



TYPE APPROVAL CERTIFICATE
No. **MAC340220XG**

This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	Rubber expansion joints
<i>Type</i>	ERV ERV-R ERV-BR ERV-G ERV-GS ERV-GS HNBR ERV-CR ERV-ROTEX ERV-OR ERV-GR ERV-VITEX
<i>Applicant</i>	ELAFLEX HIBY GmbH & Co. KG SCHNACKENBURGALLE 121 22525 Hamburg GERMANY
<i>Manufacturer</i> <i>Place of manufacture</i>	ELAFLEX HIBY GmbH & Co. KG SCHNACKENBURGALLE 121 22525 Hamburg GERMANY
<i>Reference standards</i>	RINA Rules for the classification of Ships; RINA Rules for the classification of Naval Ships; RINA Rules for the Classification of Floating Offshore Units at Fixed Locations and Mobile Offshore Drilling Unit

Issued in **HAMBURG** on **January 7, 2021**. This Certificate is valid until **January 6, 2026**



RINA Services S.p.A.
Giuseppe Russo

This certificate consists of this page and 1 enclosure

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ERV

Reference Documents:

- Elaflex Catalogue 2009 rev.,2 (2015) filed with HMMC 6285 dated 4-Jan-2016
- Contitech Burst and Impulse Tests no. 1634/ and I1WI0021/1
- WTD71 (Wehrtechnische Dienststelle für Schiffe und Marinewaffen) Fire Test Report no. 51514 .
- Dr.-Ing T.Bäumer Flame Resistance Test no: IBB472 dated 27-08-2009
- Elaflex Catalogue 2020 rev.6 (2020) filed with HMMC-18432
- Burst pressure tests ERV-G600 / STOF600.10 dated 05-02-2020
- Burst pressure tests ERV-GS80 / STF80.10 dated 24-01-2020
- Burst pressure tests ERV-GS150 / STF150.16 dated 24-01-2020
- Burst pressure tests ERV-GS400 / STF400.10 dated 24-01-2020
- Burst pressure tests ERV-R300 / ST-OF300.16 dated 05-04-2019
- Burst pressure tests ERV-R500 / ST-OF500.10 dated 05-04-2019
- Burst pressure tests ERV-R900 / ST-OF900.10 dated 05-04-2019

Technical characteristics :

- Moulded single sphere type rubber bellows with swiveling metal flanges.
- Dimensions and materials; DN 25 - 1000 mm, in various lengths as per Elaflex catalogue.
- Flange Type : ERV ; Material : Stainless steel, carbon steel zinc plated or hot galvanized

Fields of application :

As per Elaflex Catalogue

TYPE	APPLICATIONS	FLAME RESISTANT
ERV-R,	<i>Fresh Water and Waste Water</i>	NO (*)
ERV-BR	<i>Water and Waste Water</i>	NO (*)
ERV-G,	<i>Petroleum Based Products</i>	NO (*)
ERV-GS	<i>Petroleum Based Products</i>	YES
ERV-GS HNBR	<i>Petroleum Based Products</i>	YES
ERV-CR,	<i>Water and Waste Water</i>	NO (*)
ERV-ROTEX,	<i>Water and Waste Water</i>	NO (*)
ERV-OR,	<i>LPG and other gases up to 25 bar</i>	NO (*)
ERV-GR,	<i>Chemistry</i>	NO (*)
ERV- VITEX	<i>Chemistry</i>	NO (*)

(*) Flame protection cover type ELAFLEX "FSH" can be added.

Acceptance conditions :

- The installation is to be made in accordance with the manufacturer's instructions.
- Use of expansion joints is to be in accordance with Part C, Chapter 1 Section 10, Paragraph 2.6, of RINA Rules.
- The acceptance of the above mentioned product on board a ship, or other units classed by RINA, is subject to the satisfactory outcome of testing as per RINA Rules.

This Certificate annuls and replaces the certificate No. **MAC197915XG**

HAMBURG January 07, 2021