Certificate No: LR2003562TA
Issue Date: 29/04/2020
Expiry Date: 28/04/2025

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	**TK-Fujikin Corporation**
Address	Gangseo-gu,, 7, Noksansandan 261-ro 88beon-gil,, Gangseo-gu, Busan, 46753, Korea, Republic of
Place of Production	TK-Fujikin Corporation Gangseo-gu,, 7, Noksansandan 261-ro 88beon-gil,, Gangseo-gu, Busan, 46753, Korea, Republic of
Type	Compression Fittings
Description	Bite type compression tube fittings for stainless steel pipe (SUS316/L) having a non-metallic sealing (NBR/FKM/PTFE)
Trade Name	Tube Fittings for JIS & KS
Application	High pressure tube connections for use in marine, offshore and industrial piping systems with lubricating oil,hydraulic oil, air, fresh water, sea water, steam and fuel oil.
Specified Standard	Lloyd's Register Rules and Regulations for Classification of Ships, Part 5, Chapter 12, Section 5, July 2019 Lloyd's Register Type approval system test specification Number 2, Appendix 4
Ratings	Maximum allowable working pressure (bar) 6~ 15 mm : 500 bar

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A member of the Lloyd's Register group

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16~22mm : 400 bar
25~28 mm : 250 bar
30~38 mm : 250 bar
40~50 mm : 210 bar
Pressure-temperature ratings: see the producer's catalogue

Additional Tests

Representative samples of joints have been tested in accordance with the requirements as specified in accordance with LR's Type Approval Test Specification Number 2 except Fire endurance test.
The following tests have been carried out:-
Tightness, Repeated assembly, burst pressure, vacuum,pull-out, vibration & pressure pulsation test

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: -

- The fittings are to be installed in accordance with the manufacture's instruction.
- Not to be used where fittings are required to be approved with fire resistant in accordance with Part 5, Chapter 12, Section 2, table 12.2.7 of LR Rules and Regulations for the Classification of ships.
- Where the application of mechanical joints results in a reduction in pipe wall thickness due to the use of bite type rings or other structural element, this is to be taken into account in determining the minimum wall thickness of the pipe to withstand the design pressure.
- Mechanical joints, which in the event of damage could cause fire or flooding, are not to be used in piping sections directly connected to the ship's side below the bulkhead deck of passenger ships and free board deck of cargo ships or tanks containing flammable fluids.

5) Type Approval does not eliminate the need for normal inspection survey procedures required by the Rules and Regulation.
If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.

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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. LR2003562TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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