

Marine & Offshore

Certificate number: 10288/D0 BV File number: ACM 145/0712/001

Product code: 2224l

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

GEDIK DOKUM VE VANA SAN. VE TIC. A.S.

ISTANBUL - TURKEY

for the type of product

CHECK VALVES, NON-RETURN VALVES WITH POSITIVE MEANS OF CLOSURE

Controlled check valves TCVK-13F, TCVK 25F & TCVK 36F

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: 14 Dec 2023

For Bureau Veritas Marine & Offshore,

At BV ISTANBUL, on 14 Dec 2018, Gurcan Yilmaz





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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THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

Controlled check valves TCVK-13F, TCVK 25F & TCVK 36F

- Straight designed

1.1 Technical characteristics

| Codes | TCVK-13F | TCVK 25F | TCVK 36F |
|------------------------|-----------------|-----------------|-----------------|
| Size | DN 15 to DN 300 | DN 15 to DN 300 | DN 15 to DN 300 |
| Pressure rating | PN 16 | PN 25 | PN 40 |
| Temperature range (°C) | -20 / +300 | -20 / +350 | -20 / +400 |
| Ends | Flanged | Flanged | Flanged |

The maximum service pressure and the temperature are not to exceed those specified by the manufacturer.

1.2 Material specification

| Codes | TCVK-13F | C 6030 / TVGA 25F | S 6030 |
|---------|--------------------------------|--------------------------------|------------------------|
| Body | Cast iron GG 25 | Nodular cast iron GGG40.3 | Cast steel GS-C 25 |
| Disc | St 52 / Stainless steel 1.4016 | St 52 / Stainless steel 1.4016 | Stainless steel 1.4016 |
| Stem | Stainless steel 1.4021 | Stainless steel 1.4021 | Stainless steel 1.4021 |
| Seating | Stainless steel 1.4057 | Stainless steel 1.4057 | Stainless steel 1.4057 |

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

2. DOCUMENTS AND DRAWINGS

- Technical specifications sheets as provided on 13/07/2018
- Instruction manual N° GP00-7.2-F04 Rev.2 dated 20/12/2016

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

- Hydrostatic test report N° VTB-001/2017 dated 08/06/2017
- Hydrostatic test report N° VTB-002/2017 dated 08/06/2017
- Hydrostatic test report N° VTB-003/2017 dated 08/06/2017

4. APPLICATION / LIMITATION

- 4.1 May be used for the following services on board:
- Shipside valves, fuel oil, lubricating oil, thermal oil, ballast and bilge, sea water and fresh water, compressed air, steam, domestic and sanitary systems, non essential systems.
- 4.2 The valves belong to class I, class II or class III according to the relevant requirements stated in Pt C, Ch 1, Sec 10 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.
- 4.3 The conditions of use of cast iron are given in Pt C, Ch 1, Sec 10 Table 5 of the Bureau Veritas Rules.
- 4.4 The valve body, disc and seat should be suitable for the intended service.
- 4.5 Assembly instructions given by the manufacturer are to be complied with.

5. PRODUCTION SURVEY REQUIREMENTS

- 5.1 The products are to be supplied by **GEDIK DOKUM VE VANA SAN. VE TIC. A.S.** 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 Certificate is required for materials of valve housings of class I ($DN \ge 50$) or class II ($DN \ge 100$). 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.
- 5.5 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.

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For information, **GEDIK DOKUM VE VANA SAN. VE TIC. A.S.** has declared to Bureau Veritas the following production site:

GEDIK DOKUM VE VANA SAN. VE TIC. A.S.: YAYALAR CAD. NO:78 PENDIK 81520 ISTANBUL, TURKEY

6. MARKING OF PRODUCT

The valve is to be permanently marked with at least:

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

7. OTHERS

It is **GEDIK DOKUM VE VANA SAN. VE TIC. A.S.'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° 10288/C0 BV issued by the Society.

*** END OF CERTIFICATE ***