



Marine & Offshore

Certificate number: 23673/C1 BV

File number: ACM 145/2549/01

Product code: 2203I

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

AUTEXIER
CHAUNY - FRANCE

for the type of product

GATE VALVES

Type 89, 90, 91, 191, 591, AU591 & AU593

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: 28 Sep 2026

For Bureau Veritas Marine & Offshore,

At BV VALENCIENNES, on 08 Nov 2022,

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

Gate Valves Type 89, 90, 91, 191, 591, AU591 & AU593

1.1 - Design Specifications

Type	Description	Size range	Maximum service pressure (bar)	Temperature range (°C)	Ends	Obturator material
89/89B/89TB	Valves simple obturator	DN 08 ~ 100	20	-45/225	Screwed Flange/Threaded	Bronze CC491K
AN89	Valves simple obturator	DN 08 ~ 80	20	-10/225	Screwed Flange/Threaded	Cupro- Nickel CC380H
AU89	Valves simple obturator	DN 08 ~ 100	20	-10/225	Screwed Flange/Threaded	Cupro-Aluminium CC333G
90/90B/90TB	Valves double obturator	DN 08 ~ 50	20	-45/225	Screwed Flange/Threaded	Bronze CC491K
AU90	Valves double obturator	DN 15 ~ 50	20	-10/225	Screwed Flange/Threaded	Cupro-Aluminium CC333G
91/91TB	Valves double obturator	DN 15 ~ 50	20	-45/225	Flanged	Bronze CC491K
AU91	Valves double obturator	DN 20 ~ 32	20	-10/225	Flanged	Cupro-Aluminium CC333G
191/191TB/191NP	Valves simple obturator	DN 15 ~ 100	20	-45/225	Flanged	Bronze CC491K
AU191	Valves simple obturator	DN 15 ~ 100	20	-45/225	Flanged	Cupro-Aluminium CC333G
591	Valves double obturator	DN 32 ~ 50	16	-15/150	Flanged	Bronze CC491K
		DN 65		-30/150		
		DN 80 ~ 200		-30/100		
AU591	Valves double obturator	DN 32 ~ 50	16	-10/150	Flanged	Cupro-Aluminium CC333G
		DN 65	16	-10/150		
		DN 80 ~ 200	16	-10/100		
		DN 300	10	-10/200		
AN191	Valves simples obturator	DN 15 ~ 100	20	-45/225	Flanged	Cupro-Aluminium Nickel-CC380H
591-ASA	Valves double obturator	DN 40 ~ 50	16	-15/150	Flanged	Bronze CC491K
		DN 65		-30/100		
		DN 80 ~ 200		-30/100		
AU591-ASA	Valves double obturator	DN 40 ~ 65	16	-10/150	Flanged	Cupro-Aluminium CC333G
		DN 80 ~ 200	16	-10/100		
		DN 300	10	-10/200		
AU593	Valves double obturator	DN 32 DN 80	30	-10/200	Flanged	Cupro-Aluminium CC333G

Flanges according to ISO PN10/PN16/PN20

Design standards : 591, AU591, 592 & AU592 : MN 7063 HC | 593 & AU593 : MN 7063 HD | 89, 90, 91 & 191 : 731DA02 Rev. 9 dated 12/11/2021

1.2 - Materials

Type	89/90/91/191/591	AU593 89/90/91/191/591	AN 89/191
Body	CC491K	CC333G	CC380H
Bonnet	CC491K	CC333G	
Stem and fastening	CW614N / CC491K	CC333G	
Gaskets	LATTYGRAF, Graphite & Fiber	Graphite & Fiber	Graphite & Fiber

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

2. DOCUMENTS AND DRAWINGS

- Operating manual N° 0904DA87 version 5 dated 05/07/2021
- Operating manual N° 0904DA84 version 4 dated 06/12/2017
- Operating manual N° 0904DA166 version 1 dated 06/07/2021
- Installation manual N° 0904DA165 version 2 dated 06/07/2021
- Installation operating and maintenance manual N° 0904DA123 version 8 dated 05/07/2021
- Installation and operating manuals N° 0904DA121 version 7 dated 05/07/2021
- Shell pressure and tightness test instruction N° 824-6DA14 version 8 dated 21/10/2013
- Obturator pressure and tightness test instruction N° 824-6DA13 version 6 dated 21/10/2013
- ENR 53 Version 1 dated 06/04/2016
- FPM 6701 datasheet - FPM6701 Rev. 0
- FPM 6801 datasheet - FPM6801 Rev. 0
- FPM 6901 datasheet - FPM6901 Rev. 0
- Standard virgin PTFE dated 09/09/2022
- Premium virgin PTFE dated 09/09/2022

- General drawings

Reference Number	Date of issuance
89/89B/89TB Rev.11	12/05/2021
191/191TB/191NP Rev.11	17/05/2021
AU191 Rev.07	17/05/2021
591 (DN 32) Rev.00	10/11/2021
591 Rev.07	29/07/2020
AU 591 (DN 32) Rev.00	10/11/2021
AU591 Rev.10	28/07/2021
AU 591 (DN 300) Rev.01	11/06/2021
90/90B/90TB Rev. 07	12/05/2021
91/91TB Rev.05	18/05/2021
591ASA Rev.07	29/07/2020
AN89 Rev.03	12/05/2021
AN191 Rev.01	17/05/2021
AU89 Rev.10	12/05/2021
AU90 Rev. 05	12/05/2021
AU91 Rev.03	18/05/2021
AU591 ASA Rev. 02	28/07/2020
AU591.300 ASA Rev. 01	11/06/2021
AU593 Rev. 00	09/09/2020

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 - Hydrostatic test and seat leakage tested on the following specimen :

- AU591Ø150 : Valves with double obturator with screwed bonnet CUPRO DN150 dated 14/10/2010
- 591Ø125 : Valves with double obturator with screwed bonnet BZE DN 125 dated 18/01/2010
- AU191Ø50 : flanged Valves one way DN 50 dated 02/11/2010
- 191Ø40 : Valves PD S/O DN 40dated 15/10/2010
- 191TBØ25 : Valves PD S/O TB DN 25dated 15/10/2010
- 89Ø50 : Valves PD S/O DN 50 FAF 175 dated 14/10/2010
- Valve type 89 test report N° 2016 E 031 dated 29/01/2016
- Valve type 591 test report N° 2016 E 102 dated 14/03/2016

3.2 - Fire resistance test not performed.

4. APPLICATION / LIMITATION

4.1 - May be used for the following services on board: Fresh water, sea water, and steam.

4.2 - The gate 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 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.

5. PRODUCTION SURVEY REQUIREMENTS

5.1 - The products are to be supplied by **AUTEXIER** 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 - 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 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 shipside below the load waterline are to be tested by hydraulic pressure not less than 0,5 MPa.

5.6 - For information, **AUTEXIER** has declared to Bureau Veritas the following production site:

AUTEXIER

93 rue Louis Blanc, 02300 CHAUNY, FRANCE

6. MARKING OF PRODUCT

Each valve shall be marked with at least:

- Manufacturer's name or logo
- Type designation
- Date of manufacture
- Society's brand as relevant

7. OTHERS

It is **AUTEXIER'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 No. 23673/C0 BV issued by the Society.

*** END OF CERTIFICATE ***