



Marine & Offshore

Certificate number: 10639/D0 BV

File number: ACM 135/0325/002

Product code: 2161H

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

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

ILTA INOX SpA

Robecco d'Oglio (CR) - ITALY

for the type of product

PIPE FITTINGS

CHIBRO Pressfitting system made of stainless steel

Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships
- BUREAU VERITAS Rules for the Classification of Offshore 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: 06 Jun 2024

For Bureau Veritas Marine & Offshore,

At BV VENEZIA, on 06 Jun 2019,

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. 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 electronic version is available at: <http://www.veristarnb.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=xmaidkgifn>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

CHIBRO Pressfitting made of stainless steel

1.1 Design (compression couplings, press type)

- Press type fittings are made of stainless steel materials and have an O-ring rubber seal which provides the tightness of the fitting when deformed by a pressing tool.

1.2 Ratings

Outside Pipe Diameter (mm)	15	18	22	28	35	42	54	76.1	88.9	108
Pipe thickness (mm)	1	1	1.2	1.2	1.5	1.5	1.5	2	2	2
Penetration length A (mm)	20	21	22	24	27	32	38	55	64	78

Max. working pressure (MPa)	1,6
Working temperature range (°C)	-20 / 120
Max. temperature (peaks)	150

The maximum working pressure is not to exceed one quarter of the burst pressure at the service temperature.

1.3 Material specification

Tubes	Stainless steel AISI 316 L (1.4404 according to EN 10088)
Fittings	Stainless steel AISI 316 L (1.4404 according to EN 10088)
O-ring seal	EPDM / NBR

When other choices of materials are used per manufacturer's recommendations, the BV agreement is to be obtained.

2. DOCUMENTS AND DRAWINGS

- Manufacturer catalogue ref 09/2015-B including product specification and installation guidelines

No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform the Society of any modification or changes to these documents and drawings.

3. TEST REPORTS

3.1 Tests carried out in-house at Ilta Inox SpA's laboratory and witnessed by BUREAU VERITAS:

- Installation and leak test, pressure test, vacuum test, test with O-Rings burnt

3.2 Vibration test performed at CETENA's laboratory. Test report N° 7487.

3.3 Fire endurance test carried out according to ISO 19921:2005 and ISO 19922:2005 at RINA's laboratory and witnessed by BUREAU VERITAS. Test reports N° 2006CS013655/1 to /7 dated 03/10/2006.

4. APPLICATION / LIMITATION

4.1 May be used on board for services of class III piping systems:

- Potable and domestic hot and cold water, fresh water cooling water for main/auxiliary machinery, fresh water for wet type sprinkler systems (and dry systems with diameter up to 54 mm), hot and chilled water for air conditioning plants, condensate, compressed air for deck service and control systems, non-essential lines.

4.2 The packing material must be compatible with the fluid to be conveyed and the maximum working temperature.

4.3 Assembly instructions given by the manufacturer are to be complied with.

4.4 In all cases, the associated pipes are to be suitably supported and anchored. The joints are to be at any time accessible, excepting inside tanks where permitted by the Society Rules.

4.5 MM and MF extended pipe penetrations with welding steel sleeve can be used as penetrations in watertight and A-Class fire divisions when mounted in accordance with the Society Rules applicable to the ships. The drawing examination is subject to the Society's approval in each case.

5. PRODUCTION SURVEY REQUIREMENTS

- 5.1 - The products are to be supplied by **Ilta Inox SpA** in compliance with the type described in this certificate.
- 5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.
- 5.3 - **Ilta Inox SpA** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.
- 5.4 - For information, **Ilta Inox SpA** has declared to Bureau Veritas the following production site:
Ilta Inox SpA: Unità produttiva Chibro, Via Valtellina, 15, 22070 Montano Lucino (CO), ITALY

6. MARKING OF PRODUCT

Each fitting is to be at least marked with:

- Manufacturer's name or logo
- Type designation
- Size

7. OTHERS

It is **Ilta Inox SpA'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.

This certificate supersedes the Type Approval Certificate N° 10639/C0 BV issued by the Society.

*** END OF CERTIFICATE ***