



CERTIFICATE NUMBER  
EFFECTIVE DATE  
EXPIRY DATE  
ABS TECHNICAL OFFICE

24-0058374-PDA  
07-Aug-2024  
06-Aug-2029  
Houston ESD - Piping

## CERTIFICATE OF Product Design Assessment

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

**IMI CRITICAL ENGR PBM LLC**

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  
**Endorsements:**  
**Tier:** 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 06/Aug/2029 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

Jingdong Sheng, Sr. Managing Principal Engineer

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)

## IMI CRITICAL ENGR PBM LLC

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**Tier: 3 - Type Approved, unit certification not required**

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

**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.  
- All valves are to bear permanent identification, such as the manufacturer's name or trademark, standard of compliance, material identify, pressure rating, etc., as required by the standard of compliance or the manufacturer's specification. Such markings may be cast or forged integral with, stamped on, or securely affixed by nameplate on the component, and are to serve as a permanent means of identification of the component throughout its service life in accordance with 4-6-1/7.1.4 of Marine Vessels Rules.  
- Only 'Fire Safe' Valves tested in accordance with API 607 may be utilized in restricted service systems such as firemain, fuel oil and lube oil tank shut-off valves, and with oil tank remote closing systems.  
- Valves are not to be used where materials readily rendered ineffective by heat, unless the fire test report conforming to the latest edition of a recognized standard acceptable to ABS is submitted.

**Notes/Drawing/Documentation:**  
Drawing No. RP-1601-1, USCG Category "A" Seat Leakage Calculations (AN & SP Series 1, Ø1/2" – Ø10"),  
Revision: 2, Dated 2/24/2023 Engineering Report Added "IMI PBM" was "PBM, Inc."

Supporting Documentation (previous task: WO00T1908549)  
Drawing No. RP-1504-3, USCG Category "A" Seat Leakage Testing (AN Series 5),  
Drawing No. ANB-H1L3V--K04, 2 2-Way 836 Bronze Ball Valve with Non-Adjust -O-Seal Design, 150# F.F.  
Flange Connctions, RTFE Seat, Revision: 0,  
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,

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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,

**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.

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:**

2024 Rules for Conditions of Classification, Part 1A-1-4/7.7, 1A-1-A3, which covers the following:  
2024 Marine Vessels Rules 4-6-1/7.1, 4-6-2/3, 4-6-2/5.11

2024 Rules for Conditions of Classification - Offshore Units and Structures 1B-1-4/9.7, 1B-1-A2, 1B-1-A3, which covers the following:  
2024 Mobile Offshore Units 4-2-2/9, 4-2-2/17

**National:**

ASME B16.34 (2020) (where applicable to specific Model and Material);  
MSS SP 72 (2010a) (where applicable to specific Model and Material);

**International:**

NA

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

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