



CERTIFICATE NUMBER	20-1995354-PDA
EFFECTIVE DATE	08-Jun-2020
EXPIRY DATE	07-Jun-2025
ABS TECHNICAL OFFICE	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

Model AN Series 6 & TN Series 6 (1/2" to 12")

This Product Design Assessment (PDA) Certificate remains valid until 07/Jun/2025 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
Yongjin Lee, 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)

PBM

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Tier: 3 - Type Approved, unit certification not required

Product: Valve, Ball**Model:** AN Series 6 & TN Series 6 (1/2" to 12")**Intended Service:**

Marine & Offshore Applications - Industrial Flanged Ball Valves.

Description:

ANSI Flanged ball valves with bidirectional sealing (2-way ball valves), Fire safe (API-607).

Materials for these valves are as per ASME B16.34.

Rating:

Sizes (AN Series 6): 1/2", 3/4", 1", 1-1/2", 2", 2-1/2", 3", 4", 6", 8", 10" & 12", Class 150 flanged connections in accordance with ASME B16.5.

Sizes (TN Series 6): 1/2", 3/4", 1", 1-1/2", 2", 2-1/2", 3", 4", 6", 8", 10" & 12", Class 150 flanged connections in accordance with ASME B16.5.

Pressure and temperature ratings are as listed in ASME B16.34.

Service Restriction:

1) 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.

2) Valve end connections are to be in accordance with 4-6-2/5.5.4 of the Marine Vessel Rules.

3) Valves with taper-threaded joints refer to the sizes and pressure limitations in Marine Vessel Rules. Please refer to 4-6-2/5.5.5 of the Marine Vessel Rules.

Comments:

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

2) All valves intended for installation on the side shell at or below the deepest load waterline, including those at the sea chests, are to be hydrostatically tested in the presence of the Surveyor, before installation, to a pressure of at least 5 bar (72.5 psi) in accordance with 4-6-2/7.3.2 of the Marine Vessel Rules.

3) Marking of the valves are to be in accordance with ASME B16.34.

4) Valves with virgin PTFE seats (TFM) are tested in accordance with API 607 which qualifies valves with filled PTFE components may be used in vital system manifold, as isolation valves and to provide closures for opening in the shell of the vessel in accordance with USCG 46 CFR 56.20-15.

Notes/Drawing/Documentation:

Drawing No. AN—H503L—I, Rev. 3, 2" AN—H5 150# R.F. Flange End Fitting

Drawing No. AN—M501L—I, Rev. 2, 6" AN—M5 Body with 150# R.F. Flange Connection

Drawing No. AN—H503L—I, Rev. 3, 3" AN—H5 150# R.F. Flange End Fitting

Drawing No. AN—M501L—RI, Rev. 3, 6" AN Series, Class 150# Body Casting

Drawing No. AN—K501L—RI, Rev. 7, 3" AN Series 5, 150# Body Casting

Drawing No. AN—K501L—I, Rev. 5, 3" AN—K5 Body, 150# R.F. Flange Outlet

Drawing No. NH-N6L-F—102, Rev. I, 8" TN—N6 Full Port Firesafe 2-Way Ball Valve

Drawing No. TN—N501, Rev.-, 8"TN—N5 150# R.F. Flange

Terms of Validity:

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Tier: 3 - Type Approved, unit certification not required

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:**

The Rules for Conditions of Classification, 2020 Marine Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2020 Rules for Building and Classing Marine Vessels: 4-6-2/5.11

The Rules for Conditions of Classification - Offshore Units and Structures, 2020 Mobile Offshore Units Rules 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2020 Rules for Building and Classing Mobile Offshore Units: 4-2-2/17

National:

ASME B16.34 (2017),

API 607 (Sixth Edition, Sep 2010) for up to 4"

API 607 (Fourth Edition, May 1993) for 6" to 12"

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA