



YNV CO., LTD.

DATA SHEET

SAFETY RELIEF VALVE

Sheet No.	1 of 1	Rev. No.	0
Project No.			
Project Name	KOMACHINE		
Date	2026-01-28	By	Y.H.LEE
Checked	S.M.PARK	Approved	J.W.HONG

GENERAL	Drawing No.(or P&ID No.)	1	-	
	Valve No. (or Tag No.)	2	-	
	Service Line	3	-	
	Quantity	4	5	
	Nozzle Type. Full or Semi	5	Full Nozzle	
	Design Type	6		
	A. Safety or Relief		Relief Valve	
	B. Conventional or Balanced-Bellows		Balanced-Bellows	
	C. Full Bore, Low or High Lift		Full Bore Type	
Bonnet Type, Open or Close	7	Closed Bonnet Type		
CONN	Size. Inlet / Outlet	8	1B x 1½B	
	Inlet. Rating / Facing	9	ASME / ANSI B 16.5 150LB RF	
	Outlet Rating / Facing	10	ASME / ANSI B 16.5 150LB RF	
MATERIALS	Body & Bonnet	11	A216 WCB	
	Seat	12	A276 304 + ST	
	Disc	13	A276 304 + ST	
	Valve Stem	14	A276 304	
	Adjust Ring	15	A351 CF8M	
	Gasket (Body)	16	NON-ASBESTOS HI TEMP.	
	Spring	17	SWOSC-B	
	Bellows	18	A240 & 276 316L	
ACCESS	Cap. Screwed or bolted	19	Screw Type	
	Lever(Plain/Packed) or Closed	20	None	
	Test Gag	21	No	
	Paint Color	22	MAKER STD.	
BASIC	Code	23	API RP 520 for Liquid	
	Cause of Overpressure	24	No	
	Allowable Overpressure	25	10%	
SERVICE	Fluid and State	26	MOGAS & DIESEL	
	Required Capacity	m ³ /hr	27	
	Specific Gravity	28	1	
	Viscosity	cP	29	1
	Operating / Set Pressure	barg	30	- / 6
	Operating / Relieving Temp	°C	31	250 / 250
	Superimposed Constant Back Pressure	barg	32	0
	Superimposed Variable Back Pressure	barg	33	0
	Built-up Back Pressure	barg	34	0
	Total Back Pressure	barg	35	0
	Closing Pressure	barg	36	4.80
	Hydrostatic Test	barg	37	29.40
	Set Pressure Tolerance	38	±3% of Set Pressure	
	Compressibility Factor	39	0.000	
	Ratio of Specific Heat	40	0.000	
	ORIFICE	Calculated Area	mm ²	41
Selected Area		mm ²	42	283.5
Orifice Dimension		mm	43	19.000
Valve Capacity		m ³ /hr	44	14.71
Model No.		45	BFSV-2F(N)	
Cert.	Approved by	46	N / A	
	CDTP	47	6.00	

CALCULATION

* Calculated of Area

$$A1 = \frac{11.78 \times W1}{K_d \times K_w \times K_c \times K_v \times K_p} \times \sqrt{\frac{G}{1.25P - P_b}}$$

$$= \{ (11.78 \times 0.0) / (0.62 \times 1.0 \times 1.0 \times 1.0 \times 0.6) \} \times \sqrt{\{1.0 / (1.25 \times 600.0 - 0.0)\}}$$

= **0.0 mm²**

* Calculated of Capacity

$$W = \frac{K_d \times K_w \times K_c \times K_v \times K_p \times A}{11.78} \times \sqrt{\frac{1.25P - P_b}{G}}$$

$$= \{ (0.62 \times 1.0 \times 1.0 \times 1.0 \times 0.6 \times 283.5) / 11.78 \} \times \sqrt{\{(1.25 \times 600.0 - 0.0) / 1.0\}}$$

= **245.2 L/min**
14.71 m³/hr

W = Valve Capacity	14.71 m ³ /hr
W1 = Required Capacity	m ³ /hr
[Conversion unit for calculation]	0.0 L/min
P = Set Pressure	6 barg
[Conversion unit for calculation]	600.0 kPag
A = Selected Area	283.5 mm ²
A1 = Calculated Area	0.0 mm ²
Kd = Rated coefficient of discharge	0.620
Kw = Correction factor due to back pressure	1.000
Kc = Combination Ccorrection Factor for Installations	1
Kv = Correction factor due to viscosity	1.00
Kp = Correction factor due to overpressure	0.600
G = Specific Gravity	1.000
Pb = Total Back Pressure	0.000 kPag

REMARK