

TYPE APPROVAL CERTIFICATE

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the DNV GL Type Approval System.

Certificate No.	83 345 - 80 HH
Company	Elaflex-Gummi Ehlers GmbH Schnackenburgallee 121 22525 Hamburg, GERMANY
Product Description	FLAME RESISTANT RUBBER COMPENSATORS
Type	ERV - GS ERV - GS HNBR
Environmental Category	None
Technical Data / Range of Application	Technical Data: Size range DN 25 up to DN 600 M.A.W.P.: 10 bar M.A.W.T.: NBR 100°C, HNBR 120°C (short-term) Liner NBR, HNBR (nitrile), seamless, electrically conductive Reinforcement Steel wire cord, CR rubberised Cover CR (Chloroprene) Connections Flange type: ERV Material: Stainless steel, carbon steel, zinc plated or hot galvanized Range of Application Refer to page 2
Test Standard	GL VI-7-8 Regulations for the Performance of Type Tests, Part 6 - Test Requirements for Mechanical Components and Equipment:2008
Documents	- Fire test report according to ISO 15540 dated 2.11.2005 and 27.08.2009 - Impulse test reports according to DIN EN ISO 6803: TÜV-SÜD dated 14.07.2005 and Continental Contitech dated 11.04.2011 - Data sheet 427/428, 431/432, Continental Contitech confirmation-04.01.2011
Remarks	Compensators are to be installed at visible and accessible positions. For selection and installation the manufacturer instructions are to be observed.

Valid until **2019-10-05**
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Hamburg, 2014-11-24

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Range of Application

The compensators of type ERV GS are type approved as appropriate in the following piping systems: Fuel-, lubricating oil-, hydraulic oil-, bilge-, sea water-, ballast-, fresh water cooling-, water filled fire extinguishing-, compressed air systems as well as in ancillary piping systems arranged inside and outside of machinery spaces.

For further information refer to the Rules I-1-2 Machinery Installations, Section 11 U.

MARKING

Manufacturer sign on bellow



and/or **ELAFLEX**

ERV - GS NBR: 2 yellow bands, ERV DN..., PN., production date

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

LIMITATION

Non-metallic compensators are not approved for the following application:

- In permanently pressurized starting air lines of diesel engines
- In cargo lines of tankers
- At the ship's side

PRODUCT INSPECTION

Prior to installation on board ship each batch of compensators is to be subjected in the manufacturer's works to a pressure test under the supervision of a DNVGL surveyor.

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