

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB000096U

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

that the Penetrations through "A" class divisions: electric cable transits

with type designation(s)
SG-C/A60

issued to

Shanghai Siaco New Materials Technology Co., Ltd.
Shanghai, China

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

Regulation (EU) 2024/1975,

item No. MED/3.26a. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/1488

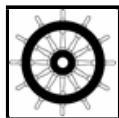
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2029-09-29**.

Issued at **Hamburg** on **2024-09-30**

DNV local unit:
Shanghai

Approval Engineer:
Marcin Tobiasz



Notified Body
No.: **0098**

for **DNV SE**

Mydlak-Röder, Christine
Head of Notified Body

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 European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004, and amended by Decision No 1/2023 dated May 26th, 2023.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

“SG-C/A60”

is an oval cable penetration composed of a steel sleeve welded to a steel division. The steel sleeve is packed with SG-C lightweight fireproof clay (manufactured by Shanghai Siaco New Materials Technology).

The minimum distance between cable and sleeve shall be 5 mm and minimum distance between cables shall be 4 mm.

Application/Limitation

Approved for use as multi cable penetration system in A-60 steel bulkheads and decks for approved ship cables. Other applications are subject to case-by-case approval

Class A-0, A-15 and A-30 shall be insulated as for A-60 and the division is to be fitted with A-60 insulation for a minimum distance of 200 mm around the penetration.

Table 1: Approved cable penetration in A-60 steel bulkhead.

Type	Size [mm]	Max. cable diameter [mm]	Filling ratio [%]	Sleeve thickness [mm]	Sleeve length [mm]	Sleeve position	Sleeve insulation
SG-C/A60	60x40 – 700x350	82	0 – 36	3-5	80	Symmetric	Partially insulated
SG-C/A60	60x40 – 700x350	82	0 – 36	3-5	160	Symmetric	Partially insulated

Table 2: Approved cable penetration in A-60 steel deck.

Type	Size [mm]	Max. cable diameter [mm]	Filling ratio [%]	Sleeve thickness [mm]	Sleeve length [mm]	Sleeve position	Sleeve insulation
SG-C/A60	60x40 – 700x350	82	0 – 36	3-5	80	Symmetric	Partially insulated
SG-C/A60	60x40 – 700x350	82	0 – 36	3-5	160	Symmetric	Partially insulated

The insulation materials used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

Each product is to be supplied with its manual for installation, use and maintenance.

Type Examination documentation

Test report No. FT20258 dated 14 August 2020 from FEFTC, Shanghai, China.

Test report No. FT20259 dated 14 August 2020 from FEFTC, Shanghai, China.

Drawing No. SG-C/A60-C01 dated 9 September 2020 from maker.

Drawing No. SG-C/A60-C02 dated 9 September 2020 from maker.

Drawing No. SG-C/A60-C03 dated 9 September 2020 from maker.

Drawing No. SG-C/A60-C04 dated 9 September 2020 from maker.

Drawing No. SG-C/A60-C05 dated 9 September 2020 from maker.

Drawing No. SG-C/A60-C06 dated 9 September 2020 from maker.

Drawing No. SG-C/A60-J01 dated 9 September 2020 from maker.

Drawing No. SG-C/A60-J02 dated 9 September 2020 from maker.

Drawing No. SG-C/A60-J03 dated 9 September 2020 from maker.

Drawing No. SG-C/A60-J04 dated 9 September 2020 from maker.

Drawing No. SG-C/A60-J05 dated 9 September 2020 from maker.

Drawing No. SG-C/A60-J06 dated 9 September 2020 from maker.

Tests carried out

Fire tested according to IMO 2010 FTP Code part 3.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire-technical rating, the MED Mark of Conformity and USCG approval number (see first page).

**Additional application/information for watertightness/gastightness
(Not part of the Marine Equipment Directive requirement)**

Product description

“SG-C/A60”

is an oval cable penetration composed of a steel sleeve welded to a steel division. The steel sleeve is packed with SG-C lightweight fireproof clay (manufactured by Shanghai Siaco New Materials Technology).

Application/Limitation

Approved for water tightness up to a design pressure of 1.0 bar (test pressure 1.5 bar).

Approved for air tightness up to a design pressure of 0.67 bar (test pressure 1.0 bar).

Penetration systems are generally not to be used for penetrating boundaries of tanks.

Type Approval documentation

Gas tightness and water tightness test(s) witnessed by DNV:

Test report No. TR-20200911001 dated 11 September 2020 from maker.

Test report No. TR-20200911002 dated 11 September 2020 from maker.

Test report No. TR-20200911003 dated 11 September 2020 from maker.

Test report No. TR-20200911004 dated 11 September 2020 from maker.

Test report No. TR-20200911005 dated 11 September 2020 from maker.

Test report No. TR-20200911006 dated 11 September 2020 from maker.

Test report No. TR-20200911007 dated 11 September 2020 from maker.

Test report No. TR-20200911008 dated 11 September 2020 from maker.

Tests carried out

Pressure tests with water and helium according to Class Programme DNV-CP-0165.