



Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product. This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 09/FEB/2021. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until 04/DEC/2017 subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Product Name: Valve, Ball and Butterfly
Model Name(s): CPVC TU 2000 Standard/Industrial Ball, Ball Check & Butterfly/Wafer Butterfly Valves

Presented to:
 SPEARS MANUFACTURING COMPANY
 15853 OLDEN STREET
 United States

Intended Service: Marine and Offshore Application - For Non-Essential Systems including Fresh Water, Sea Water, Potable Water, Drains, Sanitary, Vents, and Brine in Services requiring No Fire Endurance Testing, No Smoke and Toxicity Testing or Electrical Conductivity. Piping to be used in Non-Hazardous Areas only.

Description: CPVC TU 2000, Size ½ to 4" Standard & Industrial Ball Valves, Size ½ to 4" TU 2000 Ball Check Valves & 1½ to 6" Standard/ 2" to 6" Wafer Butterfly Valves. See attached "pdf" for details.

Tier: 3

Ratings: Spears ® CPVC Ball Valve and Ball Check Valves are pressure rated to 235 psi (1.62 MPa) for water @ 73°F (23°C) for sizes 1/2" through 2" and to 150 psi (1.03 MPa) for water @ 73°F (23°C) for sizes 2-1/2" through 4". Butterfly Valves are pressure rated to 150 psi (1.03 MPa) for water @ 73°F (23°C) for sizes 1-1/2" through 6". See attachment for de-rated pressures for higher temperatures.

Service Restrictions: 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 specification standards and tolerances, must be clearly defined. 1) Not to be used in fire main or areas classified as "hazardous" in accordance with 4-8-4/27 of the Steel Vessels Rules and 4.3.1 of the MODU Rules. 2) Fire Endurance Testing in accordance with 4-6-3/5.11 of the ABS SVR has not

been carried out. Usage limited by 4-6-3/Table 1. 3) Piping made from this compound has passed ASTM D635 testing for flame spread. 4) Where plastic pipes are to be utilized for any installation within tanks or other locations which may be subject to a vacuum condition inside the pipe or a head of liquid on the outside of the pipe, external pressure is to be considered. The pipe is to be designed for an external pressure of not less than the sum of the pressure imposed by the maximum potential head of liquid outside the pipe plus full vacuum of 14.5 psi (1 bar) inside the pipe. The maximum external pressure for a pipe is to be determined by dividing the collapse test pressure by a safety factor of 3. This collapse pressure may be verified experimentally or determined by a combination of testing and calculation methods. These details are to be submitted to ABS before installation of the pipe, for ABS approval on a case by case basis. 5) Not to be used for compressed air or gas. 6) Check Valves shall not be considered backflow prevention devices and shall not be used for the protection of a potable water supply.

Comments: The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. All valves are to be hydrostatically tested by the manufacturer and are to bear the trademark of the manufacturer legibly stamped, labeled, or cast on the exterior of the valves as well as the pressure rating. Acceptability of the flame spread test in accordance with ASTM D635 is subject to approval by the Administration of the vessel's registry.

Notes / Documentation: Supporting Data: Catalog Shts. - for CPVC TU 2000 Ball, Ball Check & Butterfly Valves. Spears CPVC Valve Material Data sheet. ASTM F1970-05, Standard, 6 Pages; Test Report J-00100376, dated 30 Aug. 2011, 7 shts, SP2200 cpvc Plaques; Test Report J-00101442, dated 06 Jun. 2012, 5 shts, True Union 2000 Industrial Ball Check Valves - 4" Check Valves; Test Report J-00101440, dated 13 Jun. 2012, 5 shts, True Union 2000 Industrial Ball Check Valves - 2" Check Valves; Test Report J-00101438, dated 13 Jun. 2012, 5 shts, True Union 2000 Industrial Ball Valves - 2" Ball Valves; Test Report J-00111987, dated 13 Jul. 2012, 5 shts, True Union 2000 Industrial Ball Valves - 4" Ball Valves rated 150 psi at 73°F; Test Report J-00113464, dated 01 Aug. 2012, 5 shts, Spears Butterfly Valves, Standard Style - 6" Butterfly Valves rated 150 psi at 73°F; Spears Valve Impact Test Report-Stamped 31 Oct. 2012; Spears Supplemental Burst Test Report-Stamped 31 Oct. 2012

Term of Validity: This Product Design Assessment (PDA) Certificate 12-HS938098-PDA, dated 05/Dec/2012 remains valid until 04/Dec/2017 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

ABS Rules: 2012 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 4-6-3/Table 1, 4-6-3/5, 4-6-3/11.3.1, 4-6-3/9; 2012 MODU Rules 4-2-2/7

National Standards: ASTM D1784, ASTM F1970-05

International Standards:

Government Authority:

EUMED:

Others:

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	12-HS938098-PDA	05/DEC/2012	04/DEC/2017



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the

date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.