



Lloyd's
Register

Type Approval Certificate Extension

This is to certify that Certificate No. 13/10050 for the undernoted products is extended and renumbered as shown.

This certificate is issued to:
PRODUCER

Hy-Lok Corporation

**PLACE OF
PRODUCTION**

97, Noksansandan 27-ro, Gangseo-gu, Busan, Korea, Republic of.

DESCRIPTION

Instrument Manifolds Valves

TYPE

M-Series

Body materials: 316 stainless steel, carbon steel and ally 400

Packing materials: PTFE and Grafoil

Remote Mounting			
Description	Part No.	Orifice	Material
2-Valves Block	M2V**8N	3.2 mm	SS316 / Carbon Steel Alloy 400
2-Valves Vertical	M2VV**8N	3.2 mm	
3-Valves Block	M3V**8N	3.2 mm	
5-Valves Block	M5V**8N	3.2 mm	
Direct Mounting			
Description	Part No.	Orifice	Material
2-Valves Single Flange	M2V1F**8N	3.2 mm	SS316 / Carbon Steel Alloy 400
2-Valves Single Block Flange	M2VDM**8N	3.2 mm	
3-Valves Single Flange	M3V1F**8N	3.2 mm	
3-Valves Dual Flange	M3V2F**	3.2 mm	
3-Valves Single Block Flange	M3VDM**8N	3.2 mm	
3-Valves Dual Block Flange	M3V2DM**	3.2 mm	
5-Valves Single Flange	M5V1F**8N	3.2 mm	
5-Valves Dual Flange	M5V2F**	3.2 mm	
5-Valves Single Block Flange	M5VDM**8N	3.2 mm	
5-Valves Single Block Flange “ A” style	M5VDMA**8N	3.2 mm	

Certificate No. 18/40054(E1)

Issue Date 27 June 2018

Expiry Date 26 June 2023

Sheet 1 of 3



Y. D. Kong

Busan Technical Support Office
Lloyd's Register Marine & Offshore

Lloyd's Register Asia,
119, Daegyo-ro, Jung-gu, Busan, Republic of Korea

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.

Gauge / Root Valve			
Description	Part No.	Orifice	Material
Gauge Valves	GV**MF8N	3.2 mm	SS316 / Carbon Steel Alloy 400
	GV**MF12N8N	3.2 mm	
	GV**MF8N12N	3.2 mm	
	GV**F8N	3.2 mm	
Root Valves	GRV**MF8N	3.2 mm	
	GRV**MF12N8N	3.2 mm	
	GRV**MF8N12N	3.2 mm	
	GRV**F8N	3.2 mm	
Gauge 2-Valves	GV2**-MF8N	3.2 mm	

APPLICATION

Marine piping systems for air, steam, thermal oil, fuel oil, lubricating oil and hydraulic oil

DESIGN CODE STANDARD

Lloyd's Register (LR) Rules and Regulations for the Classification of Ships (July 2017)

ASME B31.3 "Power Piping" 2016

ASME B1.20.1 "Pipe Threads, General Purpose(inch)" 2013

ASME B16.34 "Valves-Flanged, Threaded and Welding End" 2017

RATINGS

Pressure-Temperature Rating

Packing Material	Body Material	Temperature Range	Pressure Rating @100°F	Pressure Rating @Max. Temp.
PTFE	Stainless Steel	-65°F ~ 450°F (-54°F ~ 232°C)	6,000 psig (41,369 kPa)	4,130 psig@450°F (28,475 kPa@232°C)
	Carbon Steel	-20°F ~ 350°F (-29°F ~ 176°C)	6,000 psig (41,369 kPa)	5,230 psig@350°F (36,060 kPa@176°C)
	Alloy 400	-65°F ~ 450°F (-54°F ~ 232°C)	5,000 psig (34,474 kPa)	3,970 psig@450°F (27,372 kPa@232°C)
Grafoil	Stainless Steel	-65°F ~ 1200°F (-54°F ~ 648°C)	6,000 psig (41,369 kPa)	1,175 psig@1200°F (8,101 kPa@648°C)
	Carbon Steel	-20°F ~ 350°F (-29°F ~ 176°C)	6,000 psig (41,369 kPa)	5,230 psig@350°F (36,060 kPa@176°C)
	Alloy 400	-65°F ~ 500°F (-54°F ~ 260°C)	5,000 psig (34,474 kPa)	3,960 psig@500°F (27,303 kPa@260°C)

Certificate No.

18/40054(E1)

Issue Date

27 June 2018

Expiry Date

26 June 2023

Sheet

2 of 3



Y. D. Kong

Busan Technical Support Office
Lloyd's Register Marine & Offshore

Lloyd's Register Asia,
119, Daegyo-ro, Jung-gu, Busan, Republic of Korea

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.

OTHER CONDITIONS

Where the valves are intended to be installed on a ship classed with Lloyd's Register (LR), they are to be made, installed and tested in accordance with Part 5, Chapter 12 of the Rules and Regulations for the Classification of Ships.

LIMITATION

- 1) Type Approval does not eliminate the need for normal inspection survey procedures required by the Rules and Regulation.
- 2) 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.
- 3) (in case of applications other than Marine) 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.

"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 of any modification or changes to the equipment in order to obtain a valid certificate."

The attached Design Appraisal Document No. 18/40054(E1) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 13/10050 and associated Design Appraisal Documents to which this extension should be attached.

Certificate No.	18/40054(E1)
Issue Date	27 June 2018
Expiry Date	26 June 2023
Sheet	3 of 3



Y. D. Kong

Busan Technical Support Office
Lloyd's Register Marine & Offshore

*Lloyd's Register Asia,
119, Daegyo-ro, Jung-gu, Busan, Republic of Korea*