

## **Type Approval Certificate**

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

This certificate supersedes certificate number 12/20050 issued on 30.11.2012 which is hereby cancelled.

This certificate is issued to:

PRODUCER SERTO AG

Langfeldstrasse 117 8500 Frauenfeld Switzerland

**DESCRIPTION** Stainless steel compression ferrule pipe unions

TYPE SERTO 5000 Series

APPLICATION Marine, offshore and industrial use as general purpose compression

couplings for use in piping systems carrying liquids and gases compatible with the materials of construction, classed or intended for Classification

with Lloyd's Register

STANDARD - Rules and Regulations for the Classification of Ships, July 2016

- BS4368 Part 4: 1984 - Compression Couplings for Tubes - Specification

for Type Test Requirements

**REMARKS** Stainless steel couplings are not to be used in oxygen or oxygen

enriched systems.

Certificate No. 12/20050 (E1)

**Issue Date** 19 May 2017

Expiry Date 19 May 2022

Sheet 1 of 2

Lloyd's Register EMEA 71 Fenchurch Street, London EC3M 4BS Olaf Schmidt
Hamburg Technical Support Office
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| RATINGS | Pipe outside diameter: | Nominal working pressure: |  |  |
|---------|------------------------|---------------------------|--|--|
|         | (mm)                   | (bar)                     |  |  |
|         | 2 to 5                 | 250                       |  |  |
|         | 6 to 8                 | 200                       |  |  |
|         | 9,52 to 12             | 160                       |  |  |
|         | 12,7 to 18             | 100                       |  |  |
|         | 21,3 to 22             | 64                        |  |  |
|         | 28                     | 40                        |  |  |

The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.

The Design Appraisal Document No. ENS 21051-08, Issue No. 2, dated 19.05.2017 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Part 1A

Subject: Pipe Fittings Product: Compression Fittings

| Producer/Licence No.                                     |  | Description of Product  |  |   |  |              |
|--|--|---|--|---|--|--------------|
|  | Туре   | 1   | Details of Approval  | Application   | Remarks  | Cert. No.    |
| SERTO AG Langfeldstrasse 117 8500 Frauenfeld Switzerland | SERTO 50000 Series Comprising: 50001, 50002, 50003, 50021, 50030, 50031, 50040, 50041, 50503, 51021, 51100, 51121, 51124, 51221, 51300, 51521, 51600, 51821, 52021, 52121, 52221, 52421, 52621, 53021, 53121, 53221, 53621 | Compression ferrule pipe Tube outside diameter (mm):  2 to 5 6 to 8 9,52 to 12 12,7 to 18 21,3 to 22 28 | unions of stainless steel.  Nominal working pressure (bar):  250 200 160 100 64 40 | Marine, offshore and industrial use as ger purpose compression couplings for use in piping systems carrying liquids and gases compatible with the materials of construct classed or intended for Classification with Lloyd's Register | Stainless steel couplings are not to be used in oxygen, or | 12/20050 (E1 |