KLINGER
The Netherlands

SENTRY RTJ INSTALLATION / TESTING INSTRUCTIONS

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JOINT PREPARATION

1. Check that the joint faces are clean and free from cuts, indentations and other marks.
2. Check that the flange faces are parallel or that the pipework is sufficiently flexible to allow the flanges to pulled parallel and concentric without undue bolt loads.
3. Check that the RTJ groove and angled faces are clean and undamaged and the surface finish is within a suitable range:
   - » RTJ - 0.4µm to 1.6µm Ra.

GASKET CONDITION

4. Always use a new RTJ.
5. Check that the RTJ is in good condition.

BOLTING

6. Check the condition of the bolts and nuts. Wire brush the bolt and nut threads until they are free of loose rust. Apply an approved lubricant to the bolt threads, to the nut threads and to the face of the nut to be tightened. Do not apply grease or bolt lubricant to the joint face.
7. After cleaning and lubrication it should be possible to run the nut along the full length of the bolt by hand. If this is not possible the bolts and nuts should be refurbished or replaced.
8. Scrape, wire brush or file as necessary the back face of each flange where the bolt heads or nuts are to sit, ensuring that the surfaces are clean and flat.

JOINT ASSEMBLY

9. Check that the RTJ is located in the groove.
10. When fitting the remaining bolts, make sure there is no interference with the test port.
11. It is recommended that the bolts are tightened using a controlled method such as torque, hydraulic tensioning or tension indicting fasteners. If using a torque wrench, ensure that it is accurately calibrated. For torque settings please refer to Klinger Technical Department.
12. When using torque, tighten bolts in the following sequence:
    - » Finger tighten nuts.
    - » Carry out tightening, making at least three complete diagonal tightening sequences at torques of 50%, 75% and 100% of specified torque.
    - » Make a final tightening sequence, working around the flange, tightening each bolt in turn until the specified torque is applied.
13. Check that the flange faces are parallel. Measure the flange to flange distance at least four equally spaced points around the flange.

TEST PROCEDURE

14. Unscrew the Blind plug from the Sentry gasket with a 6mm Allen key.
15. Screw the test plug on to the gasket's test port.
16. Check the hydraulic pipe for damage.
17. Connect the quick release fitting pipe between the nipple on the test plug connection on the gasket and the test pump. Ensure the pump relief valve is closed, the main valve is open, then increase the pressure to the required level by using the pump handle, as shown in figure 1.

18. Once the required pressure is achieved close the main valve.
19. Let the pressure stabilise before the test is started.
20. Monitor the pressure for the 5 minute test duration.
21. Once the test period is over you can check there has been no pressure drop from reading the test pressure gauge.
22. Open the main valve tap and unscrew the pump relief valve to decrease the pressure inside the gasket.
23. Disconnect the pipe on each side.
24. Unscrew the test plug and replace with the blind plug, tightening up using a 6mm Allen key.
25. The gasket is now ready for service.