



CERTIFICATE NUMBER	23-2390434-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: Pipe Fitting, Flared
Model: 10° Flared Couplings
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


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)

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: Pipe Fitting, Flared
Model: 10° Flared Couplings
Endorsements:

Intended Service:

For use in steel piping systems.

Description:

Materials: steel, stainless steel.

Flared cones, clamping rings, flare connection parts (complete), adjustable couplings (stud/ standpipe adapter type), reducing couplings with taper and O-ring, straight couplings with taper and O-ring, gauge couplings.

Rating:

Series L (light): 6 to 10 mm OD for 500 bar, 12 to 18 mm OD for 400 bar, 22 to 42 mm OD for 250 bar.

Series S (heavy): 8 to 10 mm OD for 800 bar, 12 to 16 mm OD for 630 bar, 20 to 38 mm OD for 420 bar.

Operating temperatures depend on coupling and sealing materials, as per manufacturer's specification (see also under Comments).

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.
- The flared type tube connections are not to be used for pipe sizes above 60.3 mm in Class I and Class II piping systems.
- 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.
- The above maximum working pressures are less than or equal to 1/4 burst pressure. In order to retain this safety factor of four (4), the specified maximum working pressures may be reduced depending on operating temperatures, high pressure surges etc.
- 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.

Notes/Drawing/Documentation:

Drawing No. Correspondence, Manufacturer's confirmation on draft Model-Info, Revision: -, Pages: -

Drawing No. Declaration of Conformity VOSS Fluid Products-18-HG-1720149-PDA, Declaration of Conformity VOSS Fluid Products-18-HG-1720149-PDA, Revision: -, Pages: -

Drawing No. PDA Revalidation-18-HG-1720149-PDA, PDA Revalidation-18-HG-1720149-PDA, Revision: -, Pages: -

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Terms of Validity:

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Tier: 3 - Type Approved, unit certification not required

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.

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

National:

DIN 2353:2013-01, DIN 3870:2001-09, DIN 3861:2016-09.

International:

ISO 8434-1:2018-11

Government:

NA

EUMED:

NA

OTHERS:

NA

23-2390434-PDA

Attached to 23-2390434-PDA
Company: VOSS FLUID GMBH (WCN: 092651)

Models:

10° Flared Couplings

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-1720149-PDA	-	Declaration of Conformity VOSS Fluid Products-18-HG-1720149-PDA
PDA Revalidation-18-HG-1720149-PDA	-	PDA Revalidation-18-HG-1720149-PDA
Correspondence	-	Manufacturer's confirmation on draft Model-Info

Drawing List as per 18-HG1720149-PDA (26-Mar-2018)

Engineering Office:	Hamburg Engineering Department	
Submitter:	VOSS FLUID GMBH (WCN: 092651)	
Drawing No	Revision No	Drawing Title
214_06_1	-	Test Report of 27 Nov 2006_Voss - Burst_Vacuum_Extraction_2S plus_ES-4_VOSSForm_BV-10_DK
Assembly instruction BV-10	-	Assembly instruction BV-10
Burst_BV-10_DKO_2011031_Germa	-	Test Report of 21 Mar 2011_Voss - Burst Pressure
DS BV-10 tube connecting parts	-	Data sheet BV-10 tube connecting parts
Fire_ES-4_VOSSForm_BV-10_DKO_61070_English	-	Test Report of 21 Sep 2006_WPD - Fire Resistance
Product information BV-10	-	Product information BV-10
Pulsation-Vibration_ES-4_VOSSForm BV-10_DKO_C10106_Englis	-	Test Report of 7 Dec 2006_IMA - Pressure
TD BV-10	-	Technical Drawings
VOSS Fluid ISO 14001_2015	-	ISO 14001_2015 Certificate

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VOSS Fluid ISO 50001_2011	-	ISO 50001_2011 Certificate
VOSS Fluid ISO 9001_2015	-	ISO 9001_2015 Certificate

Drawing List as per 18-HG1720149-PDA (26-Mar-2018)

Engineering Office:	Hamburg Engineering Department	
Submitter:	VOSS FLUID GMBH (WCN: 092651)	
Drawing No	Revision No	Drawing Title
0034990000	-	BV-10 flared coupling
AEL214	-	Examination Report
AEL225	-	Examination Report
C101_06	-	Test Report
C130_05	-	Test Report
WTD71	-	Test Report Fire resistant test

Drawing List as per 03-HG389372-1-PDA (15-Apr-2013)

Engineering Office:	Hamburg Engineering Department	
Submitter:	VOSS FLUID GMBH (WCN: 092651)	
Drawing No	Revision No	Drawing Title
0034990000	-	BV-10 flared coupling
AEL214	-	Examination Report
AEL225	-	Examination Report
C101_06	-	Test Report
C130_05	-	Test Report
WTD71	-	Test Report Fire resistant test

Drawing List as per 03-HG389372-1-PDA (15-Apr-2013)

Engineering Office:	Hamburg Engineering Department	
Submitter:	VOSS FLUID GMBH (WCN: 092651)	
Drawing No	Revision No	Drawing Title
61070/105	-	WTD71 Fire Test Report
AEL214/06/1	-	Examination Report
AEL225/05/1	-	Examination Report
C101/06	-	IMA Test Report
C130/05	-	IMA Test Report