



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE

Certificate No. TA22585M

This is to certify that the undernoted product(s) has been approved in accordance with the relevant requirements of "Rules for the Survey and Construction of Steel Ships", "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use" as specified below, and that the product(s) is found to comply with "International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code)" as amended by Res.MSC.370(93) and "International Code of Safety for Ships using Gases or other Low-Flashpoint Fuels (IGF Code)" as adopted by Res.MSC.391(95).

This certificate is issued to

Manufacturer: **JOKWANG I.L.I CO., LTD.**
Product description: **Relief Valves for Liquefied Gas System**
Type designation(s): **JSV-FF100**
Applied requirement:

- **Chapter 6, Part N Annex 1, Guidance for the Survey and Construction of Steel Ships**
- **Chapter 6 Part GF Annex 1, Guidance for the Survey and Construction of Steel Ships**
- **Part 6, Chapter 2, Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use**

Approval No.: **22LA019B**

This certificate is valid until **13 October 2027**

Issued at Tokyo on **14 October 2022**

See the conditions specified in the attached sheet.



(S. Oishi)
General Manager of
Machinery Department

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Attached sheet to the Certificate No. TA22585M (1/2)

Conditions for approval

1. Particulars

Abbreviations used in the table

- dt : Throat diameter [mm]
- P : Setting pressure range [MPa]
- T : Design Temperature [°C]
- K : Coefficient of discharge

Nominal size (inch)		ASME Flange Rating		Orifice (dt)	P	T	K
Inlet	Outlet	Inlet	Outlet				
3/4	1	150	150	D (9.5), D1(13)	0.1 to 1.9	-196 to 180	0.831 (gas) 0.615 (liquid)
		300	150 (300)		1.91 to 4.96		
1	2	150	150	D (9.5), D1(13)	0.1 to 1.9		
		300	150 (300)	E (12.7), E1 (15.5)	1.91 to 4.96		
1-1/2	2	150	150	F (15.9), F1(18.2)	0.1 to 1.9		
		300	150 (300)		0.1 to 4.96		
1-1/2	3	150	150	G (20.4), G1(22.7)	0.1 to 1.9		
				H (25.4), H1(28.4)	0.1 to 1.9		
		300	150 (300)	G (20.4), G1(22.7)	0.1 to 4.96		
2	3	150	150	J (32.6), J1(35.8)	0.1 to 1.9		
				H (25.4), H1(28.4)	1.91 to 4.96		
		300	150 (300)	J (32.6), J1(35.8)	0.1 to 1.9		
3	4	150	150	K (38.9), K1(42.3)	0.1 to 1.9		
				L (48.5), L1(53.5)	0.1 to 1.9		
		300	150 (300)	J (32.6), J1(35.8)	1.91 to 3.95		
				K (38.9), K1(42.3)	1.91 to 4.07		
4	6	150	150	L (48.5), L1(53.5)	0.1 to 1.9		
				M (54.4), M1(60.0)	0.1 to 1.9		
				N (59.7), N1(66.0)	0.1 to 1.9		
		300	150 (300)	P (72.4), P1(Gas) (76.2), P1(Liquid) (78.6)	0.1 to 1.44		
				L (48.5), L1(53.5)	1.91 to 4.11		
				M (54.4), M1(60.0)	1.91 to 4.07		
				N (59.7), N1(66.0)	1.91 to 3.73		
				P (72.4), P1(Gas) (76.2), P1(Liquid) (78.6)	0.1 to 1.44 1.91 to 2.59		

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Attached sheet to the Certificate No. TA22585M (2/2)

2. Compatibility with intended cargoes is to be confirmed by the Society.
3. Material and Construction are to be in accordance with the specification in the manufacturer's drawings Nos. JKS-1621001T Rev.3, JKS-1621002T Rev.1, JKS-1621003T Rev.1 approved on 14 October 2022.
4. Some materials of principal pressure bearing parts of valves are to be in accordance with the relevant requirements of Part K of NK Rules or tested in the presence of the Society's surveyor. For detail, please refer to the comments on the approved drawings.
5. Production tests are required for each product, in the presence of the Society's surveyor.

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