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## **ASSEMBLY PROCEDURES - Dixon Optic Sensor with Quick Release Flange**

### **Tooling required**

Thread tape  
Ring spanner 19mm  
Allen cap screw no 4  
Allen cap screw no 5

### **Assembly Jigs required**

N/A

### **Testing Jigs required**

Main body TEST TUBE 130 jig (seat tightness 20kPa)  
Main body TEST TUBE 130 jig (seat tightness 200kPa)

### **ASSEMBLY PROCEDURE**

#### Fitment and assembly of quick release flange, Dixon tube housing body, Dixon optic and sealing bush

- 1 Fit the BS218 Viton encapsulated o-ring (#12) into the quick release flange glandbox inner groove (#11).
- 2 Fit the 43.0 x 2.0 Viton o-ring (#8) on to the quick release flange glandbox outer groove (#11).
- 3 Insert the sealing bush (#14) into the quick release flange followed by the spring (#9).
- 4 Place the Dixon tube housing body (#1) directly on top of the spring (#9) ensure the legs line up with the four groove openings on the quick release flange (#11).
- 5 Press the Dixon tube housing body (#1) down into the groove of the quick release flange (#11) and twist in a clockwise direction to lock the Dixon tube housing body into its final position.
- 6 Fit and secure the allen cap screw (#3) into the Dixon tube housing body (#1) ensure the sealing bush (#14) slots line up with the Dixon tube housing body and allen cap screw.
- 7 Fit and secure the compression glang (#7) into the Dixon tube housing body using ring spanner 19mm.
- 8 Thread the thread tape around the Dixon optic sensor, insert the 5 core cable through the bottom of the sealing bush (#14) followed by the Dixon optic sensor and secure the optic sensor in the sealing bush (#14)

#### AFTER TESTING - Fitment of housing cap to Dixon tube housing body

- 9 Fit the 69.0 x 2.0 Viton o-ring (#2) into the groove of the Dixon tube housing body (#1).
- 10 Place the housing cap (#6) on top of the Dixon tube housing body (#1) fit into place using 2 x spring washer (#4) and 2 x allen cap screw (#5) using allen key no 4.

## TESTING PROCEDURES - Dixon Optic Sensor with Quick Release Flange

- 1 Fit and secure the quick release flange to the "TEST TUBE 130" jig with washers and nuts - ensure nuts are fully and securely fastened to the jig
- 2 Test the Seat tightness at 20kPa for 5 minutes
- 3 Check for leaks
  - a - external sealing area - Dixon tube housing body/sealing bush
- 4 Repeat the Seat tightness at 200kPa for 5 minutes
- 5 Check for leaks
  - a - external sealing area - Dixon tube housing body/sealing bush

As per EN12266-1:2012 testing regulations Table A.5.

criteria:

"A"

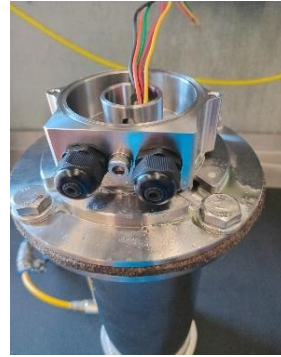
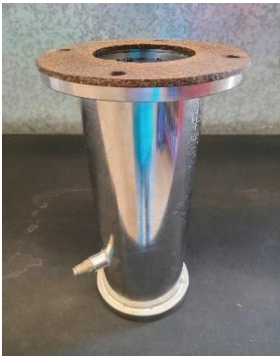
No visually detectable leaks for the duration of the test

### ASSEMBLY & TESTING PROCEDURES Dixon Optic Sensor with Quick Release Flange

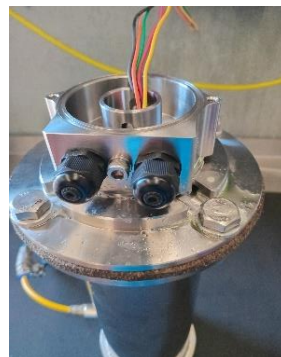


1 - 8 Quick Release Flange, Dixon Tube Housing body, Dixon Optic and Sealing Bush

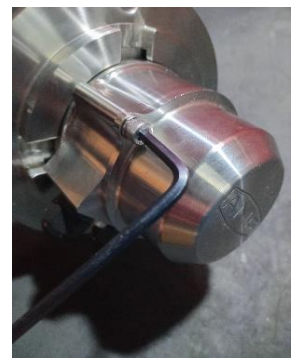




Test 1: Seat tightness @ 20kPa



Test 2: Seat tightness @ 200kPa



9 - 10 Housing Cap and Dixon Tube Housing body