



CERTIFICATE NUMBER	23-2390438-PDA
EFFECTIVE DATE	27-Apr-2023
EXPIRY DATE	26-Apr-2028
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

VOSS FLUID GMBH

located at

**LUEDENSCHIEDER STR. 52-54, , D-51688 WIPPERFUERTH,
Germany**

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: Tube Coupling
Model: VOSSFormSQR
Endorsements:
Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 26/Apr/2028 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


Efstathios 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)

VOSS FLUID GMBH

LUEDENSCHIEDER STR. 52-54

D-51688 WIPPERFUERTH

Germany

Telephone: 49-2267-630

Fax: 49-2267-635621

Email: fluid@voss.net

Web: www.voss.net

Tier: 3 - Type Approved, unit certification not required

Product: Tube Coupling
Model: VOSSFormSQR
Endorsements:

Intended Service:
For use in steel piping systems.

Description:
Couplings' body, nut and clamping ring made of steel/stainless steel, sealing made of FKM or equivalent. Preparation of pipe ends by use of VOSSForm100 pre-assembly machine.

Rating:
Two (2) ranges of couplings (L and S) cover a pressure range up to 800 bar.
Serie L: (light) 6 - 10 mm PN 500 bar, 12 - 18 mm PN 400 bar, 22 - 42 mm 250 bar.
Serie S: (heavy) 6 - 10 mm PN 800 bar, 12 - 16 mm PN 630 bar, 20 - 38 mm 420 bar.

Service Restriction:

- Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
- Coupling types with tapered pipe threads are not to be used for toxic and corrosive fluid services and for all services of temperatures exceeding 495°C.
- 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: 6 mm to 20 mm OD for 103 bar; 22 mm to 25 mm OD for 82.8 bar; 28 mm to 42 mm OD for 41.4 bar. In other hydraulic oil systems they may be used without pressure limitation only for connection to equipment, such as pumps, valves, cylinders, accumulators, gauges and hoses.
- Straight-thread O-ring type fittings may be used for connections to equipment in hydraulic oil piping, without pressure and service limitation, but are not to be used for joining sections of pipes.
- For operating temperatures at lower than -18°C all materials used are to be certified for their adequate notch toughness properties.

Comments:

- The manufacturer has provided a declaration about the control of, or the lack of asbestos in this product.
- For pressure ratings higher than the maximum working pressures specified in Section 5.5/Table 1 of DIN EN ISO 8434-1:2007 and for dynamic conditions, the manufacturer shall be consulted as indicated therein.
- The application and installation of the couplings is to be in accordance with manufacturer's specifications and instructions and is to be approved in conjunction with the relevant systems. Special tools and gauges required for installation of these pipe couplings are to be specified and supplied as necessary by the manufacturer. These special tools are to be kept onboard.

Notes/Drawing/Documentation:
See attachment.

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

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STANDARDS

ABS Rules:

2023 Rules for Conditions of Classification: 1-1-4/7.7, 1-1-A3 and A4, which covers the following:
2023 Rules for Building and Classing Marine Vessels: 4-6-1/7, 4-6-2/3, 4-6-2/5.5, 4-6-2/5.9, 4-6-2/9.6.

National:

DIN 3861:2016-09, DIN 3870:2001-09.

International:

ISO 8434-1: 2018-11

Government:

NA

EUMED:

NA

OTHERS:

NA

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Attached to 23-2390438-PDA
Company: VOSS FLUID GMBH (WCN: 092651)

Models:
VOSSFormSQR

Issuance Date: 27-Apr-2023
Expiry Date: 26-Apr-2028

Intended Service:
For use in steel piping systems.

Drawing List

Engineering Office:	Hamburg Engineering Department	
Submitter:	VOSS FLUID GMBH (WCN: 092651)	
Drawing No	Revision No	Drawing Title
Declaration of Conformity VOSS Fluid Products-18-HG-1720154-PDA	-	Declaration of Conformity VOSS Fluid Products-18-HG-1720154-PDA
PDA Revalidation-18-HG-1720154-PDA	-	PDA Revalidation-18-HG-1720154-PDA
Correspondence	-	Manufacturer's confirmation on draft Model-Info

Drawing List as per 18-HG1720154-PDA (26-Mar-2018)

Engineering Office:	Hamburg Engineering Department	
Submitter:	VOSS FLUID GMBH (WCN: 092651)	
Drawing No	Revision No	Drawing Title
61070_Fire_ES-4-VOSSForm-BV-10-DKO	-	Test Report of 21 Sep 2006_WTI - Fire Resistance
AEL 214-06-1_Burst-Vacuum-Extraction_2S plus- ES-4-VOSSForm-BV-10-DK	-	Test Report of 27 Nov 2006_Voss - Burst Pressure
Assembly instruction VOSSForm	-	Assembly instruction VOSSForm
10106_Pulsation-Vibration_ES-4-VOSSForm-BV-10-DKO	-	Test Report of 7 Dec 2006_IMA - Pulsation Vibration
Product information VOSSForm	-	Product information VOSSForm
TD SQR-clamping ring	-	Technical Drawings SQR-clamping ring
TD SQR-function nut	-	Technical Drawing SQR-function nut
VOSS Fluid ISO 14001_2015	-	ISO 14001_2015 Certificate
VOSS Fluid ISO 50001_2011	-	ISO 50001_2011 Certificate
VOSS Fluid ISO 9001_2015	-	ISO 9001_2015 Certificate

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Drawing List as per 05-HG481281-2-PDA (10-Oct-2013)

Engineering Office:	Hamburg Engineering Department	
Submitter:	VOSS FLUID GMBH (WCN: 092651)	
Drawing No	Revision No	Drawing Title
None A	-	Test Report 214a
None B	-	DIN EN ISO 8434_1
None C	-	Fire Test Report WTD71 Kiel Pressure Increase 2006
None D	-	IMA Dresden Test Report_C101_06
None E	-	PDA Previous Request Form

Drawing List as per 05-HG481281-1-PDA (23-Jul-2013)

Engineering Office:	Hamburg Engineering Department	
Submitter:	VOSS FLUID GMBH (WCN: 092651)	
Drawing No	Revision No	Drawing Title
None I	-	Fire Test by WTD71 Kiel
None II	-	Fire Test by WTD71 Kiel
None III	-	Test Report_C101_06 IACS P2
None IV	-	Test Reports 214a
None V	-	IMA Test Report C130_05
None VI	-	Test Report 2011_328_1 Montage , Dichtheit, Berstdruck englisch
None VII	-	Voss Examination Report AEL 225