



JOKWANG I.L.I CO.,LTD.

**DATA SHEETS
FOR
QUOTATION**

PRESSURE SAFETY & RELIEF VALVE SPECIFICATIONS

Doc.No. : 160928-007

PROJECT NAME:

PROJECT NO. :
(HULL NO)

CLIENT :

SITE :

Head Office & Plant

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0	2016. 09. 28.	Quotation	S.W JUNG	J.B.SO	S.C.KIM		
REV.	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D	APP'D	DATE
						CLIENT	



Pressure Safety & Relief Valve Specifications

Sheet No.	1 of 1	Rev.No.	0
Project Name			
Project No.			
Date	2016. 09. 28.	By	S.W JUNG
Checked	J.B.SO	Approved	S.C.KIM

GENERAL	P&ID No.	1	
	Tag No.	2	
	Service Line	3	Fire Fighting Water
	Number Required	4	2
	Nozzle Type, Full or Semi	5	Full Nozzle
	Design Type	6	Conventional
	A. Conventional or Bellows		Low Lift Type
	B. Full Bore, Low or High Lift		
Bonnet Type. Open or Close	7	Close	
CONNECTION	Size. Inlet / Outlet	8	025X025
	Inlet. Rating / Facing	9	JIS PT
	Outlet. Rating / Facing	10	JIS PT
MATERIALS	Body	11	C 3771
	Bonnet	12	BC 6
	Seat	13	C 3771
	Disc	14	C 3771
	Guide	15	-
	Gasket	16	
	Spring	17	SWOSC
	Bellows	18	
ACCESSORY	Cap. Type	19	Screwed
	Lever. Plain or Packed	20	None Lever
	Test Gag	21	No
	Paint Color	22	None
BASIC	Code	23	API RP 520
	Fire	24	No
	Sizing Basis	25	
SERVICE	Fluid and State	26	Water
	Required Capacity	27	m3/h
	Mol. Weight or Specific Gravity	28	1
	Viscosity	29	
	Operating / Set Pressure	30	10 Kg/cm ² g
	Operating / Blowout Temp	31	/ 20 °C
	Constant Back Pressure	32	- Kg/cm ² g
	Variable Back Pressure	33	- Kg/cm ² g
	Built-up Back Pressure	34	- Kg/cm ² g
	Total Back Pressure	35	- Kg/cm ² g
	Closing Pressure	36	Min. 0 Kg/cm ² g
	Hydrostatic Test	37	15 Kg/cm ² g
	Allowable Overpressure	38	10 %
	Compressibility Factor	39	1
Ratio of Specific Heat	40	1.4	
ORIFICE	Calculated Area	41	0.00 mm ²
	Selected Area	42	133.518 mm ²
	Orifice Dia.(mm)	43	D2
	Valve Capacity	44	8.9 m3/h
	Model No.	45	JSV-LT12
Cert.	Approved by	46	/

CALCULATION

* Calculation of Area

$$A1 = 11.78 * W1 * (\sqrt{G / (1.25P - Pb)}) / (Kd * Kb * Kc * Kv * Kp)$$

$$= 11.78 * 0 * (\sqrt{1 / (1.25 * 980 - 0)}) / (0.62 * 1 * 1 * 1 * 0.6)$$

$$= \mathbf{0.00} \text{ mm}^2$$

* Calculation of Capacity

$$W = A * Kd * Kb * Kc * Kv * Kp / (11.78 * \sqrt{G / (1.25P - Pb)})$$

$$= 133.518 * 0.62 * 1 * 1 * 1 * 0.6 / (11.78 * \sqrt{1 / (1.25 * 980 - 0)})$$

$$= \mathbf{147.6} \text{ l/min}$$

$$\mathbf{8.9} \text{ m3/h}$$

W = Valve Capacity	147.60 l/min
W1 = Required Capacity	0.00 l/min
P = Set Pressure	980 Kpag
A1 = Calculated Area	0.00 mm ²
A = Selected Area	133.518 mm ²
Kd = Coefficient of Discharge	0.62
G = Specific Gravity	1.000
Pb = Back Pressure.....	0 Kpag
Kb = Correction Factor Due to Back Pressure	1
Kc = Correction Factor for a rupture disk	1
Kv = Correction Factor due to Viscosity.....	1
Kp = Correction Factor due to Overpressure...	0.6

Remark

*CDTP : 10 Kg/cm²g