



Marine & Offshore

Certificate number: 44514/A1 BV

File number: ACM 145/2314/04

Product code: 2205I

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

WOUTER WITZEL EUROVALVE B.V.
LOSSER - NETHERLANDS

for the type of product

BUTTERFLY VALVES
ECONAXE W201 & L201

Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships
- BUREAU VERITAS Rules for the Classification of Offshore Units

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: 12 Nov 2023

For Bureau Veritas Marine & Offshore,
At BV GRONINGEN, on 11 Mar 2020,
John Mondt



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

ECONAXE W201 & L201

1.1 Technical informations

Type	W201	L201
Size	DN 50 to DN 600 (2" to 24")	DN 50 to DN 600 (2" to 24")
Pressure Ratings	PN6, PN10, PN16 & Class 150 & JIS 5K, 10K, 16K	PN6, PN10, PN16 & Class 150 & JIS 5K, 10K, 16K
Temperature Range	-40 / 300 °C	-40 / 300 °C
Connection Type	Flangeless wafer type with centring lugs	Lugged wafer type

The working temperature depends on the media and on the material of the body and seat.

1.2 Material specification

Body	Austenitic SS, EN10213 1.4408 / ASTM A351 CF8M Austenitic SS, EN10213 1.4409 / ASTM A351 CF3M Carbon Steel, EN10213 1.0619 / ASTM A216 WCB
Disc	Austenitic SS, EN10213 1.4408 / ASTM A351 CF8M Austenitic SS, EN10213 1.4409 / ASTM A351 CF3M
Shaft	Duplex SS EN 10088 1.4462 / ASTM UNS S31803 Martensitic SS EN 10088 1.4021 / ASTM A276 420
Seat	RTFE 15-12-3 RTFE 15-12-3 + Austenitic SS 1.4401 (Fire safe) NBR, EPDM, FPM Austenitic SS 1.4401 Inconel 625, NiCr22Mo9Nb (2.4856)

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

2. DOCUMENTS AND DRAWINGS

- Drawing N° D-DAAA017-E Rev. E dated 06/02/2020 for ECONAXE W201/L201 DN50 / DN600
- Product data sheet for ECONAXE W201 N° PDS03.11.001 dated 30/01/2020
- Product data sheet for ECONAXE L201 N° PDS03.12.001 dated 30/01/2020
- Test specifications N° K-010 dated 29/03/2016
- Dry Fire Test Procedure Rev. 04/2008

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 Fire safe test according to DIN EN ISO 10497:2010 witnessed by an IACS member surveyor.

- Test reports:

IBB-1476/LRHAM1573573/1, IBB-1478/LRHAM1573573/2, IBB-1480/LRHAM1573573/3, IBB-1482/LRHAM1573573/4, IBB-1484/LRHAM1573573/5, IBB-1486/LRHAM1573573/6, IBB-1488/LRHAM1573573/7, IBB-1490/LRHAM1573573/8.

- Inspection certificates:

HAM1573573/2A1, HAM1573573/7A1, HAM1573573/5A1, HAM1573573/1A1

3.2 Fire safe test according to DIN EN ISO 10497:2010 under dry condition witnessed by an IACS member surveyor.

- Test reports: IBB-1492/LRHAM1573573/9, IBB-1496/LRHAM1573573/11, IBB-1498/LRHAM1573573/12, IBB-1500/LRHAM1573573/13.

- Inspection certificates:

HAM1573573/9A1, HAM1573573/11A1, HAM1573573/13A1, HAM1573573/12A1

4. APPLICATION / LIMITATION

4.1 - May be used in cargo systems of oil tankers, FLS tankers, chemical tankers and liquefied gas tankers (Design temperature not below minus 40 °C). May be also used for bilge and ballast, washing and fire extinguishing, sea water and fresh water cooling, fuel oil and lubricating oil, hydraulic oil, compressed air, inert gas, steam, domestic and sanitary systems, non essential and ventilation systems.

4.2 - According to Part D, Ch 9, Sec 6 of the Bureau Veritas Rules applicable to liquefied gas tankers, Charpy V-notch impact test at -196 °C is required for casting in steel grades 316 and 316L at any temperature. A reduction may be granted for design temperature above -60 °C after examination by the Society.

4.3 - The valves belong to class I, class II or class III according to the relevant requirements stated in Part C, Ch 1, Sec 10 and Part D, Ch 8, Sec 5 and Part D, Ch 9, Sec 5 of the Bureau Veritas Rules. Valves fitted on the ship side and collision bulkhead, valves fitted on fuel oil and lub oil tanks under static pressure belong to Class II.

4.4 - The use of stainless steel is to be restricted as per the Bureau Veritas Rules.

4.5 - The butterfly valves body, disc and sealing should be of a suitable type for use with cargoes intended to be carried.

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

4.7 - Assembly instructions given by the manufacturer are to be complied with.

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

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

5. PRODUCTION SURVEY REQUIREMENTS

5.1 - The products are to be supplied by **Wouter Witzel EuroValve B.V.** in compliance with the type and the requirements described in this certificate. This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

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

5.3 BV Certificates are required for materials of valve housings of Class I (DN≥25 for cargo handling and containment on board oil/FLS and chemical tankers or DN≥50 for other applications) and Class II (DN≥100). Materials of valve housings of Class I (DN<25 for cargo handling and containment on board oil/FLS and chemical tankers or DN<50 for other applications) and Class II (DN<100) and for other parts of Class I and Class II are to be with Work's certificates.

5.3 - 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.

5.4 - BV product certificate is required for valves of class I and class II.

5.5 - For information, **Wouter Witzel EuroValve B.V.** has declared to Bureau Veritas the following production site:

Wouter Witzel EuroValve B.V.
Industrieterrein De Pol 12,
7581 CZ LOSSER,
NETHERLANDS

6. MARKING OF PRODUCT

The valve shall be permanently marked with at least:

- Manufacturer's name or logo
- Type designation
- Size
- Society's brand as relevant

7. OTHERS

It is **Wouter Witzel EuroValve B.V.** 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° 44514/A0 BV issued by the Society.

*** END OF CERTIFICATE ***