



Marine & Offshore

Certificate number: 75273/A0 BV

File number: MAT 142762-2023

Product code: 2003I

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

YUSUNG BEND Co., Ltd.
BUSAN - KOREA (REPUBLIC OF)

for the type of product

WELDED PIPES AND FITTINGS

Fittings in austenitic stainless steel.

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: 05 Mar 2030

For Bureau Veritas Marine & Offshore,

At BV PUSAN, on 05 Mar 2025,

Dong-hyok SHIN

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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Fittings made from ERW pipes in austenitic stainless steel.

Steel grade	Type	Dimensions	Delivery condition
304 / 316L	Elbow Tee	Maximum outside diameter 329.9mm Maximum wall thickness 9.53mm	Solution treated
	Reducer	Maximum outside diameter 508mm Maximum wall thickness 5.54mm	Solution treated

No steelmaking. Fittings made from cold formed pipes.

Steel pipes supplied by Sungwon Co., Ltd.

2. DOCUMENTS AND DRAWINGS :

2.1 - Documents issued by YUSUNG BEND Co, Ltd.:

- "Application Document for initial approval" including documents for approval of manufacturer ref. YSS-AOM-001 rev.1, forming procedure ref. YSS-FOF-001 rev.0 and ITP ref. YSS-ITP-001 dated 27/05/2024.

2.2 - Documents issued by Korea Non-Destructive Examination Co., Ltd.:

- "Radiographic Examination Procedure ref. No. KNDE-NDEP-RT-A01 Rev.11 dated 15 November 2023.

2.3 - Documents issued by Shinsung Fitting Heat Treatment:

- "Heat treatment procedure ref. SS-HT-01 dated 13/03/2020.

3. TEST REPORTS :

3.1 - Tested welded pipes selected for approval are:

- Grade 304 according to ASTM A358.
- Grade 316L according to ASTM A312.

3.2 - Documents issued by Keojin Co., Ltd.:

- Material test report 304 from ref. No. KJ24-1794-01 to KJ24-1794-06 dated 26/06/2024.
- Sulphur print test report 304 ref. No. KJ24-1794-07 to KJ24-1794-12 dated 26/06/2024
- Corrosion test reports 304 from ref. No. KJ24-3221-01 to KJ24-3221-06 dated 26/06/2024.

3.3 - Documents issued by Youmsung Tech. Busan Branch. Co., Ltd.:

- Test reports from 316L ref. No. YST24-TN008544 to YST24-TN008546 dated 27/11/2024.

3.4 - Documents issued by Korea Testing & Research Institute:

- Sulphur print test reports from ref. No. TAK-2024-079828 to No. TAK-2024-079833 dated 14/06/2024, from ref No. TAK-2024-166677 to TAK-2024-166679 dated 05/12/2024.

3.5 - Documents issued by Korea Non-Destructive Examination Co., Ltd.:

- RT test report 304 ref. No. KNDE-BS-YSB-R24-001 dated 06/05/2024.
- RT test reports 316L ref. No. KNDE-DD-YS-2024 -R032 / -R033 / -R034 dated 11/11/2024.

3.6 - Documents issued by Shinsung Fitting Heat Treatment:

- Heat treatment test report 304 ref. No. SSH240412-01 dated 12/04/2024.
- Heat treatment test report 316L ref. No. SSH240412-01 dated 05/11/2024.

4. APPLICATION / LIMITATION :

4.1 - As per Bureau Veritas Rules for the Classification.

4.2 - Pipes used to manufacturing fittings are to be with manufacturer's certificate as a minimum.

4.3 - Pipes are to be supplied by Sungwon Co., Ltd. or other pipe supplier approved by the Society.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The steel pipe fittings are to be supplied by YUSUNG BEND Co, 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, YUSUNG BEND Co, Ltd. has declared to Bureau Veritas the following production site:

YUSUNG BEND Co, Ltd.
14, 102 Beon-gil, Hwajeonsandan 6-ro
Gangseo-gu
46738 BUSAN
REPUBLIC OF KOREA

6. MARKING OF PRODUCT :

As per Bureau Veritas Rules for the Classification.

7. OTHERS :

It is YUSUNG BEND Co, 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.

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