

CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

19-HS1908549-PDA 18-Oct-2019 17-Oct-2024 Houston ESD - Piping

CERTIFICATE OF

Product Design Assessment

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

PBM, INC.

located at

1070 SANDY HILL RD., Irwin, PA, United States, 15642

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 2 - Way Ball Valves

Model SP Series 1, AN Series 1, SP Series 5

This Product Design Assessment (PDA) Certificate remains valid until 17/Oct/2024 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

Daniel Hyun SON

Hyun Young Son, 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)

Electronically published by ABS Houston. Reference T1908550, dated 21-OCT-2019.

PBM

1070 SANDY HILL RD.

Irwin PA

United States 15642 Telephone: 724-863-0550

Fax: 724-863-3283

Email: jswedowski@pbmvalve.com

Web: www.pbmvalve.com

Tier: 3 - Type Approved, unit certification not required

Product: Valve, Ball 2 - Way Ball Valves
Model: SP Series 1, AN Series 1, SP Series 5

Intended Service:

Marine and Offshore Applications

Description:

ASME Class 150 and 300, 2 way ball valves - SP Series 1, 1/4" to 4"; AN Series 1, 1/2" to 10"; SP Series 5, 1/4" to 6"; including all ASME B16.34 materials as well as ASTM alloys C83600, C92200, (MSS SP 72), C95300, C95400, C95500, or C95800 (manufacturer's standard only).

Rating

Ratings are to be as specified in standards MSS SP 72 or ASME B16.34 for those valves constructed in accordance with those standards (see description above)

NOTE: valves constructed to Manufacturer's standard, at the rating given by the manufacturer, may only be used in ABS class III systems.

SP Series MAWP: 900 psi (limited based on valve size, valve material, and end fitting type)

AN Series 1 MAWP: 285 psi (limited based on valve size, valve material, and end fitting type)

MDMT: -40 degrees F.

Service Restriction:

- 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.
- Valves constructed to the manufacturer's standard and at the manufacturer's ratings, may only be used in ABS Class III Systems.
- Valve end connections to be in accordance with the "Pipe Joint Limitations" tables for specific systems.

Comments:

- The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- Marking of valves constructed to ASME B16.34 or MSS SP 72 are to be in accordance with those standards.

Notes/Drawing/Documentation:

Supporting Documentation:

Drawing No. HS1293751 and HS1293752, Declaration of Conformity Letter, Revision: -, Pages: 1

Supporting Documentation (previous task: T1650726)

Drawing No. RP-1601-1, USCG Category "A" Seat Leakage Calculations (AN Series 1), Pages: 7 Drawing No. RP-1504-3, USCG Category "A" Seat Leakage Testing (AN Series 5), Pages: 12

Supporting Documentation (previous task: T1293751)

Drawing No. ANB-H1L3V--K04, 2 2-Way 836 Bronze Ball Valve with Non-Adjust -O-Seal Design, 150# F.F.

Flange Connetions, RTFE Seat, Revision: 0, Page: 1

Drawing No. SPB-H5Q-A--S, 2" SPB-H5 Manual 2-Way Ball Valve with Female N.P.T. connections, RTFE Seats & Seals, Monel Ball, Stem, Revision: 0, Page: 1

Drawing No. SPN1H1U8A--L, 2" SPN-HI, 2 Way Ball Valve with Socket Weld for Pipe End Connections, 922 Bronze Body, 90/10 Cu/Ni En, Revision: 0, Page: 1

Terms of Validity:

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Tier: 3 - Type Approved, unit certification not required

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STANDARDS

ABS Rules:

Rules for Conditions of Classification, Part 1 - 2019, 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: 2019 Marine Vessels Rules or Steel Vessels Rules 4-6-1/7.1, 4-6-2/3, and 4-6-2/5.11

Rules for Conditions of Classification, Part 1 - 2019 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2019 Mobile Offshore Units Rules or Mobile Offshore Drilling Units Rules 4-2-2/9 and 4-2-2/17

National:

ASME B16.34 (2017) (where applicable to specific Model and Material); MSS SP 72 (2010a) (where applicable to specific Model and Material);

International:

NA

Government:

NA

EUMED:

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OTHERS:

Manufacturer's standard (for valves constructed of ASTM C95300, C95400, C95500, or C95800.)