DNV·GL

EUROPEAN UNION RECOGNISED ORGANISATION (EU RO) MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE

Certificate No:
MRE000000S

In accordance with Article 10.1 of EU Regulation 391/2009

This Certificate is issued to
Øglænd System AS
KLEPPE, Norway

for
Cable Trays and Ducts (Metallic)

with type designation(s)
Mekano

The product is found to comply with
EU RO Mutual Recognition Technical Requirements for Cable Trays and Ducts (Metallic)

Intended service
Cable trays and ducts intended to be used in ship's cabling systems necessary for the applications mentioned in 1.b in the TA program.

This is to certify:

that the Product referred to herein has been inspected for the Manufacturer, pursuant to the relevant requirements of the European Union Recognised Organisation Mutual Recognition procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements.

This Certificate is valid until **2024-10-17**.

Issued at **Høvik** on **2019-11-19**

DNV GL local station: **Stavanger** for **DNV GL**

Approval Engineer: **Ivar Bull**

Trond Sjåvåg
Head of Section

When a product is presented with this EU RO MR Type Approval Certificate for given application, its acceptability with regards to the limitations stated in the certificate conditions defined in 1b, 1c and 1d of the applied Technical Requirement will be evaluated by the EU RO in charge of classing the ship or being in charge of the unit/system certification.
This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Support system Mekano

TYPE:	Mekano 100-1
Standard surface:	Hot dip galvanized, Stainless steel SS316 L
Thickness:	Stainless Steel: 1.5 mm. Hot Dip Galvanized Steel: 2 mm.
Support set up:	Horizontal U-support, refer to IEC 61537 Figure 7e

TYPE:	Mekano CH50-2 & 100-1
Standard surface:	Aluminium
Thickness:	1.5 mm.
Support set up:	U-support, CH50-2 vertical, CH100-1 Horiz. refer to IEC 61537 Figure 7e

TYPE:	Mekano 50-2T1,5. Triangle support channel with rectangular slottings
Standard surface:	Hot dip galvanized, Stainless steel SS316 L
Thickness:	1.5 mm.
Support set up:	U-support, refer to IEC 61537 Figure 7e

TYPE:	Mekano 50-2T1,5 10/6 Triangle support channel with rectangular slottings
Standard surface:	Stainless steel SS316 L
Thickness:	1.5 mm.
Support set up:	U-support, refer to IEC 61537 Figure 7e

TYPE:	Mekano 50-2T2. Triangle support channel with rectangular slottings
Standard surface:	Hot dip galvanized, Stainless steel SS316 L
Thickness:	2.0 mm.
Support set up:	U-support, refer to IEC 61537 Figure 7e

TYPE:	Mekano 100-2T2. Triangle support changel with rectangular slottings
Standard surface:	Hot dip galvanized, Stainless steel SS316 L
Thickness:	2 mm.
Support set up:	U, T, L and Cantilever support, refer to IEC 61537 Figure 7e, 7d, 7c and 6b.

TYPE:	Mekano 100-2T3. 11x35 Triangle support channel with rectangular slottings
Standard surface:	Hot dip galvanized, Stainless steel SS316 L
Thickness:	3.0 mm.
Support set up:	U, T, L and Cantilever support, refer to IEC 61537 Figure 7e, 7d, 7c and 6b.

TYPE:	Mekano 50-2T2,5. Triangle support channel with square slottings
Standard surface:	Hot dip galvanized, Stainless steel SS316 L
Thickness:	2.5 mm.
Support set up:	U-support, refer to IEC 61537 Figure 7e

TYPE:	Mekano 100-2T3. Triangle support channel with square slottings
Standard surface:	Hot dip galvanized, Stainless steel SS316 L
Thickness:	3.0 mm.
Support set up:	U, T, L and Cantilever support, refer to IEC 61537 Figure 7e, 7d, 7c and 6b.

TYPE:	Mekano 125-2T5. Triangle support channel with square slottings
Standard surface:	Hot dip galvanized, Stainless steel SS316 L
Thickness:	5.0 mm.

Support set up:	U, T, L and Cantilever support, refer to IEC 61537 Figure 7e, 7d, 7c and 6b.

Manufactured by

Øglænd System AS
KLEPPE, Norway

Oglaend Industries (Suzhou) Co., Ltd.
Suzhou, China

Oglaend Industries SDN. BHD
Shah Alam, Malaysia

Application/Limitation

The installation is to be mechanically protected in accordance with DNV Rules and especially on weather decks in cargo hold areas and through cargo holds.

Cable ladders and supports must not to be used as a walkway.

Fire resistant cables shall be installed on cable trays/ladders made of steel.

Special application limitations for aluminum cable trays:
Cable trays made of aluminum shall be installed with steel supports when installed on steel structure. Spacing between supports shall generally not exceed 2m and support the complete width of the cable tray/ladder. Supports shall have fixing points for steel cable ties enclosing complete ladder/tray and cables. In event of a fire the cable trays and the cable affixed shall be prevented from falling and causing an injury to personnel and/or an obstruction to any escape route.

*) The material selection of Cable Ladders and supporting system/methods must be taken into consideration together with the structure material with regards to galvanic separation.
Cables ties in coated stainless steel are suitable with aluminum cable trays/ladder

Type Approval documentation

Marking of product

Øglænd System – Type designation – Width – Material (cover marking).

Other Conditions

Test for SWL of support devices according to IEC 61537.
Applicable tests according to EU RO Mutual Recognition Technical Requirements for CABLE TRAYS & DUCTS (METALLIC) Version 0.2 dated 1 April 2016.
For information on collaborating parties in EU RO Mutual recognition, please see www.euromr.org

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that design and materials used comply with type approved documents
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed annually and at renewal of this certificate.

END OF CERTIFICATE