

# Certificate Of Fire Approval

This is to certify that the product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

<b>Manufacturer</b>	<b>MCT Brattberg AB</b>
<b>Address</b>	SE-37192, Karlskrona, Sweden
<b>Type</b>	Cable Penetration (Standard Fire Test)
<b>Description</b>	MCT Brattberg Single/Multi Cable Circular Penetration seals Types: "RGP" and "RGPO" installed in MCT Brattberg Mild, Stainless Steel or Aluminium Circular frames Types: "S, SFR, SFRB and SFRBO"
<b>Trade Name</b>	RGP, RGPO, S, SFR, SFRB and SFRBO
<b>Specified Standard</b>	IMO Res. MSC.307 (88)-(2010 FTP Code) Annex 1 Part 3 IMO MSC/Circ.1120 IMO MSC.1/Circ.1488

This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register North America, Inc. of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document and its supplementary Type Approval Terms and Conditions form part of this Certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.

1330 Enclave Parkway, Houston, Texas, 77077,  
United States

**Bruce McDonald**

Fire & Safety Lead Specialist to Lloyd's  
Register North America, Inc.  
A member of the Lloyd's Register group

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**DESIGN APPRAISAL DOCUMENT**

**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR21222544SF**

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions, and this Design Appraisal Document forms part of the Certificate.

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**TEST REPORTS**

Building Research Establishment test reports 301124C dated 2<sup>nd</sup> March 2016, P101462-1001 dated 14<sup>th</sup> September 2018, P101462-1002 dated 15<sup>th</sup> August 2018, P101462-1010 dated 27<sup>th</sup> November 2019, P101462-1014 dated 22<sup>nd</sup> November 2018 and P101462-1015 dated 27<sup>th</sup> November 2018.

**PRESSURE TEST REPORTS**

DNV witness reports N141GRC3 dated 22 November 2017 and N141GRU3 dated 28<sup>th</sup> February 2018.

**APPROVAL DOCUMENTATION**

MCT Brattberg drawings reference 1190517 rev A, 1190520 rev A, 1190521 rev A, 1190522 rev A, 1190523 rev A, 1190524 rev A, 1190525 rev A, 1190526 rev A, 1190527 rev A,

**CONDITIONS OF CERTIFICATION**

1. When used in conjunction with A-60 Class steel or A-60 Class aluminium bulkheads and decks with approved insulation arrangements, refer to MCT Brattberg installation drawings
2. For applications in A-0, A-15, A-30 Class steel bulkheads and decks, a 200mm diameter ring of A-60 insulation is to be provided around one side of the bulkhead penetration or underside of deck penetrations. The insulation shall be as per the A-60 tested specimens.
3. "RGP" and "RGPO" cable penetrations consisting of: MCT Brattberg mild, stainless Steel or Aluminium Frames filled with MCT Brattberg 60mm thick Lycron self lubricating transit blocks of type standard, add block, U block and Handi block.
4. Tables 1-4 below detail penetration types and sizes

Aluminium Bulkheads A-60					
Frame Type	Sleeve Type	Penetration size	Cable/Pipe	Collar Position	Drawing Reference
S, SFR, SFRB SFRBO	RGP/RGPO	RGP50-200	Cable/Pipe	Centre Line, exposed or unexposed	1190522

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Table 1 Aluminium A-60 Bulkheads

Aluminium Decks A-60					
Frame Type	Sleeve Type	Penetration size	Cable/Pipe	Collar Position	Drawing Reference
S, SFR, SFRB SFRBO	RGP/RGPO	RGP50-200	Cable/Pipe	Centre Line, exposed or unexposed	1190520

Table 2 Aluminium A-60 Deck.

Steel Bulkheads A-60					
Frame Type	Sleeve Type	Penetration size	Cable/Pipe	Collar Position	Drawing Reference
S, SFR, SFRB SFRBO	RGP S	RGP 50	Cable/Pipe	Centre-line	
S, SFR, SFRB SFRBO	RGP/RGPO	RGP 50-200	Cable/Pipe	Centre Line, exposed or unexposed	1190523, 1190524, 1190527
S, SFR, SFRB SFRBO	RGP/RGPO	RGP300	Cable/Pipe	Centre Line, exposed or unexposed	1190525, 1190526
S, SFR, SFRB SFRBO	RGP BTB LIGHT	RGP 50-200	Cable/Pipe	Centre Line, exposed or unexposed	1190517

Table 3 Steel A-60 Bulkheads

Steel Decks A-60					
Frame Type	Sleeve Type	Penetration size	Cable/Pipe	Collar Position	Drawing Reference
S, SFR, SFRB SFRBO	RGP/RGPO	RGP50-300	Cable/Pipe	Centre Line, exposed or unexposed	1190521

Table 4 Steel A-60 Decks

5. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure that items are of the same standard as the approved prototype
6. The certificate holder is solely responsible for the products supplied under this Certificate and to ensure that their products, whether manufactured by themselves or their licensee manufacturers, if agreed by Lloyd's Register, are fully compliant with the relevant statutory regulations and Lloyd's Register Class rules as applicable and designed, manufactured and installed to the same quality and specifications as the prototype tested, including components that are designed and manufactured by third parties.

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**Notes**

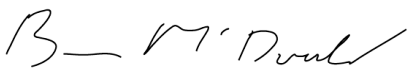
- The following penetrations underwent a hydrostatic and pneumatic pressure test.

Penetration Type	Hydrostatic Pressure	Pneumatic Pressure
RGP/RGPO 50-200 All Block Types	5 bar	3 bar
RGP/RGPO 300 All Block Types	3 bar	2 bar

**PLACE OF PRODUCTION**

MCT Brattberg AB  
 SE-37192 Karlskrona  
 Sweden

Jiwoong Tech Co. Ltd  
 #75 Nakdonnam 533beon-gil  
 Busan  
 Korea



Bruce McDonald  
 Fire & Safety Lead Specialist to Lloyd's Register North America, Inc.  
 A member of the Lloyd's Register group

**Supplementary Type Approval Terms and Conditions**

*This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).*