



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 21-MAR-2023. 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 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, Butterfly
Model Name(s): Series HW, Wafer

Presented to:
MILWAUKEE VALVE CO., INC.
16550 WEST STRATTON DRIVE
WI 53151-7301
United States

Intended Service: Marine and Offshore Applications - Fresh Water, Seawater, Fuel Oil, Lube Oil, Air, Inert Gases, Petroleum Products.

Description: Series HW - Wafer type body Body material: Ductile Iron (ASTM A536), Iron-epoxy coated; Disc material: NP Ductile Iron (ASTM A536), Aluminum Bronze (ASTM B148), Stainless Steel (Type 316), Ductile Iron-Epoxy Coated; Seat material: BUNA, EPDM, VITON, HYPALON, NEOPRENE

Tier: 3

Ratings: Sizes: 2" thru 12" (50 mm thru 300 mm) Pressure rating: 250 psi (1725 kPa) See attached "pdf" for construction and materials details.

Service Restrictions: 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. Valves are not to be used where materials readily rendered ineffective by heat are not acceptable, unless the fire test report conforming to the latest edition of a recognized standard acceptable to ABS is submitted. 3. Wafer type valves are not acceptable as shell valves (4-6-2/9.13.2.ii of Steel Vessels Rules) 4. All butterfly valves are not to be used on oil tanks (including cargo, oil tanks) having a static head of flammable oil. 5. Butterfly valves of ductile iron are not to be used for temperature above 350 degree C. 6. Gray Cast Iron valves not to be used as shell valves, at to the collision bulkhead and shutoff valve for fuel oil

tanks. Nodular iron or ductile iron will be accepted provided the material has an elongation not less than 12%.

Comments: 1. The manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. 2. All valves are to bear permanent identification, such as manufacturer's name or trademark, standard of compliance, material identity, 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. 3. Manufacturer states valves are designed and tested in accordance with API 609 and MSS SP 67.

Notes / Documentation: Drawing No. Declaration of Conformity signed - HW Series 00-HS151713E-1-PDA, Declaration of Conformity signed - HW Series 00-HS151713E-1-PDA, Revision: -, Pages: 1 Drawing No. HW_2-12, HW Series 2, Revision: -, Pages: 1 Supporting Documentation (previous task 853981): Butterfly Valve HW Series Datasheet BFV-7 Email confirming no changes (statement)

Term of Validity: This Product Design Assessment (PDA) Certificate 18-HS1719683-PDA, dated 22/Mar/2018 remains valid until 21/Mar/2023 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: The Rules for Conditions of Classification, Part 1 2018 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: 2018 Steel Vessels Rules 4-6-2/3, 4-6-2/5.11, 4-6-2/9.13; The Rules for Conditions of Classification, Part 1 2018 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following: 2018 Mobile Offshore Drilling Units Rules 4-2-2/9, 4-2-2/17, 4-2-2/21

National Standards: API 609 (2017); MSS SP 67(2017)

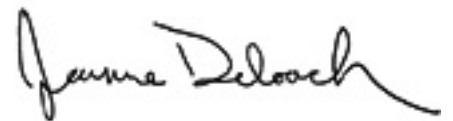
International Standards:

Government Authority:

EUMED:

Others:

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	18-HS1719683-PDA	27-MAR-2018	21-MAR-2023



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.