



CERTIFICATE NUMBER 25-0328376-PDA
EFFECTIVE DATE 02-Oct-2025
EXPIRY DATE 01-Oct-2030
ABS TECHNICAL OFFICE Houston ESD - Ship Equipment

CERTIFICATE OF Product Design Assessment

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

ROETELMANN GMBH

located at

IN DER LACKE 10, , D-58791 WERDOHL, 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: Valve, Ball
Model: BKH, SKH, BKH/SKH, GKH, BKH/GKH, PKH, CKH, CK3, BK3, 3KH, 4KH, PK3, 3PK, 4PK, RKH
Endorsements:
Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 01/Oct/2030 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
Mohamed C Boukamcha
Mohamed C Boukamcha,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)

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Product: Valve, Ball
Model: BKH, SKH, BKH/SKH, GKH, BKH/GKH, PKH, CKH, CK3, BK3, 3KH, 4KH, PK3, 3PK, 4PK, RKH

Endorsements:

Intended Service:

Ball valves for on-board use on vessels and marine structures.

Description:

Ball valves (modular system designed range) to suit a wide range of application. All units have a safety margin of at least 2.4 (nominal pressure against burst pressure), whereby 'PN' pressure ratings may be required to be reduced on actual operating temperatures, high pressure surges etc. For the valve body, adapters, stem and ball a variety of material grades is available, i. e. :

Steel:

Grade: 11SMn30 (DIN EN 10277-3, No. 1. 0715/SAE 1213)

Grade: C45 (DIN EN 10083-2, No. 1. 0503/SAE 1045)

Grade: C60 (DIN EN 10083-2, No. 1. 0601/SAE 1060)

Stainless steel:

Grade: X6CrNiMoTi17-12-2 (DIN EN 10088, No. 1. 4571/ AISI 316Ti)

Grade: X2CrNiMoN22-5-3 (DIN EN 10088, No. 1. 4462/AISI S31803)

Grade: GX2CrNiMoN22-5-3 (DIN EN 10283, No. 1. 4470/ ASTM A995)

Grade: X39CrMo17 (DIN EN 10088, No. 1.4122)

Material of ball seats:

POM, PEEK, PTFE

Material of stem and adapter sealing:

NBR, FKM, FFKM, EPDM, HNBR

Rating:

Maximum pressure range of valves: 10 bar to 1500 bar

Temperature range depending on materials used:

Steel:

Grade: 11SMn30, (-20°C to +120°C)

Grade: C45, (-20°C to +120°C)

Grade: C60, (-20°C to +120°C)

Stainless steel:

Grade: X6CrNiMoTi17-12-2, (-200°C to +200°C)

Grade: X2CrNiMoN22-5-3, (-200°C to +200°C)

Grade: GX2CrNiMoN22-5-3, (-200°C to +200°C)

Grade: X39CrMo17, (-200°C to +200°C)

Service Restriction:

These valves do require unit certification according to Section 5C-8-5/3.2.1 of the Marine Vessel Rules, if they are intended for operating temperatures below -55 °C whereby each size and type of valve should be subjected to a tightness test to the minimum design temperature or lower, and to a pressure not lower than the design pressure of the valve. During the test the satisfactory operation of the valve should be ascertained. Ball valves are not to be used in any connection to the vessel's shell. Only fire tested valves may be used in fire main systems, as oil tank shut-off devices or in oil tank remote closing systems. Valve construction materials are to be suitable for the intended service. Materials (except austenitic stainless steels) used in piping system at or below -18 °C are to have adequate notch toughness properties (See Section 4-6-2/3.1.6 of the 2020 Marine Vessel Rules). All valves of Classes I and II piping systems having nominal diameters exceeding 50 mm are to have flange or welded ends (Section 4-6-2/5.11.3-d). If the manufacturer or purchaser requests an ABS Certificate for compliance with a specification or standard, the

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specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
The application and installation of the valves is to be in accordance with the manufacturer's specification, instructions and recommendations.

The valve body is to bear permanent indication of maker, reference standard, material identity and pressure rating.

Notes/Drawing/Documentation:

Product List Roetelmann, Product list ABS_2025, Revision: B

- No. 1.1 catalogue DN4-DN40/25 p16-17, Revision: B
- No. 1.1 catalogue DN4_DN40_25 p20-25, Revision: B
- No. 1.1 assembly drawing DN4-DN40, Revision: B
- No. 1.2 catalogue DN4-DN25 p26-29, Revision: B
- No. 1.2 catalogue DN4-DN25 p32-33, Revision: B
- No. 1.2 assembly drawing DN4-DN25, Revision: B
- No. 1.3 catalogue DN4-DN25 p34-35, Revision: B
- No. 1.3 assembly drawing DN4-DN25, Revision: B
- No. 1.4 catalogue DN4-DN25 p36-37, Revision: A
- No. 1.4 assembly drawing DN4-DN25, Revision: A
- No. 1.5 catalogue DN6-DN25 p38-39, Revision: A
- No. 1.5 assembly drawing DN6-DN25, Revision: A
- No. 1.6 catalogue DN32-DN50 p18-19, Revision: B
- No. 1.6 assembly drawing DN32-DN50, Revision: B
- No. 1.7 catalogue DN32-DN50 p30-31, Revision: B
- No. 1.7 assembly drawing DN32-DN50, Revision: B
- No. 1.8 catalogue DN13-DN127 p52-55, Revision: B
- No. 1.8 assembly drawing DN13-DN76, Revision: B
- No. 1.9 catalogue DN13-DN51 p58-59, Revision: B
- No. 1.9 assembly drawing DN13-DN51, Revision: B
- No. 1.9.1 catalogue DN13-DN51 p56-57, Revision: B
- No. 1.9.1 assembly drawing DN13-DN51, Revision: B
- No. 1.10 catalogue DN13-DN127 p60-61, Revision: B
- No. 1.10 assembly drawing DN13-DN127, Revision: B
- No. 1.10.1 catalogue DN13-DN51 p62-63, Revision: B
- No. 1.10.1 assembly drawing DN13-DN127, Revision: B
- No. 1.12 catalog DN6-DN65 p74-75, Revision: B
- No. 1.12 assembly drawing DN6-DN65, Revision: B
- No. 1.13 catalogue DN6-DN50 p76-77, Revision: A
- No. 1.13 assembly drawing DN6-DN50, Revision: A

- No. 2.1 catalogue DN4-DN50 p82-87, Revision: B
- No. 2.1 assembly drawing DN4-DN50, Revision: B
- No. 2.1.1 catalogue DN4-DN25 p90-93, Revision: B
- No. 2.1.1 assembly drawing DN4-DN50, Revision: B
- No. 2.2 catalogue DN19-DN32 p96-97, Revision: B
- No. 2.2 assembly drawing DN19-DN32, Revision: B
- No. 2.3 catalogue DN6-DN65 p98-99, Revision: B
- No. 2.3 assembly drawing DN6-DN65, Revision: B
- No. 2.4 catalogue DN4-Dn40 p102-105, Revision: B
- No. 2.4 assembly drawing DN4-DN40, Revision: B
- No. 2.5 catalogue DN4-DN32 p109-107, Revision: B
- No. 2.5 assembly drawing DN4-DN32, Revision: B
- No. 2.7 catalogue DN4-DN40 p.108-109, Revision: B

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No. 2.7 assembly drawing DN4-DN40, Revision: B
No. 2.8 catalogue DN4-DN32 p110-111, Revision: B
No. 2.8 assembly drawing DN4-DN32, Revision: B
No. 2.9 catalogue DN6-DN32 p114-115, Revision: B
No. 2.9 assembly drawing DN6-DN32, Revision: B
No. 2.10 catalogue DN6-DN32 p116-117, Revision: B
No. 2.10 assembly drawing DN6-DN32, Revision: B
No. 2.11 DN6-DN50 catalogue p100-101, Revision: A
No. 2.11 assembly drawing DN6-DN50, Revision: A

Terms of Validity:

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STANDARDS

ABS Rules:

- 2025 Marine Vessels Rules: 1-1-4/7.7; 1-1-Appendix 3 and 4; 4-6-1/3.15; 4-6-1/7.1; 4-6-2/3; 4-6-2/5.11
- 2025 Offshore Rules: 1-1-4/9.7; 1-1-Appendix 2 and 3, 4-2-2/9.1.1

National:

NA

International:

DIN EN 12570: 2000-10
DIN EN 12266-1: 2012-06
DIN EN 12266-2: 2012-04

Government:

NA

EUMED:

NA

OTHERS:

NA