



Marine & Offshore

Certificate number: 03958/H1 BV

File number: ACM 145/0706/001

Product code: 2205I

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
SAPAG VALVES
 HAM - FRANCE

for the type of product
BUTTERFLY VALVES
 Type JMC

Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships

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: 21 Feb 2027

For Bureau Veritas Marine & Offshore,
 At BV VALENCIENNES, on 16 Jan 2023,
 Philippe Calbet

This certificate was created electronically and is valid without signature



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 4 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

JMC Butterfly Valve

1.1 Design Specifications

Valve serie	JMC
Valve type connection	Wafer, lug and double flange
Size range (mm)	DN 50 to DN 1000 Wafer & Lug DN 500 to DN 1200 Double Flange
Pressure rating	PN 6, PN 10, PN 16, PN 20, PN 25, class 150 depending on DN
Maximum Design Pressure (bar)	25 bar - depending on DN
Temperature range*	EPDM (-29 °C to +130 °C)/ NBR (-15 °C to +80 °C)

* Other seats on request

The maximum service pressure and the temperature are not to exceed those specified by the manufacturer.

1.2 Materials

Body	Ductile iron EN GJS 400-15 / ISO Grade 400-12 Ductile iron EN GJS 400-18 LT / ASTM A395 Gr. 60.40.18 Ductile iron EN GJS 400-18 / ASTM A536 Gr. 60.40.18 Carbon steel EN GP 240GH - 1.0619 / ASTM A216 WCB Stainless steel EN GX2 CrNiMo 19-11-2 - 1.4409 / ASTM A351 Gr. CF3M Stainless steel EN GX5 CrNiMo 19-11-2 - 1.4408 / ASTM A351 Gr. CF8M Copper aluminium alloy EN CuAl10Ni5Fe5-C / ASTM B148 Gr. 95800C
Disc	Ductile iron EN GJS 400-15 / ISO Grade 400-12 Ductile iron EN GJS 400-18 / ASTM A536 Gr. 60.40.18 Stainless steel EN GX2 CrNiMo 19-11-2 - 1.4409 / ASTM A351 Gr. CF3M Stainless steel EN GX5 CrNiMo 19-11-2 - 1.4408 / ASTM A351 Gr. CF8M Stainless steel EN GX2 CrNiMoCuN 25-6-3-3 - 1.4517 Stainless steel EN GX2 CrNiMoN 22-5-3 - 1.4470 Copper aluminium alloy EN CuAl10Ni5Fe5-C / ASTM B148 Gr. 95800C
Seat	EPDM / NBR / XNBR / MVQ / FPM / CSM

When other choices of materials are used per manufacturer's instructions, the BV agreement will be obtained.

2. DOCUMENTS AND DRAWINGS

- Technical specification JMC-FR-1802-02022022-A dated 02/02/2022

- Drawings : N° 149200-1 rev. R dated 10/02/2022

N° 149200-2 rev. R dated 10/02/2022

N° 149200-3 rev. R dated 10/02/2022

N° 149200-4 rev. R dated 10/02/2022

N° 154452 rev. F dated 04/11/2021

N° 149202 rev. W dated 04/01/2021

N° 158023 rev. I dated 04/01/2021

N° 158024 rev. H dated 04/01/2021

N° 158025 rev. I dated 04/01/2021

N° 150782 rev. G dated 04/11/2021

N° 151030 rev. Q dated 04/11/2021

N° 156240 rev. G dated 04/11/2021

- Technical datasheet for non-metallic materials: Elastomere nitrile Carboxyle Q7501 N° 159545-B dated 04/11/2021
 Elastomere EPDM G7503 N° 159599-B dated 04/11/2021
 Elastomere FKM I7501 N° 159598-A dated 04/11/2021
 Elastomere nitrile F7501 N° 159597-A dated 04/11/2021
 Elastomere Silicone S7598 N° 150253-D dated 04/11/2021
 Elastomere CSM (Hypalon) H7501 N° 150254-D dated 04/11/2021

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

3. TEST REPORTS

Bureau Veritas qualification tests (operation test, body and seat leakage tests) carried in the manufacturer's own laboratory in the presence of a Society's Surveyor and found satisfactory, test reports N° 754114, 753084, 752558 and 754113 dated 16/02/2016.

4. APPLICATION / LIMITATION

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

- Shipside valves, Fuel oil and lubricating oil, Ballast and bilge, Washing and fire extinguishing, Sea water and fresh water, Compressed air, Cargo lines for tankers, Inert gas, Domestic and sanitary systems, Steam, Non essential systems.

4.2 - The butterfly valves belong to class I, class II and class III according to the relevant requirements stated in Part C, Chapter 1, Sec 10 of the Bureau Veritas Rules. Valves fitted on the ship side and collision bulkhead and valves under static pressure on fuel oil tanks or lub oil tanks belong to class II.

4.3 - The use of stainless steel is restricted as per BUREAU VERITAS Rules.

4.4 - The valve body, disc and seat should be suitable for the intended service.

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

4.6 - When the butterfly valves are not fitted with flanges their use may be accepted as shipside valves provided that arrangement are made to allow a possible disassembling at sea of the pipes immediately inboard without any risk of flooding.

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

5. PRODUCTION SURVEY REQUIREMENTS

5.1 - The products are to be supplied by **SAPAG VALVES** in compliance with the type and the requirements described in this certificate. This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

5.2 - BV Certificate is required for materials of valve housings of class I (DN≥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.

5.3 - BV product certificate is required.

5.4 - 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

5.5 - For information, **SAPAG VALVES** has declared to Bureau Veritas the following production site:

SAPAG VALVES
2 rue du Marais
80400 HAM
FRANCE

6. MARKING OF PRODUCT

The valve shall be permanently marked with at least:

- Manufacturer's name or logo
- Type designation
- Maximum working pressure
- Society's brand as relevant

7. OTHERS

It is **SAPAG VALVES**'s 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.

This certificate supersedes the Type Approval Certificate N° 03958/H0 BV issued by the Society.

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