

TYPE APPROVAL CERTIFICATE
No. MAC475008CS

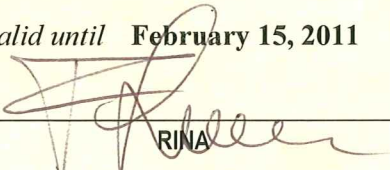


This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	MECHANICAL JOINTS FOR PIPES
<i>Type</i>	STRAUB-GRIP-L + STRAUB-GRIP-L-FIRE-FENCE
<i>Applicant</i>	STRAUB WERKE AG CH - 7323 WANGS SWITZERLAND
<i>Manufacturer</i>	STRAUB WERKE AG
<i>Place of manufacture</i>	CH - 7323 WANGS SWITZERLAND
<i>Reference standards</i>	RINA RULES
<i>Reference documents</i>	RINA TYPE APPROVAL SYSTEM

Issued in **Genoa** on **September 26, 2008**. This Certificate is valid until **February 15, 2011**




RINA
Francesco Sciacca

This Certificate consists of this page and 1 enclosure.
This Certificate cancels and replaces the previous n° MAC210203CS/3 dated 16.02.2006.

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STRAUB-GRIP-L + STRAUB-GRIP-L-FIRE-FENCE

Outer pipe diameter (mm)	Maximum working pressure (bar)
256.0	5.5
267.0	5
273.0	4
304.0	4
306.0	4
323.9	3
355.6	2.5
406.4	2

Temperature range: -20°C to +80 °C (EPDM)
 -20°C to +80 °C (NBR)
 -20°C to +125°C (HNBR)
 -20°C to +180° C (VITON)

Fields of application

Application of the mechanical joints and their acceptable use for each service are indicated in Table 16, Part C, Chapter 1, Section 10 of RINA Rules.

STRAUB-GRIP-L pipe couplings are not acceptable for services where fire resistance is required.

STRAUB-GRIP-L-FIRE-FENCE pipe couplings are acceptable for services where fire resistance is required.

Application of the mechanical joints depending upon the class of piping is indicated in Table 17 of a.m. Rules. Particularly grip type slip-on joints are not allowed on piping systems of I Class.

The mechanical joints are not to be used in those systems where pressure pulsation other than water hammer is expected.

Acceptance conditions

The acceptance of the a.m. products on board ships and other units classed with RINA is subject to the satisfactory outcome of testing as per RINA Rules.

The material used for the gaskets must be resistant to the fluid conveyed in the piping. EPDM is not to be used for fuel oil and cargo oil.



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For lines dedicated to flammable fluids having flash point greater than 60°, the a.m. products are not acceptable inside machinery spaces of Category A or accommodation spaces. They may be accepted in other machinery spaces provided the joints are located in easily visible and accessible positions.

The application of the a.m. products inside tanks is permitted only for the same media that is in the tank.

In all cases the pipes are to be suitable supported and anchored and the couplings are to be at any time accessible.

The installation on board of mechanical joints is to be made in accordance with the Manufacturer's assembly instructions. Where special tools and gauges are required for installation of the joints, these are to be supplied by the Manufacturer.

Remark

This certificate cancels and replaces the previous n° MAC210203CS/3 dated 16.02.2006.

Genoa February 16, 2006

