



CERTIFICATE NUMBER	22-2275237-PDA
EFFECTIVE DATE	27-Jul-2022
EXPIRY DATE	26-Jul-2027
ABS TECHNICAL OFFICE	Hamburg Engineering Department

## CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**SERTO AG**

located at

**LANGFELDSTRASSE 117, , CH-8500 FRAUENFELD, Switzerland**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

**Product: SERTO Stainless Steel Pipe Compression Fitting**

**Model: SO 50000 Series Stainless Steel**

**Endorsements:**

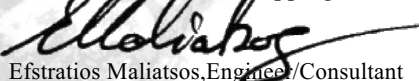
**Tier: 2 - PDA Issued**

This Product Design Assessment (PDA) Certificate remains valid until 26/Jul/2027 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

  
Efstratios Maliatsos, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

## **SERTO AG**

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**Tier: 2 - PDA Issued**

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**Product:** SERTO Stainless Steel Pipe Compression Fitting

**Model:** SO 50000 Series Stainless Steel

**Endorsements:**

### **Intended Service:**

For use in marine, general engineering and off-shore (except drilling) piping systems.

### **Description:**

Material: X6 CrNiMoTi 17122 according to DIN 17440 Material number 1.4571/AISI 316 Ti.

### **Rating:**

Please refer to attached document "Additional Product Details".

### **Service Restriction:**

- 1) Unit Certification is not required for this product. If the manufacturer or purchaser's request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
- 2) Threaded joints having tapered pipe threads complying with a recognized standard are not to be used for toxic and corrosive fluid services and for all services of temperatures exceeding 495°C (923°F).
- 3) In Classes I and II piping systems in general, for joining sections of hydraulic pipes and for steering gear-, controllable pitch propeller- and propulsion related hydraulic systems their use is limited to the following restrictions:
  - Nominal pipe diameter:  $d \leq 20$  mm, pressure limitation: 103 bar.
  - Nominal pipe diameter:  $20 < d \leq 25$  mm, pressure limitation: 82.8 bar.
  - Nominal pipe diameter:  $25 < d \leq 50$  mm, pressure limitation: 41.4 bar.
- 4) In other hydraulic oil systems taper-thread joints may be used without pressure limitation only for connection to equipment, such as pumps, valves, cylinders, accumulators, gauges and hoses.
- 5) Straight thread O-ring type fittings may be used for connections to equipment in hydraulic oil piping without pressure limitation, but are not to be used for joining sections of pipes.

### **Comments:**

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

### **Notes/Drawing/Documentation:**

See Attachment "Drawing List"

### **Terms of Validity:**

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## **STANDARDS**

**SERTO AG**

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**ABS Rules:**

2022 Rules for Conditions of Classification: 1-1-4/7.7, 1-1-A3 and A4, which covers the following:

2022 Rules for Building and Classing Marine Vessel Rules: 4-3-4/9.5.2, 4-3-4/9.7.3, 4-6-1/7.5.2, 4-6-2/5.5.5, 4-6-2/5.9, 4-6-2/9.6, 4-6-7/3.5.1 /Table 1.

2022 Rules for Conditions of Classification - Offshore Units and Structures: 1- 1-1-4/9.7,1-1-A2, 1-1-A3, which covers the following:

2022 Rules for Building and Classing Mobile Offshore Unit: 4-2-2/11, 4-2-6/3.7, 6-1-6/5.1 /Table 1.

**National:**

NA

**International:**

NA

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

NA

**Additional Product Details**

**Company: SERTO AG (WCN: 745151)**  
**PDA Certificate No. 22-2275237-PDA**

**Product: SERTO Stainless Steel Pipe Compression Fitting**  
**Models: SO 50000 Series Stainless Steel**

**Issuance Date: 27-Jul-2022**  
**Expiry Date: 26-Jul-2027**

**Ratings:**

<b>Metric Tube</b>	<b>Inch tube</b>	<b>Working Pressure</b>
6 to 8	1/8 to 5/16 (3,2 to 7,94)	103 bar (Maximum Allowable)
10 to 12	3/8 to 1/2 (9,52 to 12,7)	103 bar (Maximum Allowable)
15 to 18	5/8 to 11/16 (15,88 to 17,2)	100 bar

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Attached to 22-2275237-PDA  
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**Intended Service:** For use in marine, general engineering and off-shore (except drilling) piping systems.

Drawing List

<b>Engineering Office:</b>	Hamburg Engineering Department	
<b>Submitter:</b>	SERTO AG (WCN: 745151)	
<b>Drawing No</b>	<b>Revision No</b>	<b>Drawing Title</b>
Online Application Form	-	Online Application Form
Correspondence	-	Fee Confirmation
Declaration of Conformity	-	Declaration of Conformity
Correspondence	-	Manufacturer's Confirmation on Draft PDA Listing

Drawing List as per 17-HG1647811-PDA (Sep-2017)

<b>Engineering Office:</b>	Hamburg Engineering Department	
<b>Submitter:</b>	SERTO AG (WCN: 745151)	
<b>Drawing No</b>	<b>Revision No</b>	<b>Drawing Title</b>
Data Sheets_SO_50002_51021_51121	-	Data Sheet_SO_50002_51021_51121
SERTO_QS- Zertifikat_ISO9001_de_1	-	SERTO_QS-Zertifikat_ISO9001_de_1
TR	-	Test Report of 12 Dec 2016 - Burst Pressure