




# TYPE APPROVAL CERTIFICATE

No. MAC059514XG

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

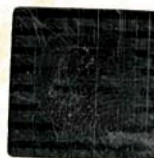
<i>Description</i>	<b>Compression Couplings</b>
<i>Type</i>	<b>VOSSForm<sup>SQR</sup></b>
<i>Applicant</i>	<b>VOSS FLUID GMBH LÜDENSCHIEDERSTR. 52-54 51668 WIPPERFÜRTH GERMANY</b>
<i>Manufacturer</i>	<b>VOSS FLUID GMBH</b>
<i>Place of manufacture</i>	<b>LÜDENSCHIEDERSTR. 52-54 51668 WIPPERFÜRTH GERMANY</b>
<i>Reference standards</i>	<b>Part C, Chapter 1, Section 10 of RINA Rules</b>
<i>Reference documents</i>	<b>RINA Type approval system</b>

Issued in **HAMBURG** on **September 12, 2014**. This Certificate is valid until **September 11, 2019**



RINA Services S.p.A.  
Giuseppe Russo

This certificate consists of this page and 1 enclosure





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### Reference documents

- VOSS Catalogue Document no. 9177160102/201312/01/01.5/15
- VOSS Examination Report no. AEL 214/06/1 issued on 27.11.2006
- IMA Dresden Test Report no. C101/06 according to IACS P2.11
- WTD71 Fire Resistance Test Reports no. 61070 according to ISO 19921

### Technical characteristics

The tube couplings is made by standard connecting piece (DIN3861 / ISO 8434-1), sealing ring, formed tube end and SQR nut (DIN 3870 / ISO 8434-1). The tube is formed into a taper of 24° and provided with a seal of FPM/FKM.

Series L (Light)		Series S (Heavy)	
OD Pipe (mm)	Nominal Pressure (bar)	OD Pipe (mm)	Nominal Pressure (bar)
6 up to 10	500	6 up to 10	800
12 up to 18	400	12 up to 16	630
22 up to 42	250	20 up to 38	420

Maximum working temperatures range -25°C up to 200°C according to seals material properties FKM/FPM.

Maximum working pressures to be reduced according to manufacturer's recommendations for systems affected by higher temperatures or by pulse pressures.

Couplings materials: carbon steel and stainless steel in accordance with DIN 3859-1 table 2 or higher grades.

### Fields of application

The couplings are acceptable for the systems indicated in the Table 16 and par. 2.4.5 of Part C, Chapter 1, Section 10 of RINA Rules where fire resistant ability is required.

### Acceptance conditions

The seal material must be resistant to the fluid conveyed in the pipe and also to the surrounding fluid if the coupling is installed inside a tank.

The couplings are to be installed in locations where leakage would not create a hazard by way of damage to electrical systems or otherwise create a hazard to the vessel, equipment or personnel onboard.

The acceptance of the a.m. products on board ship classed with RINA is subject to the satisfactory outcome of testing as per RINA Rules applicable.

The installation on board is to be carried out in accordance with the Manufacturer's instructions.

HAMBURG September 12, 2014

