



Marine & Offshore

Certificate number: 58048/A0 BV

File number: .

Product code: 2204I

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

PBM Valve Solutions, Inc
Irwin, PA - UNITED STATES OF AMERICA

for the type of product

BALL VALVES
2-Way Industrial ball valve type SPE-E5

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships
Bureau veritas Rules for the Classification of Offshore Units

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 04 Dec 2024

For Bureau Veritas Marine & Offshore,

At BV PORT EVERGLADES CENTRE, on 04 Dec 2019,
Flavio Rosas



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

2-way Industrial ball valve type SPE-E5

1.1 Ratings

Model	Type SPE-E5
Size	1"
Design Standard	B16.34
Class range	Class 300
Design Pressure (bar)	62
Design Temperature (°C)	-10/+200
End connections	Female N.P.T
Design specification	Split body

1.2 Materials

Part	Material
Body	A105
Stem	A479, S 31603
Seat	PTFE
Ball	316L SST

When other choices of materials are used per manufacturer's recommendations, the BV agreement is to be obtained.

2. DOCUMENTS AND DRAWINGS

- Drawing N°SPE-E5Q9G---66--V149 Rev. 0 dated 03/05/2019 2-way Industrial ball valve SPE-E5 type
- Manual of installation, use and maintenance N°1908-16 Rev.0 dated 30/09/2019

No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform the Society of any modification or changes to these documents and drawings.

3. TEST REPORTS

- 3.1 - Type test witnessed by a BV surveyor including Hydrostatic and seat leakage test at ambient temperature:
 - Hydrostatic test N°107468 dated 01/10/2019
- 3.2 - Fire resistance test not performed.

4. APPLICATION / LIMITATION

- 4.1 - May be used for the following services on board:

Shipside valves - Sea water and fresh water - Bilge and ballast transfer - Compressed air - Cargo oil for tankers - Inert gas systems - Fuel-oil and lubricating oil transfer - Domestic and sanitary systems - washing and fire extinguishing - Hydraulic oil - Deck foam systems - Non-essential systems

4.2 - The valves belong to Class I, Class II and Class III according to the relevant requirements stated in Part C, Ch 1, Sec 10. Valves fitted on the ship side and collision bulkhead, and valves fitted on fuel oil and lub oil tanks under static pressure belong to Class II.

4.3 - The valve body, disc and seat should be suitable for the intended service. In particular the nature of materials, joints included, is to be selected according to the fluid to be conveyed and the temperature.

4.4 - The approval does not include any operating gear for remote control of the valves.

4.5 - Bilge valves will be fitted in association with a non-return valve.

4.6 - The valves are to be installed according to the manufacturer's instructions and Society's Rule requirements.

4.7 - The use of stainless steel and grey cast iron is to be restricted as per the BUREAU VERITAS Rules.

4.8 - Threaded ends are not acceptable on lines with external diameter above 25mm.

5. PRODUCTION SURVEY REQUIREMENTS

5.1 - The products are to be supplied by **PBM Valve Solutions, INC** in compliance with the type and the requirements described in this certificate.

5.2 - This type of product is within the category IBV of BV Rule Note NR320.

5.3 - BV product certificate is required.

5.4 - BV Certificate is required for materials of valve housings of class I (DN \geq 50) or class II (DN<100). Materials of valve housings of class I (DN <50) or class II (DN <100) and for other parts are to be with Work's certificates.

5.5 - Each valve housing for class I and class II is to be hydraulically pressure tested to 1.5 times the design pressure. Valves intended to be fitted on the shipside below the load waterline are to be tested by hydraulic pressure not less than 0,5 MPa

5.6 - For information, **PBM Valve Solutions, INC** has declared to Bureau Veritas the following production site(s):

**1070 Sandy Hill Road
Irwin, PA
United States of America**

6. MARKING OF PRODUCT

Each valve shall be permanently marked with at least:

- Manufacturer's name or logo
- Type designation
- Maximum working Pressure and Test Pressure
- Society's brand as relevant

7. OTHERS

It is **PBM Valve Solutions, INC** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

***** END OF CERTIFICATE *****