

# EC-TYPE EXAMINATION CERTIFICATE

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2014/93/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL AS under the authority of the Government of the Kingdom of Norway.

**This is to certify:****That the Marine evacuation systems**

with type designation(s)

**Viking Evacuation Dual Chute, VEDC 2.1, 2.2, 2.3, 2.4, 2.5 and 2.7**

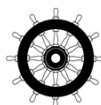
Issued to

**Viking Life-Saving Equipment A/S  
Esbjerg V, Denmark**

is found to comply with the requirements in the following Regulations/Standards:

**Annex A.1, item No. A.1/1.27 and Annex B, Module B in the Directive. SOLAS 74 as amended, Reg. III/4, III/15, III/26, III/34 & X/3, LSA Code and 2000 HSC Code 8.**

Further details of the equipment and conditions for certification are given overleaf.

**Høvik, 2015-11-12  
for DNV GL AS**This Certificate is valid until  
**2020-11-11**Notified Body No.: **0575**

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**Vidar Dolonen  
Head of Department**DNV GL local office:  
**Fredericia**

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**Tessa Biever  
Surveyor**

## Product description

The Viking Evacuation Dual Chute (VEDC) is a Marine Evacuation System with dual vertical chute where evacuation takes place directly into one of the two VIKING 150 DKS liferafts. Both rafts are escorted from the stowage position to the water with a sledge and are inflated beside each other along the shipside. The following variants are available:

| Variants | 2 pcs. VIKING 150 DKS liferafts |        | Max. Evacuation capacity<br>(Persons/30 min) | Installation height<br>(m) |
|----------|---------------------------------|--------|----------------------------------------------|----------------------------|
|          | A-pack                          | B-pack |                                              |                            |
| 2.1      | •                               |        | 736                                          | 8.9 - 16.8                 |
| 2.2      |                                 | •      | 908                                          | 8.9 - 16.8                 |
| 2.3      | •                               |        | 908                                          | 8.9 - 16.8                 |
| 2.4      | •                               |        | 908                                          | 8.9 - 16.8                 |
| 2.5      | •                               |        | 734                                          | 8.9 - 16.8                 |
| 2.7      | •                               |        | 908                                          | 8.9 - 16.8                 |

For further details and material specification see document "VEDC Type Variants" listed under the examination documentation.

The VEDC has been tested according to IMO Res. MSC 81(70) item 12.6.1 and 12.6.2 with VIKING 150 DKS associated drop-down liferafts. DNV GL accepts the other associated drop-down liferafts for VEDC provided that the line attachment arrangement is the same as arranged for Viking Evacuation Chute (VEC). The other approved associated drop-down liferafts are : VIKING 150 DKS, 100 DKS, 50 DKS and 25 DKS.

## Application/Limitation

- Installation height: 8.9 – 16.8 meter. Flexibility according to Viking *Evaluation on Installation heights*. Installation is subject to acceptance by the Flag Administration.
- Max evacuation capacity:
  - VEDC 2.1: 736 persons in 30 min.
  - VEDC 2.2: 908 persons in 30 min.
  - VEDC 2.3: 908 persons in 30 min.
  - VEDC 2.4: 908 persons in 30 min.
  - VEDC 2.5: 734 persons in 30 min.
  - VEDC 2.7: 908 persons in 30 min.
- Associated liferafts shall have separate MED Approval and be wheel marked.
- Accepted with two VIKING 150 DKS as main drop-down rafts. Capacity can be increased by additional drop-down liferafts (see above).
- Gas cylinders and components in the pressure gas systems shall be of an approved type.
- Components in the gas inflation system should be approved according to ISO 15738:2002.
- The arrangement of the MES onboard any vessel, including the passageway and embarkation areas, are subject to approval by the Flag administration to ensure that the flow rate as stated above can be maintained throughout the total evacuation of the number of persons for which the MES is certified for.
- It shall be verified that the ship on which the MES is installed is equipped with a sufficient number of rescue boats to satisfactory marshal and support the bowing and tow away, as applicable, of all the

associated life rafts within the times allowed for embarkation as per SOLAS Ch.III/Reg.21.1.3 and 31.1.5.

- Installation tests to be carried out in accordance with IMO Res. MSC.81(70), part 2, item 7.
- The chute materials are subject to annual service according to manufacturer's procedures in order to verify elastic and strength properties.

The following is to be submitted to the flag administration in each case, either by the yard, owner or equipment manufacturer:

- Plan showing the MES system fully deployed on the specific vessel in side-view and cross-sectional view under required unfavourable conditions of trim and list as the type approval does not cover the requirements to installation covered by LSA Code Ch. 6.2.2.1.4 and SOLAS Ch. III. Details shall be shown.

**Evacuation time VEDC.2.1**

*(181 seconds includes launching, inflation preparation of system and cut free of liferaft)*

specified evacuation time - 181 seconds

4,4 seconds/person

$(1800-181)/4,4 = 368$  persons

Double chute:  $2 \times 368 = 736$  persons

**Evacuation time VEDC. 2.2 / 2.3 / 2.4 / 2.7**

*(208 seconds includes launching, inflation preparation of system and cut free of liferaft)*

specified evacuation time - 208 seconds

3,5 seconds/person

$(1800-208)/3,5 = 454$  persons

Double chute:  $2 \times 454 = 908$  persons

**Evacuation time VEDC.2.5**

*(185 seconds includes launching, inflation preparation of system and cut free of liferaft)*

specified evacuation time - 185 seconds

4,4 seconds/person

$(1800-185)/4,4 = 367$  persons

Double chute:  $2 \times 367 = 734$  persons

## Type examination documentation

This certificate replaces MED-B-8330.

## Tests carried out

Test documentation in accordance with recommendation on testing of Lifesaving Appliances, IMO Res. MSC 81(70), part 1.

## Marking

### Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity



Job Id: **344.1-002796-5**  
Certificate No: **MEDB0000097**

### **USCG Approval**

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005.