



Confirmation of Product Type Approval

Company Name: BMT CO., LTD.

Address: 35, SANMAKGONGDANNAM 11-GIL, YANGSAN, Korea, Republic of

Product: Cryogenic Valve

Model(s): Cryogenic Needle Valves: FCNV SERIES

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	17-BK1645325-PDA	12-JUL-2017	11-JUL-2022
Manufacturing Assessment (MA)	20-4468622	28-OCT-2020	27-OCT-2025
Product Quality Assurance (PQA)	NA	NA	NA

Tier

5 - Unit Certification Required

Intended Service

Cryogenic Liquid and Gas Transportation

Description

Cryogenic Needle Valves - 1/2" & 1" Class 150

Ratings

Design Pressure: 19 bar, Design Temperature: -196 degree C ~ 65 degree C

Material: Body (ASTM A351 CF8M) & DISC (ASTM A276-316)

Service Restrictions

Unit certification is required for the products intended to be used at a working temperature below -55 degree C and testing specified in section 5C-8-5/13.1.1 of the ABS Steel Vessel Rules is to be carried out in the presence of the Surveyor as required.

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 the manufacturer's name or trademark, standard of compliance, material identify, pressure rating, etc. as required by the standard of compliance and at which the manufacturer guarantees the valve to meet the requirements of the standards. 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 4-6-2/5.11.4 and 4-6-1/7.1.4 of the Steel Vessels Rules 2017.

3. Material testing is to be witnessed by an ABS Surveyor in accordance with 5C-8-6/1.3 of 2017 Steel Vessel Rules.

Notes, Drawings and Documentation

1. DWG. No.: 170217-01-115, Rev. A

2. Proto type test report(Pressure, Cryogenic & Burst test): BK3330442, Dated 25 May 2017

3. Material test report: BK3292171, Dated 09 March 2017

4. Flow test report: TCHPV-17-05-302(1"), Dated 24 May 2017 & TCHPV-17-05-303(1/2"), Dated 15 May 2017

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 11/Jul/2022 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

2017 Steel Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 5C-8-5/13.1, 5C-8-6/2.2, 5C-8-6/Table 4 & 4-6-1/7.1.4, 4-6-2/5.11.4, 4-6-2/5.15

International Standards

IGC code (2016 Edition) 5.13.1, 6.2.2, Table 6.4

BS6364 (1984 Edition)

EU-MED Standards

NA

National Standards

NA

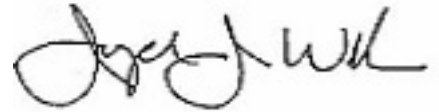
Government Standards

NA

Other Standards

NA





Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 12-May-2021 11:36

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.