



## 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.

<b>Manufacturer</b>	<b>Schiedel Metaloterm B.V.</b>
<b>Address</b>	Oude Veerseweg 23, Middelburg, 4332 SH, Netherlands
<b>Type</b>	Exhaust Gas Systems
<b>Description</b>	Twin-walled, insulated, modular, stainless steel, exhaust gas piping system
<b>Trade Name</b>	METALOTERM AD / AM
<b>Application</b>	Exhaust Gas Piping System for reciprocating internal Combustion Engines
<b>Specified Standard</b>	Lloyd's Register Rules and Regulations for the Classification of Ships, July 2022 Lloyd's Register Rules and Regulations for the Classification of Special Service Craft, July 2022 (see Appendix for test standard)
<b>Ratings</b>	See Appendix
<b>Other Conditions</b>	<p>The surface temperature of the exhaust system is not to exceed 220 °C, not insulated parts and / or connections to a different piping system are to be efficiently lagged to minimize the risk of fire and to prevent damage by heat. Where lagging is oil-absorbing or may permit the penetration of oil, the lagging is to be encased in sheet metal or equivalent.</p> <p>This modular exhaust gas system is considered acceptable for use on ships, classed or intended for Classification with Lloyd's Register, provided</p>

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A member of the Lloyd's Register group

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that the relevant system requirements with regard to fire-safety and watertight integrity are complied with. For penetration of fire divisions LR-type approved pipe penetrations are to be used.

The installation and assembly of the modular exhaust gas system is to be carried out in accordance with the instructions of the manufacturer (Metaloterm AM/AD instruction)

Supporting of the METALOTERM AD/AM modular exhaust system is to be carried out in accordance with the Installation diagrams in the brochure "Metaloterm AD, 2020 Catalogue". Consideration is to be given to static- and dynamic angles of inclination, as applicable

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:** LR22395446TA

The Design Appraisal Document RTS-TA-PRJ11100370441/MB and its supplementary Type Approval Terms and Conditions form part of this Certificate.