



Confirmation of Product Type Approval

Company Name: ELAFLEX HIBY GMBH & CO. KG

Address: SCHNACKENBURGALLEE 121, 22525 HAMBURG, Germany

Product: Expansion Joints

Model(s): ERV-GS, ERV-GS HNBR, ERV-G, ERV-R

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	21-2113442-PDA	30-APR-2021	29-APR-2026
Manufacturing Assessment (MA)	21-4816208	14-JUN-2021	13-JUN-2026
Product Quality Assurance (PQA)	NA	NA	NA

Tier

3 - Type Approved, unit certification not required

Intended Service

Expansion joints for use in machinery spaces on-board of marine and mobile or fixed offshore installations in - oil piping systems and in Class III circulating water systems (ERV-GS, ERV-GS HNBR). - oil piping systems and in town and natural gas systems (ERV-G). - Class III circulating water systems (ERV-R).

Description

Expansion Joints made of composite rubber fitted with either stainless steel or carbon steel flanges, the latter zinc plated or hot galvanized.

ERV-GS and ERV-GS HNBR: Yellow Steel (Gelbstahl) reinforced with steel wire cord, sizes DN 25 to DN 600, with CR-cover and NBR or HNBR liner, fire resistant to ISO 15540:2016 and ISO 15541:2016.

ERV-G: Yellow Band (Gelbring) reinforced with PA textile cord, sizes DN 25 to DN 1000, with CR-cover and NBR liner.

ERV-R: Red Band (Rotring) reinforced with PA textile cord, butyl rubberized, sizes DN 25 to DN 1000, with EPDM cover and Butyl (IIR)/EPDM liner.

Markings:

ERV - GS: Two (2) yellow bands, ERV DN .., PN .., production date.

ERV - GS HNBR: Yellow-blue-yellow bands, ERV DN .., PN .., production date.

ERV-G: Yellow band, ERV DN.., PN .., production date.

ERV-R: Red band, ERV DN.., PN.., production date.

Ratings

Nom. pressure: 10 / 16 bar.

Nom. temperature: -20°C up to +90°C, temporarily up to +100°C (ERV-GS, ERV-G); -35°C up to +100°C, temporarily up to +125°C (ERV-GS HNBR), -40°C up to +100°C, temporarily up to +120°C (ERV-R).

Service Restrictions

- 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. Installation of the expansion joints only in accessible locations.
- Expansion joints are to be installed in accessible locations to permit regular inspection and / or periodic servicing.
- Expansion joints type ERV-R are not to carry mineral oil products but are suitable in oily atmospheric environments.

Comments

- The manufacturer has provided a declaration about the control of, or the lack of asbestos in this product.
- Expansion Joints to be selected and installed in accordance with the manufacturer's instructions and recommendations.
- Expansion Joints are to bear permanent identification, such as manufacturer's name or trademark, standard of compliance, material identity, pressure rating, etc., as required by the standard of compliance or the manufacturer's specification. Such markings may be cast or forged integral with, stamped on, or securely affixed by nameplate on the component, and are to serve as a permanent means of identification of the component throughout its service life in accordance with 4-6-1/7.1.4 & Table 2 of the ABS Marine Vessels Rules.

Notes, Drawings and Documentation

See Attached File.

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 29/Apr/2026 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.

ABS Rules

2021 Rules for Conditions of Classification: 1-1-4/7.7, 1-1-A3 and A4, which covers the following:

2021 Rules for Building and Classing Marine Vessels: 4-6-1/7, 4-6-2/5.8, 4-6-2/5.17.

2021 Rules for Conditions of Classification - Offshore Units and Structures: 1-1-4/9.7, 1-1-A2 and A3, which covers the following:

2021 Rules for Building and Classing Mobile Offshore Units: 4-2-1/11.7.

International Standards

ISO 15540:2016

ISO 15541:2016

EU-MED Standards

NA

National Standards

NA

Government Standards

NA

Other Standards

NA



A handwritten signature in blue ink, appearing to read 'James J. White'.

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 20-Jul-2021 2:42

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

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 prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.