

Marine & Offshore

Certificate number: 29691/B0 BV File number: MAT 89019-2012

Product code: 8154l

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

www.veristar.com

APPROVAL CERTIFICATE for MATERIALS

This certificate is issued to

NOVA TECHNOCAST PRIVATE LIMITED

RAJKOT - INDIA

for the type of product

STEEL CASTINGS

Carbon steel, austenitic stainless steel and low-alloy 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: 20 Jul 2022

For Bureau Veritas Marine & Offshore, At BV MUMBAI (BOMBAY), on 20 Jul 2017, 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.

Certificate number: 29691/B0 BV

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Austenitic stainless steel castings for valves with maximum weight 120Kg Carbon steel and low alloy steel castings for valves with maximum weight 80Kg. Castings are made using the lost wax process. Heat treatment as applicable.

2. DOCUMENTS AND DRAWINGS:

As per following documentation issued by Nova Technocast Private Limited.

- "Information for approval of Nova Technocast Pvt.Ltd. Works for production of valves." submitted on June 2012.
- "Supplier list F-PU-01/00" submitted June 2012.
- "Preliminay information NOVA-1/2017 Rev.0" dated 01 June 2017.
- "Manufacturing datas NOVA-2/2017 Rev.0" dated 01 June 2017.

3. TEST REPORTS:

Typical grade tested are:

- WCB according to ASTM A216/A216M for carbon steel castings
- WC9 according to ASTM A217/A217M for low alloy steel castings
- CF3M according to ASTM A351/A351M, 1.4308 according to DIN EN 10213 for austenitic stainless steel castings

As per following documentation issued by Nova Technocast Private Limited.:

- Test records, "Ladle and product chemical composition analysis reports" dated 30 May 2012,
- "Witness pouring report", Microexamination test report N° UM-2162, N°UM-2185, N°UM-2186 dated 20-22 May 2012,
- "Hardness test reports" dated 4 June 2012, reports No. 020/12-13, No. 021/12-13, No. 041/12-13 dated 21 June 2012,
- Certificate Ref. $1\overline{2}26/16-17$ dated 17/03/2017, report No. 198/17-18 dated 15/02/2016, report No. 10944/16-17 dated 05/02/2017.

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 Materials Rules and/or alternative specification mentioned on reviewed drawings, as applicable.

5. PRODUCTION SURVEY REQUIREMENTS:

The castings are to be supplied by Nova Technocast Private Limited in compliance with the type and the requirements described in this certificate. This type of product is within the category IBV of Bureau Veritas Rule Note NR320. BV product certificate is required.

6. MARKING OF PRODUCT:

As per Bureau Veritas Rules for Classification.

7. OTHERS:

This certificate replaces approval No.29691/A0 BV.

*** END OF CERTIFICATE ***