



Marine & Offshore

Certificate number: 69899/A0 BV

File number: .

Product code: 22021

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

Meson (Changzhou) Flow Control System Co., Ltd.
Changzhou - CHINA

for the type of product

GLOBE & ANGLE VALVES

Globe Valve bellow sealed, Globe valve, Quick Closing Valve, Quick Closing Valve bellow sealed, Self Closing Valve

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: 22 Jan 2027

For Bureau Veritas Marine & Offshore,

At BV SHANGHAI, on 22 Jan 2022,

Jennifer Zhang



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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This certificate consists of 4 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Globe Valves Type : Globe valve bellow sealed, Globe valve, Quick closing valve, Quick closing bellow sealed and Self closing valve

1.1 Design Specifications

- Execution: straight and angle valve body
- Release system: mechanical (wire release), hydraulic or pneumatic and manually

Group	Type	Size (mm)	Pressure Class	Design pressure
540 541	Globe Valve, bellow sealed	DN 15 - DN 400	PN 16/AISI 150 : DN 15 ~ DN 150 PN 10: DN 200 ~ DN 400	16 bar/AISI 150 : DN 15 ~ DN 150 10 bar : DN 200 ~ DN 400
400, 401, 410, 411, 430, 431	Globe Valve	DN 15 - DN 400	PN 16/AISI 150 : DN 15 ~ DN 150 PN 10: DN 200 ~ DN 400	16 bar/AISI 150 : DN 15 ~ DN 150 10 bar : DN 200 ~ DN 400
450, 451	Quick Closing Valve	Straight : DN 15 - DN 250 Angle : DN 20 – DN 250	PN 16/AISI 150 : DN 15 ~ DN 150 PN 10: DN 200 ~ DN 250	16 bar/AISI 150 : DN 15 ~ DN 150 10 bar: DN 200 ~ DN 250
452, 453	Quick Closing Valve, bellow sealed	DN 15 – DN 250	PN10/PN 16/PN25: DN 15 ~ DN250	10/16/25 bar : DN 15 ~ DN 250
460, 461	Self Closing Valve	DN 15 - DN 80	PN 16/AISI 150 : DN 15 ~ DN 80	16 bar/AISI 150 : DN 15 ~ DN 80

- Max. working temperature: 300 °C

-Temperature range :

QCV straight/Angled : -10°C/+150°C

SCV straight/Angled : -10°C/+180°C

Product design	Design standard	
	Angled	Straight
Globe Valve, bellow sealed	Flange standard: ISO 7005-2 / JIS B2239 / ASME B16.42 Face to Face standard: EN 558, series 8 / ASME B16.10	Flange standard: ISO 7005-2 / JIS B2239 / ASME B16.42 Face to Face standard: EN 558, series 1 / ASME B16.10
Globe Valve	Flange standard: ISO 7005-2 / JIS B2239 / ASME B16.42 Face to Face standard: EN 558, series 8 / ASME B16.10	Flange standard: ISO 7005-2 / JIS B2239 / ASME B16.42 Face to Face standard: EN 558, series 1 / ASME B16.10
Quick Closing Valve	Flange standard: ISO 7005-2 / JIS B2239 / ASME B16.42 Face to Face standard: EN 558, series 8 / ASME B16.10	Flange standard: ISO 7005-2 / JIS B2239 / ASME B16.42 Face to Face standard: EN 558, series 1 / ASME B16.10
Quick Closing Valve, bellow sealed	Flange standard: ISO 7005-2 / JIS B2239 / ASME B16.42 Face to Face standard: EN 558, series 1 / ASME B16.10	Flange standard: ISO 7005-2 / JIS B2239 / ASME B16.42 Face to Face standard: EN 558, series 1 / ASME B16.10

Self Closing Valve	Flange standard: ISO 7005-2 / JIS B2239 / ASME B16.42 Face to Face standard: EN 558, series 8 / ASME B16.10	Flange standard: ISO 7005-2 / JIS B2239 / ASME B16.42 Face to Face standard: EN 558, series 1 / ASME B16.10
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1.2 Materials

Parts	Materials
Valve body / Bonnet	GGG40/GGG40.3/WCB/WCC/CF8/CF8M/CF3/CF3M/1.4469/C954/C958/RG5/RG10
Stem and disc	AISI304/AISI316/CW602N
Seat ring	AISI304/AISI316/RG5
Spring	AISI 301 / 1084 (EN 10270-1:2001/SH)
Bellow	Stainless steel EN 10088 X6CrNiMoTi 17122 (1.4571)

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

2. DOCUMENTS AND DRAWINGS :

- Assembly Drawings:

N°DDWG-GV-BE-STR Rev.A N°DDWG-GV-BE-ANG Rev.A	Bellow Sealed Globe Valve	Dated 12/11/2021 Dated 12/11/2021
N°DDWG-GV-STR Rev.A N°DDWG-GV-ANG Rev.A	Globe Valve	Dated 12/11/2021 Dated 12/11/2021
N°DDWG-QCV-STR Rev.A N°DDWG-QCV-ANG Rev.A	QCV	Dated 12/11/2021 Dated 12/11/2021
N°DDWG-QCV-BE-STR Rev.B N°DDWG-QCV-BE-ANG Rev.B	Bellow Sealed QCV	Dated 12/11/2021 Dated 12/11/2021
N°DDWG-SCV-STR Rev.A N°DDWG-SCV-ANG Rev.B	Self Closing Valve	Dated 12/11/2021 Dated 12/11/2021

- Document "Melting Ring Analysis" 76103 dated 10/03/2010

- Document "Release Cylinder Stress Analysis" dated 15/04/2010

- Flange table Rev.A dated 10/11/2021

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 :

Tests carried out according to BUREAU VERITAS Rules.

- Burst test report of valve bodies for LK Valves Globe Valves dated 06/11/2008, testing according to type approval program N° 5-794.40

4. APPLICATION / LIMITATION :

4.1 - Valves are fitted as quick closing valves and self-closing valves in fuel oil, lubricating oil, hydraulic oil, thermal oil (type 452, 453) tanks and other flammable oil tanks, and piping systems.

4.2 - Piping and associated components are not part of this approval.

4.3 - 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.

4.4 - 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.

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

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

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

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

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The products are to be supplied by **Meson (Changzhou) Flow Control System Co., Ltd** 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 - BV product certificate is required.

5.4 - BV Certificate is required for materials of valve housings of Class I (DN $\geq$ 50) and Class II (DN $\geq$ 100). Materials of valve housings of Class I (DN $<$ 50) and Class II (DN $<$ 100) and for other parts of Class I and Class II 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 ship side below the load waterline are to be subjected to hydrostatic testes under a pressure not less than 0.5 MPa.

5.6 - For your information, **Meson (Changzhou) Flow Control System Co., Ltd** has declared to Bureau Veritas the following production sites:

Meson (Changzhou) Flow Control System Co., Ltd
Building No 16, Xin Yu Logistics Park ,
Renmin Road No 8, YaoGuan, Wujin
Changzhou, Jiangsu Province
Peoples Republic of China

Meson AB
Kullsgårdsvägen 27
312 34 Laholm
SWEDEN

6. MARKING OF PRODUCT :

Each valve shall be 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 **Meson AB'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° 01592/I2 BV issued by the Society.

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