



# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:  
**MEDB00006FW**  
Revision No:  
**4**

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 A & B Class divisions fire integrity: A class divisions.**

with type designation(s)  
**Steel Bulkhead A-30**

issued to

**SAINT-GOBAIN ISOVER G+H AG**  
**Ludwigshafen am Rhein, Rheinland-Pfalz, Germany**

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

Regulation (EU) 2023/1667,

**item No. MED/3.11a. SOLAS 74 as amended, Regulation II-2/3.2 & II-2/9, IMO 2010 FTP Code, IMO MSC/Circ.1120 and IMO MSC.1/Circ.1434,1435; IMO MSC.1/Circ.1616, 1621**

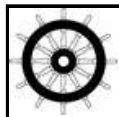
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2028-03-19**.

Issued at **Hamburg** on **2024-02-20**

DNV local unit:  
**Augsburg**

Approval Engineer:  
**Timo Linn**



Notified Body  
No.: **0098**



for **DNV SE**

Digitally Signed By:  
**Christine Mydlak-Röder**  
Location: **DNV Hamburg,**  
**Germany**

**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) 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

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

“Steel Bulkhead A-30”

Steel bulkheads with different insulation constructions are listed in the enclosed appendix.

## Application/Limitation

Approved for use as vertical fire retarding division of class A-30. Applications/Limitations see Appendix.

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

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

## Type Examination documentation

Test report nos. PGA10386 dated 20 January 2014, PGA10384 dated 17 January 2014, PGA10227 dated 10th of December 2018, PGA11131A rev.1 dated 7 of November 2018 all from Danish Institute of Fire and Security Technology (DBI), Hvidovre, Denmark.

Assessment report nos.:

PHA10498d (position of joints) dated 27 March 2020,  
PHA10498b (alternative insulation on stiffeners) dated 09 December 2019,  
PHA10498a (insulation change from slabs to rolls) dated 07 July 2023,  
PHA10498c (minimum thickness and density) dated 16 December 2019,  
PHA10498e (mounting methods for insulation on stiffeners) dated 03 January 2022,  
PHA10498f (washer diameter 30mm) dated 16 December 2019,  
PHA10498g (pin pattern) dated 15 January 2020.  
PHA11121A (Evaluation of assessments for use in combination with new fire tests) dated 8 October 2018.

All from Danish Institute of Fire and Security Technology (DBI), Hvidovre, Denmark.

Drawing no. AK2304 (4 pages) dated 11 December 2014 from SAINT-GOBAIN ISOVER G+H AG.

Drawing no. AK2392- 1/1 dated 12 January 2015 (included in test report), from SAINT-GOBAIN ISOVER G+H AG.

## Tests carried out

Tested according to 2010 FTP Code Annex 1, Part 3

## USCG Approval Category (Module B) number

This product has been assigned a U.S. Coast Guard Module B number 164.107/EC0098 to note type approval to Module B only as it pertains to obtaining US Coast Guard approval 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.1/2018 dated February 18th, 2019.

## Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, MED Mark of Conformity (see page 1) and USCG approval number, if applicable.

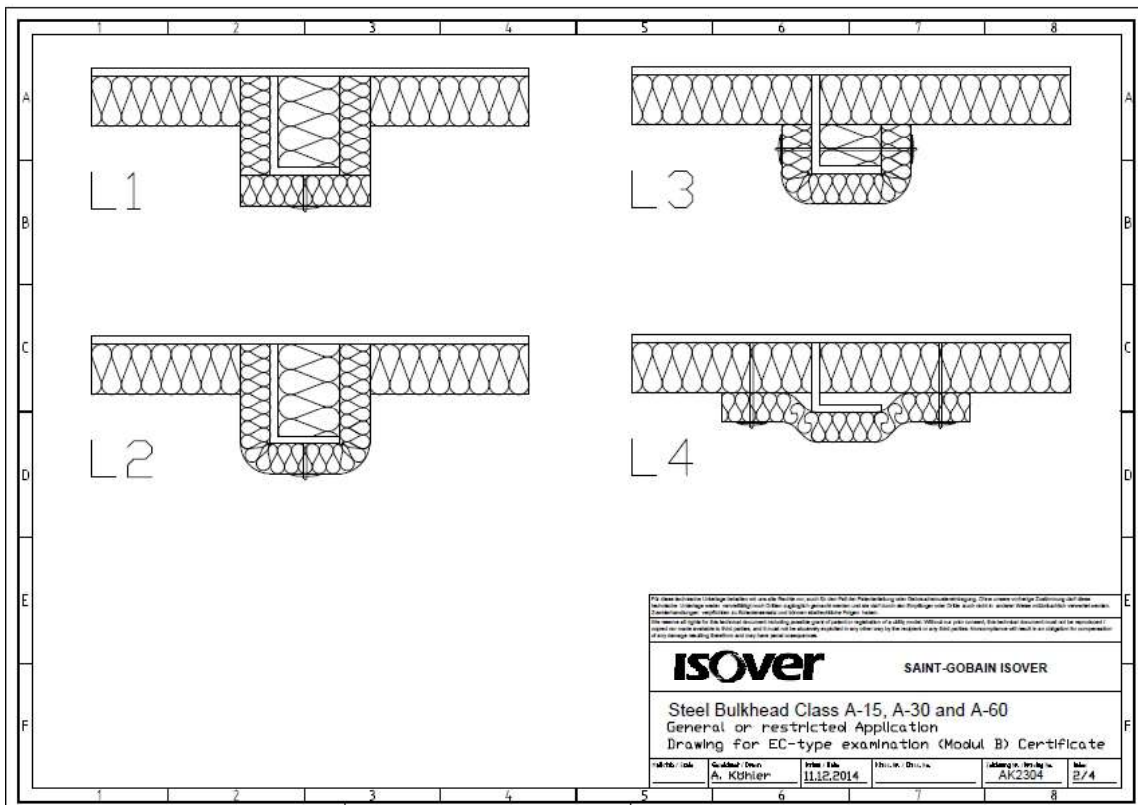
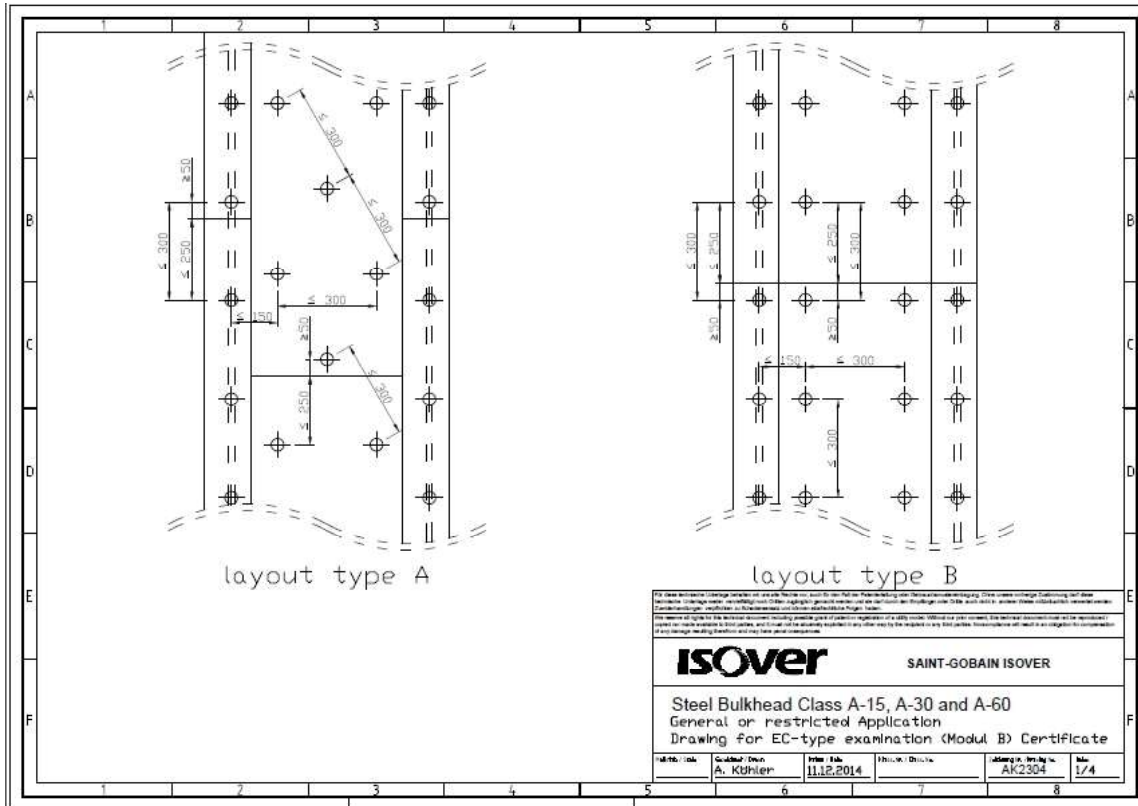
**Appendix A Rev. No. 3 to MEDB00006FW**  
**Alternative constructions:**

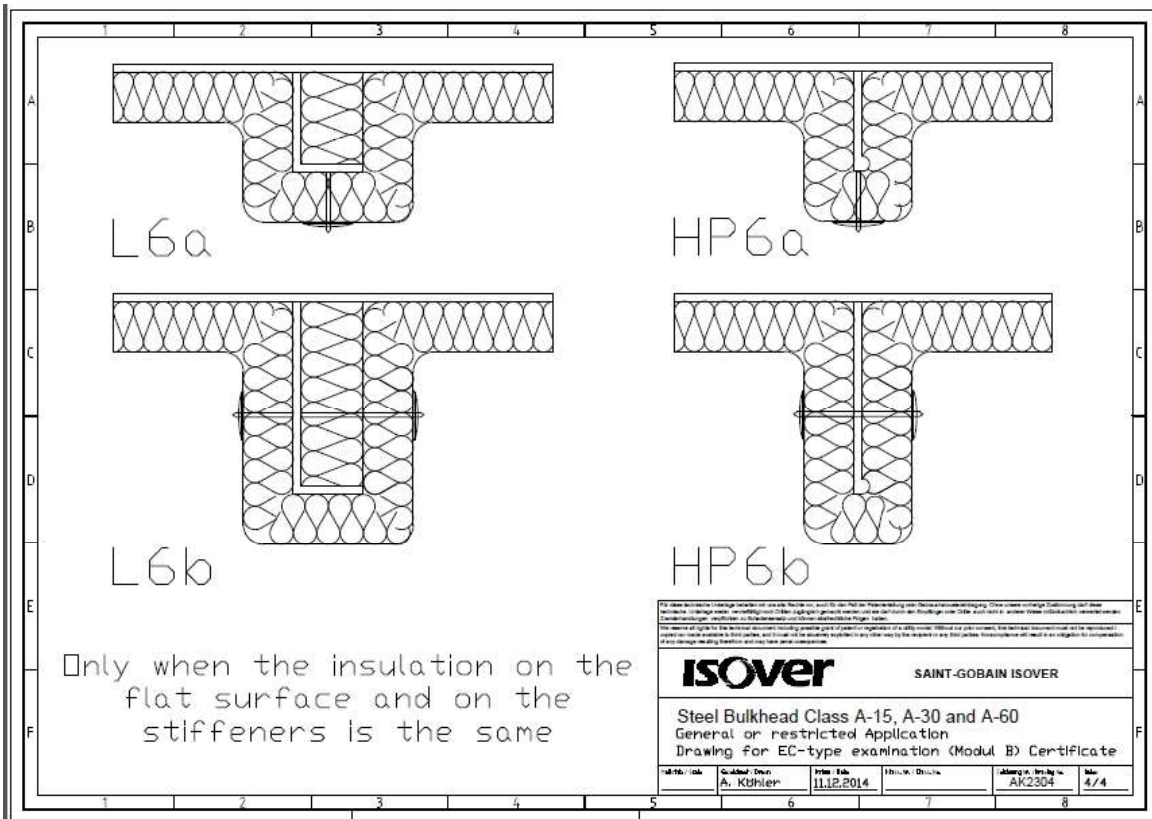
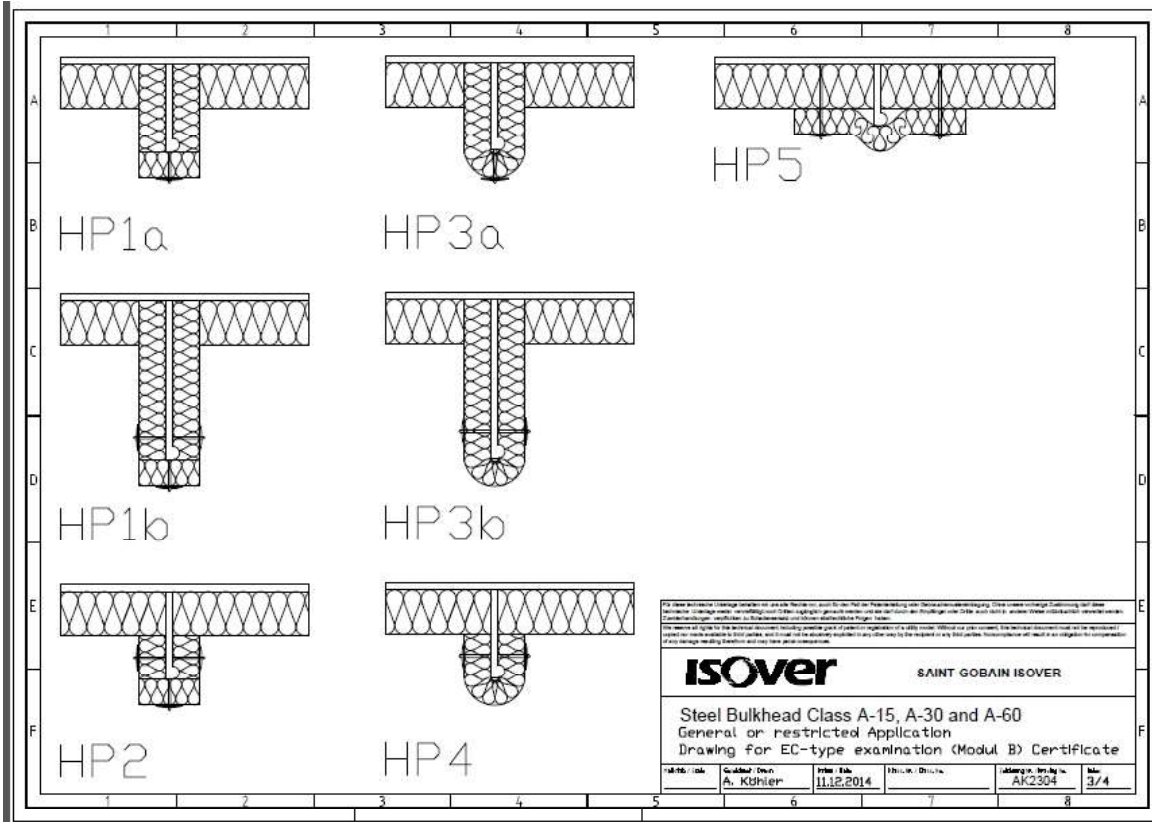
	<b>Product Description</b>	<b>Application / Limitations</b>	<b>Type Examination Documentation</b>
<b>1</b>	<p><b>“U SeaProtect 36/70 + 76/20”</b></p> <p>Composed of a stiffened steel bulkhead insulated on stiffened side with min. 70 mm mineral wool of type U SeaProtect 36.            Min. 20 mm mineral wool of type U SeaProtect 76 is fitted around the stiffeners. Mineral wool of type U SeaProtect is fitted inside the void of the stiffeners.</p> <p>The insulation is fastened with 3 mm steel pins and 30 or 38 mm steel washers. Distance between pins is maximum 300 mm.</p> <p>See drawing in appendix B for further details.</p>	<p><b>Approved for use as a Class A-30 Bulkhead.</b></p> <p>General application:            Fire against either side.</p> <p>Mineral wool of same type U SeaProtect with density up to 86 kg/m<sup>3</sup> may be used.</p>	<p>Test report no. PGA10384</p> <p>Assessment report nos.            PHA10498b (alternative insulation on stiffeners)            PHA10498c (minimum thickness and density)            PHA10498d (position of joints)            PHA10498e (mounting methods for insulation on stiffeners)            PHA10498f (washers diameters 30mm)            PHA10498g (pin pattern)</p> <p>Drawing no. AK2304</p>
<b>2</b>	<p><b>“U SeaProtect 36/70 + 36/70”</b></p> <p>Composed of a stiffened steel bulkhead insulated on stiffened side with min. 70 mm mineral wool of type U SeaProtect 36.            Min. 70 mm mineral wool of type U SeaProtect 36 is fitted around the stiffeners. Mineral wool of type U SeaProtect 36 is fitted inside the void of the stiffeners.</p> <p>The insulation is fastened with 3 mm steel pins and 30 or 38 mm steel washers. Distance between pins is maximum 300 mm.</p> <p>See drawing in appendix B for further details.</p>	<p><b>Approved for use as a Class A-30 Bulkhead.</b></p> <p>General application:            Fire against either side.</p> <p>Mineral wool of same type U SeaProtect with density up to 86 kg/m<sup>3</sup> may be used.</p>	<p>Test report no. PGA10384</p> <p>Assessment report nos.            PHA10498b (alternative insulation on stiffeners)            PHA10498c (minimum thickness and density)            PHA10498d (position of joints)            PHA10498e (mounting methods for insulation on stiffeners)            PHA10498f (washers diameters 30mm)            PHA10498g (pin pattern)</p> <p>Drawing no. AK2304</p>
<b>3</b>	<p><b>“U SeaProtect 36/70 + 56/30”</b></p> <p>Composed of a stiffened steel bulkhead insulated on stiffened side with min. 70 mm mineral wool of type U SeaProtect 36.            Min. 30 mm mineral wool of type U SeaProtect 56 is fitted around the stiffeners. Mineral wool of type U SeaProtect is fitted inside the void of the stiffeners.</p> <p>The insulation is fastened with 3 mm steel pins and 30 or 38 mm steel washers. Distance between pins is maximum 300 mm.</p> <p>See drawing in appendix B for further details.</p>	<p><b>Approved for use as a Class A-30 Bulkhead.</b></p> <p>General application:            Fire against either side.</p> <p>Mineral wool of same type U SeaProtect with density up to 86 kg/m<sup>3</sup> may be used.</p>	<p>Test report no. PGA10384</p> <p>Assessment report nos.            PHA10498b (alternative insulation on stiffeners)            PHA10498c (minimum thickness and density)            PHA10498d (position of joints)            PHA10498e (mounting methods for insulation on stiffeners)            PHA10498f (washers diameters 30mm)            PHA10498g (pin pattern)</p> <p>Drawing no. AK2304</p>

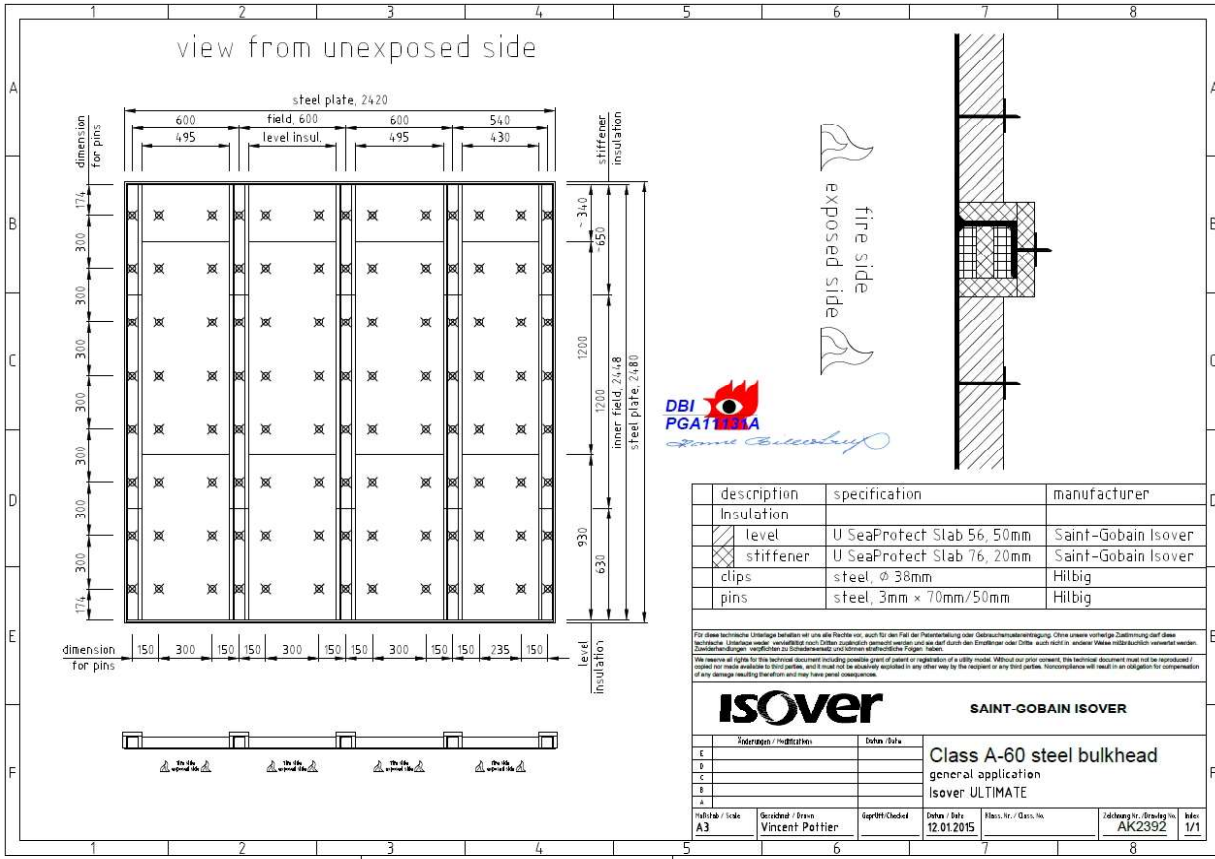
<p><b>4</b></p>	<p><b>“U SeaProtect 76/40 + 76/20”</b></p> <p>Composed of a stiffened steel bulkhead insulated on stiffened side with min. 40 mm mineral wool of type U SeaProtect 76.        Min. 20 mm mineral wool of type U SeaProtect 76 is fitted around the stiffeners. Mineral wool of type U SeaProtect 76 is fitted inside the void of the stiffeners.</p> <p>Alternatively, the bulkhead may be insulated with 2 layers of 20 mm mineral wool of type SeaProtect 76.</p> <p>The insulation is fastened with 3 mm steel pins and 30 or 38 mm steel washers. Distance between pins is maximum 300 mm.</p> <p>See drawing in appendix B for further details.</p>	<p><b>Approved for use as a Class A-30 Bulkhead.</b></p> <p>General application:        Fire against either side.</p> <p>Mineral wool of same type U SeaProtect with density up to 86 kg/m<sup>3</sup> may be used.</p>	<p>Test report no. PGA10386</p> <p>Assessment report nos.        PHA10498b (alternative insulation on stiffeners)        PHA10498c (minimum thickness and density)        PHA10498d (position of joints)        PHA10498e (mounting methods for insulation on stiffeners)        PHA10498f (washers diameters 30mm)        PHA10498g (pin pattern)        PHA10601</p> <p>Drawing no. AK2304</p>
<p><b>5</b></p>	<p><b>“U SeaProtect 46/40 + 46/30”</b></p> <p>Composed of a stiffened steel bulkhead insulated on stiffened side with min. 40 mm mineral wool of type U SeaProtect 46.        Min. 30 mm mineral wool of type U SeaProtect 46 is fitted around the stiffeners. Mineral wool of type U SeaProtect 46 is fitted inside the void of the stiffeners.</p> <p>The insulation is fastened with 3 mm steel pins and 30 or 38 mm steel washers. Distance between pins is maximum 300 mm.</p> <p>See drawing in appendix B for further details.</p>	<p><b>Approved for use as a Class A-30 Bulkhead.</b></p> <p>Restricted application: Fire from insulated side only.</p> <p>Mineral wool of same type U SeaProtect with density up to 86 kg/m<sup>3</sup> may be used.</p>	<p>Test report no. PGA10227</p> <p>Assessment report nos.        PHA10498c (minimum thickness and density)        PHA10498d (position of joints)        PHA10498e (mounting methods for insulation on stiffeners)        PHA10498f (washers diameters 30mm)        PHA10498g (pin pattern)</p> <p>Drawing no. AK2304</p>
<p><b>6</b></p>	<p><b>“U SeaProtect 56/50 + 76/20”</b></p> <p>Composed of a stiffened steel bulkhead insulated on stiffened side with min. 50 mm mineral wool of type U SeaProtect 56.        Min. 20 mm mineral wool of type U SeaProtect 76 is fitted around the stiffeners. Mineral wool of type U SeaProtect 76 is fitted inside the void of the stiffeners.</p> <p>The insulation is fastened with 3 mm steel pins and 30 or 38 mm steel washers. Distance between pins is maximum 300 mm.</p> <p>See drawing in appendix B for further details.</p>	<p><b>Approved for use as a Class A-30 Bulkhead.</b></p> <p>General application:        Fire against either side.</p> <p>Mineral wool of same type U SeaProtect with density up to 86 kg/m<sup>3</sup> may be used.</p>	<p>Test report no. PGA11131A</p> <p>Assessment report nos.        PHA11121A and PHA10498a</p> <p>Drawing no. AK2392, AK2304</p>

1 All mineral wool of type U SeaProtect are produced by Saint-Gobain ISOVER G+H AG.  
 2 Naming: U SeaProtect Density/Thickness. E.G. U SeaProtect 36/70 is a mineral wool with nominal density of 36 kg/m<sup>3</sup> and a thickness of 70 mm.

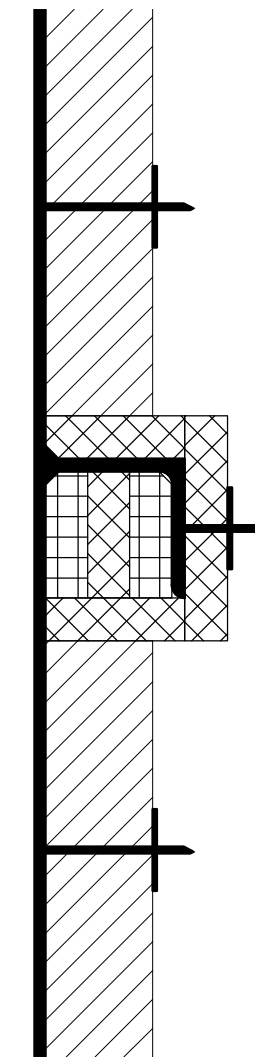
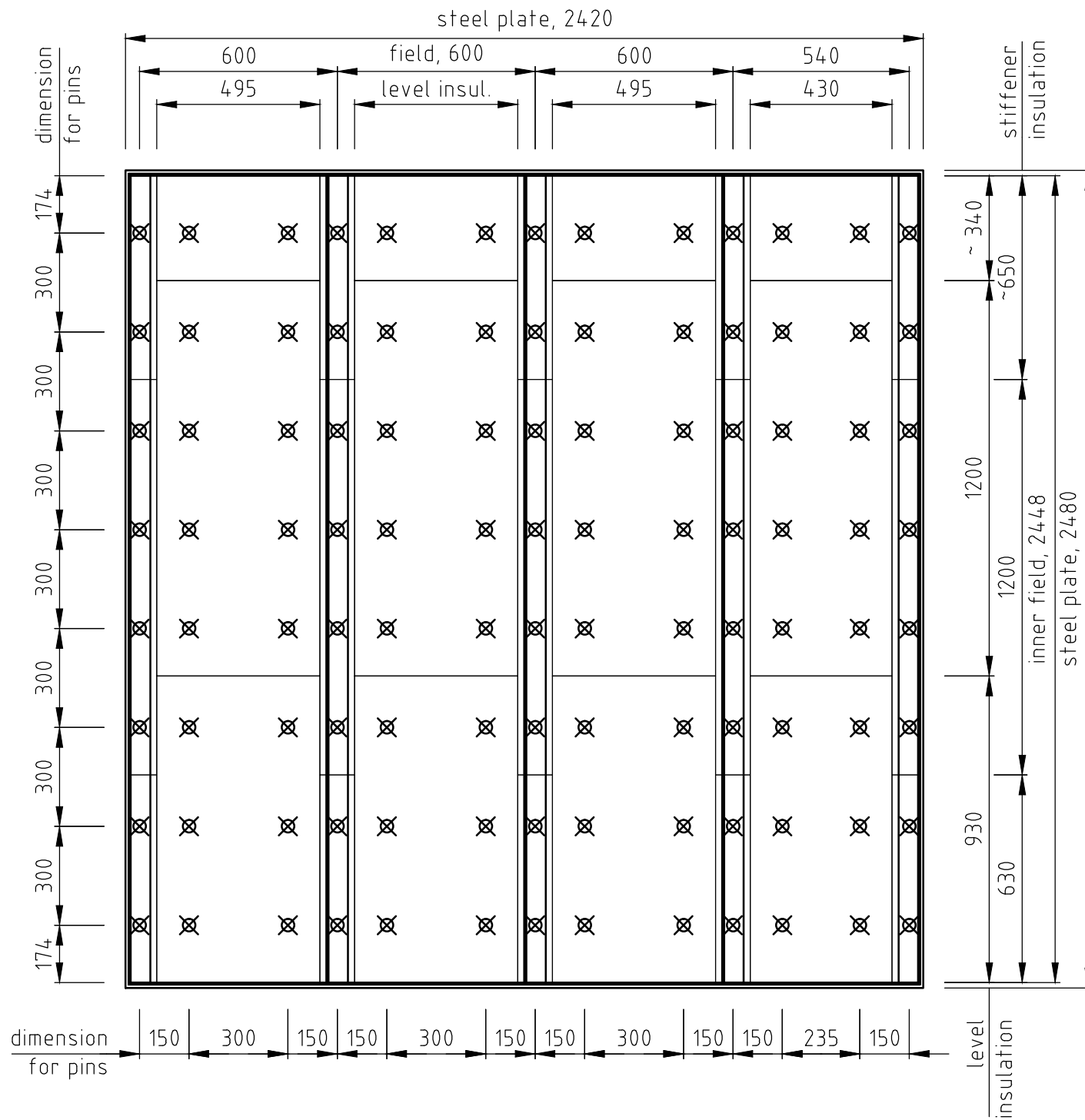
Appendix B Rev. No. 3 to MEDB00006FW







view from unexposed side



description	specification	manufacturer
Insulation		
level	U SeaProtect Slab 56, 50mm	Saint-Gobain Isover
stiffener	U SeaProtect Slab 76, 20mm	Saint-Gobain Isover
clips	steel, $\phi$ 38mm	Hilbig
pins	steel, 3mm $\times$ 70mm/50mm	Hilbig

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**ISOVER**

**SAINT-GOBAIN ISOVER**

Änderungen / Modifications		Datum /Date					
E							
D							
C							
B							
A							
Maßstab / Scale		Gezeichnet / Drawn	Geprüft /Checked	Datum / Date	Klass. Nr. / Class. No.	Zeichnung Nr. /Drawing No.	Index
A3		Vincent Pottier		28.02.2024		AK2392	1/1

**Class A-30 steel bulkhead**  
 general application  
 Isover ULTIMATE