



TYPE APPROVAL CERTIFICATE
No. **MAC052822XG**

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

<i>Description</i>	pipe couplings
<i>Type</i>	AVK REPICO-G, REPICO-S, REPICO-SG
<i>Applicant</i>	AVK Nederland BV Schorsweg 1 8171 ME Vaassen NETHERLANDS
<i>Manufacturer</i>	AVK Nederland BV
<i>Place of manufacture</i>	Schorsweg 1 8171 ME Vaassen NETHERLANDS
<i>Reference standards</i>	Part C, Chapter 1, Section 10 of RINA Rules for the Classification of Ships and RINA Rules for the Type Approval of Mechanical Joints for Pipes

Issued in **Hamburg** on **May 3, 2022**. This Certificate is valid until **May 2, 2027**



RINA Services S.p.A.
Giuseppe Russo

This certificate consists of this page and 1 enclosure

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Reference documents:

Technical data of AVK REPICO Coupling Series 745 and Test Reports.

Materials/Components:

Type Component	REPICO-G	REPICO-S	REPICO-SG
BODY	Stainless Steel 316L	Stainless Steel 316L	Stainless Steel 316L
SLIDE PLATE	Stainless Steel 316L	Stainless Steel 316L	Stainless Steel 316L
FASTENERS	Stainless Steel 316	Stainless Steel 316	Stainless Steel 316
GRIP SEGMENT AND SUPPORT RING	-	-	Stainless Steel 301
SEALING	NBR or EPDM	NBR or EPDM	NBR or EPDM

Type / ND / Max. working pressure:

Type	ND (mm)	ND (Inch)	Max. working pressure (bar)
REPICO-G	20 to 50	$\frac{3}{4}$ to 2	16
	65 to 125	$2\frac{1}{2}$ to 5	14
	150	6	12
	200, 250	8, 10	8
	300, 350	12, 14	7
	400	16	6
REPICO-S	15 to 50	$\frac{1}{2}$ to 2	16
	65 to 125	$2\frac{1}{2}$ to 5	14
	150	6	12
	200, 250	8, 10	8
	300, 350	12, 14	7
	400, 450	16, 18	6
	500 600	20	5 4.2
REPICO-SG	20 to 50	$\frac{3}{4}$ to 2	16
	65 to 125	$2\frac{1}{2}$ to 5	14
	150	6	12
	200, 250	8, 10	8
	300	12	7



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Temperature Range:

The Range of Temperature depends of the material of the gaskets

Gasket's Material	range of Temperature (°C)
EPDM	-30 up to +110
NBR	-25 up to +80

Fields of Application:

- Application of the mechanical joints and their acceptable use for each service are indicated in Tab.15 and Tab.16, Pt. C, Ch. 1, Sec. 10 of RINA Rules.
- The Application depending upon the class of piping are shown in the Tab. 17 of Pt. C, Ch. 1, Sec.10 of RINA Rules.

Acceptance Condition:

- The installation of this product is to be in accordance with AVK REPICO Coupling Mounting Instructions and in accordance with RINA RULES Pt.C, Ch.1, Cap.10.
- The acceptance of the above mentioned products on board ships and other units classed RINA is subject to the satisfactory outcome of testing as per RINA Rules.
- The use of this product outside the range of application requires the special consideration by RINA in each individual case.

Application range:

The couplings are acceptable in the following systems:

1. Flammable liquids (Flash point<60°C)
Cargo oil lines and Crude oil washing lines, see Note 4
Vent lines, see Note 3
2. Inert gas
Water seal and Scrubber effluent lines
Main lines, see Note 2 & 4
Distribution lines, see Note 4
3. Flammable fluids (Flash point>60°C)
Cargo oil lines, see Note 4
Fuel-, Lubricating-, Hydraulic- and Thermal Oil lines, see Notes 2 & 3
4. Seawater
Bilge lines in low or non-fire risk zones (outside machinery spaces)
Ballast- and Cooling water lines, see Note 1
Water filled fire-extinguishing systems, e.g. sprinkler systems, see Note 3
Non-water filled fire-extinguishing systems e.g. foam, drencher systems, see Note 3 etc.)
Fire main (not permanently filled), see Note 3
Tank cleaning and non-essential systems
5. Fresh water
Cooling water systems and condensate return, see Note 1
Non-essential s systems
6. Sanitary / Drains / Scuppers
Deck drains (internal) see Note 5
Sanitary drains



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- 7. Sounding /Vent
 - Water tanks /Sewage tanks /Dry spaces
 - Oil tanks with fluid having a flash point >60°C, see Notes 2 & 3
- 8. Miscellaneous
 - Service air (non-essential)
 - Brine

Note 1: In machinery spaces of the category A only approved fire-resistant types acceptable.

Note 2: Not to be used in machinery spaces of the category A or accommodation spaces.

Approved fire-resistant type may be used in other machinery spaces provided the couplings are installed in easily visible and accessible locations.

Note 3: Only approved fire-resistant types except when fitted on open decks having little or no fire risk.

Note 4: Only approved fire-resistant type when fitted in pump rooms and on open decks.

Note 5: Only permitted above bulkhead deck of passenger ships and freeboard deck of cargo ships.

Limitation:

The couplings are not acceptable in the following systems:

1. Class 1 piping
2. CO₂ systems
3. Starting and Control air systems
4. Inside machinery spaces of category A or accommodation spaces for:
 - a. Pipe systems for flammable liquids including corresponding vent-overflow and sounding pipes
 - b. Bilge lines
5. Stern pipe systems
6. Bilge lines in other machinery spaces or high fire risk spaces
7. Scuppers and discharge (overboard). Deck drains, except for pipes above the freeboard decks.
8. Pipelines in cargo holds, tanks and other spaces which are not easily accessible
9. Unstrained slip-on joints are to be used only in cases where compensation of lateral pipe deformation is necessary. Usage of these joints as the main means of pipe connection is not permitted
10. In cargo lines on board of IWW tankers for cargoes other than diesel oil, fuel oil, petroleum crude oil, petroleum distillates, lubricating oil and bilge water
11. Mechanical joints are not to be used in piping sections directly connected to the ship's side below the bulkhead deck of passenger ships and freeboard decks of cargo ships or tanks containing flammable fluids

Marking of Products:

The mechanical joints for pipes are to be permanently marked by the Manufacturer with the following details as applicable :

- Manufacturer's name or trademark.
- Identification code and dimension.
- Max. working temperature and pressure.

Hamburg May 3, 2022

