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ASSEMBLY PROCEDURES - Vapour Transfer Coaming Valve

Tooling required

Rubber mallet
Thread tape
Pliers
Phillips screwdriver
Ring spanner 12mm
Ring spanner 13mm
Bench vice with aluminium jaws
EP2 grease
Tube socket 19mm
1/2 Socket 18mm
1/2 Socket wrench

Assembly Jigs required

Butterfly valve circlip tool

Testing Jigs required

Main body TEST FL 130 jig (seat tightness 5,5kPa)
Main body TEST FL 130 jig (gland box 500kPa)

ASSEMBLY PROCEDURE

Fitment and assembly of main body, spring, piston, M42 plug and piston sealing disc

1 Insert and secure the vapour transfer coaming valve main body into the bench vice
2 Apply a small amount of EP2 grease onto the inner wall of the glandbox (#4),
3 Fit the spring (#18) into the glandbox. Fit the BS216 o-ring (#14) onto the groove of the piston (#13) and apply a small amount of EP2 grease on the BS216 o-ring. Fit and secure the piston (#13) into the glandbox (#4)
4 Fit the BS218 o-ring (#9) onto the groove of the piston sealing disc (#8), apply a small amount of EP2 grease on the BS218 o-ring (#9) and fit and secure the piston sealing disc over the piston (#13).
5 Fit the BS114 o-ring (#10) over the piston (#13) and secure the BS114 o-ring in the inner groove of the piston sealing disc (#8).
6 Fit the PTFE bush (#11) into the M42 plug (#12). Screw the M42 plug (#12) into the top of the glandbox (#4)
7 Use tube socket 19mm to tighten the M42 plug. Do not over-tighten
8 Thread the thread tape around the undercut of the thread on the piston (#13)
9 Insert the phillips screwdriver into the drilled hole on the piston (#13)
10 Fit the BS337 o-ring (#16) onto the groove of the sealing disc (#15) and hand tighten the sealing disc on the piston (#13)
11 While holding the phillips screwdriver in one hand use the 1/2 socket wrench and 1/2 socket 18mm to secure the sealing disc in place
12 Insert the split pin (#17) above the sealing disc (#15) into the piston (#13) and secure with pliers
13 Fit the elbow air fitting (#20) to the glandbox (#4) and tighten with ring spanner 13mm
14 Fit the brass exhaust (#19) to the top of the glandbox (#4) and tighten with ring spanner 12mm

AFTER TESTING - Fitment and assembly of strainer plate and strainer mesh

15 Fit the first strainer plate (#5) into the nose ring (#3) followed by the strainer mesh (#6) and second strainer plate (#5), secure the strainer plate and strainer mesh with the internal circlip (#7)

TESTING PROCEDURES - Vapour Transfer Coaming Valve

1 Test the opening/closing function of the main piston 4 - 5 cycles at 600kPa

2 Fit and secure the outlet flange of the coupling to the "TEST FL 130" jig with washers and nuts - ensure nuts are fully and securely fastened to the jig
3 Test the Seat tightness at 5,5kPa for 5 minutes
4 Check for leaks
a - internal sealing area - sealing disc/main body sealing area

5 Fit and secure the outlet flange of the coupling to the "TEST FL 130" jig with washers and nuts - ensure nuts are fully and securely fastened to the jig
6 Test the Gland box at 500kPa for 5 minutes
7 Check for leaks
a - glandbox

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 - Vapour Transfer Coaming Valve











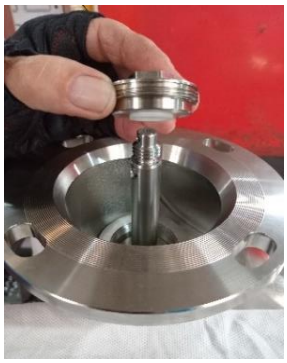













1 - 14 Main body, spring, piston, M42 plug and piston sealing disc


Operability testing opening/closing of main piston



Test 1: Seat tightness @ 5,5kPa



Test 1: Gland box @ 500kPa




15 Strainer plate and strainer mesh