

NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE

Certificate No. TA24571M

This is to certify that the undernoted products have been approved in accordance with the requirements 12.1.6, Chapt.12, Part D of the "Rules for the Survey and Construction of Steel Ships" and Chapt.2, Part 6 of the "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use".

This certificate is issued to

Manufacturer :	ELAFLEX HIBY GmbH & Co. KG
Place of Manufacturer :	Schnackenburgallee 121, 22525 Hamburg, GERMANY
Product description :	Rubber Expansion Joints
Type designations :	ERV-GS / ERV-GS HNBR
	ERV-G, ERV-R, ERV-ROTEX
Approval No. :	99FV401B
Valid until :	15 December 2029

The details are described in the attached sheets.

Issued at Tokyo on 21 November 2024.



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Attached sheet to the Certificate No. TA24571M

• Particulars and conditions :

The joints are accepted as flame resistant rubber joints and can be used for short joint of the piping systems in engine room.

Type Nominal Diameter (DN) Max. Working Pressure Max. Operating Temp Kind of fluid Material	 : ERV-GS / ERV-GS HNBR : 40, 50, 65, 80, 100, 125, 150, 200, 250, 300, 350 and 400 : 1.0 MPa : ERV-GS : 90°C / ERV-GS HNBR : 100°C : Fuel oil, Lubricating oil, Sea water, Fresh water, Air, Hydraulic oil, Waste oil, Mist gas : Liner ERV-GS : NBR / ERV-GS HNBR: HNBR Reinforcement : Steel wire cord, CR rubberized Kover : CR Flanges : Carbon steel, zinc plated or hot galvanized; Stainless steel
Туре	: ERV-G
Nominal Diameter (DN)	: 25, 32, 40, 50, 65, 80, 100, 125, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900 and 1000
Max. Working Pressure	: <mark>1.6 MPa (DN25 – 400), 1.0MPa (DN450 – 1000)</mark>
Max. Operating Temp	: 90°C
Kind of fluid	: Fuel oil, Lubricating oil, Hydraulic oil, Thermal oil
Material	: Liner NBR
	Reinforcement : PA textile cord
	Cover : CR
	Flanges : Swiveling, carbon steel, zinc plated or
	hot galvanized; Stainless steel
Туре	: ERV-R
Nominal Diameter (DN)	: 25, 32, 40, 50, 65, 80, 100, 125, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900 and 1000
Max. Working Pressure	: 1.6 MPa (DN25 – 400), 1.0MPa (DN450 – 1000)
Max. Operating Temp	: 100°C
Kind of fluid	: Fresh water, Sea water, Waste water, Drinking water
Material	: Liner Butyl (IIR) / EPDM
	Reinforcement : PA textile cord
	Cover : EPDM
	Flanges : Swiveling, carbon steel, zinc plated or
	hot galvanized; Stainless steel

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Туре	: ERV-ROTEX
Nominal Diameter (DN)	: 25, 32, 40, 50, 65, 80, 100, 125, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900 and 1000
Max. Working Pressure	: 1.6 MPa (DN 25 – 400), 1.0 MPa (DN450 – 1000)
Max. Operating Temp	: <mark>130℃</mark>
Kind of fluid	: Fresh water, Sea water, Heating water, Cooling water,
	Hot air
Material	: Liner EPDM
	Reinforcement : Polymer textile cord
	Cover : EPDM
	Flanges : Swiveling, carbon steel, zinc plated or
	hot galvanized; Stainless steel

• Test

The joints used for piping belonging to Group II defined by the requirements 12.1.3, Chapt.12, Part D of the Rules are to be subjected to hydraulic test in the presence of the Society's surveyor in accordance with the requirements 12.6.1, Chapt.12, Part D of the Rules.

• Notice

Any significant changes in design or construction of the above items may render this certificate invalid.

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