



Marine & Offshore

Certificate number: 14406/D0 BV File number: MAT 57522 Product code: 81531

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

VIRAJ PROFILES LIMITED

PALGHAR - INDIA

for the type of product

STEEL FORGINGS

Stainless steel forgings of maximum weight 2000kg

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 is a renewal of certificate N° 14406/C0 BV expiring on 10/06/2020

This certificate will expire on: 10 Jun 2025

For Bureau Veritas Marine & Offshore, At BV MUMBAI (BOMBAY), on 28 May 2020, Rajan VARDHAN



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.

THE SCHEDULE OF APPROVAL

<u>1. PRODUCT DESCRIPTION :</u>

Stainless steel forgings of maximum weight 2000kg. Typical forgings are flanges.

Steelmaking at Viraj Profiles Limited by induction furnace with Argon-Oxygen Decarburisation and ingot casting or continuous casting. Forging processes used : open die forging, closed die forging and ring rolling.

2. DOCUMENTS AND DRAWINGS :

2.1-Documents" issued by Viraj Profiles Limited.:

- "Stainless steel forged flanges", "Company details - Factory Viraj Alloys Limited", "Company details - Factory Viraj Forging Limited".

- Documentation submitted on 23 May 2020.

3. TEST REPORTS :

- "Stainless steel forged flanges" issued by Viraj Profiles Limited.

- "Certificate N° MLD/10/01/10562" issued by Geo-Chem laboratories dated 02 February 2010.

Typical tested grades are :

- F304/304L, F316/316L, F321/321H, F347/347H and F317/317L according to ASTM A182 for austenitic steels.
 - F51 according to ASTM A182M for austeno-ferritic steels.

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 drawings, as applicable.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The stainless steel forgings are to be supplied by Viraj Profiles Limited 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.

6. MARKING OF PRODUCT :

As per Bureau Veritas Rules for Classification.

7. OTHERS :

This certificate replaces approvals from No.14406/A0 BV to No.14406/C0 BV.

*** END OF CERTIFICATE ***