



Marine & Offshore

Certificate number: 43675/B0 BV

File number: MAT 95125-2016

Product code: 81601

*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*

**SAFAS SpA**

Altavilla Vicentina - ITALY

*for the type of product*

**SPECIAL ALLOY CASTINGS**

Nickel and Nickel alloy castings with maximum weight 1000 Kg.

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships

*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: 07 Apr 2026**

**For Bureau Veritas Marine & Offshore,**

At BV VENEZIA, on 07 Apr 2021,

Sandro BRUSEGAN



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](http://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**

### **1. PRODUCT DESCRIPTION :**

Nickel and Nickel alloy castings with maximum weight 1000 Kg.

Melting by Electric Arc furnace or Induction furnace, casting in sand moulds, heat treatment as applicable.

### **2. DOCUMENTS AND DRAWINGS :**

2.1 - As per following documents issued by SAFAS SpA:

- "SAFAS presentation for BV" dated 11 September 2014.
- "Heat treatment procedure N° TT/01 Rev.1" dated 23 November 2009.
- "X-Ray Test procedure N° RT/01 Rev.8" dated 29 May 2014.
- "Dye penetrant Test procedure N° PT/04 Rev.1" dated 22 June 2015.

### **3. TEST REPORTS :**

3.1 - Typical tested grade is CW-12MW according to ASTM A494 for Nickel alloys .

3.2 - As per following documents issued by SAFAS SpA:

- Quality control plan Nr-4/ORT Rev.0 dated 20 April 2015.
- Test reports for grade CW-12MW ASTM A494 dated From May to July 2015.
- WPS N° 1160 Rev.0 dated 22 June 2015.
- PQR N° 1160 Rev.0 dated 15 September 2015.

### **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 steel castings are to be supplied by SAFAS SpA 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 approval No. 43675/A0 BV.

\*\*\* END OF CERTIFICATE \*\*\*