



Certificate number: 61377/B0 BV

File number: .

Product code: 73361

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

SAMSON REGULATION S.A.S.

VAULX EN VELIN CEDEX - FRANCE

for the type of product

REGULATING VALVES FOR LIQUEFIED GAS PIPING SYSTEMS (NON-CLOSING)

REGULATING VALVES FOR LIQUEFIED GAS PIPING SYSTEMS (NON CLOSING) / Butterfly valves type 3331

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

IGC Code as amended by Resolutions MSC.476(102) and MSC.492(104)

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 is a renewal of certificate N° 61377/A0 BV expiring on 03/12/2025

This certificate will expire on: 03 Dec 2030

For Bureau Veritas Marine & Offshore,

At BV LYON, on 20 Nov 2025,

Michaël Vavro

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 electronic version is available at: <https://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=nofsulqtbh>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

REGULATING VALVES FOR LIQUEFIED GAS PIPING SYSTEMS / Butterfly valves type 3331

1.1 - Ratings

Model	Type 3331
Size range	DN100 to DN400 / NPS4 to NPS16
Design Standard	ASME B16.5
Class range	C1150
Design Pressure (bar)	19
Design Temperature (°C)	-196 / +220
End connections	Wafer

1.2 - Materials

Part	Material
Body	1.4401/1.4404 - S31600/S31603 (316/316L) or 1.4408 - A351CF8M
Insulating section	1.4408 - A351CF8M
Shaft	1.4401/1.4404 - S31600/S31603 (316/316L)
Butterfly Disc	1.4581 - ("A351CF8MC")

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

2. DOCUMENTS AND DRAWINGS

- Drawing N° 1019-0303 Rev.2 dated 15/05/2020
- Drawing N° 1059-0038 Rev.2 dated 30/11/2020
- Drawing N° 1129-0667 Rev.1 dated 23/04/2019
- Appendix to Data Sheet T 8227 EN Edition December 2018
- Data Sheet T 8227 EN Edition September 2018
- Mounting and Operating Instructions EB 8227 EN Edition July 2004

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 tests witnessed by a BV Surveyor including pressure test at ambient temperature and valve operation and leakage test at the minimum design temperature:

- Test report N° 2003670 including pressure test for the size NPS 16 - Class 150 dated 16/09/2020
- Test report N° 2003673 including pressure test for the size NPS 8 - Class 150 dated 16/09/2020
- Test report N° DDE 20E066-CR169 including cryogenic test for the size NPS 16 - Class 150 dated 29/09/2020
- Test report N° DDE 20E090-CR230 including cryogenic test for the size NPS 8 - Class 150 dated 12/11/2020

3.2 - Fire resistance test not performed.

4. APPLICATION / LIMITATION

4.1 - May be used for regulation of liquefied gas.

4.2 - The valves are not to be used as shut-off valves.

4.3 - The valves intended to be used for handling of Propylene Oxide or Ethylene Oxide/ Propylene Oxide mixtures shall be of a fire safe design.

4.4 - The valves may be installed on systems of class I pressure piping according to the relevant requirements stated in *NR 467, Pt D, Ch 9, Sec 5*.

4.5 - All valves intended for installation onboard Bureau Veritas classed vessels shall comply with the requirements of *NR 467 Pt D, Ch 9, Sec 5* and the *IGC Code*. Accordingly, test reports witnessed by Bureau Veritas surveyors, as specified in *NR 467 Pt D, Ch 9, Sec 5*, must be made available upon request.

4.6 - A Charpy V-notch impact test shall be carried at -196°C for castings made of austenitic steels when the service temperature is below -105°C, according to *NR 216, Ch 6, Sec 7*.

- Castings in steel grades 316 and 316L with any design temperature shall be impact tested according to *NR 467, Pt D, Ch 9, Sec 6*. A reduction of the tests may be granted for design temperatures above -60°C subject to the agreement of the Society.

4.7 - The materials for valves housing, disc and sealing should be of a suitable type at the temperature and pressure for use with cargoes intended to be carried.

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

4.9 - The valve is to be installed according to manufacturer's instructions and Society's Rule requirements.

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

5. PRODUCTION SURVEY REQUIREMENTS

5.1 - The products are to be supplied by **SAMSON REGULATION** 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 *NR 320*.

5.3 - Bureau Veritas product certificate is required.

5.4 - Bureau Veritas Certificates are required for materials of valve housings of Class I (DN≥50). Materials of valve housings of Class I (DN<50) and other pressure boundary parts of Class I are to be with work's certificates.

5.5 - Materials are to comply with the approved drawings and the applicable requirements in *NR 467, Pt D, Ch 9, Sec 5*. Charpy impact test is to be as per the Bureau Veritas Rules on materials, and where relevant, in accordance with requirements of *IGC Code*.

5.6 - Each valve is to be tested according to *NR 467, Pt D, Ch 9, Sec 5, 13.3*.

5.7 - For information, **SAMSON REGULATION** has declared to Bureau Veritas the following production site:

SAMSON REGULATION
1 RUE JEAN CORONA
BP 140
69512 VAULX EN VELIN CEDEX
FRANCE

6. MARKING OF PRODUCT

Each valve shall be permanently marked with at least:

- Manufacturer's name or logo
- Type designation
- Design Pressure and Test Pressure
- Bureau Veritas' Mark

7. OTHERS

It is **SAMSON REGULATION** 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° 61377/A0 BV issued by the Society.

*** END OF CERTIFICATE ***