



Lloyd's
Register

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 14/20006 issued on 16.01.2014 which is hereby cancelled.

This certificate is issued to:

PRODUCER	SERTO AG Langfeldstrasse 117 8500 Frauenfeld Switzerland
DESCRIPTION	SERTO metric brass bite type compression ferrule tube unions in conjunction with copper pipes
TYPE	SERTO 4000 Series / Program Ms-M
APPLICATION	For use as general purpose in piping systems for liquids or gases compatible with the materials of construction on board of ships classed or intended for classification with Lloyd's Register. <u>Restrictions:</u> -Pressure piping systems that are required to remain operational after a fire casualty
RATINGS	For copper pipes pipe sizes: Ø 2 -35 mm Nominal pressure up to: 250 - 16 bar* Temperature range: - 40°C to + 180°C For temperatures exceeding 120°C the max. pressure is to be reduced to 75 %.
OTHER CONDITIONS	*) The minimum pipe thicknesses are to be in compliance with the Rules. The manufacturer's installation instruction is to be sought.

Certificate No.	14 / 20006(E1)
Issue Date	18 December 2018
Expiry Date	15 January 2024
Sheet	1 of 2



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STANDARDS

Lloyd's Register Rules and Regulations for the Classification of Ships, 2018

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. HTS/ENS 30344-14, Issue No. 1, dated 18.12.2018 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No. 14 / 20006(E1)
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Sheet 2 of 2

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Part 1A
Subject: Pipe Fittings
Product: Compression Fittings

Producer/Licence No.	Description of Product				Cert. No.
	Type	Details of Approval	Application	Remarks	
SERTO AG Langfeldstrasse 117 8500 Frauenfeld Switzerland	SERTO 4000 Series / Program Ms-M	<p>SERTO metric brass bite type compression ferrule tube unions in conjunction with copper pipes</p> <p><u>Ratings:</u> For copper pipes pipe sizes: Ø 2 -35 mm Nominal pressure up to: 250 - 16 bar* Temperature range: - 40°C to + 180°C For temperatures exceeding 120°C the max. pressure is to be reduced to 75 %.</p> <p><u>Other Conditions:</u> *) The minimum pipe thicknesses are to be in compliance with the Rules. The manufacturer's installation instruction is to be sought.</p>	<p>For use as general purpose in piping systems for liquids or gases compatible with the materials of construction on board of ships classed or intended for classification with Lloyd's Register.</p> <p><u>Restrictions:</u> -Pressure piping systems that are required to remain operational after a fire casualty</p>	Expiry date: 15 January 2024	14/20006(E1)