Certificate No: LR21262101TA
Issue Date: 06/07/2021
Expiry Date: 05/07/2026

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	**DK-LOK CORPORATION**
Address	7, Golden root-ro 129beon-gil,, Juchon-myeon, Gimhae-si, Gyeongnam, 50969, Republic of Korea
Type	Cryogenic Valves
Description	Cryogenic Needle Valve
Trade Name	VYON Series
Application	Marine use for cargo piping systems in ships for carriage of liquefied gases in bulk Marine use for fuel piping systems in ships using Gases as Fuel
Specified Standard	Lloyd's Register Rules and Regulations for the Construction and Classification of Ships for the Carriage of Liquefied Gases in Bulk (July 2020) Lloyd's Register Rules and Regulations for the Classification of Ships using Gases or other Low-flashpoint Fuels (July2020) Lloyd's Register Rules and Regulations for the Classification of Ships (July 2020)
Ratings	Nominal Size (inch) : 1/2", 1" Nominal Pressure Ratings : ANSI Class 150

Downloaded Copy

Yong-Dae Kong

Senior Specialist to Lloyd's Register Asia
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.

Certificate No: LR21262101TA
Issue Date: 06/07/2021
Expiry Date: 05/07/2026

Type Approval Certificate

Minimum Service Temperature (°C): -196
End Connection : Butt Weld
Butt Weld & Flange
Butt weld & Female NPT
Female NPT
Female NPT & Flange
Flange

Additional Tests

The following tests were carried out in accordance with BS 6364:1984, KS B 2101:2003 as applicable with satisfactory results:-

1) Burst test
2) Shell test
3) Cryogenic service test
4) Seat leakage test
5) Flow / Capacity test

Other Conditions

1) The materials used in the construction of valves are to be in accordance with Chapter 6 of LR Rules for Ships for Liquefied Gases and Part 5, Chapter 12 of LR Rules and Regulations for the Classification of Ships, as applicable.

2) The valves are to be constructed, tested and installed to the LR's attending Surveyor's satisfaction.

3) In all cases the materials are to be suitable for their intended service conditions.

4) The requirements for design temperatures below -165 °C shall be specially agreed with the Flag Administration in accordance with Chapter 6, Table 6.4 of the IGC Code and Section 7.4, Table 7.4 of the IGF Code.

5) If the valves are installed as emergency shutdown valves, with materials having melting temperatures lower than 925°C, a fire test is to be performed to a standard acceptable to the Administration.

Downloaded Copy

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: LR21262101TA
Issue Date: 06/07/2021
Expiry Date: 05/07/2026

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

The Design Appraisal Document 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.