Marine & Offshore

Certificate number: 04134/G1 BV
File number: ACM 145/0706/001
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
SAPAG VALVES
HAM - FRANCE

for the type of product
BALL VALVES
Type RTS - Serie 3

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: 09 Jun 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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

RTS - Serie 3 Ball Valve

1.1 Technical characteristics

Valve model	Standard, wafer, EI, SF, HT EI=Remote operated, SF=Fire safe, HT=High Temperature
Design standard	DIN 3840
Valve type connection	Threaded, BW, SW, flanged, wafer, welded flanges
Size	DN 8 to DN 150 depending on model
Pressure rating*	115 bar
Temperature range	-50°C /290°C

* Depending on the temperature and PTFE type according to document N° PVI-0016-ENG-2112 dated 02/05/2022.

1.2 Material specification

Body	Carbon steel EN GP 240 GH / A216 Gr. WCB // EN P 245 GH/ANSI 1020 Steel forging XC 38 / ASTM A 105 Stainless steel EN GX2CrNiMo 19-11-2 / A351Gr. CF3M // EN GX2CrNiMo 17-12-2 / A316L
Ball	Stainless steel EN GX2CrNiMo 17-12-2 / A316L
Seat	PTFE / Reinforced PTFE / Expanded graphite

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

2. DOCUMENTS AND DRAWINGS

- Technical specification EI-PVI-0016-ENG-2112 & EI-PVI-0016-FR-2112 dated 02/05/2022
- Drawings N° 150779 rev. E; N° 151722 rev. D Nomenclature RTS SF

N° 151742 rev. D Nomenclature RTS DN50 serie 3 type 17100-18100
N° 151743 rev. E Nomenclature RTS DN8-DN50 serie 3 type 17200-18200
N° 151744 rev. E Nomenclature RTS DN8-DN50 serie 3 type 17300-18300
N° 151745 rev. D Nomenclature Series 3 ST Trim 4 type 17400-18400
N° 151792 rev. D Nomenclature RTS SF version 9
N° 151825 rev. E Nomenclature Series 67100-68100
N° 151826 rev. F Nomenclature RTS EI DN15 à 50 et DN8I à 40I - Série 67200
N° 151826 F/SP rev. A ; N° 151827 rev. F RTS EI DN65 à 100 et DN50I à 80I - Série 67200 et 68200
N° 151828 rev. E Nomenclature DN8-DN40I RTS series 67400-68400
N° 151829 rev. E Nomenclature RTS Type 68400 - 68400
N° 151830 rev. E Nomenclature RTS Type 68400 - 68400
N° 151831 rev. E Nomenclature RTS Type 68400 - 68400
N° 151832 rev. D Nomenclature RTS version 8
N° 151833 rev. D Nomenclature RTS version 8
N° 151934 rev. C Nomenclature DN8-DN40I RTS version 8
N° 151935 rev. D Nomenclature DN8-DN80I RTS version 8
N° 151936 rev. C Nomenclature DN8-DN40I RTS version 9
N° 151937 rev. D Nomenclature DN8-DN80I RTS version 9
N° 158756 rev.F Pieces moulées – acier inoxydable - A351 CF3M - 1.4409
N° 152247 rev.J Piéces moulées Carbon steel EN GP 240 GH
N° 152502 rev.C Carbon steel EN GP 240 GH / A216 Gr. WCB
N° 159436 rev.A Spécification Approvisionnement Pièces forgées - acier Carbone - A105 - NACE
N° 159897 rev.A Graphite reinforced PTFE material data sheet

N° 159224 rev.B PTFE material data sheet

N° 150843 rev.C Stainless steel reinforced PTFE material data sheet

N° 149321 rev.G Pressure - Temperature rating

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

- Hydrostatic test report N° 783799 dated 11/04/2017

4. APPLICATION / LIMITATION

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

- 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 ball 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 to be restricted as per the 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 - The ball valves with threaded ends are not to be used on combustible circuits.

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.

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

5.3 - Bureau Veritas Certificates are required for materials of valve housings of class I (DN≥50) and class II (DN≥100). Materials of valve housings of class I (DN<50) and class II (DN<100) and for other parts are to be with Work's certificates.

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 - BV product certificate is required.

5.6 - 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 ball valve should be 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° 04134/G0 BV issued by the Society.

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