



Certificate No:
TAD00001GR

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Well Testing Equipment

with type designation(s)
Choke manifold, 4 1/16"-10K

Issued to

Worldwide Oilfield Machine, Inc.
Houston, TX, USA

is found to comply with

DNV-OS-E101 – Drilling facilities, Edition July 2021

DNV statutory interpretations DNV-SI-0166 – Verification for compliance with Norwegian shelf regulations, Edition July 2021

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Houston** on **2022-10-20**

This Certificate is valid until **2027-10-19**.

for **DNV**

DNV local station: **Houston, Approval CMC**

Approval Engineer: **Xiangwen Maggie Wang**

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Mark Miser
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

- Choke Manifold Assembly, 4 1/16"-10K 4-Valve H₂S, P/N: M0618, M0618-CE & M0618-DD-CE

Reference standards

- API 6A Specification for Wellhead and Tree Equipment, 21st Edition
- NACE MR0175/ISO 15156 Petroleum and Natural Gas Industries – Materials for Use in H₂S – Containing Environments in Oil and Gas Production, 3rd Edition

Application/Limitation

- Max. Working Pressure: 10,000 psi
- Test Pressure: 15,000 psi
- Design Temperature: -20 °F to 250 °F
- Service: H₂S
- Material Class: DD
- Product Specification Level: 3
- Performance Requirement: PR2F

Type Approval documentation

Tests carried out

Previously carried out and not required for renewal.

Additional manufacturing locations

Worldwide Oilfield Machine Pvt. Ltd.
Gat No. 778, at Post Velu
Pune Satara Road
Tal. Bhore, Dist. Pune 412 205, India

Marking of product

For traceability the following marking is to be carried out on each product:

1. Serial No.
2. Manufacturer's name or trademark.
3. Additional Marking at manufacturer's discretion.

Periodical assessment

For retention of the Type Approval, DNV's surveyor shall perform periodical assessment after 2 years (+/- 90 days) and after 3.5 years (+/- 90 days) in accordance with DNV's Class Programme DNV-CP-0338, Section 4.

Other conditions/comments

1. Procedures related to testing, welding, NDT, and other quality control requirements are to be reviewed/approved by DNV's local surveyor.
2. The gate valve, 4-1/16"-10K MAGNUM manual is certified under TAC No. TAD00004M Rev 5.
3. The adjustable choke, 4 1/16" x 10K inlet/outlet is certified under TAC No. TAD00004S Rev 7.
4. The positive choke, 4 1/16" x 10K inlet/outlet is certified under TAC No. TAD00000JE.
5. The skid is to be approved separately.
6. DNV ref.: A1245374.

END OF CERTIFICATE