Certificate No: LR25245637TA
Issue Date: 01/07/2025
Expiry Date: 30/06/2030

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	**PROSAVE CO LTD**
Address	115-22 Technovally-1 ro, Jillye-myeon, Jinrye-Myeon, Gimhae, Gyeongnam, 50875, South Korea
Place of Production	PROSAVE CO LTD 115-22 Technovally-1 ro, Jillye-myeon, Jinrye-Myeon, Gimhae, Gyeongnam, 50875, South Korea
Type	Flame Arrester
Description	In-line detonation flame arrester for explosion group IIB3
Trade Name	DFA-12/IIB3
Application	Cargo venting system to prevent the passage of flame into the cargo tanks on oil and chemical carriers
Specified Standard	IMO MSC.1-Circ.677-Rev.1 dated 22 January 2025 supersedes MSC/CIrc.677, as amended by MSC/Circ.1009 dated 08 June 2001 and MSC.1/Circ.1324 dated 10 June 2009 ISO/IEC 80079-49:2024– Flame arresters performance requirements, test method and limits for use Chapter II-2, Regulation 4.5.3.3 of SOLAS Consolidated Edition 2024 Lloyd’s Register Rules and Regulations for the Classification of Ships, Part 5,

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Mandar Ojale

Engineering Piping - Specialist to Lloyd's Register Marine and Offshore India LLP
A member of the Lloyd's Register group

Units 1702-1704, 17th Floor (Level-13), Building Q2, Aurum Q Parc; Gen 4/1 TTC, Thane-Belapur Road, Ghansoli, Navi Mumbai, 400710, India

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Chapter 15, July 2025

Ratings

DFA-12
Nominal Diameter : 12” (300A)
MESG : 0.65 mm and above

Other Conditions

1) Where the valve is intended to be installed on a ship classed or intended to be classed with Lloyd’s Register(LR), its position is to be indicated on the arrangement plan which is submitted for approval.
2) Materials used are to be suitable for their intended service and the cargoes to be carried.
3) The in -line detonation flame arrester may only be used if their materials resist, under the respective operating conditions, the mechanical and/or chemical effects and corrosion, so that the explosion protection is always maintained.
4) In-line detonation flame arresters can be used under atmospheric conditions (maximum permissible temperature of the flame arrester of 60 degree C) and up to a maximum permissible pressure of 1.1 bar (absolute).
5) In-lined detonation flame arresters are not tested for safety against a stabilized burn on the flame arrester element for an unspecified time (endurance burning).Therefore, they must not be used if a burn on the flame arrester elements for an unspecified time (endurance burning) is anticipated pace and process condition.
6) The pipe diameter on the protected side shall be no less than the pipe diameter on the unprotected side. The pipe diameter on the unprotected side shall be no greater than the flame arrester connection.
7) The application of this Type Approval Certificate will be limited to the relevant scope of the Specified standards and acceptance thereof by the local authorities.
8) A copy of the instruction manual is to be kept onboard the vessel.
Type Approval does not eliminate the need for normal inspection survey procedures required by the Rules and Regulation.

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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 Marine and Offshore India LLP of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR2004602TA

The Design Appraisal Document LR2004602TA_DAD and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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