Certificate No: LR25422138TA
Issue Date: 16/12/2025
Expiry Date: 15/12/2030

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	**ProfiSeal GmbH**
Address	Mühlerstraße 13, Schornsheim, 55288, Germany
Type	Bulkhead Seals
Description	"Dynamic Shaft Penetration ProfiSeal Series 500 fire resistant A-60 Bulkhead Seal" is a sealing ring assembly consisting of two stainless steel split housings with grooves in which split carbon sealing rings are fitted. The sealing ring assembly is fitted around the shaft, bolted to the class A-60 bulkhead and covered from both sides of the bulkhead with fire insulated split linings. On the side of the bulkhead exposed to the fire hazard the bulkhead seal is fully covered with a fire insulated split lining. This lining consists of Firemaster Marine Plus Insulation covered with a perforated steel sheet of 1.5 mm in thickness. From the opposite side of the bulkhead (unexposed to the fire hazard) a fire insulated split lining is mounted to the other side of the sealing ring housing through the cut out in the bulkhead. Insulation material used for fire insulated split lining: "Firemaster Marine Plus Blanket 38/50" made by Morgan Thermal Ceramics with a density of 128 kg/m^3: - The nominal thickness is 38 mm for shaft penetrations up to Ø400 mm. For total insulation thickness and other details see assessment 20140917.1. - For shaft penetrations range of larger than Ø400 mm and up to Ø560 mm, thicker thermal insulation (used nominal thicknesses are 38 mm and 50 mm) combined with minimum 40 mm thick mounting flange on the bulkhead to be used. For total insulation thickness and other details see assessment No. 20170057

Downloaded Copy

Johannes Wiegel

Engineering Piping/Decarbon - Senior Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Type Approval Certificate

and assessment P000503200.

Trade Name	Dynamic Shaft Penetration ProfiSeal Series 500 fire resistant A-60 Bulkhead Seal
Application	Approved for installation in a Class A-60 bulkhead for a shaft diameter from 50 mm up to 560 mm, for case of fire against either side.
Specified Standard	Lloyd's RRegister's Rules and Regulations for the Classification of Ships, July 2025, Part 5, Chapter 6 2010 FTP Code – International Code for Application of Fire Test Procedures, 2010
Ratings	The sealing has been successfully tested according to water tightness for shaft penetrations up to Ø465 mm with leakage rates: Ø50 mm: 11,3 ltr/hr (tested pressure 1 bar) Ø120 mm: 9,6 ltr/hr (tested pressure 1 bar) Ø340 mm: 3,0 ltr/hr (tested pressure 1 bar) Ø465 mm: 56 ltr/hr (tested pressure 1 bar)
Additional Tests	Tested according to IMO 2010 FTP Code Appendix 1 Part 3
Other Conditions	Installation on board is to be in accordance with the manufacturer's recommendations and approved drawings. The product or packing is to be marked with trademark, type designation and fire-technical rating.

Downloaded Copy

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Certificate No: LR25422138TA
Issue Date: 16/12/2025
Expiry Date: 15/12/2030

Type Approval Certificate

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: -

The Design Appraisal Document TSO/25-042632-P-1 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Downloaded Copy

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.