|--------------------------|-----------|--------------------------|-----------|--------------------------|
| | Step 1 FT-LBS (Nm) | Rest | Step 2 FT-LBS (Nm) | Rest | Step 3 FT-LBS (Nm) |
| 1 (25) | 18 (25) | 30 Min | 30 (40) | 60 Min | 45-60 (60-80) |
| 1.25 (32) | 18 (25) | 30 Min | 30 (40) | 60 Min | 45-60 (60-80) |
| 1.5 (40) | 18 (25) | 30 Min | 30 (40) | 60 Min | 45-60 (60-80) |
| 2 (50) | 18 (25) | 30 Min | 30 (40) | 60 Min | 45-60 (60-80) |
| 2.5 (65) | 18 (25) | 30 Min | 35 (50) | 60 Min | 50-60 (70-80) |
| 3 (80) | 25 (35) | 30 Min | 45 (60) | 60 Min | 60-75 (80-100) |
| 3.5 (90) | 25 (35) | 30 Min | 45 (60) | 60 Min | 60-75 (80-100) |
| 4 (100) | 25 (35) | 30 Min | 45 (60) | 60 Min | 60-75 (80-100) |
| 5 (125) | 25 (35) | 30 Min | 45 (60) | 60 Min | 60-75 (80-100) |
| 6 (150) | 30 (40) | 30 Min | 50 (70) | 60 Min | 60-75 (80-100) |
| 8 (200) | 30 (40) | 30 Min | 50 (70) | 60 Min | 60-75 (80-100) |
| 10 (250) | 30 (40) | 30 Min | 50 (70) | 60 Min | 75-85 (100-115) |
| 12 (300) | 30 (40) | 30 Min | 50 (70) | 60 Min | 75-85 (100-115) |
| 14 (350) | 30 (40) | 30 Min | 60 (80) | 60 Min | 75-95 (110-130) |
| 16 (400) | 30 (40) | 30 Min | 60 (80) | 60 Min | 75-95 (110-130) |
| 18 (450) | 30 (40) | 30 Min | 60 (80) | 60 Min | 90-95 (120-130) |
| 20 (500) | 30 (40) | 30 Min | 65 (90) | 60 Min | 95-185 (130-250) |
| 24 (600) | 30 (40) | 30 Min | 65 (90) | 60 Min | 95-185 (130-250) |
| 30 (750) | 30 (40) | 30 Min | 65 (90) | 60 Min | 95-220 (130-300) |

Right:

Flanges with correct ID help prevent damage to rubber.



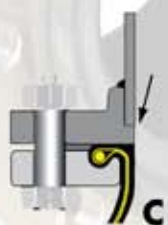
Wrong:

Insure matting flanges ID is flush with rubber.



Right:

Weld neck flanges with correct ID help prevent damage to rubber.



Wrong:

Uneven end of pipe can cause damage to rubber.



Right:

Incase of B,D,F an additional metal gasket can be used to prevent damage to rubber.



Wrong:

Inner edge of flanges damages rubber.



Right:

Well rounded smooth edge prevent damage to rubber.



Tighten opposing nuts/bolts gradually according to the following sequence



Note: Bolt torque based on new bolts and nuts