



Confirmation of Product Type Approval

Company Name: OK KWANG ENGINEERING CO., LTD.

Address: #262-3, HAKJANG-DONGSASANG-KU 617-020 Korea, Republic of

Product: Valve

Model(s): 1. BRONZE GLOBE VALVE 2. BRONZE U.B GLOBE VALVE 3. BRONZE GLOBE VALVE 4. BRONZE U.B GLOBE VALVE 5. BRONZE HULL GLOBE VALVE 6. BRONZE GLOBE CHECK VALVE 7. BRONZE U.B GLOBE CHECK VALVE 8. BRONZE HULL GLOBE CHECK VALVE 9. BRONZE U.B GLOBE CHECK VALVE 10. BRONZE ANGLE VALVE 11. BRONZE U.B ANGLE VALVE 12. BRONZE ANGLE VALVE 13. BRONZE U.B ANGLE VALVE 14. BRONZE ANGLE CHECK VALVE 15. BRONZE U.B ANGLE CHECK VALVE 16. BRONZE ANGLE CHECK VALVE 17. BRONZE U.B ANGLE CHECK VALVE 18. BRONZE HULL ANGLE VALVE 19. BRONZE B.B GLOBE VALVE 20. BRONZE B.B ANGLE VALVE 21. BRONZE SWING CHECK VALVE 22. BRONZE N.R.S GATE VALVE 23. BRONZE B.B-OS&Y GATE VALVE 24. BRONZE U.B GATE VALVE 25. BRONZE HOSE ANGLE VALVE 26. BRONZE HOSE GLOBE VALVE 27. BRONZE STORM VALVE 28. BRONZE STORM ANGLE VALVE 29. BRONZE U.B GLOBE VALVE 30. BRONZE U.B ANGLE VALVE 31. CAST STEEL STORM ANGLE VALVE 32. CAST STEEL STORM ANGLE VALVE

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	21-2191094-PDA	14-DEC-2021	13-DEC-2026
Manufacturing Assessment (MA)	20-4322237	16-JUN-2020	15-JUN-2025
Product Quality Assurance (PQA)	NA	NA	NA

Tier

3 - Type Approved, unit certification not required

Intended Service

Sea and Fresh Water System, Inert Gas System, Fuel Oil and Lube Oil System, Water Ballast System, Boiler Water System, Sanitary System, Hydraulic Oil System

Description

1. Body : JIS H 5111-BC6, ASTM B62, JIS G5101-SC480
2. Disc : JIS H 5111-BC6, JIS H 3250-C3771 BD/3604 BD/3771 BE, ASTM B62

Ratings

1. BRONZE GLOBE VALVE : 15A/20A/25A/32A/40A (5K)

2. BRONZE U.B GLOBE VALVE : 15A/20A/25A/32A/40A (5K)
3. BRONZE GLOBE VALVE : 15A/20A/25A/32A/40A (16K)
4. BRONZE U.B GLOBE VALVE : 15A/20A/25A/32A/40A (16K)
5. BRONZE HULL GLOBE VALVE : 15A/20A/25A/32A/40A (16K)
6. BRONZE GLOBE CHECK VALVE : 15A/20A/25A/32A/40A (5K)
7. BRONZE U.B GLOBE CHECK VALVE : 15A/20A/25A/32A/40A (5K)
8. BRONZE HULL GLOBE CHECK VALVE : 15A/20A/25A/32A/40A (16K)
9. BRONZE U.B GLOBE CHECK VALVE : 15A/20A/25A/32A/40A (16K)
10. BRONZE ANGLE VALVE : 15A/20A/25A/32A/40A (5K)
11. BRONZE U.B ANGLE VALVE : 15A/20A/25A/32A/40A (5K)
12. BRONZE ANGLE VALVE : 15A/20A/25A/32A/40A (16K)
13. BRONZE U.B ANGLE VALVE : 15A/20A/25A/32A/40A (16K)
14. BRONZE CHECK ANGLE VALVE : 15A/20A/25A/32A/40A (5K)
15. BRONZE U.B ANGLE CHECK VALVE : 15A/20A/25A/32A/40A (5K)
16. BRONZE ANGLE CHECK VALVE : 15A/20A/25A/32A/40A (16K)
17. BRONZE U.B ANGLE CHECK VALVE : 15A/20A/25A/32A/40A (16K)
18. BRONZE HULL ANGLE VALVE : 15A/20A/25A/32A/40A (16K)
19. BRONZE B.B GLOBE VALVE : 40A/50A/65A/80A/100A/125A/150A/200A, 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 8" (150LB)
20. 20. BRONZE B.B ANGLE VALVE : 50A/65A/80A/100A/150A/200A, 2", 2-1/2", 3", 4", 6", 8" (150LB)
21. BRONZE SWING CHECK VALVE :
40A/50A/65A/80A/100A/125A/150A/200A/250A/300A/350A/400A/450A/500A/600A 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 8", 10", 12", 14", 16", 18", 20", 24" (150LB)
22. BRONZE N.R.S GATE VALVE : 50A/65A/80A/100A/125A/150A/200A/250A/300A/350A/400A/450A,
2", 2-1/2", 3", 4", 5", 6", 8", 10", 12", 14", 16", 18" (150LB)
23. BRONZE B.B-OS&Y GATE VALVE :
50A/65A/80A/100A/125A/150A/200A/250A/300A/350A/400A/450A, 2", 2-1/2", 3", 4", 5", 6", 8", 10", 12", 14", 16", 18" (150LB)
24. BRONZE U.B GATE VALVE : 15A/20A/25A/32A/40A/50A/65A/80A/100A, 1/2", 3/4", 1", 1-1/4",
1-1/2", 2", 2-1/2", 3", 4"(150LB)
25. BRONZE HOSE ANGLE VALVE : 40A/65A 1-1/2", 2-1/2" (150LB)
26. BRONZE HOSE GLOBE VALVE : 40A/65A 1-1/2", 2-1/2" (150LB)
27. BRONZE STORM VALVE : 50A/65A/80A/100A/125A/150A/200A, 2", 2-1/2", 3", 4", 5", 6", 8"(150LB)
28. BRONZE STORM ANGLE VALVE : 50A/65A/80A/100A/125A/150A/200A, 2", 2-1/2", 3", 4", 5", 6", 8"
(150LB)
29. BRONZE U.B GLOBE VALVE : 15A/20A/25A/32A/40A/50A/65A/80A, 1/2", 3/4", 1", 1-1/4", 1-1/2", 2",
2-1/2", 3"(150LB)

30. BRONZE U.B ANGLE VALVE : 15A/20A/25A/32A/40A/50A/65A/80A, 1/2", 3/4", 1", 1-1/4", 1-1/2", 2", 2-1/2", 3"(150LB)

31. CAST STEEL STORM ANGLE VALVE : 50A/65A/80A/100A/125A/150A/200A/250A (5K)

32. CAST STEEL STORM ANGLE VALVE : 50A/65A/80A/100A/125A/150A/200A/250A (10K)

Service Restrictions

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.

Comments

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. The burst test has been witnessed by the attending Surveyor. (Test Report No. BK1867992 dated 10 Aug. 2016, Test Report No. BK463827 dated 18 September 2003 and Test Report No. 5001119 dated 01 November 2021)
3. All valves are to bear the trademark of the Manufacturer legibly stamped or cast on the exterior of the valve and also the primary pressure rating at which the manufacturer guarantees the valve to meet the requirements of the Standard.

Notes, Drawings and Documentation

Drawing No. See the attached document

- Company name : OK KWANG ENGINEERING CO., LTD.
- Model number : N/A
- PDA number : 21-2191094-PDA
- Issuance date : 02 December 2021
- Expiration date : 01 December 2026
- Revision number : N/A

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 13/Dec/2026 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.

ABS Rules

2021 Marine Vessel Rules: 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-6-2/5.15

International Standards

NA

EU-MED Standards

NA

National Standards

NA

Government Standards

NA

Other Standards

NA



A handwritten signature in black ink, appearing to read 'James J. White'.

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 23-Dec-2021 8:02

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 is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

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 prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. 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.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

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.

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.