

# 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. **24 875 - 05 HH**

Company **EXMAR GmbH**  
**Adam-Geck-Straße 3 - 5**  
**61239 Ober-Mörlen, GERMANY**

Product Description **COMPRESSION COUPLINGS, L-AND S-SERIES, MADE OF STAINLESS STEEL**

Type **24° COMPRESSION FITTINGS ACCORDING TO DIN EN ISO 8434-1 / DIN 2353**

Environmental Category **None**

Technical Data / **TECHNICAL DATA ( continued on page 2 )**

Range of Application **Materials: 1.4571 or of equivalent material quality**

**Pressure range:**

LIGHT GAUGE (L)		HEAVY GAUGE (S)	
Pipe O.D. [mm]	Nom. Press. [PN]	Pipe O.D. [mm]	Nom. Press. [PN]
6 - 10	500	6 - 10	800
12 - 18	400	12 - 16	630
22 - 42	250	20 - 38	420

The nominal pressure ratings PN represent the max. allowable working pressure inclusive of pressure peaks. Pressure reductions are required for temperatures of 50 [°C] and above according to the instructions of the manufacturer.

## RANGE OF APPLICATION

The above mentioned compression fittings may be used in piping systems of class I to III as well as in non-essential systems under consideration of IACS Req. P2.7, table 8 and GL Rules Chapter 2 - Machinery Installations, Section 11 as applicable.

Test Standard **• GL Regulations for the Performance of Type Tests, Chapter 8 and IACS Req. 2001, P2.11 Type Approval of Mechanical Joints.**

Documents **• Technical Documentation**  
**• IMA Test Report No.: C70/04**  
**• IMA Test Report No.: C080/11**  
**• ISO 9001:2008, dated: 01.07.2012**  
**• Catalogue, Edition 2005**  
**• DNV GL Ref.-No.: 15-010240**

Remarks **None**

Valid until **2020-01-31**

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**Hamburg, 2015-03-24**

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## TECHNICAL DATA

- Allowable temperature range for stainless steel compression couplings and seal materials:

Stainless steel fittings	-55 [°C] to 400 [°C]
NBR	-35 [°C] to 100 [°C]
FPM	-10 [°C] to 200 [°C]
PTFE	-60 [°C] to 200 [°C]

- If different fitting and sealing materials are used, the lowest temperature as indicated for each material is applicable.

Compression Couplings acc. to DIN EN ISO 8434-1:  
**STUD COUPLINGS**  
GEV, GEV-WD, GEV-NPT, WEV, WEV-NPT, TEV, LEV

**TUBE TO TUBE COUPLINGS**  
GV, WV, TV, KV, GSV\*, WSV\*

**ADJUSTABLE COUPLINGS**  
ESS, EWV, ETV, ELV, ESWV, ESTV

**WELDING COUPLINGS**    **REDUCTION COUPLINGS**  
ESV\*\*                      RS

- \*Not accepted through fire-resisting divisions and watertight bulkheads and decks.
- \*\*Where "A" class division are penetrated, such penetration shall be tested in accordance with the Fire Test Procedure Code of the IMO A. 754 (18). However, where a pipe penetration is made of steel or equivalent material having a thickness of 3 [mm] or greater and a length of not less than 900 [mm] (preferably 450 [mm] on each side of the division), and there are no openings, testing is not required. Such penetrations shall be suitable insulated by extension of the insulation at the same level of the division. This means that the welding couplings are to be fitted at least with pipes of 450 [mm] length on each end having a wall thickness of 3 [mm] or greater.
- The selection of the pipe couplings for the corresponding application and the right installation are to be in accordance with the instructions of the manufacturer.
- The use of the products outside the range of application underlies the special consideration by DNV GL in each individual case.

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**DNV GL**

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