



Marine &amp; Offshore

Certificate number: 61376/A0 BV

File number: .

Product code: 7336I

*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**  
VAULX EN VELIN CEDEX - FRANCE

*for the type of product*

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

Control valve type 3241

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships  
IGC Code as amended by IMO Res. MSC.370(93)

*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 Dec 2025**

**For Bureau Veritas Marine & Offshore,**

At BV LYON, on 09 Dec 2020,

Yann Krempelwicz



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

#### **REGULATING VALVES FOR LIQUEFIED GAS PIPING SYSTEMS / Control valve type 3241**

##### 1.1 Ratings

Model	Type 3241
Size range	DN15-DN150 / NPS1/2 – NPS 6
Design Standard*	ASME B16.34
Class range	CI150-CI300 PN10-PN16-PN25 PN40
Design Temperature (°C)	-196/220
End connections	Flange / Butt-weld

\* : As per the document N° V/HE-1211-1 DE-EN dated 20/02/2014

##### 1.2 Materials

Part	Material
Body	1.4408 - A351 CF8M
Bonnet / Cover	1.4404 - A182 F316L
Stem	1.4401/1.4404 - A479 316/A479 316L - A479 XM-19-H
Seat	1.4401 / 1.4404 / A479 316 / 316L / 1.4409 / A351 CF3M / R30006 / R30016 / A182 F316L
Plug	1.4401/1.4404 - A479 316/A479 316L or 1.4401/1.4404 - A182 316/A182 316L - 1.4409 / A351 CF3M / R30006 / R30016

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

##### 1.3 Maximum Operating Pressure in bar at ambient temperature (°C)

###### ANSI

MATERIAL	CLASS150	CLASS300
A216 WCC / A352 LCC / A182 F316	19,8	51,7
A351 CF8M / A351 CF8	19	49,6
A105	19,6	51,1

###### DIN

MATERIAL	PN10	PN16	PN25	PN40
1.0619 / 1.4408 / 1.6220 / 1.4308 / 1.0460 / 1.4571	10	16	25	40

### 2. DOCUMENTS AND DRAWINGS

- Drawing N°1010-5745-SWD, Rev.2.b dated 16/02/2017
- Drawing N°1129-0666, Rev.1 dated 14/05/2020
- V/HE-1211-1 DE-EN dated 20/02/2014
- Mounting and operating instructions Edition July 2016
- T 8000-2 EN Edition January 2012
- T 8000-4 EN Edition January 2017
- Datasheet T 8012 EN Edition April 2018

*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 & valve operation and leakage test at the minimum design temperature:

- Test report N° 2003656 including pressure test for the size NPS 4 - Class 150 dated 15/09/2020
- Test report N° 2003659 including pressure test for the size NPS 1 - Class 300 dated 15/09/2020
- Test report N° 2003662 including pressure test for the size NPS 2 - Class 150 dated 15/09/2020
- Test report N° 2003667 including pressure test for the size NPS 3 - Class 300 dated 15/09/2020

- Test report N° 2003676 including pressure test for the size NPS 3 - Class 150 dated 15/09/2020
- Test report N° 2003677 including pressure test for the size NPS 1 - Class 150 dated 15/09/2020
- Test report N° 2003679 including pressure test for the size NPS 2 - Class 300 dated 15/09/2020
- Test report N° DDE 20E066-CR166 including cryogenic test for the size NPS 2 - Class 150 dated 30/09/2020
- Test report N° DDE 20E066-CR172 including cryogenic test for the size NPS 1 - Class 150 dated 30/09/2020
- Test report N° DDE 20E090-CR225 including cryogenic test for the size NPS 4 - Class 150 dated 12/11/2020
- Test report N° DDE 20E090-CR229 including cryogenic test for the size NPS 3 - Class 150 dated 12/11/2020
- Test report N° DDE 20E090-CR233 including cryogenic test for the size NPS 2 - Class 300 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 valve belongs to class I pressure piping according to the relevant requirements stated in Part D, Ch 9, Sec 5 of BUREAU VERITAS Rules for Steel Ships.
- 4.5 The valve intended to be installed on BUREAU VERITAS classed ship have to comply with Pt D, Ch 9, Sec 5 & IGC Code and type tests reports witnessed by BUREAU VERITAS are to be available for each type and size of valve.
- 4.6 When required in Part D, Ch 9, Sec 6 of the Bureau Veritas Rules applicable to liquefied gas carriers, Charpy V-notch impact test shall be carried out for castings. Castings in steel grades 316 and 316L at any temperature will be impact tested at -196 °C. A reduction may be granted for design temperature above -60 °C after examination by 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.

#### **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 NR320.
- 5.3 BV product certificate is required.
- 5.4 BV 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 Part D of the BV Rules for Steel Ships. Charpy impact test is to be as per the Society's Rules on materials, and where relevant, in accordance with requirements of IGC Code.
- 5.6 Each valve is to be tested according BV Rules for Steel Ships Pt D, Ch 9, Sec 5 item 13.3.3.
- 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
- Maximum working Pressure and Test Pressure
- Society's brand as relevant

**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.

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