



Marine & Offshore

Certificate number: 76659/A0 BV File number: MAT 139584-2024

Product code: 8154l

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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APPROVAL CERTIFICATE for MATERIALS

This certificate is issued to

METFLOW CAST PVT. LTD.

RAJKOT - INDIA

for the type of product

STEEL CASTINGS

Carbon, C-Mn and Austenitic stainless steel castings.

Requirements:

Bureau Veritas Rules on Materials and Welding for the Classification of Marine Units

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 15 Feb 2029

For Bureau Veritas Marine & Offshore, At BV MUMBAI (BOMBAY), on 15 Feb 2024, Nitin NALAWADE

This certificate was created electronically and is valid without signature



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Carbon and C-Mn steel castings of maximum weight 700kg. Austenitic stainless steel castings of maximum weight 600kg.

Melting by Induction furnace. Sand mould making.

Heat treatment as applicable. Castings delivered in as cast condition.

2. DOCUMENTS AND DRAWINGS:

- 2.1 Documents issued by METFLOW CAST PVT. LTD.:
- "General Information about company" dated February 2024.
- "Technical information for initial approval" dated February 2024 including process flow chart ref. RD17 dated 21/01/2020, ITP ref. AC09 dated 24/02/2022, heat treatment procedure ref. PR06 dated 01/03/2019.
- "NDT procedures" including MT procedure ref. CMTM 35 rev.5 dated 10/07/2022, PT procedure ref. CMTM 36 rev.5 dated 19/12/2022, RT procedure ref. CMTM 37 rev.4 dated 25/12/2022 and UT procedure ref. CMTM 38 rev.2 dated 16/12/2016.

3. TEST REPORTS:

- 3.1 Typical tested grades are:
- LCC according to ASTM A352 for Carbon Steel casting.
- CF3M according to ASTM A351 for Austenitic Stainless Steel casting.
- 3.2 Documents issued by Alpha Laboratory Services:
- Test reports No. ALS/299/24 dated 11/01/2024.
- Test reports No. ALS/300/24 dated 11/01/2024.

4. APPLICATION / LIMITATION:

As per Bureau Veritas Rules for Classification.

Chemical composition, tensile properties and Charpy V-notch test requirements are to be as per Bureau Veritas Rules NR216 and/or alternative specification mentioned on reviewed documents and drawings, as applicable.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The steel castings are to be supplied by METFLOW CAST PVT. LTD. in compliance with the type and the requirements described in this certificate.
- 5.2 This type of product is within the category IBV of Bureau Veritas Rule Note NR320.
- 5.3 BV product certificate is required.
- 5.4 For information, METFLOW CAST PVT. LTD. has declared to Bureau Veritas the following production site:

METFLOW CAST PVT. LTD.

Survey Number 79, National Highway Number 27 Near Goldcoin Foam, Shapar (Veraval), Rajkot 360024 RAJKOT INDIA

6. MARKING OF PRODUCT:

As per Bureau Veritas Rules for Classification.

7. OTHERS:

It is METFLOW CAST PVT. LTD.'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

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*** END OF CERTIFICATE ***