Electronically published by ABS Hamburg.
Reference WO0602902, dated 11-Jun-2026

CERTIFICATE NUMBER	26-0602902-PDA
EFFECTIVE DATE	10-Jun-2026
EXPIRY DATE	09-Jun-2031
ABS TECHNICAL OFFICE	Hamburg Engineering Department

CERTIFICATE OF

Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

HAELOK AG

located at

RÜTISTRASSE 26, CH-8952 SCHLIEREN, Switzerland.

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product:	**Pipe Fittings**
Model:	**Swage-type compression coupling mechanical joints** **-Type CC - Carbon Steel** **-Type XX - Stainless Steel**
Endorsements:	
Tier:	**2 - PDA Issued**

This Product Design Assessment (PDA) Certificate remains valid until 09/Jun/2031 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

Efstratios Maliatsos,Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

Sensitivity: Internal & Restricted

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HAELOK AG
RÜTISTRASSE 26
SCHLIEREN
Switzerland 8952
Telephone: +41 435014558
Fax:
Email:
Web: www.haelok.com

Tier: 2 - PDA Issued

Product: **Pipe Fittings**
Model: **Swage-type compression coupling mechanical joints**
-Type CC - Carbon Steel
-Type XX - Stainless Steel

Endorsements:

Intended Service:
For Class I, II and III piping applications on marine vessels and offshore units (except for the limitation as indicated in the service restrictions).

Description:
Sewage- Type Compression Coupling Mechanical Joints, Socket and Press Ring Construction (No elastomeric rubber gasket), Straight Fittings and Straight Repair Fittings.
Materials:
- Carbon steel (1.0570/ AISI 1024)
- Stainless steel (1.4404/ AISI 316L)
Size Range:
DN8 – DN50, corresponding to Outer Diameter 13.5 - 60,3mm
DN60 – DN100, corresponding to Outer Diameter 76,1 - 114,3mm
Minimum/ Maximum thickness:
Schedule 5/ Schedule 80 for DN8 - DN50
Schedule 5/ Schedule 40/ Standard for DN60 - DN100

Rating:
Working Temperature:
-10°C to +300°C for Carbon Steel
-55°C to +350°C for Stainless Steel
Size Range/ Nominal Pressure:
DN8 – DN25/ PN 200
DN32 – DN50/ PN 150 bar
DN65 – DN100/ PN 63 bar

Service Restriction:
- Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
- All steel pipe fittings are to be suitable for the intended piping system.
- All steel pipe fittings are to be used for the steel pipes of equivalent sizes (nominal pipe size, wall thickness or schedule number, etc.) selection of the fittings is also subject to the wall thickness calculations, which takes into account the design pressure and temperature of the pipe system and the material of the selected fittings, in accordance with 4-6-2/5.1.1 and 4-6-2/5.1.2 of Marine Vessel Rules 2026 and to the minimum thickness requirement in 4-6-2/5.1.3 of Marine Vessel Rules, 2026.
- For sea water piping systems in which sea water may be retained within the piping system in a stagnant or low flow conditions (i.e. less than 1 m/sec) there is a potential for chloride pitting and 304 stainless steels, 316L stainless steels with a molybdenum content of less than 2.5% are not to be used for the piping or piping components as per 4-6-2/3.1.2 of Marine Vessels Rules, 2026.
- For use within the approved pressure and temperature limits and submitted material specification, subject to ABS acceptance of the conveyed media and applicable service limitations. Approval is limited to straight fittings and straight repair fittings only.

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Tier: 2 - PDA Issued

Comments:
-The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- All piping fittings are to bear permanent identification, such as manufacture's name or trademark, standard of compliance, material identity, pressure rating, ..etc. as required by the standard of compliance or the manufacture's specification. Such markings may be cast of forged integral with stamped on, or securely affixed by nameplate on the component, and are to serve a permnant means of identification of the component throughout its service life in accordance with 4-6-1/7.1.4 and table 2 of Marine Vessel Rules, 2026.
- As per 4-6-1/7.1.3, table 2, the manufacturer's certification is required for pipe fittings class I, II and III.

Notes/Drawing/Documentation:
Drawings and Documents: see the attachment.

Terms of Validity:
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Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:
2026 Rules for Conditions of Classification 1A-1-4/7.7, 1A-1-A3 and A4, which covers the following:
2026 Rules for Building and Classing Marine Vessels 4-6-2, 4-6-2/5.9.1, 4-6-2/5.9.2
2025 Rules for Conditions of Classification - Offshore Units 1B-1-4/9.7, 1B-1-A2, 1B-1-A3 which covers the following:
2026 Rules for Building and Classing Offshore Units 4-2-1, 4-2-2

National:
NA

International:
NA

Government:
NA

EUMED:
NA

OTHERS:
NA