



Marine & Offshore

Certificate number: 71812/A0 BV

File number: ACI4000/009/008

Product code: 5300H

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

MCT Brattberg AB
KARLSKRONA - SWEDEN

for the type of product

PIPE, CABLE, DUCT PENETRATIONS IN FIRE DIVISIONS

A-0/A-60 Class Steel/Aluminium Deck/Bulkhead Single/Multi Cable/Pipe Penetrations Transits Seal, type "RGP"

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships Part C Chapter 4

SOLAS 74, as amended, Regulations II-2/9

IMO Res. MSC.307(88) -(2010 FTP Code)-, as amended

IMO MSC.1/Circ. 1488

IMO MSC.1/Circ. 1276

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: 20 Mar 2030

For Bureau Veritas Marine & Offshore,

At BV GOTHENBURG, on 20 Mar 2025,

Hans-Erik ERICSSON

This certificate was created electronically and is valid without signature



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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BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

A-0/A-60 Class Steel/Aluminium Deck/Bulkhead Single/Multi Cable/Pipe Penetrations Transits Seal, type "RGP"

MCT Brattberg RGP cable/pipe penetrations installed in mild, stainless steel or aluminium sleeve types S, SFR, SFRB and SFRBO, filled with MCT Brattberg 60 mm thick Lycron self-lubricating transit blocks of type standard, add block, U block and Handiblock. (including EMC and Ex versions).

1.1 - Steel bulkhead:

Sleeve/frame						Cables/pipes		Filling ratio (%)
Type	Length (mm)	Thickness (mm)	Mounting	Fixation	Insulation	Details	Max. diameter (mm)	
RGP 50 BTB	70	6	protuding on unexposed side	welded	partially insulated(1) on unexposed side <u>note</u> : bulkhead insulated on unexposed side	1 cable	8	12.6
RGP 100 BTB	70	6				4 cables	13	7.2
RGP 200 BTB	82	6				8 cables	40	21.8
RGP 100	70	6	general application	welded	fully insulated(2) on unexposed side <u>note</u> : bulkhead insulated on unexposed side	1 cable	40	34.9
RGP 125	70	6				16 cables	13	17.5
RGP 150	82	6				5 cables	50	32.6
RGP 200	70	6.25				36 cables	13	18.5
RGP 50S	70	6	general application	welded	partially insulated(3) on exposed side <u>note</u> : bulkhead insulated on exposed side			0.0
RGP 50S	70	6						0.0
RGP 50	70	6						0.0
RGP 50	70	6						0.0
RGP 100	70	6						0.0
RGP 150	82	6				/	/	0.0
RGP 150	82	6				5 cables	23	45.2
RGP 200	82	6.25				9 cables + 1 pipe	C: 36 - P: 6	23.9
RGP 50S	70	6	general application	welded	fully insulated(3) on exposed side <u>note</u> : bulkhead insulated on exposed side	1 cable	4	1.4
RGP 50S	70	6				1 cable	23	46.2
RGP 50	70	6				1 cable	4	1.4
RGP 50	70	6				1 cable	13	14.7
RGP 100	70	6				4 cables	23	18.2
RGP 200	82	6.25				10 cables	40	24.3
RGP 300	85	7				15 cables + 2 pipes	C: 50 - P: 30	24.1
RGP 150	82	6	general application	welded	fully insulated(2) + add. 100 mm wide collar 50 mm thick on unexposed side <u>note</u> : bulkhead insulated on unexposed side	15 cables	22	25.0
RGP 300	85	7	general application	welded	fully insulated(3) + add. 100 mm wide collar 50 mm thick on exposed side <u>note</u> : bulkhead insulated on exposed side	1 cable	110	29.3

(1) for test: 63 mm thick "FyreWrap Marine Blanket" with nominal density 130 kg/m³ (see §4.2 for alternative).

(2) for test: 63 mm thick "FyreWrap Marine Blanket" with nominal density 100 kg/m³ (see §4.2 for alternative).

(3) for test: 75 mm thick "FyreWrap LT Blanket" with nominal density 67 kg/m³ (see §4.2 for alternative).

1.2 - Steel deck: (insulated⁽¹⁾ on exposed side)

Sleeve/frame						Cables/pipes		Filling ratio (%)
Type	Length (mm)	Thickness (mm)	Mounting	Fixation	Insulation	Details	Max. diameter (mm)	
RGP 50	35~70	6	general application	welded	fully insulated(1) on exposed side	1 cable	4~14	3.1~38.5
RGP 200	82	6.25				10 cables + 1 pipe	C:36 - P:30	32.2
RGP 300	82	7				10 cables + 1 pipe	C:60 - P:6	22.1
RGP 50	70	6	general application	welded	partially insulated(1) on exposed side	1 cable	16	50.3
RGP 100	70	6				/	/	0.0

(1) for test: 40 mm thick Rockwool "Marine Firebatt 2000" with nominal density 100 kg/m³ (see §4.2 for alternative).

1.3 - Aluminium bulkhead: (insulated⁽¹⁾ on both sides)

Sleeve/frame						Cables/pipes		Filling
Type	Length (mm)	Thickness (mm)	Mounting	Fixation	Insulation	Details	Max. diameter (mm)	ratio (%)
RGP 50	60	10	general application	welded	fully insulated(1) on exposed side and partially insulated(1) on unexposed side	1 pipe	4~14	1.4~17.1
RGP 100	60	10				1 pipe	30	19.2
	60	10				3 cables + 2 pipes	C:14 - P:30	27.7
RGP 200	60	10				3 cables + 5 pipes	C:32 - P:30	14.8

(1) for test: 60 mm thick Rockwool "SeaRox SL620" with nominal density 100 kg/m³ (see §4.2 for alternative).

1.4 - Aluminium deck: (insulated⁽¹⁾ on exposed side)

Sleeve/frame						Cables/pipes		Filling ratio (%)
Type	Length (mm)	Thickness (mm)	Mounting	Fixation	Insulation	Details	Max. diameter (mm)	
RGP 50	60	10	general application	welded	fully insulated ⁽¹⁾ + add. 100 mm wide collar ⁽¹⁾ 40 mm thick on exposed side	1 pipe	4~14	1.4~17.1
RGP 70	60	10	symmetrically	welded	fully insulated ⁽¹⁾ on exposed side	1 pipe	35	58.7
RGP 100	60	10			fully insulated ⁽¹⁾ on exposed side	3 cables + 2 pipes	C:14 - P:35	34.6
RGP 200	60	10			fully insulated ⁽¹⁾ on exposed side	3 cables + 5 pipes	C:32 - P:35	16.4

(1) for test: 60 mm thick Rockwool "SeaRox SL620" with nominal density 100 kg/m³ (see §4.2 for alternative).

Note:

- BTB kit : 6 mm thick mild steel
- (module) Lycron : 60 mm deep EPDM rubber based (or 30 mm deep for 35mm long sleeve)
- HB30 Handiblock : additional rubber tube(s) fitted inside Lycron module
- SFR B RGP : sealant HT30 applied between frame and division

2. DOCUMENTS AND DRAWINGS:

As per the Manufacturer's drawings N° 1220164, N° 1220165, N° 1220167 and N° 1220172 all Rev.A dated 03/05/2022.

3. TEST REPORTS:

Test reports as per IMO 2010 FTP Code Annex 1 Part 3, from BRE Global Ltd., UK:

- Steel bulkhead: N° P101462-1010 Issue 1 dated 27/11/2019
N° P101462-1014 Issue 1 dated 22/11/2019
N° P101462-1015 Issue 1 dated 27/11/2019.
- Steel deck: N° 301124C Issue 1 dated 02/03/2016
- Aluminium bulkhead: N° P101462-1002 Issue 1 dated 15/08/2018
- Aluminium deck: N° P101462-1001 Issue 1 dated 14/08/2018

4. APPLICATION / LIMITATION:

4.1 - Approved for use:

- in A-15, A-30, A-60 class steel/aluminium divisions, with fire insulation as described in §1.
- in A-0 class steel/aluminium divisions, with local fire insulation arrangement (on the penetration itself as described in §1 and 200 mm around).

4.2 - The tests have been carried out with fire insulating materials "**FyreWrap Marine Blanket**" (nominal density 100 or 130 kg/m³), or "**FyreWrap LT Blanket**" (nominal density 67 kg/m³) or "**Marine Firebatt 2000**" (nominal density 100 kg/m³), or "**SeaRox SL620**" (nominal density 100 kg/m³); any alternative insulation material is subject to case by case approval providing that it has been approved as giving at least an equivalent insulation performance.

4.3 - Filling ratio not to exceed the one tested (see § 1).

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The **A-0/A-60 Class Steel/Aluminium Deck/Bulkhead Single/Multi Cable/Pipe Penetrations Transits Seal, type "RGP"** are to be supplied by **MCT Brattberg AB** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **MCT Brattberg AB** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **MCT Brattberg AB** has declared to Bureau Veritas the following production site:

MCT Brattberg AB
37192 Karlskrona
SWEDEN

6. MARKING OF PRODUCT:

The product or packing is to be marked with Manufacturer name, type, designation and fire-technical rating.

7. OTHERS:

7.1 - It is **MCT Brattberg AB**'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.

7.2 - Tested for watertight and gastight properties as per in-house test reports N° 170563-2 and N° 170563-4 both dated 10/11/2017 (tests witnessed by third-party):

- RGP-300: watertightness: 3 bar during 60 min + gastightness: 2 bar during 30 min
- RGP-50 and RGP-200: watertightness: 5 bar during 60 min + gastightness: 3 bar during 30 min

*** END OF CERTIFICATE ***