Certificate No: LR2002395TA
Issue Date: 14/01/2020
Expiry Date: 13/01/2025

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	**HSME CORPORATION**
Address	8, Hwajeonsandan 5-ro, Gangseo-gu, Busan, 46741, Korea
Place of Production	HSME CORPORATION 8, Hwajeonsandan 5-ro, Gangseo-gu, Busan, 46741, Korea
Type	Tube Fittings
Description	DIN type tube Fittings for stainless steel pipe
Trade Name	Bite type (DIN 2353) - LL, L and S series
Application	High pressure tube connections for use in marine, offshore and industrial piping systems with hydraulic system fluids, fuel oil, lubrication oil and fresh water, compressed air, steam and condensate, fresh water system
Specified Standard	Lloyd's Register Rules and Regulations for Classification of Ships, Part 5, Chapter 12, Section 5, July 2019 DIN 2353, Compression fittings and couplings, December 1998
Ratings	Maximum pressure(bar) : 100 ~ 630

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Tube outside diameter (mm) :4~42

Other Conditions

Where the tube fittings are intended to be installed on a ship classed with LR, the following conditions of acceptance will be applicable:-

1) The tube fittings are to be installed and tested in accordance with Part 5, Chapter 13, Section 2, of the Rules and Regulations for the Classification of Ships in so far as applicable.
2) The tube fittings are to be made, installed and tested to appropriate pipe class requirements in accordance with Part 5, Chapter 12 of the Rules and Regulations for the Classification of Shipsin so far as applicable.
3) Copper tube fittings are not acceptable for use in fuel oil line.
4) Austenitic stainless steel pipe fittings (SUS304L, SUS316L) are not recommended for salt-water services as they are prone to pitting, particularly in polluted waters.
5) Maximum Pressures of each tube fittings with each material are to be indicated for each parts numbers in each parts tables of each catalogues respectively.
6) For use in Class I and II piping systems on ships Classed with Lloyd's Register, materials are to be produced at a works approved by Lloyd's Register.
7) Type Approval does not eliminate the need for normal inspection survey procedures required by the Rules and Regulation.
8) If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to its being supplied to vessels to which the amended standards apply.

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 Asia of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. LR2002395TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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