

ASSEMBLY PROCEDURES - 80mm Ball Valve

Tooling required

Loctite Blue
Ring spanner 13mm
Allen key no 4

Assembly Jigs required

N/A

Testing Jigs required

Main body TEST FL 150 jig
Main body TEST FL 124/150 (seat tightness 20kPa)
Main body TEST FL 124/150 (seat tightness 500kPa)

ASSEMBLY PROCEDURE

Main body (Long), shaft and shaft plate assembly

- 1 Fit BS339 o-ring (#8) to main body (#2) followed by BS251 o-ring (#5).
- 2 Insert bottom PTFE bush (#6) into main body (#2).
- 3 Insert BS114 o-ring (#9) into gland box (#4) followed by PTFE bush (#10), BS114 o-ring (#9) and PTFE bush (#11) ensure all seals are inserted all the way down.
- 4 Fit and hold top sealing washer (#13) in place and insert the shaft (#7) through the main body.
- 5 Fit 3 x 16 viton o-ring (#20) over shaft (#7).
- 6 Fit and secure shaft top plate (#14) using allen cap screws (#12) and allen key no 4.

Main body, ball and handle assembly

- 7 Insert the ball (#1) into the main body (#2) with the slot in the ball (#1) lining up with the shaft (#7).
- 8 Fit BS339 o-ring (#8) to main body (#3).
- 9 Fit main body (#3) to main body (#2).
- 10 Secure main body (#2/3) together using M8 x 25mm bolts (#25) and M8 lock nuts (#19) and tighten with ring spanner 13mm. (bolts must be tighten in a criss-cross pattern).
- 11 Use Loctite to fit and secure the handle knob (#15) to the threaded end of the handle shaft .
- 12 Use Loctite to fit and secure handle washer (#27) and allen cap screw (#21) fasten and secure using allen key no 4.

TESTING PROCEDURES - 80mm Ball Valve

- 1 Fit and secure the "TEST FL 124/150" jig to the "TEST FL 150" jig with washers and nuts.
- 2 Fit the ball valve onto the "TEST FL 124/150" jig with washers and nuts - ensure nuts are fully and securely fastened to the jig
- 3 Test the seat tightness at 20kPa for 5 minutes
- 4 Check for leaks:
 - a - top shaft
 - b - main body sealing area
- 5 Turn the ball valve around and fit and secure to the jig
Test the seat tightness at 500kPa for 5 minutes
Check for leaks:
 - a - top shaft
 - b - main body sealing area

As per EN12266-1:2012 and EN1266-2:2012 testing regulations Table A.5 and Annex B.1 acceptance criteria:

"A"

No visually detectable leaks for the duration of the test

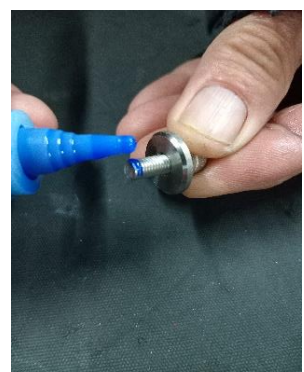
"B1.3"

Move obturator between open and closed positions

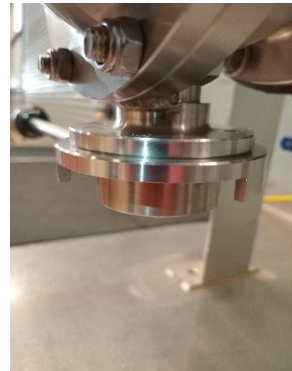




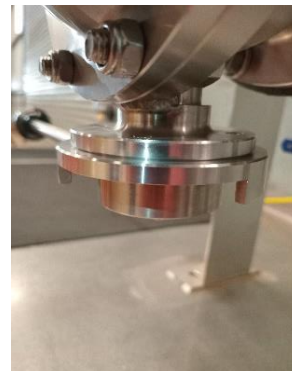
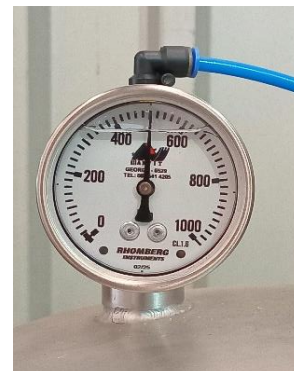
1 - 6 Main body (Long), shaft and shaft plate assembly



7 - 12 Main body, ball and handle assembly



Test 1: Seat Tightness @ 20kPa for 5 minutes



Test 2: Seat Tightness @ 500kPa for 5 minutes