

PERFORMANCE TEST WITNESS REPORT

Report. No: O-EM-VERI/19/TC550732/12255 Ver 0

BHOLA ENGINEERS PVT. LTD.

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The under mentioned surveyor did visit the facilities, upon the request, of the above manufacturer, of Mechanically Attached Fittings [MAF], between 4th May 2019 to 27th September 2019, for witnessing the performance appraisal of tests mentioned below, and conducted on the below mentioned sizes of Fittings as per norms of ASTM F1387-99 [Reapproved 2012]

Grades of Material of Fittings: Stainless Steel ASTM A276 or Equivalent & ASTM A182 SS316
 Grades of Material for Tubes: ASTM A269 TP SS316 Seamless

[1] Test Parameters Used:

- Temperature during testing: Ambient [25°C±10°C]
- Test Pressure retained within ± 5% Psig
- Test Medium: Demineralised Water/SAE Grade 10W Oil for Hydraulic Tests
- Metallurgical Tests carried out at NABL Approved Laboratories

SUPPLEMENTARY TESTS

[2] Sizes of Mechanically Attached Fittings [MAF], used for Performance Appraisal of Tests [Size of Fittings Tube OD x Wall Thickness [WT]	[3] Following Tests were Witnessed as per ASTM F1387-99 [Reapproved 2012], along with review of applicable documents
3/16" OD x 0.028" WT	Selection of Test samples
1/8" OD x 0.028" WT	Verification of Material Properties
1/4" OD x 0.028" WT	Performance Test [A1]
5/16" OD x 0.035" WT	Examination of Specimen [A2]
3/8" OD x 0.035" WT	Pneumatic Proof Test [A3]
1/2" OD x 0.049" WT	Hydrostatic Proof Test [A4]
5/8" OD x 0.065" WT	Thermal Cycling Test [S2]
3/4" OD x 0.065" WT	Stress Corrosion Test [S4]
7/8" OD x 0.083" WT	Vibration Test [S8]
1" OD x 0.083" WT	
1 1/4" OD x 0.109" WT	
1 1/2" OD x 0.134" WT	
2" OD x 0.188" WT	

Notice: The certificate is subject to terms and conditions overleaf. Any significant changes in design or construction may render this certificate invalid. The digitally signed and electronically distributed document is the original and valid certificate.

All the above tests have been witnessed and Found Satisfactory. The details of the applicable test pressures with reference to various tests mentioned above have been Witnessed and Attested by DNV GL in the reports produced by the manufacturer.

The above mentioned Mechanically Attached Fittings meet the requirements of ASTM F1387-99 [Reapproved 2012] with reference to Supplementary Tests mentioned in the specifications and conducted therein.

<p>DNV GL Project No: PP550732 Place of Issue: Pune Location of Test: Vasai [East] Works Date of Issue: 2019-10-31</p>		<p>Witnessed by  G.I. Sindgi Gaus Ibrahim Sindgi Senior Surveyor & Service Lead [PED] DNV GL [Oil & Gas]</p>
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