

Documentation of Flanged Joint Inspection

Annex B

Operator/Company: Location:
 Plant No.: Plant / Building:
 P&I diagram no. / status: Piping line number:
 Classification into installation class: 1 2 3
 Flanged joint assembler and installation contractor:

| Nr. | Minimum inspection scope | Note |
|-----|---|--|
| 1 | Components used conformant to specification | |
| | Flange (material, PN rating) | |
| | Bolts and nuts (material) | |
| | Gasket | |
| 2 | Washer installed | |
| 3 | Bolts and nuts lubricated | |
| 4 | Minimum thread protrusion given | |
| 5 | Minimum torques of ... Nm satisfied | <input type="checkbox"/> not earlier than 4 h <input type="checkbox"/> directly after assembly |

^a Due to the gasket seating behaviour, the torque should be verified not earlier than 4 hours after assembly. Otherwise, the tightening torques should be used as check torques.

Checked by: :

Name
Signature
Organisation
Date

Check torques for verification^a

| Thread | Minimum torque [Nm] | | | | | | |
|------------|---|-----------------------------|--|---|--|----------------------|---|
| | Gasket group A | | | | Gasket group B | | |
| Gasket | PTFE gasket with 10% glass microspheres | PTFE gasket with 40% quartz | Aramide fibre with special NBR binder with and without flare | Metal-reinforced graphite gasket with and without flare | Spiral-wound gasket with graphite filler | Grooved metal gasket | Fibre gasket and metal-reinforced graphite gasket for tongue-and-groove flanges |
| M12 | 35 | 40 | 40 | | 40 | | |
| M16 | 90 | 100 | 100 | | 65 | | |
| M20 | 170 | 190 | 190 | | 120 | | |
| M24 | 270 | 290 | 300 | | 180 | | |
| M27 | 400 | 420 | 450 | | 220 | | |
| M30 | 560 | 590 | 630 | | 270 | | |
| M33 | 720 | 760 | 810 | | 450 | | |
| M36 | 960 | 1020 | 1080 | | 670 | | |
| M39 | 1120 | 1190 | 1260 | | 810 | | |
| M45 | 1600 | 1700 | 1800 | | 1080 | | |
| M52 | 2400 | 2550 | 2700 | | - | | |

^a Due to the gasket seating behaviour, the torque should be verified not earlier than 4 hours after assembly. Otherwise, the tightening torques should be used as check torques.