



Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product. This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 23/AUG/2021. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until 12/JUL/2020 subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Product Name: Cable Trays, Wire Mesh
Model Name(s): Mesh Cable Tray System

Presented to:

OBO BETTERMANN GMBH & CO. KG
HUEINGSER RING 52
Germany

Intended Service:

Marine & Offshore Application - Cable Support System (Cabling Telephone, Cabling and Control Cables).

Description:

Wire Mesh Cable Tray-System with shaped connector finished with electrogalvanized, hot-dip galvanized or stainless steel, with accessories.

Tier:

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Ratings:

Side Rail Height: 35mm Width: 50mm, 100mm, 150mm, 200mm, 300mm Grid Width: 50x100mm Length: 3000mm Side Rail Height: 55mm Width: 100mm, 150mm, 200mm, 300mm, 400mm, 500mm, 600mm Grid Width: 50x100mm; exception GRM 55/50= 20x100mm. Length: 3000mm Side Rail Height: 105mm Width: 100mm, 100mm, 150mm, 200mm, 300mm, 400mm, 500mm, 600mm. Grid Width: 50x100mm. Length: 3000mm Temperature Range: -45°C (-49°F) to 150°C (302°F) All exposed fabricated edges are tapered at 20° For details of multi-part numbers, please see the attached "PDF LISTING".

Service Restrictions:

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

i) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. ii) Cable Trays load capacity must be according to the Manufacturer instructions. iii) Marking Manufacturer's name or trademark must be

indicated on the cable tray and fittings iv) Spacing for Cable Support are to be in accordance with Steel Vessel Rules 4-8-4/21.9.2. v) Load Rating includes a Safety Factor of 1.7.

Notes / Documentation:

Drawing No. 6000062 Rev. - 1" x 4" (35x100mm) GR Magic Cable Tray. Drawing No. 6000063 Rev. - 1" x 6" (35x150mm) GR Magic Cable Tray. Drawing No. 6000064 Rev. - 1" x 8" (35x200mm) GR Magic Cable Tray. Drawing No. 6000066 Rev. - 1" x 12" (35x300mm) GR Magic Cable Tray. Drawing No. 6001441 Rev. - 2" x 2" GR Magic Cable Tray. Drawing No. 6001442 Rev. - 2" x 4" GR Magic Cable Tray. Drawing No. 6001444 Rev. - 2" x 6" GR Magic Cable Tray. Drawing No. 6001447 Rev.- 2" x 8" GR Magic Cable Tray. Drawing No. 6001448 Rev. - 2" x 12" GR Magic Cable Tray. Drawing No. 6001450 Rev. - 2" x 16" GR Magic Cable Tray. Drawing No. 6001451 Rev. - 2" x 18" GR Magic Cable Tray. Drawing No. 6001452 Rev.- 2" x 20" GR Magic Cable Tray. Drawing No. 6001454 Rev. - 2" x 24" GR Magic Cable Tray. Drawing No. 6002402 Rev. - 4" x 4" GR Magic Cable Tray. Drawing No. 6002404 Rev. - 4" x 6" GR Magic Cable Tray. Drawing No. 6002406 Rev. - 4" x 8" GR Magic Cable Tray. Drawing No. 6002408 Rev. - 4" x 12" GR Magic Cable Tray. Drawing No. 6002410 Rev. - 4" x 16" GR Magic Cable Tray. Drawing No. 6002413 Rev. - 4" x 18" GR Magic Cable Tray. Drawing No. 6002415 Rev. - 4" x 20" GR Magic Cable Tray. Drawing No. 6002417 Rev. - 4" x 24" GR Magic Cable Tray. Drawing No. 6003681 Rev. - 6" x 12" Wire Mesh Cable Tray. Drawing No. 6003684 Rev. - 6" x 18" Wire Mesh Cable Tray. Drawing No. 6003685 Rev. - 6" x 20" Wire Mesh Cable Tray. Drawing No. 6003687 Rev. - 6" x 24" Wire Mesh Cable Tray. Dekra Certificate ISO 90001:2008 No. 370314153-1. VDE Certificate No. 40038778 Cable Carrier Systems for Electrical Installation Mesh Cable Tray Systems - Brochures BET Testcenter Test Report No. 04-250-GRM55-SWL-2013-07-22-e - Test of Safe Working Load (SWL)

Term of Validity:

This Product Design Assessment (PDA) Certificate 15-VC1373554-PDA, dated 13/Jul/2015 remains valid until 12/Jul/2020 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

ABS Rules:

The Rules for Conditions of Classification, Part 1 2015 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: Steel Vessel 4-8-4/21.9.1; The Rules for Conditions of Classification, Part 1 – 2015 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following: Mobile Offshore Drilling Units 4-3-3/5.9.1;

National Standards:**International Standards:**

IEC 61537:2006 Cable Management - Cable Tray Systems and Cable Ladder Systems.

Government Authority:**EUMED:****Others:**

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	15-VC1373554-PDA	15/JUL/2015	12/JUL/2020



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey

procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.