

VENDOR PRINT

DOC. NO.	J1-IN-DS1001-0002
REV. NO.	G
PAGE	COVER

SPECIFICATION AND CALCULATION SHEET

(DOC. NO.: J1-IN-DS-1001-0002)

RUPTURE DISC

PROJECT NAME : JI PROJECT

CLIENT : JINSUNG ENG CO., LTD.

LOCATION : GOESAN, KOREA

VENDOR : INSTPIA SYSTEM CO., LTD.

G	2024.6.01	FOR APPROVAL	D.S SHIN		Y.G CHA
F	2024.5.14	FOR APPROVAL	D.S SHIN		Y.G CHA
Е	2024.3.19	FOR APPROVAL	D.S SHIN		Y.G CHA
D	2024.1.16	FOR APPROVAL	D.S SHIN		Y.G CHA
С	2023.9.04	FOR APPROVAL	D.S SHIN		Y.G CHA
В	2023.8.05	FOR APPROVAL	D.S SHIN		Y.G CHA
Α	2023.7.01	FOR APPROVAL	D.S SHIN		Y.G CHA
REV NO.	DATE	DESCRIPTION	PREP'N	REVIEW	APPROVAL

PROJECT : J1 PROJECT		ER: JINSUNG ENG CO., LTD.	
GENERAL DESCRIPTION	[1]	[2]	[3]
1 Tag. No.	RD-1101A(PG-1102	PA) RD-1101B(PG-1102B)	RD-1103A(PG-1104A
2 Quantity	1 SET	1 SET	1 SET
3 Service	PSV-1101A INLET	PSV-1101B INLET	PSV-1103A INLET
4 P&ID No. / Piping Class	J1-PID-1101 / BA1	J1-PID-1101 / BA1	J1-PID-1101 / AF3
5 Line Size & Rating	2" / ANSI 300# R.I	2" / ANSI 300# R.F	3" / ANSI 150# F.F
DESIGN CONDITION	<u> </u>	<u>.</u>	
6 Applied code or STD.	API RP520	API RP520	API RP520
7 Fluid & State	R1 / GAS	R1 / GAS	R2 / GAS
8 Reg'd capatity	5,217 kg/hr	5,217 kg/hr	10,312 kg/hr
9 Prim or Secondary or Co	-	Combination	Combination
10 Application	External Fire	External Fire	External Fire
11 MAWP		Emerina i ne	Emerina i me
12 Oper. Press.	785 kPa	785 kPa	0.147 MPa
	981 kPa	981 kPa	0.49 MPa
13 Set. Burst Press.		±5 %	±5 %
14 Burst. Tolerance	±5 %		
15 Manufacturing Range	0%	0%	0%
16 Vacuum Oper./ Max.			
17 Const. Back Press.	9.8 kPa	9.8 kPa	9.8 kPa
18 Press Static or Puls.	Static	Static	Static
19 Viscosity @Operat. Cond		0	0
20 Compress Factor Z @Op		0.771	0.916
21 Specific Heat Ratio	(C_p/C_v) 1.089	1.089	1.206
22 Oper. Temp.	40 °C	40 °C	50 ℃
Relieving Temp.	51.3 ℃	51.3 ℃	129.6 ℃
24 MW/SG	116.5	116.5	40
RUPTURE DISC SPEC.	·	·	
25 Model	KSRRK	KSRRK	KSRRK
26 Type	Reverse Dome/Shear	type Reverse Dome/Shear typ	e Reverse Dome/Shear ty
27 Size	2 in	2 in	3 in
28 KOSHA Cert. type	RS II 1	RS II 1	RS III 1
Disc	316LSS	316LSS	316LSS+PFA Liner
29 Material Seal	010200	010200	OTOLOG!!!!!
Vac. Support			
30 Coating inlet / outlet	5 / 7	5 / 7	5 / T
31 Q'ty per Ass'y	5 / Tag	5 / Tag	5 / Tag
32 Discharge Area	3.14 in²	3.14 in²	7.07 in²
33 Rated capacity	27,375.98 kg/hr	27,375.98 kg/hr	16,604.79 kg/hr
HOLDER SPEC.	1	1	
34 Type	Quick Insert type	Quick Insert type	Bolted type
35 Model	FS(Insert Flat Seat Single	type) FS(Insert Flat Seat Single type	be) BF(Bolted Flat Seat Single ty
36 Flange Size / Rating	2" / ANSI 300# R.I	2" / ANSI 300# R.F	3" / ANSI 150# F.F
Holder - up	316SS	316SS	316SS+PFA Coating
37 Material Holder - midd	le		
Holder - down	316SS	316SS	316SS+PFA Coating
ACCESSORIES	<u> </u>	<u> </u>	<u> </u>
38 Accessory 1	Pressure Gauge_(316SS, NPT-1/2, 0~	1.5Mpa) Pressure Gauge_(316SS, NPT-1/2, 0~1.5M	Mpa) Pressure Gauge_(316SS, NPT-1/2, 0~100
39 Accessory 2	Excess Flow Valve_(316SS, NP	T-1/2) Excess Flow Valve_(316SS, NPT-1	/2) Excess Flow Valve_(316SS, NPT-
40 Accessory 3	Nipple & Tee_(316SS, NPT-1/		
41 Accessory 4	Preassembly Screws_(30		
	Jack Screws_(304S		Jack Screws_(304SS)
42 Accessory 5	Stud Bolts & Nuts_(B7/2H		
43 Accessory 6	Stud Boils & Nuts_(B//2H	TIDA) Stud Boils & Nuts_(B1/2H HD	a) Juu Doils & Nuts_(D1/2H H
44 Accessory 7	DDV 50 001	DDV 50 004	DDIC DE 001
45 Dwg. No.	RRK-FS-001	RRK-FS-001	RRK-BF-001
* NOTE			
		I 28	-May-24 R. Jung J. H. J

		J1 PROJECT		JINSUNG ENG CO., LTD	
GEN	NERAL [DESCRIPTION	[4]	[5]	[6]
1 Ta	ag. No.		RD-1103B(PG-1104B)	RD-1124(PG-1125)	RD-1131A(PG-1139A
2 Qu	uantity		1 SET	1 SET	1 SET
3 Se	ervice		PSV-1103B INLET	PSV-1124 INLET	PSV-1131A INLET
4 P8	&ID No.	/ Piping Class	J1-PID-1101 / AF3	J1-PID-1103 / AF3	J1-PID-1104 / AF3
5 Lir	ne Size &	& Rating	3" / ANSI 150# F.F	1" / ANSI 150# F.F	1-1/2" / ANSI 150# F.
DES	SIGN CC	ONDITION	T		
6 Ap	oplied co	ode or STD.	API RP520	API RP520	API RP520
7 Flu	uid & Sta	ate	R2 / GAS	H2 / GAS	H2 / GAS
8 Re	eq'd cap	atity	10,312 kg/hr	914 kg/hr	5,877 kg/hr
9 Pri	im or Se	econdary or Combination	Combination	Combination	Combination
10 Ap	plicatio	n	External Fire	External Fire	External Fire
11 MA	AWP				
12 Op	oer. Pres	SS.	0.147 MPa	9.8 kPa	49 kPa
13 Se	et. Burst	Press.	0.49 MPa	490 kPa	490 kPa
14 Bu	urst. Tole	erance	±5 %	±5 %	±5 %
15 Ma	anufactu	uring Range	0%	0%	0%
		per./ Max.			
		ck Press.	9.8 kPa	9.8 kPa	9.8 kPa
		ic or Puls.	Static	Static	Static
		@Operat. Cond (cP)	0	0	0
_		Factor Z @Operat. Cond	0.916	0.854	0.709
		leat Ratio (C _p /C _v)	1.206	1.062	1.211
	oer. Ter	. р и	50 ℃	50 ℃	50 ℃
	elieving 1	•	129.6 ℃	169.4 ℃	224.7 °C
	W/SG	remp.	40	255.9	273.1
		DISC SPEC.	-10	200.0	270.1
25 Mc		JIGO GFEO.	KSRRK	KSRRK	KSRRK
26 Ty			Reverse Dome/Shear type	Reverse Dome/Shear ty	
20 Ty 27 Siz			3 in	1 in	1.5 in
	OSHA Ce	art tuna	RS III 1	RS I 1	RS II 1
20 NC	JOHA CE		316LSS+PFA Liner	316LSS+PFA Liner	316LSS+PFA Liner
20 M	aterial	Disc	310L331FTA LITTET	310L331FTA LINE	310L331F1 A LINE
29 1016	ateriai	Seal			
000		Vac. Support			
		let / outlet	5 / Tag	5 / Tag	F / Ton
	ty per A			0.79 in ²	5 / Tag 1.77 in²
	scharge		7.07 in²		
	ated cap		16,604.79 kg/hr	4,405.93 kg/hr	11,089.13 kg/hr
	LDER SI	PEC.	D III II	D 11 11	
34 Ty			Bolted type	Bolted type	Bolted type
35 Mc			BF(Bolted Flat Seat Single type)	BF(Bolted Flat Seat Single ty	
36 Fla	ange Siz	e / Rating	3" / ANSI 150# F.F	1" / ANSI 150# F.F	1-1/2" / ANSI 150# F.
		Holder - up	316SS+PFA Coating	316SS+PFA Coating	316SS+PFA Coating
37 Ma	aterial	Holder - middle			
		Holder - down	316SS+PFA Coating	316SS+PFA Coating	316SS+PFA Coating
ACC	CESSOR	RIES		T	
38 Ac	ccessory	<u>' 1</u>	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000	
39 Ac	ccessory	2	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-	
40 Ac	ccessory	3	Nipple & Tee_(316SS, NPT-1/4x1/2)		
41 Ac	ccessory	4	Preassembly Screws_(304SS)	Preassembly Screws_(304)	
12 Ac	ccessory	5	Jack Screws_(304SS)	Jack Screws_(304SS)	Jack Screws_(304SS)
43 Ac	ccessory	6	Stud Bolts & Nuts_(B7/2H HDG)	Stud Bolts & Nuts_(B7/2H HD	OG) Stud Bolts & Nuts_(B7/2H H
44 Ac	ccessory	7			
45 Dv	wg. No.		RRK-BF-001	RRK-BF-001	RRK-BF-001
* NOT					
. 1101					
<u> 1101</u>					
<u>" 110 1</u>					
<u> 1401</u>					
<u>" 11</u>					
<u>" 110 1</u>					B-May-24 R. Jung J. H. Ju

	: J1 PROJECT		JINSUNG ENG CO., LTD.	
GENERAL	_ DESCRIPTION	[7]	[8]	[9]
1 Tag. No.		RD-1131B(PG-1139B)	RD-1137(PG-1138)	RD-1201A(PG-1203A
2 Quantity		1 SET	1 SET	1 SET
3 Service		PSV-1131B INLET	PSV-1137A INLET	PSV-1201A INLET
	o. / Piping Class	J1-PID-1104 / AF3	J1-PID-1104 / AF3	J1-PID-1201A / AB1
5 Line Size		1-1/2" / ANSI 150# F.F	2" / ANSI 150# F.F	2" / ANSI 150# R.F
	CONDITION	,_ ,,	2 77	2 / / 11(01 / 00 // 1111
		API RP520	API RP520	API RP520
	code or STD.	H2 / GAS	H2 / GAS	H2 / GAS
7 Fluid & S				
8 Req'd ca		5,877 kg/hr	8,639 kg/hr	4,405 kg/hr
9 Prim or 9	Secondary or Combination	Combination	Combination	Combination
10 Applicat	ion	External Fire	External Fire	External Fire
11 MAWP				
12 Oper. Pr	ess.	49 kPa	0 kPa	9.8 kPa
13 Set. Burs	st Press.	490 kPa	490 kPa	490 kPa
14 Burst. To	olerance	±5 %	±5 %	±5 %
15 Manufac	cturing Range	0%	0%	0%
16 Vacuum	Oper./ Max.			
17 Const. E	·	9.8 kPa	9.8 kPa	9.8 kPa
	atic or Puls.	Static	Static	Static
	@Operat. Cond (cP)	0	0	0
	ss Factor Z @Operat. Cond	0.709	0.841	0.841
	Heat Ratio (C _p /C _v)		1.058	
_ , ,	. p. v.	1.211		1.058
22 Oper. T	·	50 °C	50 °C	50 °C
23 Relieving	g Temp.	224.7 ℃	176.3 ℃	176.3 ℃
24 MW/SG		273.1	273.6	273.6
RUPTURE	E DISC SPEC.			T
25 Model		KSRRK	KSRRK	KSRRK
26 Type		Reverse Dome/Shear type	Reverse Dome/Shear type	Reverse Dome/Shear ty
27 Size		1.5 in	2 in	2 in
28 KOSHA	Cert. type	RS II 1	RS II 1	RS II 1
	Disc	316LSS+PFA Liner	316LSS+PFA Liner	316LSS
29 Material	Seal			
	Vac. Support			
20 Capting				
	inlet / outlet	5 / Tag	5 / Tog	5 / Tog
31 Q'ty per			5 / Tag	5 / Tag
32 Discharg		1.77 in²	3.14 in²	3.14 in²
33 Rated ca		11,089.13 kg/hr	18,165.4 kg/hr	18,165.4 kg/hr
HOLDER	SPEC.		T.	T
34 Type		Bolted type	Bolted type	Quick Insert type
35 Model		BF(Bolted Flat Seat Single type)	BF(Bolted Flat Seat Single type)	FS(Insert Flat Seat Single ty
36 Flange S	Size / Rating	1-1/2" / ANSI 150# F.F	2" / ANSI 150# F.F	2" / ANSI 150# R.F
	Holder - up	316SS+PFA Coating	316SS+PFA Coating	316SS
37 Material	Holder - middle			
	Holder - down	316SS+PFA Coating	316SS+PFA Coating	316SS
ACCESSO	· ·			
38 Accesso		Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~100
39 Accesso		Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-
		Nipple & Tee_(316SS, NPT-1/4x1/2)		
40 Accesso	•			Nipple & Tee_(316SS, NPT-1/4)
41 Accesso		Preassembly Screws_(304SS)		Preassembly Screws_(304
42 Accesso		Jack Screws_(304SS)	Jack Screws_(304SS)	Jack Screws_(304SS)
43 Accesso	ory 6	Stud Bolts & Nuts_(B7/2H HDG)	Stud Bolts & Nuts_(B7/2H HDG)	Stud Bolts & Nuts_(B7/2
44 Accesso	ory 7			
45 Dwg. No).	RRK-BF-001	RRK-BF-001	RRK-FS-003
* NOTE	•			
			l 28-M	lay-24 R. Jung J. H. Ji

G	HUUEUI .	J1 PROJECT		JINSUNG ENG CO., LTD.	
	ENERAL [DESCRIPTION	[10]	[11]	[12]
1	Tag. No.		RD-1201B(PG-1203B)	RD-1201C(PG-1203C)	RD-1201D(PG-1203D
2 (Quantity		1 SET	1 SET	1 SET
3 5	Service		PSV-1201B INLET	PSV-1201C INLET	PSV-1201D INLET
		/ Piping Class	J1-PID-1201A / AB1	J1-PID-1201C / AB1	J1-PID-1201C / AB1
	Line Size	, ,	2" / ANSI 150# R.F	2" / ANSI 150# R.F	2" / ANSI 150# R.F
	ESIGN CO		2 , ,	2 , ,	2 / / 11.01 / 00 // 1111
		ode or STD.	API RP520	API RP520	API RP520
	Fluid & St		H2 / GAS	H2 / GAS	H2 / GAS
_			4,405 kg/hr		
	Reg'd cap		, 0	4,405 kg/hr	4,405 kg/hr
		econdary or Combination	Combination	Combination	Combination
	Applicatio	n	External Fire	External Fire	External Fire
11	MAWP				
12 (Oper. Pres	ss.	9.8 kPa	9.8 kPa	9.8 kPa
13 5	Set. Burst	Press.	490 kPa	490 kPa	490 kPa
14 [Burst. Tol	erance	±5 %	±5 %	±5 %
15 1	Manufactu	uring Range	0%	0%	0%
۱6 ۱	Vacuum C	Oper./ Max.			
_	Const. Ba	•	9.8 kPa	9.8 kPa	9.8 kPa
_		tic or Puls.	Static	Static	Static
_		@Operat. Cond (cP)	0	0	0
		Factor Z @Operat. Cond	0.841	0.841	0.841
	Specific H		1.058	1.058	1.058
	•	, b, f,	50 °C	50 °C	50 °C
	Oper. Ter	·			
	Relieving 7	Temp.	176.3 °C	176.3 °C	176.3 °C
	MW/SG		273.6	273.6	273.6
		DISC SPEC.		T	
25	Model		KSRRK	KSRRK	KSRRK
26	Type		Reverse Dome/Shear type	Reverse Dome/Shear type	Reverse Dome/Shear ty
27	Size		2 in	2 in	2 in
28 I	KOSHA C	ert. type	RS II 1	RS II 1	RS II 1
		Disc	316LSS	316LSS	316LSS
29 1	Material	Seal			
		Vac. Support			
30 (Coating in	nlet / outlet			
			5 / Tag	5 / Tag	5 / Tag
	Q'ty per A		3.14 in ²	3.14 in²	3.14 in ²
	Discharge				
	Rated cap		18,165.4 kg/hr	18,165.4 kg/hr	18,165.4 kg/hr
	IOLDER SI	PEC.		T	
34	Type		Quick Insert type	Quick Insert type	Quick Insert type
	Model		FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single ty
36 I	Flange Siz	ze / Rating	2" / ANSI 150# R.F	2" / ANSI 150# R.F	2" / ANSI 150# R.F
		Holder – up	316SS	316SS	316SS
	Material	Holder - middle			
37 I	Matchai		21600	316SS	316SS
37		Holder – down	316SS		
	.CCESSOF		31055		
A		RIES	31005 Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~100
A	.CCESSOF Accessory	RIES / 1			
A (38 /	CCESSOF Accessory Accessory	RIES / 1 / 2	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-
A 38 / 39 / 40 /	CCESSOF Accessory Accessory Accessory	RIES / 1 / 2 / 3	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Excess Flow Valve_(316SS, NPT-Nipple & Tee_(316SS, NPT-1/4)
38 / 39 / 40 /	CCESSOF Accessory Accessory Accessory	RIES / 1 / 2 / 3 / 4	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304
A 38 / 39 / 40 / 41 / 42 /	CCESSOF Accessory Accessory Accessory Accessory	RIES 7 1 7 2 7 3 7 4 7 5	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS)
38 / 39 / 40 / 41 / 42 /	CCESSOF Accessory Accessory Accessory Accessory Accessory	RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS)
38 / 39 / 40 / 41 / 42 / 43 /	CCESSOF Accessory Accessory Accessory Accessory Accessory Accessory Accessory	RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4: Preassembly Screws_(304 Jack Screws_(304SS Stud Bolts & Nuts_(B7/2
38 / 39 / 40 / 41 / 42 / 43 /	CCESSOF Accessory Accessory Accessory Accessory Accessory	RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4: Preassembly Screws_(304 Jack Screws_(304SS
A 4 4 4 4 4 4 4 5 [CCESSOF Accessory Accessory Accessory Accessory Accessory Accessory Accessory	RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4: Preassembly Screws_(304 Jack Screws_(304SS Stud Bolts & Nuts_(B7/2
38 / 39 / 40 / 41 / 42 / 43 / 45 [CCESSOF Accessory Accessory Accessory Accessory Accessory Accessory Accessory	RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4: Preassembly Screws_(304 Jack Screws_(304SS Stud Bolts & Nuts_(B7/2
38 / 39 / 40 / 41 / 42 / 43 / 45 [CCESSOF Accessory Accessory Accessory Accessory Accessory Accessory Accessory	RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-100 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2) RRK-FS-003
38 / 39 / 40 / 41 / 42 / 43 / 45 [CCESSOF Accessory Accessory Accessory Accessory Accessory Accessory Accessory	RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4: Preassembly Screws_(304 Jack Screws_(304SS Stud Bolts & Nuts_(B7/2
38 / 39 / 40 / 41 / 42 / 43 / 45 [CCESSOF Accessory Accessory Accessory Accessory Accessory Accessory Accessory	RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
A 4 4 4 4 4 4 4 5 [CCESSOF Accessory Accessory Accessory Accessory Accessory Accessory Accessory	RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H) RRK-FS-003	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2

		J1 PROJECT	CUSTOMER:	JINSUNG E	*	ıυ.			
GEN	NERAL D	ESCRIPTION	[13]		[14]			[15]	
1 Tag	g. No.		RD-1202A	RE	D-1202B			RD-120)2C
2 Qua	antity		1 SET		1 SET			1 SE	Т
3 Ser	rvice		R-1201A VENT	R-12	201B VENT			R-1201C	VENT
		Piping Class	J1-PID-1201A / AA1	J1-PID	-1201B / AA	\1	J	1-PID-1201	C / AA1
		& Rating	4" / ANSI 150# R.F	4" / AN	NSI 150# R.	F	4	" / ANSI 1:	50# R.F
		NDITION					Į		
		ode or STD.	API RP520	ΔΕ	PI RP520			API RP	520
	id & Sta		R1,H2 / GAS		H2 / GAS			R1,H2 /	
				-				19,970 k	
	q'd cap	· ·	19,970 kg/hr	,	970 kg/hr				
		condary or Combination	Combination		mbination			Combina	
	plication	1	External Fire	Ext	ernal Fire			External	Fire
11 MA									
12 Op	er. Pres	SS.	20 kPa		20 kPa			20 kF	
13 Set	t. Burst	Press.	98 kPa	,	98 kPa			98 kF	'a
14 Bur	rst. Tole	erance	±0.015 Mpa	±0	.015 Mpa			±0.015	Мра
15 Ma	nufactu	ring Range	0%		0%			0%	
		per./ Max.							
		ck Press.	0 kPa		0 kPa			0 kP	a
		ic or Puls.	Static		Static			Stati	
		Operat. Cond (cP)	0		0			0	-
_			1		1			1	
_		Factor Z @Operat. Condeat Ratio (C _n /C _v)							
		, p. v.	1.4		1.4			1.4	
	er. Ten	•	40~50 ℃		0~50 ℃			40~50	
23 Rel	lieving T	emp.	123 ℃		123 ℃		123 ℃		
24 MW	V/SG		276.7		276.7			276.	7
RUP	TURE D	DISC SPEC.							
25 Mo	odel		KSRRK	ŀ	KSRRK		KSRRK		
26 Typ	ре		Reverse Dome/Shear type	Reverse D	ome/Shear	type	Reverse Dome/Shear ty		
27 Size			4 in		4 in			4 in	
	SHA Ce	ert type							
		Disc	316LSS	9	316LSS			316L9	SS
29 Ma	torial	Seal	0.0200		3.0200			0.020	
LO IVIG	ttoriai	Vac. Support							
20 0		- 11							
		et / outlet	F / T	,	T / T:				
	ty per As		5 / Tag		5 / Tag			5 / Ta	
	scharge		12.57 in²		2.57 in²			12.57	
33 Rat	ted cap	acity	24,999.26 kg/hr	24,99	99.26 kg/hr			24,999.26	kg/hr
HOL	DER SF	PEC.							
34 Typ	ре		Quick Insert type	Quick	Insert type			Quick Inse	rt type
35 Mo	del		FS(Insert Flat Seat Single type)	FS(Insert Fla	at Seat Single	type)	FS(Ins	ert Flat Sea	t Single t
36 Fla	ange Siz	e / Rating	4" / ANSI 150# R.F	4" / AN	NSI 150# R.	F	4	" / ANSI 1:	50# R.F
		Holder - up	316SS		316SS			316S	S
37 Ma	iterial	Holder - middle							
		Holder - down	316SS		316SS			316S	S
ACC	CESSOR		01000	<u> </u>			l .	5100	
			Preassembly Screws_(304SS)	Pressonanti	ly Screws_(3	UVGC)	Droop	cambly Car	awe (20)
	cessory								
	cessory		Jack Screws_(304SS)		rews_(3049			ck Screws	
	cessory		Stud Bolts & Nuts_(B7/2H)	Stua Bolts	& Nuts_(B	(/2H)	Stud	Bolts & Nu	its_(B//
41 Acc	cessory	4							
42 Acc	cessory	5							
43 Acc	cessory	6							
44 Acc	cessory	7						-	
	vg. No.		RRK-FS-002	RRŁ	K-FS-002			RRK-FS	-002
* NOTI			0 002				I .		
NULL	<u>L</u>						I		
						-			
					1	28-M	ay-24	R. Jung	J. H. J

		: J1 PROJECT		JINSUNG ENG CO., LTD.	
(SENERAL	DESCRIPTION	[16]	[17]	[18]
1	Tag. No.		RD-1202D	RD-1202E	RD-1211A(PG-1212A
2	Quantity		1 SET	1 SET	1 SET
3	Service		R-1201D VENT	R-1201E VENT	PSV-1211A INLET
		/ Piping Class	J1-PID-1201D / AA1	J1-PID-1201E / AA1	J1-PID-1202A / AB1
	Line Size		4" / ANSI 150# R.F	4" / ANSI 150# R.F	1" / ANSI 150# R.F
	DESIGN CO		, , ,	77	. , , ,
		ode or STD.	API RP520	API RP520	API RP520
	Fluid & St		R1,H2 / GAS	R1,H2 / GAS	H-2312 / GAS
_			19,970 kg/hr	19,970 kg/hr	1,917 kg/hr
	Req'd car	•	Combination		Combination
		econdary or Combination		Combination	
	Application	on	External Fire	External Fire	Cooling Medium Failur
	MAWP		00.15	00.15	10.15
	Oper. Pre		20 kPa	20 kPa	19 kPa
13	Set. Burst	t Press.	98 kPa	98 kPa	490 kPa
14	Burst. Tol	erance	±0.015 Mpa	±0.015 Mpa	±5 %
15	Manufacti	uring Range	0%	0%	0%
16	Vacuum C	Oper./ Max.			
17	Const. Ba	ack Press.	0 kPa	0 kPa	9.8 kPa
		tic or Puls.	Static	Static	Static
		@Operat. Cond (cP)	0	0	0
		s Factor Z @Operat. Cond	1	1	0.839
21	Specific F		1.4	1.4	1.113
		, p, v,	40~50 °C	40~50 °C	50 °C
	Oper. Te		123 °C	123 °C	177.3 ℃
	Relieving	Temp.			
	MW/SG		276.7	276.7	276.2
		DISC SPEC.		I	
	Model		KSRRK	KSRRK	KSRRK
26	Type		Reverse Dome/Shear type	Reverse Dome/Shear type	Reverse Dome/Shear ty
27	Size		4 in	4 in	1 in
28	KOSHA C	ert. type			RS I 1
		Disc	316LSS	316LSS	316LSS
29	Material	Seal			
		Vac. Support			
30	Coating in	nlet / outlet			
	Q'ty per A		5 / Tag	5 / Tag	5 / Tag
			12.57 in²	12.57 in²	0.79 in²
	Discharge				
	Rated cap	*	24,999.26 kg/hr	24,999.26 kg/hr	4,287.39 kg/hr
	HOLDER S	PEC.	T	T	
34	Туре		Quick Insert type	Quick Insert type	Quick Insert type
35	Model		FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single ty
36	Flange Siz	ze / Rating	4" / ANSI 150# R.F	4" / ANSI 150# R.F	1" / ANSI 150# R.F
		Holder - up	316SS	316SS	316SS
37	Material	Holder – middle			
		Holder - down	316SS	316SS	316SS
-	ACCESSOR	*	1		
	Accessory		Preassembly Screws_(304SS)	Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~100
	Accessory		Jack Screws_(304SS)	Jack Screws_(304SS)	Excess Flow Valve_(316SS, NPT-
	-		Stud Bolts & Nuts_(B7/2H)	Stud Bolts & Nuts_(B7/2H)	Nipple & Tee_(316SS, NPT-1/4>
	Accessor		טנמט שטונא ע ואנוא_(שוואר)	Otau Dollo & Nato_(D1/20)	
	Accessory				Preassembly Screws_(304
	Accessory				Jack Screws_(304SS)
	Accessory				Stud Bolts & Nuts_(B7/2
_	Accessory	y 7			
15	Dwg. No.		RRK-FS-002	RRK-FS-002	RRK-FS-003
	IOTE				
				l 28-M	lay-24 R. Jung J. H. J

		J1 PROJECT		JINSUNG ENG CO., LTD.	
	GENERAL [DESCRIPTION	[19]	[20]	[21]
1	Tag. No.		RD-1211B(PG-1212B)	RD-1211C(PG-1212C)	RD-1211D(PG-1212D
2	Quantity		1 SET	1 SET	1 SET
3	Service		PSV-1211B INLET	PSV-1211C INLET	PSV-1211D INLET
		/ Piping Class	J1-PID-1202A / AB1	J1-PID-1202B / AB1	J1-PID-1202B / AB1
	Line Size		1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F
	DESIGN CO		. ,	, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,
		ode or STD.	API RP520	API RP520	API RP520
	Fluid & Sta		H-2312 / GAS	H-2312 / GAS	H-2312 / GAS
_	Reg'd cap		1,917 kg/hr	1,917 kg/hr	1,917 kg/hr
		•	Combination	Combination	Combination
		econdary or Combination	Cooling Medium Failure		_
	Applicatio	n	Cooling Medium Fallure	Cooling Medium Failure	Cooling Medium Failur
	MAWP		40.15	40.15	40.10
	Oper. Pres		19 kPa	19 kPa	19 kPa
	Set. Burst		490 kPa	490 kPa	490 kPa
4	Burst. Tole	erance	±5 %	±5 %	±5 %
5	Manufactu	ıring Range	0%	0%	0%
6	Vacuum C)per./ Max.			
7	Const. Ba	ck Press.	9.8 kPa	9.8 kPa	9.8 kPa
8	Press Stat	ic or Puls.	Static	Static	Static
	1	@Operat. Cond (cP)	0	0	0
		Factor Z @Operat. Cond	0.839	0.839	0.839
	Specific H		1.113	1.113	1.113
	Oper. Ter		50 °C	50 ℃	50 °C
			177.3 ℃	177.3 °C	177.3 ℃
	Relieving 7	remp.			
	MW/SG	2100 0250	276.2	276.2	276.2
		DISC SPEC.	KODDIK	L/ODDI/	L/ODDI/
	Model		KSRRK	KSRRK	KSRRK
26	Туре		Reverse Dome/Shear type	Reverse Dome/Shear type	Reverse Dome/Shear ty
27	Size		1 in	1 in	1 in
28	KOSHA C	ert. type	RS I 1	RS I 1	RS I 1
		Disc	316LSS	316LSS	316LSS
29	Material	Seal			
		Vac. Support			
30	Coating in				
	Q'ty per A		5 / Tag	5 / Tag	5 / Tag
	Discharge		0.79 in ²	0.79 in²	0.79 in²
	Rated cap		4,287.39 kg/hr	4,287.39 kg/hr	4,287.39 kg/hr
		•	4,207.39 kg/III	4,207.09 Kg/III	4,207.09 Kg/III
	HOLDER SI	PEG.	Ovials Incort type	Ovials Incort ture	Ovial Inpart tuna
	Туре		Quick Insert type	Quick Insert type	Quick Insert type
	Model		FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single ty
_	Flange Siz	ze / Rating	1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F
_	<u> </u>				
_	<u> </u>	Holder - up	316SS	316SS	316SS
36	Material	Holder - up Holder - middle	316SS	316SS	31655
36		·	316SS 316SS	316SS 316SS	316SS 316SS
36 37		Holder - middle Holder - down			
36 37	Material	Holder - middle Holder - down			
36 37 38	Material	Holder - middle Holder - down RIES	316SS	316SS	316SS Pressure Gauge_(316SS, NPT-1/2, 0~100
36 37 38 39	Material ACCESSOF Accessory Accessory	Holder - middle Holder - down RIES / 1	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-
36 37 38 38 39	Material ACCESSOF Accessory Accessory Accessory	Holder - middle Holder - down RIES / 1 / 2	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x)
36 37 38 38 39 40	ACCESSOF Accessory Accessory Accessory Accessory	Holder - middle Holder - down RIES / 1 / 2 / 3	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304
36 37 40 41 42	ACCESSOF Accessory Accessory Accessory Accessory Accessory	Holder – middle Holder – down RIES 7 1 7 2 7 3 7 4 7 5	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS)
36 37 38 38 39 40 41 42 43	ACCESSOF Accessory Accessory Accessory Accessory Accessory Accessory	Holder – middle Holder – down RIES 11 12 13 14 15 16	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS)
36 37 38 38 39 40 41 42 43	Accessory Accessory Accessory Accessory Accessory Accessory Accessory Accessory	Holder – middle Holder – down RIES 11 12 13 14 15 16	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-1/4) Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
36 37 38 38 39 40 41 42 43	ACCESSOF Accessory Accessory Accessory Accessory Accessory Accessory	Holder – middle Holder – down RIES 11 12 13 14 15 16	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-1/4; Nipple & Tee_(316SS, NPT-1/4; Preassembly Screws_(304 Jack Screws_(304SS)
36 37 38 39 10 11 12 13 14	Accessory Accessory Accessory Accessory Accessory Accessory Accessory Accessory	Holder – middle Holder – down RIES 11 12 13 14 15 16	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-1/4; Nipple & Tee_(316SS, NPT-1/4; Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
36 37 38 38 39 40 41 42 43 44	Material ACCESSOF Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	Holder – middle Holder – down RIES 11 12 13 14 15 16	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-1/4) Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
36 37 38 38 39 40 41 42 43 44	Material ACCESSOF Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	Holder – middle Holder – down RIES 11 12 13 14 15 16	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
36 37 38 38 39 40 41 42 43 44	Material ACCESSOF Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	Holder – middle Holder – down RIES 11 12 13 14 15 16	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-1/4) Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
36 37 38 38 39 40 41 42 43 44	Material ACCESSOF Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	Holder – middle Holder – down RIES 11 12 13 14 15 16	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
36 37 38 39 10 11 12 13 14	Material ACCESSOF Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	Holder – middle Holder – down RIES 11 12 13 14 15 16	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H) RRK-FS-003	316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)

_(J1 PROJECT		JINSUNG ENG CO., LTD.	
	<u>3ENERAL Γ</u>	DESCRIPTION	[22]	[23]	[24]
1	Tag. No.		RD-1211E(PG-1212E)	RD-1211F(PG-1212F)	RD-1211G(PG-1212G
2	Quantity		1 SET	1 SET	1 SET
3	Service		PSV-1211E INLET	PSV-1211F INLET	PSV-1211G INLET
4	P&ID No.	/ Piping Class	J1-PID-1202C / AB1	J1-PID-1202C / AB1	J1-PID-1202D / AB1
	Line Size &		1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F
	DESIGN CO			I.	<u> </u>
	1	ode or STD.	API RP520	API RP520	API RP520
	Fluid & Sta		H-2312 / GAS	H-2312 / GAS	H-2312 / GAS
_	Reg'd cap		1,917 kg/hr	1,917 kg/hr	1,917 kg/hr
		econdary or Combination	Combination	Combination	Combination
			Cooling Medium Failure	Cooling Medium Failure	Cooling Medium Failur
	Application	[]	Cooling Medium Failure	Cooling Mediani Fandre	Cooling Medium Fallur
	MAWP		19 kPa	19 kPa	19 kPa
	Oper. Pres				
	Set. Burst		490 kPa	490 kPa	490 kPa
	Burst. Tole		±5 %	±5 %	±5 %
		ıring Range	0%	0%	0%
		per./ Max.			
17	Const. Ba	ck Press.	9.8 kPa	9.8 kPa	9.8 kPa
_	Press Stat		Static	Static	Static
19	Viscosity (@Operat. Cond (cP)	0	0	0
20	Compress	Factor Z @Operat. Cond	0.839	0.839	0.839
21	Specific H	leat Ratio (C _p /C _v)	1.113	1.113	1.113
22	Oper. Ter	mp.	50 ℃	50 ℃	50 ℃
	Relieving 1		177.3 ℃	177.3 ℃	177.3 ℃
	MW/SG	remp.	276.2	276.2	276.2
		DISC SPEC.	2.312	2.0.2	27012
	Model	JIGO GFEO.	KSRRK	KSRRK	KSRRK
			Reverse Dome/Shear type	Reverse Dome/Shear type	Reverse Dome/Shear ty
	Type				
	Size		1 in	1 in	1 in
28	KOSHA Ce		RS I 1	RS I 1	RS 1
		Disc	316LSS	316LSS	316LSS
29	Material	Seal			
		Vac. Support			
30	Coating in	let / outlet			
31	Q'ty per A	ss'y	5 / Tag	5 / Tag	5 / Tag
32	Discharge	Area	0.79 in²	0.79 in²	0.79 in²
33	Rated cap	acity	4,287.39 kg/hr	4,287.39 kg/hr	4,287.39 kg/hr
ŀ	HOLDER SE	PEC.			
	Туре		Quick Insert type	Quick Insert type	Quick Insert type
	Model		FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single ty
35			1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F
	いつはいひら シブ	re / Rating		/ ANSI 130# n.i	/ Alvoi 100# P
_	r-iange SIZ	re / Rating Holder - up	,		
36		Holder - up	316SS	316SS	316SS
36	Material	Holder - up Holder - middle	316SS	316SS	316SS
36 37	Material	Holder - up Holder - middle Holder - down	,		
36 37	Material	Holder - up Holder - middle Holder - down	316SS 316SS	316SS 316SS	316SS 316SS
36 37 4 38	Material ACCESSOR Accessory	Holder - up Holder - middle Holder - down	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~100
36 37 4 38 39	Material ACCESSOR Accessory Accessory	Holder – up Holder – middle Holder – down RIES 7 1	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-
36 37 438 39 40	Material ACCESSOR Accessory Accessory Accessory	Holder – up Holder – middle Holder – down RIES 11 22 33	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-100 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x
36 37 438 39	Material ACCESSOR Accessory Accessory	Holder – up Holder – middle Holder – down RIES 11 22 33	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-100 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304
36 37 438 39 40 41	Material ACCESSOR Accessory Accessory Accessory	Holder – up Holder – middle Holder – down RIES 7 1 7 2 7 3 7 4	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-100 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304
36 37 38 38 39 40 41 42	Material ACCESSOR Accessory Accessory Accessory	Holder – up Holder – middle Holder – down RIES 11 22 13 44 15	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS)
36 37 38 38 39 40 41 42 43	Material ACCESSOR Accessory Accessory Accessory Accessory Accessory	Holder – up Holder – middle Holder – down RIES 11 22 3 44 55	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS)
36 37 38 39 40 41 42 43 44	Accessory Accessory Accessory Accessory Accessory Accessory Accessory Accessory	Holder – up Holder – middle Holder – down RIES 11 22 3 44 55	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-1/4; Nipple & Tee_(316SS, NPT-1/4; Preassembly Screws_(304S) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
36 37 38 38 39 40 41 42 43 44 45	ACCESSOR Accessory Accessory Accessory Accessory Accessory Accessory	Holder – up Holder – middle Holder – down RIES 11 22 3 44 55	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-1/4) Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS)
36 37 38 38 39 40 41 42 43 44 45	ACCESSOR Accessory	Holder – up Holder – middle Holder – down RIES 11 22 3 44 55	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS 316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-100 Excess Flow Valve_(316SS, NPT-1/4) Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
36 37 38 38 39 40 41 42 43 44 45	ACCESSOR Accessory	Holder – up Holder – middle Holder – down RIES 11 22 3 44 55	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS 316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-100 Excess Flow Valve_(316SS, NPT-1/4x Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
36 37 38 39 40 41 42 43 44 45	ACCESSOR Accessory	Holder – up Holder – middle Holder – down RIES 11 22 3 44 55	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS 316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-100 Excess Flow Valve_(316SS, NPT-1/4x Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
36 37 38 38 39 40 41 42 43 44 45	ACCESSOR Accessory	Holder – up Holder – middle Holder – down RIES 11 22 3 44 55	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS 316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-100 Excess Flow Valve_(316SS, NPT-1/4x Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
36 37 38 38 39 40 41 42 43 44 45	ACCESSOR Accessory	Holder – up Holder – middle Holder – down RIES 11 22 3 44 55	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H) RRK-FS-003	316SS 316SS 316SS Pressure Gauge_(316SS, NPT-1/2, 0~100 Excess Flow Valve_(316SS, NPT-1/4x Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)

	ECT : J1 PROJECT	CUSTOMER:	JINSUNG ENG CO., LTD.	
GENE	RAL DESCRIPTION	[25]	[26]	[27]
1 Tag.	No.	RD-1211H(PG-1212H)	RD-1211I(PG-1212I)	RD-1211J(PG-1212J)
2 Quai	ntity	1 SET	1 SET	1 SET
3 Serv		PSV-1211H INLET	PSV-1211I INLET	PSV-1211J INLET
	No. / Piping Class	J1-PID-1202D / AB1	J1-PID-1202E / AB1	J1-PID-1202E / AB1
	Size & Rating	1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F
	GN CONDITION	1 / / ((0) 100 // 11.1	1 7711401 100# 11.1	1 / / (100) 100)/ 11.1
		API RP520	API RP520	API RP520
	lied code or STD.			
	d & State	H-2312 / GAS	H-2312 / GAS	H-2312 / GAS
	d capatity	1,917 kg/hr	1,917 kg/hr	1,917 kg/hr
9 Prim	or Secondary or Combination	Combination	Combination	Combination
0 Appl	lication	Cooling Medium Failure	Cooling Medium Failure	Cooling Medium Failur
1 MAV	VP			
2 Oper	r. Press.	19 kPa	19 kPa	19 kPa
3 Set.	Burst Press.	490 kPa	490 kPa	490 kPa
4 Burs	t. Tolerance	±5 %	±5 %	±5 %
5 Man	ufacturing Range	0%	0%	0%
	uum Oper./ Max.			
	st. Back Press.	9.8 kPa	9.8 kPa	9.8 kPa
	s Static or Puls.	Static	Static	Static
	osity @Operat. Cond (cP)	0	0	0
			0.839	0.839
	press Factor Z @Operat. Cond cific Heat Ratio (C _D /C _V)			
	· p· v·	1.113	1.113	1.113
	r. Temp.	50 ℃	50 °C	50 ℃
3 Relie	eving Temp.	177.3 ℃	177.3 ℃	177.3 ℃
4 MW/	'SG	276.2	276.2	276.2
RUPT	URE DISC SPEC.			
5 Mod	el	KSRRK	KSRRK	KSRRK
6 Туре		Reverse Dome/Shear type	Reverse Dome/Shear type	Reverse Dome/Shear ty
7 Size		1 in	1 in	1 in
8 KOS	HA Cert. type	RS I 1	RS I 1	RS I 1
	Disc	316LSS	316LSS	316LSS
9 Mate			3.322	
- mare	Vac. Support			
0 000				
	ting inlet / outlet	5 / Tag	5 / Too	5 / Tog
	per Ass'y		5 / Tag	5 / Tag
	harge Area	0.79 in²	0.79 in²	0.79 in²
	ed capacity	4,287.39 kg/hr	4,287.39 kg/hr	4,287.39 kg/hr
HOLD	DER SPEC.	T-	T.	T
4 Type	9	Quick Insert type	Quick Insert type	Quick Insert type
5 Mod	el	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single ty
6 Flan	ge Size / Rating	1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F
	Holder - up	316SS	316SS	316SS
7 Mate	·			
	Holder – down	316SS	316SS	316SS
ACCE	SSORIES			
	essory 1	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~100
	essory 2	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-
		Nipple & Tee_(316SS, NPT-1/4x1/2)		Nipple & Tee_(316SS, NPT-1/4x
	essory 3			
	essory 4	Preassembly Screws_(304SS)		Preassembly Screws_(304
	essory 5	Jack Screws_(304SS)	Jack Screws_(304SS)	Jack Screws_(304SS)
3 Acce	essory 6	Stud Bolts & Nuts_(B7/2H)	Stud Bolts & Nuts_(B7/2H)	Stud Bolts & Nuts_(B7/2
4 Acce	essory 7			
5 Dwg	. No.	RRK-FS-003	RRK-FS-003	RRK-FS-003
NOTE				
				1
			l 28-M	lay-24 R. Jung J. H. Ju

		J1 PROJECT		JINSUNG ENG CO., LTD.	
(BENERAL I	DESCRIPTION	[28]	[29]	[30]
1	Tag. No.		RD-1222A(PG-1227A)	RD-1222B(PG-1227B)	RD-1223A(PG-1228A
2	Quantity		1 SET	1 SET	1 SET
3	Service		PSV-1222A INLET	PSV-1222B INLET	PSV-1223A INLET
4	P&ID No.	/ Piping Class	J1-PID-1203 / AB1	J1-PID-1203 / AB1	J1-PID-1203 / AB1
5	Line Size	& Rating	1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F
[DESIGN CO	ONDITION			
6	Applied co	ode or STD.	API RP520	API RP520	API RP520
7	Fluid & St	ate	H4 / GAS	H4 / GAS	H4 / GAS
8	Req'd cap	patity	1,328 kg/hr	1,328 kg/hr	1,198 kg/hr
9	Prim or Se	econdary or Combination	Combination	Combination	Combination
10	Applicatio	n	External Fire	External Fire	External Fire
	MAWP				
	Oper. Pre	SS	50 kPa	50 kPa	0 kPa
	Set. Burst		490 kPa	490 kPa	490 kPa
	Burst. Tol		±5 %	±5 %	±5 %
		uring Range	0%	0%	0%
		Oper./ Max.	0.70	0,70	5,0
	Const. Ba		9.8 kPa	9.8 kPa	9.8 kPa
			Static	Static	Static
		Cond (cP)	0	0	0
_	,	@Operat. Cond (cP)		0.839	0.839
		Factor Z @Operat. Cond			
	Specific H	. р ү	1.058	1.058	1.058
	Oper. Te	•	50 °C	50 °C	40 ℃
	Relieving	Temp.	177.3 ℃	177.3 ℃	177.3 ℃
	MW/SG		276.3	276.3	276.3
F	RUPTURE	DISC SPEC.			
25	Model		KSRRK	KSRRK	KSRRK
26	Type		Reverse Dome/Shear type	Reverse Dome/Shear type	Reverse Dome/Shear ty
27	Size		1 in	1 in	1 in
28	KOSHA C	ert. type	RS I 1	RS I 1	RS I 1
		Disc	316LSS	316LSS	316LSS
29	Material	Seal			
		Vac. Support			
30	Coating in	nlet / outlet			
31	Q'ty per A	uss'v	5 / Tag	5 / Tag	5 / Tag
	Discharge		0.79 in²	0.79 in²	0.79 in²
	Rated car		4,564.06 kg/hr	4,564.06 kg/hr	4,564.06 kg/hr
	HOLDER S	*	, ,	,	, ,
	Туре		Quick Insert type	Quick Insert type	Quick Insert type
	Model		FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type	
		ze / Rating	1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F
50	i lange oiz	Holder - up	316SS	316SS	316SS
37	Material	Holder - middle	31000	3,000	31000
<i>J</i> 1	material		316SS	316SS	316SS
-	000000	Holder - down	01000	01000	01000
	ACCESSOF		Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kP	a) Pressure Gauge_(316SS, NPT-1/2, 0~100
	Accessory		Excess Flow Valve_(316SS, NPT=1/2)	Excess Flow Valve_(316SS, NPT-1/2	
	Accessory	•			
	Accessory		Nipple & Tee_(316SS, NPT-1/4x1/2)		
	Accessory		Preassembly Screws_(304SS)		·
	Accessory		Jack Screws_(304SS)	Jack Screws_(304SS)	Jack Screws_(304SS)
	Accessory		Stud Bolts & Nuts_(B7/2H)	Stud Bolts & Nuts_(B7/2H) Stud Bolts & Nuts_(B7/2
	Accessory	/ /		BE::	
45	Dwg. No.		RRK-FS-003	RRK-FS-003	RRK-FS-003
*	<u>IOTE</u>				
				l 28-	May-24 R. Jung J. H. Ju

		J1 PROJECT		JINSUNG ENG CO., LTD.	*		
_(BENERAL [DESCRIPTION	[31]	[32]	[33]		
1	Tag. No.		RD-1223B(PG-1228B)	RD-1225A(PG-1229A)	RD-1225B(PG-1229B		
2	Quantity		1 SET	1 SET	1 SET		
3	Service		PSV-1223B INLET	PSV-1225A INLET	PSV-1225B INLET		
4	P&ID No.	/ Piping Class	J1-PID-1203 / AB1	J1-PID-1203 / AB1	J1-PID-1203 / AB1		
5	Line Size	& Rating	1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F		
_[DESIGN CO	ONDITION					
6	Applied co	ode or STD.	API RP520	API RP520	API RP520		
7	Fluid & Sta	ate	H4 / GAS	H4 / GAS	H4 / GAS		
8	Req'd cap	patity	1,198 kg/hr	1,329 kg/hr	1,329 kg/hr		
9	Prim or Se	econdary or Combination	Combination	Combination	Combination		
10	Applicatio	n	External Fire	External Fire	External Fire		
11	MAWP						
12	Oper. Pres	SS.	0 kPa	0 kPa	0 kPa		
13	Set. Burst	Press.	490 kPa	490 kPa	490 kPa		
	Burst. Tole		±5 %	±5 %	±5 %		
		uring Range	0%	0%	0%		
		Oper./ Max.					
	Const. Ba		9.8 kPa	9.8 kPa	9.8 kPa		
	Press Stat		Static	Static	Static		
		@Operat. Cond (cP)	0	0	0		
_	,	Factor Z @Operat. Cond	0.839	0.838	0.838		
21	Specific H		1.058	1.031	1.031		
	Oper. Ter	, b. f.	40 °C	50 °C	50 °C		
		·	177.3 °C	215.6 °C	215.6 °C		
	Relieving	remp.	276.3	391.8	391.8		
	MW/SG	DIGG 0050	270.3	391.0	391.0		
		DISC SPEC.	KSRRK	KSRRK	KSRRK		
	Model						
	Туре		Reverse Dome/Shear type	Reverse Dome/Shear type	-		
	Size		1 in	1 in	1 in		
28	KOSHA C		RS 1	RS 1	RS 1		
		Disc	316LSS	316LSS	316LSS		
29	Material	Seal					
		Vac. Support					
30	Coating in	nlet / outlet	_ , _	_ , _	_ , _		
	Q'ty per A		5 / Tag	5 / Tag	5 / Tag		
	Discharge		0.79 in²	0.79 in²	0.79 in²		
	Rated cap	*	4,564.06 kg/hr	5,172.1 kg/hr	5,172.1 kg/hr		
	HOLDER SI	PEC.		T			
34	Type		Quick Insert type	Quick Insert type	Quick Insert type		
_	Model		FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single ty		
36	Flange Siz	ze / Rating	1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F		
		Holder – up	316SS	316SS	316SS		
37	Material	Holder - middle					
		Holder – down	316SS	316SS	316SS		
	ACCESSOF	RIES					
38	Accessory	/ 1	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa	Pressure Gauge_(316SS, NPT-1/2, 0~100		
39	Accessory	/ 2	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-		
_	Accessory	/ 3	Nipple & Tee_(316SS, NPT-1/4x1/2)	Nipple & Tee_(316SS, NPT-1/4x1/2)	Nipple & Tee_(316SS, NPT-1/4x		
<u>4</u> 0	Accessory	/ 4	Preassembly Screws_(304SS)	Preassembly Screws_(304SS)	Preassembly Screws_(304		
			Jack Screws_(304SS)	Jack Screws_(304SS)	Jack Screws_(304SS)		
41	Accessory			Stud Bolts & Nuts_(B7/2H)	Stud Bolts & Nuts_(B7/2		
41 42		/ 6	Stud Bolts & Nuts_(B7/2H)	· · · · · · · · · · · · · · · · · · ·	† · · · · · · · · · · · · · · · · · · ·		
41 42 43	Accessory		Stud Boils & Nuts_(B1/2H)				
41 42 43 44	Accessory Accessory			RRK-FS-003	RRK-FS-003		
41 42 43 44 45	Accessory Accessory Accessory Dwg. No.		RRK-FS-003	RRK-FS-003	RRK-FS-003		
41 42 43 44 45	Accessory Accessory			RRK-FS-003	RRK-FS-003		
41 42 43 44 45	Accessory Accessory Accessory Dwg. No.			RRK-FS-003	RRK-FS-003		
41 42 43 44 45	Accessory Accessory Accessory Dwg. No.			RRK-FS-003	RRK-FS-003		
41 42 43 44 45	Accessory Accessory Accessory Dwg. No.			RRK-FS-003	RRK-FS-003		
41 42 43 44 45	Accessory Accessory Accessory Dwg. No.				RRK-FS-003		

		JINSUNG ENG CO., LTD.	[00]
DESCRIPTION	[34]	[35]	[36]
	RD-1302A(PG-1305A)	RD-1302B(PG-1305B)	RD-1303(PG-1309)
	1 SET	1 SET	1 SET
	PSV-1302A INLET	PSV-1302B INLET	PSV-1303 INLET
/ Piping Class	J1-PID-1301 / AB1	J1-PID-1301 / AB1	J1-PID-1301 / AB1
& Rating	1-1/2" / ANSI 150# R.F	1-1/2" / ANSI 150# R.F	3/4" / ANSI 150# R.F
ONDITION			
code or STD.	API RP520	API RP520	API RP520
tate	H2 / GAS	H2 / GAS	H4 / GAS
patity	1,954 kg/hr	1,954 kg/hr	337 kg/hr
Secondary or Combination	Combination	Combination	Combination
on	External Fire	External Fire	CW Failure
ess.	9.8 kPa	9.8 kPa	49 kPa
	186 kPa	186 kPa	490 kPa
	±0.015 Mpa	±0.015 Mpa	±5 %
	· ·	· ·	0%
	9.8 kPa	9 8 kPa	9.8 kPa
			Static
			0
- ' '			0.86
			1.054
. р ү			
•			88 ℃
Temp.			86.5 °C
	391.4	391.4	162.3
DISC SPEC.		I	
	_		KSRRK
	Reverse Dome/Shear type	Reverse Dome/Shear type	Reverse Dome/Shear ty
	1.5 in	1.5 in	0.75 in
Cert. type		RS II 1	RS I 1
Disc	316LSS	316LSS	316LSS
Seal			
Vac. Support			
nlet / outlet			
Ass'y	5 / Tag	5 / Tag	5 / Tag
e Area	1.77 in²	1.77 in²	0.44 in²
pacity	5,478.05 kg/hr	5,478.05 kg/hr	2,006.13 kg/hr
	Quick Insert type	Quick Insert type	Quick Insert type
	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single ty
ize / Rating			3/4" / ANSI 150# R.F
			316SS
·	3.555	5.555	2.330
	316SS	31688	316SS
·	01000	01000	01000
y 1	Pressure Gauge_(316SS, NPT-1/2, 0~300kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~300kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~100
	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-
y 2	Nipple & Tee_(316SS, NPT-1/4x1/2)		Nipple & Tee_(316SS, NPT-1/4x
ry 3			
ry 4	Preassembly Screws_(304SS)	Preassembly Screws_(304SS)	Preassembly Screws_(304
	Jack Screws_(304SS)	Jack Screws_(304SS)	Jack Screws_(304SS)
ry 5	01 10 11 0 11 (0=15:1)	OL 10 11 0 11 1 (0 - 10 - 1)	0
y 5 y 6	Stud Bolts & Nuts_(B7/2H)	Stud Bolts & Nuts_(B7/2H)	Stud Bolts & Nuts_(B7/2
ry 5	Stud Bolts & Nuts_(B7/2H) RRK-FS-003	Stud Bolts & Nuts_(B7/2H) RRK-FS-003	Stud Bolts & Nuts_(B7/2
	code or STD. tate patity decondary or Combination con ess. It Press. lerance during Range Oper./ Max. ack Press. titic or Puls. @Operat. Cond (cP) s Factor Z @Operat. Cond Heat Ratio (C _p /C _v) emp. Temp. DISC SPEC. Cert. type Disc Seal Vac. Support Inlet / outlet Ass'y e Area pacity SPEC. ize / Rating Holder - up Holder - middle Holder - down RIES	API RP520 tate	API RP520

Tag. No. RD-1312A/PG-1312A) RD-1312B/PG-1312B) RD-1322A/PG-2 Quantity 1 SET 1	G-1322A) ET A INLET 03 / AB1
2 Quantity 1 SET 1 SET 1 SET 3 Service PSV-1312A INLET PSV-1312B INLET PSV-132B INLET PSP IN INLET PSP IN INLET PSP IN INLET PSP INLET PSP INLET	A INLET
2 Quantity 1 SET 1 SET 1 SET 3 Service PSV-1312A INLET PSV-1312B INLET PSV-132B	A INLET 03 / AB1
Service	3 / AB1
PAID No. / Piping Class	
Society Static Size & Rating Static St	
DESIGN CONDITION	130# h.F
6 Applied code or STD. API RP520 API RP520 API RP520 API RP520 P1 / GAS A90 kPa 436.1 kg/hr Combination A30 / A49 P1 / B4 P1	
Fluid & State	500
8 Req'd capatity 436.1 kg/hr 436.1 kg/hr 768 kg/hr 9 Prim or Secondary or Combination Combination Combination Combination 10 Application External Fire External Fire External Fire 11 MAWP 12 Oper. Press. 314 kPa 314 kPa 314 kPa 12 Oper. Press. 490 kPa 490 kPa 490 kPa 490 kPa 14 Burst. Tolerance ±5 % ±5 % ±5 % ±5 % 15 Manufacturing Range 0% 0% 0% 16 Vacuum Oper./ Max.	
9 Prim or Secondary or Combination Combination Combination Combination 10 Application External Fire Ext	
10	ر/hr
11 MAWP	ation
12 Oper, Press. 314 kPa 490 kPa 455 % ±5 % ±5 % ±5 % ±5 % ±5 % ±5 % 5 % 0 % O	l Fire
13 Set. Burst Press. 490 kPa 490 kPa 490 kPa 14 Burst. Tolerance ±5 % ±5 % ±5 % 15 Manufacturing Range 0% 0% 0% 16 Vacuum Oper./ Max. Vacuum Oper./ Max. Vacuum Oper./ Max. Vacuum Oper./ Max. 17 Const. Back Press. 9.8 kPa 9.8 kPa 9.8 kPa 8 Press Static or Puls. Static Static Static 19 Viscosity @Operat. Cond (cP) 0 0 0 0 20 Compress Factor Z @Operat. Cond 0.948 0.948 0.86 0.86 21 Specific Heat Ratio (Cp/Cv) 1.065 1.065 1.103 0.86 0.86 0.86 0.86 0.200.7° 200.7° 200.7° 200.7° 86.6° 0.200.7° 200.7° 86.6° 0.200.7° 86.6° 0.200.7° 86.6° 0.200.7° 86.6° 0.200.7° 86.6° 0.200.7° 86.6° 0.200.7° 86.6° 0.200.7° 86.6° 0.200.7°	
13 Set. Burst Press. 490 kPa 490 kPa 490 kPa 14 Burst. Tolerance ±5 % ±5 % ±5 % 15 Manufacturing Range 0% 0% 0% 16 Vacuum Oper./ Max.	Pa
14 Burst. Tolerance ±5 % ±5 % ±5 % 15 Manufacturing Range 0% 0% 0% 16 Vacuum Oper./ Max. 0% 0% 0% 17 Const. Back Press. 9.8 kPa 9.8 kPa 9.8 kPa 18 Press Static or Puls. Static Static Static 19 Viscosity @Operat. Cond (cP) 0 0 0 20 Compress Factor Z @Operat. Cond 0.948 0.948 0.86 21 Specific Heat Ratio (Cp/Cv) 1.065 1.065 1.103 22 Oper. Temp. 10 °C 10 °C 40 °C 23 Relieving Temp. 200.7 °C 200.7 °C 86.6 °C 24 MW/SG 162.3 162.3 162.3 RUPTURE DISC SPEC. 25 Model KSRRK KSRRK KSRRK 6 Type Reverse Dome/Shear type Reverse Dome/Shear type Reverse Dome/Shear type 27 Size 0.75 in 0.75 in 0.75 in 0.75 in 28 KOSHA Cert. type RS I 1 RS I 1 RS I 1 RS I 1	Pa
15 Manufacturing Range 0% 0% 0% 16 Vacuum Oper./ Max. 9.8 kPa 9.8 kPa 9.8 kPa 17 Const. Back Press. 9.8 kPa 9.8 kPa 9.8 kPa 18 Press Static or Puls. Static Static Static 19 Viscosity @Operat. Cond (cP) 0 0 0 20 Compress Factor Z @Operat. Cond 0.948 0.948 0.86 21 Specific Heat Ratio (Cp/Cv) 1.065 1.065 1.103 22 Oper. Temp. 10 °C 10 °C 40 °C 24 MW/SG 162.3 162.3 162.3 RUPTURE DISC SPEC. 25 Model KSRRK KSRRK KSRRK 7 Size 0.75 in 0.75 in 0.75 in 27 Size 0.75 in 0.75 in 0.75 in 28 KOSHA Cert. type RS I 1 RS I 1 RS I 1 29 Material Disc 316LSS 316LSS 31 Q'ty per Ass'y 5 / Tag 5 / Tag 5 / Tag 32 Discharge Area 0.44 in² 0.44 in² 0.	
16 Vacuum Oper. / Max.	
17 Const. Back Press. 9.8 kPa 9.8 kPa 9.8 kPa 18 Press Static or Puls. Static Static Static 19 Viscosity @Operat. Cond (cP) 0 0 0 20 Compress Factor Z @Operat. Cond 0.948 0.948 0.86 21 Specific Heat Ratio (Cp/Cv) 1.065 1.103 22 Oper. Temp. 10 °C 10 °C 40 °C 23 Relieving Temp. 200.7 °C 200.7 °C 86.6 °C 24 MW/SG 162.3 162.3 162.3 RUPTURE DISC SPEC. 25 Model KSRRK KSRRK KSRRK KSRRK 26 Type Reverse Dome/Shear type 27 Size 0.75 in 0.75 in 0.75 in 0.75 in 29 Material Disc 316LSS 316LSS 316LSS 30 Coating inlet / outlet	
18	
19 Viscosity @Operat. Cond (cP) 0 0 0 0 20 Compress Factor Z @Operat. Cond 0.948 0.948 0.966 21 Specific Heat Ratio (Cp/Cv) 1.065 1.065 1.065 1.103 22 Oper. Temp. 10 °C 10 °C 40 °C 23 Relieving Temp. 200.7 °C 200.7 °C 86.6 °C 24 MW/SG 162.3 162.3 162.3 162.3 **RUPTURE DISC SPEC.** 25 Model KSRRK KSRRK KSRRK KSRRK KSRRK 26 Type Reverse Dome/Shear type Reverse Do	
20 Compress Factor Z @Operat. Cond 0.948 0.948 0.948 0.86	ıC
21 Specific Heat Ratio (C _p /C _v) 1.065 1.065 1.103 22 Oper. Temp. 10 °C 10 °C 40 °C 23 Relieving Temp. 200.7 °C 200.7 °C 86.6 °C 24 MW/SG 162.3 162.3 162.3 3 RUPTURE DISC SPEC. 25 Model KSRRK KSRRK KSRRK KSRRK 26 Type Reverse Dome/Shear type Reverse Dome/Shear type Reverse Dome/Shear type 27 Size 0.75 in 0.75 in 0.75 in 28 KOSHA Cert. type RS 1 RS 1 RS 1 29 Material Seal Vac. Support 30 Coating inlet / outlet 31 Q'ty per Ass'y 5 / Tag 5 / Tag 32 Discharge Area 0.44 in² 0.44 in² 0.44 in² 33 Rated capacity 1,810.38 kg/hr 1,810.38 kg/hr 2,208.46 k HOLDER SPEC.	
21 Specific Heat Ratio (Cp/Cv) 1.065 1.065 1.103 22 Oper. Temp. 10 °C 10 °C 40 °C 23 Relieving Temp. 200.7 °C 200.7 °C 86.6 °C 24 MW/SG 162.3 162.3 162.3 RUPTURE DISC SPEC. 25 Model KSRRK KSRRK KSRRK KSRRK 26 Type Reverse Dome/Shear type Reverse Dome/Sh	ĵ
200.7 °C 200.7 °C 86.6 °C	3
23 Relieving Temp. 200.7 °C 200.7 °C 86.6 °C	 C
24 MW/SG	°C
RUPTURE DISC SPEC. 25 Model KSRRK KSRK KSRRK KSRK KSRRK KSRK KSRK KSRK KSRRK KSRRK KSRRK KSRK KSRK KSRK KSRK KSR	
25 Model KSRRK RS of the composition	0
Reverse Dome/Shear type Reverse Dome/She	21/
27 Size 0.75 in 0.75 in 0.75 in 28 KOSHA Cert. type RS I 1 RS I 1 RS I 1 Bost 316LSS 316LSS 316LSS 316LSS 316LSS 316LSS 30 Coating inlet / outlet 5 / Tag 5 / Tag 31 Q'ty per Ass'y 5 / Tag 5 / Tag 32 Discharge Area 0.44 in² 0.44 in² 33 Rated capacity 1,810.38 kg/hr 1,810.38 kg/hr HOLDER SPEC. 34 Type Quick Insert type Quick Insert type	
28 KOSHA Cert. type RS I 1 R	
Disc 316LSS 316	in
29 Material Seal Vac. Support 30 Coating inlet / outlet 5 / Tag 31 Q'ty per Ass'y 5 / Tag 5 / Tag 32 Discharge Area 0.44 in² 0.44 in² 33 Rated capacity 1,810.38 kg/hr 1,810.38 kg/hr 2,208.46 k HOLDER SPEC. 34 Type Quick Insert type Quick Insert type Quick Insert type	1
Vac. Support Vac. Support 30 Coating inlet / outlet 31 Q'ty per Ass'y 5 / Tag 5 / Tag 5 / Tag 32 Discharge Area 0.44 in² 0.44 in² 0.44 in² 0.44 in² 33 Rated capacity 1,810.38 kg/hr 1,810.38 kg/hr 2,208.46 k HOLDER SPEC. 34 Type Quick Insert type Quick Inse	SS
30 Coating inlet / outlet 5 / Tag 5 / Tag 5 / Tag 31 Q'ty per Ass'y 5 / Tag 5 / Tag 5 / Tag 32 Discharge Area 0.44 in² 0.44 in² 0.44 in² 33 Rated capacity 1,810.38 kg/hr 1,810.38 kg/hr 2,208.46 k HOLDER SPEC. 34 Type Quick Insert type Quick Insert type Quick Insert type	
30 Coating inlet / outlet 5 / Tag 5 / Tag 5 / Tag 31 Q'ty per Ass'y 5 / Tag 5 / Tag 5 / Tag 32 Discharge Area 0.44 in² 0.44 in² 0.44 in² 33 Rated capacity 1,810.38 kg/hr 1,810.38 kg/hr 2,208.46 k HOLDER SPEC. 34 Type Quick Insert type Quick Insert type Quick Insert type	
31 Q'ty per Ass'y 5 / Tag 5 / Tag 5 / Tag 32 Discharge Area 0.44 in² 0.44 in² 0.44 in² 33 Rated capacity 1,810.38 kg/hr 1,810.38 kg/hr 2,208.46 k HOLDER SPEC. 34 Type Quick Insert type Quick Insert type Quick Insert	
32 Discharge Area 0.44 in² 0.44 in² 0.44 in² 33 Rated capacity 1,810.38 kg/hr 1,810.38 kg/hr 2,208.46 k HOLDER SPEC. 34 Type Quick Insert type Quick Insert type Quick Insert type	ad
33 Rated capacity 1,810.38 kg/hr 1,810.38 kg/hr 2,208.46 k HOLDER SPEC. 34 Type Quick Insert type Quick Insert type Quick Insert	
HOLDER SPEC. 34 Type Quick Insert type Quick Insert type Quick Insert type Quick Insert	
34 Type Quick Insert type Quick Insert type Quick Insert	Ng/III
35 IModel LES(Insert Flat Seat Single type) LES(Insert Flat Seat Single	
	- ,,
36 Flange Size / Rating 3/4" / ANSI 150# R.F 3/4" / ANSI 150# R.F 3/4" / ANSI 15	150# R.F
Holder – up 316SS 316SS 316SS	SS
37 Material Holder - middle	
Holder - down 316SS 316SS 316SS	SS
ACCESSORIES	
38 Accessory 1 Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Pressure G	JPT-1/2, 0~1000
39 Accessory 2 Excess Flow Valve_(316SS, NPT-1/2) E	
7.4000001, 2	
10 / 10000001) 0	
41 Accessory 4 Preassembly Screws_(304SS) Preassembly Screws_(304SS) Preassembly Screws_(304SS)	
42 Accessory 5 Jack Screws_(304SS) Jack Screws_(304SS) Jack Screws_(
43 Accessory 6 Stud Bolts & Nuts_(B7/2H) Stud Bolts & Nuts_(B7/2H) Stud Bolts & Nuts_(B7/2H)	uts_(B7/2
44 Accessory 7	
45 Dwg. No. RRK-FS-003 RRK-FS-003 RRK-FS-0	-003
* NOTE	
	+
I	
I 28-May-24 R. Jung REV. NO. DATE DES'D	J. H. Ju

	ECT : J1 PROJECT			JINSUNG ENG CO	J., LID.			
GENE	RAL DESCRIPTION		[40]	[41]			[42]	
1 Tag.	No.		RD-1322B(PG-1322B)	RD-1322C(PG-	-1322C)	RD-	-1332A(P	3-1332A
2 Quar	ntity		1 SET	1 SET			1 SE	Τ
3 Servi	ce		PSV-1322B INLET	PSV-1322C	INLET	F	PSV-1332 <i>F</i>	INLET
4 P&ID	No. / Piping Class		J1-PID-1303 / AB1	J1-PID-1303	/ AB1	J.	1-PID-1304	A / AB1
5 Line	Size & Rating		3/4" / ANSI 150# R.F	3/4" / ANSI 15	50# R.F	1	" / ANSI 1	50# R.F
DESIG	N CONDITION							
6 Appli	ied code or STD.		API RP520	API RP52	20		API RP	520
7 Fluid	& State		P1 / GAS	P1 / GA	S		P1 / G	AS
Req'	d capatity		768 kg/hr	768 kg/l	nr		1,309 k	g/hr
9 Prim	or Secondary or Co	mbination	Combination	Combinat	ion		Combina	ation
0 Appli	ication		External Fire	External F	ire		External	Fire
1 MAW								
2 Oper	. Press.		314 kPa	314 kPa	3		309 kF	Pa
	Burst Press.		490 kPa	490 kPa	<u> </u>		490 kF	Pa
	t. Tolerance		±5 %	±5 %			±5 %	/ 0
	ufacturing Range		0%	0%			0%	
	um Oper./ Max.							
	st. Back Press.		9.8 kPa	9.8 kPa	a		9.8 kF	Pa
	s Static or Puls.		Static	Static			Statio	
	osity @Operat. Cond	d (cP)	0	0			0	
_	press Factor Z @Or		0.86	0.86			0.82	7
	rific Heat Ratio	(C_p/C_v)	1.103	1.103			1.05	
	. Temp.	(- p v/	40 °C	40 °C			80 °C	
	ving Temp.		86.6 °C	86.6 ℃			66.1	
4 MW/S			162.3	162.3			162	
	URE DISC SPEC.		102.0	102.0			102	
5 Mode			KSRRK	KSRRK			KSRR	K
6 Type			Reverse Dome/Shear type	Reverse Dome/S		Reve	rse Dome	
7 Size			0.75 in	0.75 in		TICVC	1 in	
	HA Cert. type		RS I 1	RS I 1			RS I	
:0 NUSI	Disc		316LSS	316LSS			316LS	
29 Mate			310233	310230)		JIOLO	
iviale	o o a.							
0 0 +	Vac. Support							
	ing inlet / outlet		5 / Tag	5 / Tag			5 / Ta	10
	per Ass'y		0.44 in²	0.44 in			0.79 i	
	narge Area		2,208.46 kg/hr	2.208.46 k			4,056.12	
	d capacity		2,200.40 kg/III	2,200.40 K	9/111		4,030.12	Kg/III
	ER SPEC.		Oviola Incort tuno	Outals Impart	t up o		Outak Isaa	ut turn o
4 Type			Quick Insert type	Quick Insert			Quick Inse	
Mode			FS(Insert Flat Seat Single type)	FS(Insert Flat Seat	0 7		ert Flat Sea	
o Flanc	ge Size / Rating		3/4" / ANSI 150# R.F 316SS	3/4" / ANSI 15			/ ANSI 1	
7 11-+-	Holder - up	ماام	31055	316SS			316S	S
7 Mate			21600	01600			21.00	<u> </u>
4005	Holder - dow	'n	316SS	316SS			316S	J
1 -	SSORIES	1	Propouro Cours (21600 MDT 1/0 0 1000/D)	Procesure Cours (24,000 NOT	-1/2 0100000 \	Process	Gauge_(316SS, N	OT_1/0 0 100
8 Acce			Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT				-
9 Acce			Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316			Flow Valve_(3	
0 Acce			Nipple & Tee_(316SS, NPT-1/4x1/2)				& Tee_(316SS	
	essory 4		Preassembly Screws_(304SS)	Preassembly Screv			sembly Scr	
2 Acce			Jack Screws_(304SS)	Jack Screws_(ck Screws	
3 Acce			Stud Bolts & Nuts_(B7/2H)	Stud Bolts & Nut	s_(B//2H)	Stud	Bolts & Nu	ITS_(B//2
4 Acce			DD:/ T0 555		200		DE:/ =	000
5 Dwg.	No.		RRK-FS-003	RRK-FS-0	J03		RRK-FS	-003
NOTE				-	-			
							·	
				ı				
				1	28-M	lay-24	R. Jung	J. H. Jı

(J1 PROJECT		JINSUNG ENG CO., LTD.	
	<u>GENERAL Γ</u>	DESCRIPTION	[43]	[44]	[45]
1	Tag. No.		RD-1332B(PG-1332B)	RD-1333(PG-1335)	RD-1334A(PG-1336A
2	Quantity		1 SET	1 SET	1 SET
3	Service		PSV-1332B INLET	PSV-1333 INLET	PSV-1334A INLET
4	P&ID No.	/ Piping Class	J1-PID-1304B / AB1	J1-PID-1304A / AB1	J1-PID-1304A / AB1
5	Line Size &	& Rating	1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F
[DESIGN CO	ONDITION			
	1	ode or STD.	API RP520	API RP520	API RP520
	Fluid & Sta		P1 / GAS	P1 / GAS	P1 / GAS
	Reg'd cap		1,309 kg/hr	896 kg/hr	896 kg/hr
		econdary or Combination	Combination	Combination	Combination
		•	External Fire	External Fire	Thermal Expansion
	Application MAWP	II	External File	External Fire	THEITIAI EXPANSION
			309 kPa	314 kPa	314 kPa
	Oper. Pres				
	Set. Burst		490 kPa	490 kPa	490 kPa
	Burst. Tole		±5 %	±5 %	±5 %
		uring Range	0%	0%	0%
6	Vacuum O)per./ Max.			
7	Const. Ba	ck Press.	9.8 kPa	9.8 kPa	9.8 kPa
8	Press Stat	ic or Puls.	Static	Static	Static
9	Viscosity (@Operat. Cond (cP)	0	0	0
0	Compress	Factor Z @Operat. Cond	0.827	0.837	0.837
	Specific H		1.055	1.056	1.056
2	Oper. Ter	mp.	80 ℃	40 °C	40 °C
	Relieving 1	•	66.1 °C	66 ℃	66 ℃
	MW/SG	remp.	162	162	162
	•	DISC SPEC.	. 52	102	102
	Model	DIGO SPEO.	KSRRK	KSRRK	KSRRK
			Reverse Dome/Shear type	Reverse Dome/Shear type	
	Type				-
			1 in	1 in	1 in
28	KOSHA Ce		RS 1	RS I 1	RS 1
		Disc	316LSS	316LSS	316LSS
29	Material	Seal			
		Vac. Support			
30	Coating in	let / outlet			
31	Q'ty per A	ss'y	5 / Tag	5 / Tag	5 / Tag
32	Discharge	Area	0.79 in²	0.79 in²	0.79 in ²
33	Rated cap	pacity	4,056.12 kg/hr	4,032.41 kg/hr	3,719.34 kg/hr
ŀ	HOLDER SE	PEC.			
	Type		Quick Insert type	Quick Insert type	Quick Insert type
	Model		FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single ty
_	Flange Siz	ze / Bating	1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F
-	i lango oiz	Holder - up	316SS	316SS	316SS
	Material	Holder - middle	0.000	3.300	01000
37	Waterial		316SS	316SS	316SS
37		Holder - down	31033	31033	31033
	NOOFBOOD	NEC			
_	ACCESSOF		D (21000 NIDT 1/0 0 1000LD-)	D (21600 NDT 1/2 0 1000)-D-	D C (21000 NDT 1/2 0 100
4 38	Accessory	<i>'</i> 1	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa	
4 38 39	Accessory Accessory	v 1 v 2	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-
38 39 40	Accessory Accessory Accessory	/ 1 / 2 / 3	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	
38 39 10	Accessory Accessory	/ 1 / 2 / 3	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304
38 39 10	Accessory Accessory Accessory	/ 1 / 2 / 3 / 4	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304
38 39 40 41	Accessory Accessory Accessory	7 1 7 2 7 3 7 4 7 5	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Excess Flow Valve_(316SS, NPT-Nipple & Tee_(316SS, NPT-1/4x
38 39 40 41 42 43	Accessory Accessory Accessory Accessory	7 1 7 2 7 3 7 4 7 5	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4> Preassembly Screws_(304 Jack Screws_(304SS)
38 39 40 41 42 43	Accessory Accessory Accessory Accessory Accessory Accessory	7 1 7 2 7 3 7 4 7 5	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS)
188 189 10 11 12 13 14	Accessory Accessory Accessory Accessory Accessory Accessory Accessory	7 1 7 2 7 3 7 4 7 5	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
38 39 40 41 42 43 44 45	Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	7 1 7 2 7 3 7 4 7 5	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2
38 39 40 41 42 43 44 45	Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	7 1 7 2 7 3 7 4 7 5	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2
188 189 10 11 12 13 14	Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	7 1 7 2 7 3 7 4 7 5	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2
38 39 10 11 12 13 14	Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	7 1 7 2 7 3 7 4 7 5	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2
38 39 40 41 42 43 44 45	Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	7 1 7 2 7 3 7 4 7 5	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H) RRK-FS-003	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2

	T: J1 PROJECT		JINSUNG ENG CO., LTD.			
GENERAI	L DESCRIPTION	[46]	[47]	[48]		
1 Tag. No		RD-1334B(PG-1336B)	RD-1334C(PG-1336C)	RD-1334D(PG-1336D		
2 Quantity	,	1 SET	1 SET	1 SET		
3 Service		PSV-1334B INLET	PSV-1334C INLET	PSV-1334D INLET		
4 P&ID No	o. / Piping Class	J1-PID-1304A / AB1	J1-PID-1304B / AB1	J1-PID-1304B / AB1		
5 Line Size	e & Rating	1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F		
DESIGN (CONDITION					
6 Applied	code or STD.	API RP520	API RP520	API RP520		
7 Fluid & S	State	P1 / GAS	P1 / GAS	P1 / GAS		
B Reg'd c	apatity	896 kg/hr	896 kg/hr	896 kg/hr		
9 Prim or	Secondary or Combination	Combination	Combination	Combination		
0 Applicat	•	Thermal Expansion	External Fire	External Fire		
1 MAWP						
2 Oper. Pi	ress	314 kPa	314 kPa	314 kPa		
3 Set. Bur		490 kPa	490 kPa	490 kPa		
4 Burst. T		±5 %	±5 %	±5 %		
	cturing Range	0%	0%	0%		
	Oper./ Max.	0.70	3.0	0,0		
	Back Press.	9.8 kPa	9.8 kPa	9.8 kPa		
	tatic or Puls.	Static	Static	Static		
		0	0	0		
	y @Operat. Cond (cP)	0.837	0.837	0.837		
0 10	ss Factor Z @Operat. Cond Heat Ratio (Cp/Cv)	1.056	1.056	1.056		
- ' '	. p v.			40 °C		
22 Oper. T	· ·	40 °C	40 °C			
23 Relieving		66 ℃	66 ℃	66 ℃		
24 MW/SG		162	162	162		
	E DISC SPEC.	L/ODDI/	L/ODDI/	L/ODDI/		
25 Model		KSRRK	KSRRK	KSRRK		
26 Type		Reverse Dome/Shear type	Reverse Dome/Shear type	-		
27 Size		1 in	1 in	1 in		
28 KOSHA	Cert. type	RS I 1	RS I 1	RS I 1		
	Disc	316LSS	316LSS	316LSS		
29 Material	Seal					
	Vac. Support					
30 Coating	inlet / outlet					
31 Q'ty per	Ass'y	5 / Tag	5 / Tag	5 / Tag		
32 Dischar	ge Area	0.79 in²	0.79 in²	0.79 in²		
33 Rated c	apacity	3,719.34 kg/hr	4,032.41 kg/hr	4,032.41 kg/hr		
HOLDER	SPEC.					
34 Type		Quick Insert type	Quick Insert type	Quick Insert type		
35 Model		FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single ty		
36 Flange S	Size / Rating	1" / ANSI 150# R.F	1" / ANSI 150# R.F	1" / ANSI 150# R.F		
	Holder - up	316SS	316SS	316SS		
37 Material	Holder - middle					
	Holder - down	316SS	316SS	316SS		
ACCESSO	· ·			•		
38 Accesso		Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa	Pressure Gauge_(316SS, NPT-1/2, 0~100		
39 Accesso		Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-		
40 Accesso	<u> </u>	Nipple & Tee_(316SS, NPT-1/4x1/2)				
41 Accesso		Preassembly Screws_(304SS)	Preassembly Screws_(304SS)			
42 Accesso		Jack Screws_(304SS)	Jack Screws_(304SS)	Jack Screws_(304SS)		
43 Accesso		Stud Bolts & Nuts_(B7/2H)	Stud Bolts & Nuts_(B7/2H)	Stud Bolts & Nuts_(B7/2		
14 Accesso		Stad Dollo d Natio_(D7/211)	Stad Dono & Hats_(D1/211)	Stad Boilo d Nato_(D1/2		
		RRK-FS-003	RRK-FS-003	RRK-FS-003		
45 Dwg. No	J.	11111 1 0 000	11111/10/000	11111 1 3 003		
* NOTE						
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			1 20 11	1ay 24 11. July 3. 11. J		

PROJECT : J1 PROJECT	CUSTOMER:			
GENERAL DESCRIPTION	[49]	[50]	[51]	
1 Tag. No.	RD-1347A(PG-1348A)	RD-1347B(PG-1348B)	RD-1301A(PG-1306A)	
2 Quantity	1 SET	1 SET	1 SET	
3 Service	PSV-1347A INLET	PSV-1347B INLET	PSV-1301A INLET	
4 P&ID No. / Piping Class	J1-PID-1305A / AB1	J1-PID-1305 / AB1	J1-PID-1301 / AB1	
	1-1/2" / ANSI 150# R.F	1-1/2" / ANSI 150# R.F	1" / ANSI 150# R.F	
5 Line Size & Rating	1 1/2 / ANSI 130# 11.1	1 1/2 / ANSI 130# 11.1	1 / ANSI 130# 11.1	
DESIGN CONDITION	A DI DDEGO	ADI DDEGO	ADI DDEGO	
6 Applied code or STD.	API RP520	API RP520	API RP520	
7 Fluid & State	P1 / GAS	P1 / GAS	H2 / GAS	
8 Reg'd capatity	1,859 kg/hr	1,859 kg/hr	738 kg/hr	
9 Prim or Secondary or Combination	Combination	Combination	Combination	
10 Application	External Fire	External Fire	External Fire	
11 MAWP				
12 Oper. Press.	314 kPa	314 kPa	49 kPa	
13 Set. Burst Press.	490 kPa	490 kPa	490 kPa	
14 Burst. Tolerance	±5 %	±5 %	±5 %	
15 Manufacturing Range	0%	0%	0%	
9 9	0.70	0 70	0,0	
16 Vacuum Oper./ Max.	9.8 kPa	9.8 kPa	9.8 kPa	
17 Const. Back Press.				
18 Press Static or Puls.	Static	Static	Static	
19 Viscosity @Operat. Cond (cP)	0	0	0	
20 Compress Factor Z @Operat. Cond	0.837	0.837	0.878	
21 Specific Heat Ratio (C_p/C_v)	1.056	1.056	1.055	
22 Oper. Temp.	40 ℃	40 °C	120 ℃	
23 Relieving Temp.	66 ℃	66 ℃	179.4 ℃	
24 MW/SG	162.3	162.3	133.7	
RUPTURE DISC SPEC.				
25 Model	KSRRK	KSRRK	KSRRK	
26 Type	Reverse Dome/Shear type	Reverse Dome/Shear type	Reverse Dome/Shear type	
	1.5 in	1.5 in	1 in	
27 Size				
28 KOSHA Cert. type	RS II 1	RS II 1	RS I 1	
Disc	316LSS	316LSS	316LSS	
29 Material Seal				
Vac. Support				
30 Coating inlet / outlet				
31 Q'ty per Ass'y	5 / Tag	5 / Tag	5 / Tag	
32 Discharge Area	1.77 in²	1.77 in²	0.79 in²	
33 Rated capacity	9,081.32 kg/hr	9,081.32 kg/hr	3,096.36 kg/hr	
HOLDER SPEC.	, 0.	, 5.	,	
	Quick Insert type	Quick Insert type	Quick Insert type	
34 Type			Quick Insert type	
35 Model	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type	
36 Flange Size / Rating	1-1/2" / ANSI 150# R.F	1-1/2" / ANSI 150# R.F	1" / ANSI 150# R.F	
Holder - up	316SS	316SS	316SS	
37 Material Holder - middle				
Holder - down	316SS	316SS	316SS	
ACCESSORIES				
38 Accessory 1	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kP	
39 Accessory 2	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-1/2	
40 Accessory 3	Nipple & Tee_(316SS, NPT-1/4x1/2)		Nipple & Tee_(316SS, NPT-1/4x1/2	
	Preassembly Screws_(304SS)	Preassembly Screws_(304SS)	Preassembly Screws_(304SS	
41 Accessory 4	1			
42 Accessory 5	Jack Screws_(304SS)	Jack Screws_(304SS)	Jack Screws_(304SS)	
43 Accessory 6	Stud Bolts & Nuts_(B7/2H)	Stud Bolts & Nuts_(B7/2H)	Stud Bolts & Nuts_(B7/2H	
44 Accessory 7				
45 Dwg. No.	RRK-FS-003	RRK-FS-003	RRK-FS-003	
* NOTE				
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			ay-24 R. Jung J. H. Jun	
		REV. NO. DA	TE DES'D APP'D	

_(J1 PROJECT		JINSUNG ENG CO., LTD.			
	GENERAL [DESCRIPTION	[52]	[53]	[54]		
1	Tag. No.		RD-1301B(PG-1306B)	RD-1221A(PG-1226A)	RD-1221B(PG-1226B)		
2	Quantity		1 SET	1 SET	1 SET		
3	Service		PSV-1301B INLET	PSV-1221A INLET	PSV-1221B INLET		
4	P&ID No.	/ Piping Class	J1-PID-1301 / AB1	J1-PID-1203 / AB1	J1-PID-1203 / AB1		
5	Line Size	& Rating	1" / ANSI 150# R.F	1-1/2" / ANSI 150# R.F	1-1/2" / ANSI 150# R.		
[DESIGN CO	ONDITION	•				
ŝ	Applied co	ode or STD.	API RP520	API RP520	API RP520		
7	Fluid & Sta	ate	H2 / GAS	H4 / GAS	H4 / GAS		
_	Reg'd cap		738 kg/hr	2,018 kg/hr	2,018 kg/hr		
		econdary or Combination	Combination	Combination	Combination		
	Applicatio	•	External Fire	External Fire	External Fire		
	MAWP	11	External File	External File	Externar i iio		
	Oper. Pres	00	49 kPa	0 kPa	0 kPa		
			490 kPa	186 kPa	186 kPa		
	Set. Burst				±0.015 Mpa		
	Burst. Tole		±5 %	±0.015 Mpa	'		
		uring Range	0%	0%	0%		
)per./ Max.					
	Const. Ba		9.8 kPa	9.8 kPa	9.8 kPa		
8	Press Stat	tic or Puls.	Static	Static	Static		
9	Viscosity (@Operat. Cond (cP)	0	0	0		
0	Compress	Factor Z @Operat. Cond	0.878	0.875	0.875		
1	Specific H	leat Ratio (C _p /C _v)	1.055	1.04	1.04		
2	Oper. Ter	mp.	120 ℃	50 ℃	50 ℃		
3	Relieving 1	Temp.	179.4 ℃	209.1 ℃	209.1 ℃		
	MW/SG		133.7	337.8	337.8		
		DISC SPEC.	I.		I		
	Model	DIOC OI LO.	KSRRK	KSRRK	KSRRK		
	Туре		Reverse Dome/Shear type	Reverse Dome/Shear type	Reverse Dome/Shear ty		
			1 in	1.5 in	1.5 in		
_	Size		RS I 1	RS II 1	RS II 1		
8	KOSHA Ce						
_		Disc	316LSS	316LSS	316LSS		
9	Material	Seal					
		Vac. Support					
0	Coating in	let / outlet					
1	Q'ty per A	.ss'y	5 / Tag	5 / Tag	5 / Tag		
2	Discharge	Area	0.79 in²	1.77 in²	1.77 in²		
3	Rated cap	pacity	3,096.36 kg/hr	5,020.9 kg/hr	5,020.9 kg/hr		
ŀ	HOLDER SI	PEC.					
	Туре		Quick Insert type	Quick Insert type	Quick Insert type		
	Model		FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)			
_	Flange Siz	ze / Bating	1" / ANSI 150# R.F	1-1/2" / ANSI 150# R.F	1-1/2" / ANSI 150# R.		
6	. lange oiz	Holder - up	316SS	316SS	316SS		
6	1	Holder - middle	3.300	2.000	21000		
	Material	THE PROPERTY OF THE PROPERTY O		1			
	Material		31699	31699	31699		
7		Holder - down	316SS	316SS	316SS		
7	ACCESSOF	Holder – down					
7 8	ACCESSOF Accessory	Holder - down RIES 7 1	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~300kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~30		
7 8 9	ACCESSOF Accessory	Holder – down RIES / 1	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2)	Pressure Gauge_(316SS, NPT-1/2, 0~300kPa) Excess Flow Valve_(316SS, NPT-1/2)	Pressure Gauge_(316SS, NPT-1/2, 0~30 Excess Flow Valve_(316SS, NPT-		
7 8 9	ACCESSOF Accessory Accessory	Holder – down RIES / 1 / 2 / 3	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0-300kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0-30 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x		
7 8 9	ACCESSOF Accessory	Holder – down RIES / 1 / 2 / 3	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-300kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~30 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304		
7 8 9 0	ACCESSOF Accessory Accessory	Holder – down RIES 7 1 7 2 7 3 7 4	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0-300kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0~30 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304		
7 8 9 0 1	ACCESSOF Accessory Accessory Accessory	Holder – down RIES 7 1 7 2 7 3 7 4 7 5	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-300kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-30 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS)		
7 8 9 0 1 2	ACCESSOF Accessory Accessory Accessory Accessory	Holder – down RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-300kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-30 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS)		
7 8 9 0 1 2 3 4	ACCESSOF Accessory Accessory Accessory Accessory Accessory	Holder – down RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-300kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-30 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS)		
7 8 9 0 1 2 3 4	ACCESSOR Accessory Accessory Accessory Accessory Accessory Accessory Accessory	Holder – down RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-300kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-30 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2		
7 8 9 0 1 2 3 4 5	ACCESSOR Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	Holder – down RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-300kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-30 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2		
7 8 9 0 1 2 3 4 5	ACCESSOR Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	Holder – down RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-300kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-30 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2		
7 8 9 0 1 2 3 4 5	ACCESSOR Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	Holder – down RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-300kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-30 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2		
7 8 9 0 1 2 3 4 5	ACCESSOR Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	Holder – down RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-300kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-30 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2		
7 8 9 0 1 2 3 4 5	ACCESSOR Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	Holder – down RIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Pressure Gauge_(316SS, NPT-1/2, 0-300kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H) RRK-FS-003	Pressure Gauge_(316SS, NPT-1/2, 0-30 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2		

(J1 PROJECT		JINSUNG ENG CO., LTD.	
	<u> GENERAL Γ</u>	DESCRIPTION	[55]	[56]	[57]
1	Tag. No.		RD-1338(PG-1337)	RD-1319(PG-1314)	RD-1344A(PG-1344A
2	Quantity		1 SET	1 SET	1 SET
3	Service		PSV-1338 INLET	PSV-1319 INLET	PSV-1344A INLET
4	P&ID No.	/ Piping Class	J1-PID-1304B / AB1	J1-PID-1302 / AB1	J1-PID-1305A / AB1
5	Line Size &	& Rating	3/4" / ANSI 150# R.F	3/4" / ANSI 150# R.F	1/2" / ANSI 150# R.F
	DESIGN CO				l .
	ſ	ode or STD.	API RP520	API RP520	API RP520
	Fluid & Sta		P1 / GAS	P1 / GAS	C4F6 / LIQUID
	Reg'd cap		525 kg/hr	123 kg/hr	7 kg/hr
		econdary or Combination	Combination	Combination	Combination
		•	External Fire	External Fire	Outlet Blocked
	Application	П	External File	External Fire	Outlet blocked
	MAWP		314 kPa	49 kPa	1.95 kg/cm²
	Oper. Pres				735.5 kPa
	Set. Burst		490 kPa	490 kPa	
	Burst. Tole		±5 %	±5 %	±5 %
		uring Range	0%	0%	0%
	Vacuum O	•			
	Const. Ba		9.8 kPa	9.8 kPa	1.95 kg/cm²
18	Press Stat	tic or Puls.	Static	Static	Static
19	Viscosity (@Operat. Cond (cP)	0	0	0.5
20	Compress	Factor Z @Operat. Cond	0.923	0.86	1
21	Specific H	leat Ratio (C _p /C _v)	1.05	1.054	0
22	Oper. Ter	mp.	80 ℃	5 ℃	10 ℃
	Relieving 1		153.4 ℃	86.5 ℃	10 ℃
	MW/SG		169.9	162.3	1.11
		DISC SPEC.	I.	L	
	Model	DIOC OI LO.	KSRRK	KSRRK	KSRRK
	Type		Reverse Dome/Shear type	Reverse Dome/Shear type	
			0.75 in	0.75 in	0.5 in
	Size		RS I 1	RS I 1	0.5 111
28	KOSHA Ce				04.01.00
•		Disc	316LSS	316LSS	316LSS
29	Material	Seal			
		Vac. Support			
30	Coating in	let / outlet			
31	Q'ty per A	ss'y	5 / Tag	5 / Tag	5 / Tag
32	Discharge	Area	0.44 in²	0.44 in²	0.2 in²
33	Rated cap	pacity	1,966.29 kg/hr	2,174.99 kg/hr	10,302.12 kg/hr
	HOLDER SE	PEC.			
34	Type		Quick Insert type	Quick Insert type	Quick Insert type
35	Model		FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single ty
	Flange Siz	ze / Rating	3/4" / ANSI 150# R.F	3/4" / ANSI 150# R.F	1/2" / ANSI 150# R.F
		Holder - up	316SS	316SS	316SS
	Material	Holder - middle			
37		Holder – down	316SS	316SS	316SS
37					0,000
	100E880E	*	01000		
_	ACCESSOR	RIES		Pressure Gauge_(316SS, NPT-1/2_0~1000kPa)	Pressure Gauge (316SS, NPT-1/2, 0~1
38	Accessory	RIES / 1	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Fycess Flow Valve (316SS, NPT-1/2)	
38 39	Accessory Accessory	RIES 7 1 7 2	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-
38 39 40	Accessory Accessory	RIES 7 1 7 2 7 3	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Excess Flow Valve_(316SS, NPT-Nipple & Tee_(316SS, NPT-1/4x
38 39 40 41	Accessory Accessory Accessory	RIES 7 1 7 2 7 3 7 4	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-1.3 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304
38 39 40 41 42	Accessory Accessory Accessory Accessory	NIES 7 1 7 2 7 3 7 4 7 5	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4> Preassembly Screws_(304 Jack Screws_(304SS)
38 39 40 41 42	Accessory Accessory Accessory	NIES 7 1 7 2 7 3 7 4 7 5	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Excess Flow Valve_(316SS, NPT-Nipple & Tee_(316SS, NPT-1/4x
38 39 40 41 42 43 44	Accessory Accessory Accessory Accessory Accessory Accessory Accessory	NIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-Nipple & Tee_(316SS, NPT-1/4x) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
38 39 40 41 42 43	Accessory Accessory Accessory Accessory Accessory Accessory Accessory	NIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4: Preassembly Screws_(304 Jack Screws_(304SS
38 39 40 41 42 43 44 45	Accessory Accessory Accessory Accessory Accessory Accessory	NIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4; Preassembly Screws_(304 Jack Screws_(304SS Stud Bolts & Nuts_(B7/2
38 39 40 41 42 43 44 45	Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	NIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-Nipple & Tee_(316SS, NPT-1/4x) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
38 39 40 41 42 43 44 45	Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	NIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
38 39 40 41 42 43 44 45	Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	NIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-Nipple & Tee_(316SS, NPT-1/4x) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
38 39 40 41 42 43 44 45	Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	NIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-Nipple & Tee_(316SS, NPT-1/4x) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)
38 39 40 41 42 43 44 45	Accessory Accessory Accessory Accessory Accessory Accessory Accessory Dwg. No.	NIES 7 1 7 2 7 3 7 4 7 5 7 6	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H)	Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2H) RRK-FS-003	Excess Flow Valve_(316SS, NPT-Nipple & Tee_(316SS, NPT-1/4x) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)

		J1 PROJECT		JINSUNG ENG CO.,	LID.			
G	ENERAL I	DESCRIPTION	[58]	[59]			[60]	
1	Tag. No.		RD-1344B(PG-1344B)	RD-1345A(PG-13	45A)	RD	-1345B(P0	G-1345B
2	Quantity		1 SET	1 SET			1 SE	Т
3	Service		PSV-1344B INLET	PSV-1345A INL	ET	F	PSV-1345E	3 INLET
4	P&ID No.	/ Piping Class	J1-PID-1305A / AB1	J1-PID-1305A /	AB1	J	1-PID-1305	A / AB1
5	Line Size	& Rating	1/2" / ANSI 150# R.F	1/2" / ANSI 300#	R.F	1/	2" / ANSI 3	300# R.F
	ESIGN CO		•					
		ode or STD.	API RP520	API RP520			API RP	520
	Fluid & St		C4F6 / LIQUID	VR / LIQUID			VR / LIC	UID
-	Reg'd cap		7 kg/hr	1.8 kg/hr			1.8 kg	
		econdary or Combination	Combination	Combination			Combina	
		•	Outlet Blocked	Outlet Blocker	4		Outlet Blo	
	Applicatio MAWP	III	Odlict Blocked	Outlet Blocket	<u> </u>		Outlet bic	ocked
			1.95 kg/cm²	2,131 kPa			2,131 k	/Do
	Oper. Pre		735.5 kPa					
	Set. Burst			2,942 kPa			2,942 k	
	Burst. Tol		±5 %	±5 %			±5 %	6
-+		uring Range	0%	0%			0%	
-+		Oper./ Max.				<u> </u>		
7	Const. Ba	ck Press.	1.95 kg/cm²	0.1 kg/cm ²			0.1 kg/	
8	Press Stat	tic or Puls.	Static	Static			Stati	С
9	Viscosity (@Operat. Cond (cP)	0.5	0.5			0.5	
0	Compress	Factor Z @Operat. Cond	1	1			1	
1	Specific H	leat Ratio (C _p /C _v)	0	1.4			1.4	
2	Oper. Tei	mp.	10 ℃	10 ℃			10 ℃)
	Relieving		10 ℃	10 ℃			10 °C	;
	MW/SG	romp.	1.11	1.11			1.11	
		DISC SPEC.		1.11				
		DISC SPEC.	KSRRK	KSRSR			KSRS	D
	Model				a al + , , , a	Davis		
	Туре		Reverse Dome/Shear type	Reverse Dome/Scor	ed type	Revei		
-	Size		0.5 in	0.5 in			0.5 ii	n
8.	KOSHA C	ert. type						
		Disc	316LSS	316LSS		<u> </u>	316LS	SS
9	Material	Seal						
		Vac. Support						
0	Coating in	let / outlet						
1	Q'ty per A	.ss'y	5 / Tag	5 / Tag			5 / Ta	ıg
2	Discharge	Area	0.2 in²	0.2 in²			0.2 ir	l ²
3	Rated car	pacity	10,302.12 kg/hr	23,463.6 kg/h	r		23,463.6	kg/hr
Н	OLDER S	PFC.						
	Туре	. = 0.	Quick Insert type	Quick Insert typ)e		Quick Inse	rt type
	Model		FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Sing		_	sert Flat Sea	
_		ze / Rating	1/2" / ANSI 150# R.F	1/2" / ANSI 300#			2" / ANSI (
U	ı ıarıye olz		316SS	316SS	(1.1	17	316S	
_	Motorial	Holder - up	31033	31033		-	3105	U
1	Material	Holder - middle	04000	04.000			04.00	<u> </u>
	00555	Holder - down	316SS	316SS			316S	S
	CCESSOF							
	Accessory		Pressure Gauge_(316SS, NPT-1/2, 0~1.5Mpa)	Pressure Gauge_(316SS, NPT-1/			Gauge_(316SS,	
9	Accessory	/ 2	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS,	NPT-1/2)	Excess	Flow Valve_(3	16SS, NPT-
0	Accessory	/ 3	Nipple & Tee_(316SS, NPT-1/4x1/2)	Nipple & Tee_(316SS, NPT	-1/4x1/2)	Nipple	& Tee_(316SS	, NPT-1/4x
1.	Accessory	/ 4	Preassembly Screws_(304SS)	Preassembly Screws_	(304SS)	Preas	sembly Scr	ews_(304
2	Accessory	, 5	Jack Screws_(304SS)	Jack Screws_(30-	4SS)	Ja	ck Screws	_(304SS)
	Accessory		Stud Bolts & Nuts_(B7/2H)	Stud Bolts & Nuts_(B7/2H)	Stud	Bolts & Nu	uts_(B7/2
	Accessory		,					
_	Dwg. No.		RRK-FS-003	RSR-FS-001			RSR-FS-	-001
	OTE						20	•
I W	<u>UIL</u>							1
				<u> </u>	28-M	1ay-24	R. Jung	J. H. Ju

	PROJECT	CUSTOMER:	JINSUNG EI	·	υ.			
GENERAL DES	SCRIPTION	[1]	T	[2]			[3]	
1 Tag. No.		RD-1101C(PG-1102C)	RD-1101	D(PG-110	2D)	RD	-1101F(P	G-1102F
2 Quantity		1 SET	1	SET			1 SE	Т
3 Service		PSV-1101C INLET	PSV-1	101D INLE	Γ	F	PSV-1101F	INLET
4 P&ID No. / P	iping Class	J1-PID-1101 / BA1	J1-PID-	-1101 / BA	1		J1-PID-110	1 / BA1
Line Size & F	ating	1/2" / ANSI 300# R.F	1/2" / AN	NSI 300# F	R.F	1/	2" / ANSI 3	300# R.F
DESIGN CONE	DITION							
Applied code	or STD.	API RP520	API	I RP520			API RP	520
7 Fluid & State		CTFE / LIQUID	CTFE	/ LIQUID			CTFE / LI	IQUID
Req'd capati	ty	5.8 kg/hr	5.8	8 kg/hr			5.5 kg	/hr
Prim or Seco	ndary or Combination	Combination	Com	bination			Combina	ation
0 Application		Outlet Blocked	Outle	t Blocked			Outlet Blo	ocked
1 MAWP								
2 Oper. Press.		727 kPa	72	27 kPa			727 kl	⊃a
3 Set. Burst Pre	ess.	892 kPa	89	92 kPa			892 kl	Pa
4 Burst. Tolera	nce	±5 %	=	±5 %			±5 %	6
5 Manufacturin	g Range	0%		0%			0%	
6 Vacuum Ope								
7 Const. Back		677 kPa	67	77 kPa			9.8 kF	Pa Pa
8 Press Static		Static	9	Static			Stati	
	perat. Cond (cP)	1		1			1	
,	ctor Z @Operat. Cond	1		1			1	
1 Specific Heat		0		0			0	
2 Oper. Temp	·	20 °C		20 °C			20 °C)
3 Relieving Ten		35 ℃		35 ℃			35 ℃)
4 MW/SG	τρ.	1.3		1.3			1.3	
RUPTURE DIS	C SPEC							
5 Model	0 01 20.	KSRRK	K	SRRK			KSRF	!K
6 Type		Reverse Dome/Shear type	Reverse Do		tyne	Reve	rse Dome	
7 Size		0.5 in).5 in	typo	11010	0.5 i	
8 KOSHA Cert.	typo	0.0 111		7.0 111			0.01	
	SC SC	316LSS	3	16LSS			316LS	35
	eal	010200	0	10200			01020	
	ac. Support							
0 Coating inlet	' '							
1 Q'ty per Ass'		5 / Tag	5	/ Tag			5 / Ta	9.0
2 Discharge Ar		0.2 in ²		7.14g 1.2 in²			0.2 ir	
3 Rated capaci		7,714.46 kg/hr		1.46 kg/hr			13,850.58	
•		7,7 14.40 Ng/III	7,71	1.40 Kg/III			10,000.00	, Ng/III
HOLDER SPEC	<i>)</i> .	Quick Insert type	Ouick	Insert type			Quick Inse	rt type
4 Type		FS(Insert Flat Seat Single type)	FS(Insert Flat				sert Flat Sea	
5 Model 6 Flange Size /	Pating	1/2" / ANSI 300# R.F	·	VSI 300# F	,, ,		2" / ANSI (
		316SS		16SS	1.1	1/	316S	
	older – up	01000	3	1000			0100	J
	older – middle	316SS	2	16SS			316S	ς
	older – down	01000		1000			5105	J
ACCESSORIES	,	Pressure Gauge_(316SS, NPT-1/2, 0~1.5Mpa)	Pressure Gauge_(31	6SS_NPT-1/2_0-	~1.5Mno)	Preseuro	Gauge_(316SS, N	IPT-1/2 0~1
8 Accessory 1		Excess Flow Valve_(316SS, NPT=1/2)	Excess Flow Val				Flow Valve_(3	
9 Accessory 2		Nipple & Tee_(316SS, NPT-1/4x1/2)					& Tee_(316SS	
0 Accessory 3		Preassembly Screws_(304SS)					sembly Scr	
1 Accessory 4			-		-			
2 Accessory 5		Jack Screws_(304SS)		ews_(304S			ck Screws	
3 Accessory 6		Stud Bolts & Nuts_(B7/2H)	Stud Bolts	a muls_(B/	/ Z []	Stud	Bolts & Nu	uto_(Ď//2
4 Accessory 7		DDK-E6-004	חחו	_EQ_004			DDK. FO	-004
5 Dwg. No.		RRK-FS-004	HHK	-FS-004			RRK-FS	004
NOTE			г			1		
								1
								1
								1
				В	128-M	ay-24	R. Jung	J. H. Ju
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		J1 PROJECT		JINSUNG ENG CO., LTD.		
G	ENERAL [DESCRIPTION	[4]	[5]	[6]	
1 7	Гад. No.		RD-1101G(PG-1102G)	RD-1231A(PG-1231A)	RD-1231B(PG-1231B	
2 (Quantity		1 SET	1 SET	1 SET	
3 5	Service		PSV-1101G INLET	PSV-1231A INLET	PSV-1231B INLET	
1 F	P&ID No.	/ Piping Class	J1-PID-1101 / BA1	J1-PID-1202A / AB1	J1-PID-1202A / AB1	
5 L	ine Size	& Rating	1/2" / ANSI 300# R.F	1/2" / ANSI 150# R.F	1/2" / ANSI 150# R.F	
DI	ESIGN CO	ONDITION				
6 A	Applied co	ode or STD.	API RP520	API RP520	API RP520	
7 F	Fluid & St	ate	CTFE / LIQUID	H-2312 / LIQUID	H-2312 / LIQUID	
3 F	Req'd cap	atity	5.5 kg/hr	19.1 kg/hr	19.1 kg/hr	
) F	Prim or Se	econdary or Combination	Combination	Combination	Combination	
0 /	Applicatio	n	Outlet Blocked	Outlet Blocked	Outlet Blocked	
1 N	MAWP					
2 (Oper. Pres	SS.	727 kPa	21.57 kPa	21.57 kPa	
3 8	Set. Burst	Press.	892 kPa	0.667 MPa	0.667 MPa	
4 E	Burst. Tol	erance	±5 %	±5 %	±5 %	
5 N	Manufactu	ıring Range	0%	0%	0%	
6	/acuum C	per./ Max.				
7 (Const. Ba	ck Press.	9.8 kPa	21.57 kPa	21.57 kPa	
8 F	Press Stat	ic or Puls.	Static	Static	Static	
9 \	/iscosity (@Operat. Cond (cP)	1	0.623	0.623	
0 (Compress	Factor Z @Operat. Cond	1	1	1	
1 5	Specific H	leat Ratio (C _p /C _v)	0	0	0	
2 (Oper. Ter	mp.	20 ℃	95 ℃	95 ℃	
3 F	Relieving 7	Temp.	35 ℃	105 ℃	105 ℃	
	MW/SG		1.3 MW:276.3 / SG: 2.25		MW:276.3 / SG: 2.25	
RI	UPTURE I	DISC SPEC.				
5 N	Model		KSRRK	KSRRK	KSRRK	
6 1	Гуре		Reverse Dome/Shear type	Reverse Dome/Shear type	Reverse Dome/Shear ty	
	Size		0.5 in	0.5 in	0.5 in	
8 k	KOSHA C	ert. type				
		Disc	316LSS	316LSS	316LSS	
9 1	Material	Seal				
		Vac. Support				
0 (Coating in	let / outlet				
1 (Q'ty per A	ss'y	5 / Tag	5 / Tag	5 / Tag	
2 [Discharge	Area	0.2 in²	0.2 in²	0.2 in²	
3 F	Rated cap	pacity	13,850.58 kg/hr	15,828.62 kg/hr	15,828.62 kg/hr	
Н	OLDER SI	PEC.				
	Гуре		Quick Insert type	Quick Insert type	Quick Insert type	
5 N	Model		FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type	* * * * * * * * * * * * * * * * * * * *	
6 F	lange Siz	ze / Rating	1/2" / ANSI 300# R.F	1/2" / ANSI 150# R.F	1/2" / ANSI 150# R.F	
	-	Holder - up	316SS	316SS	316SS	
7 N	Material	Holder - middle				
		Holder - down	316SS	316SS	316SS	
Α	CCESSOF	*				
T.	Accessory		Pressure Gauge_(316SS, NPT-1/2, 0~1.5Mpa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa	Pressure Gauge_(316SS, NPT-1/2, 0~100	
_	Accessory		Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-1/2	Excess Flow Valve_(316SS, NPT-	
0 /	Accessory	<i>'</i> 3	Nipple & Tee_(316SS, NPT-1/4x1/2)	Nipple & Tee_(316SS, NPT-1/4x1/2	Nipple & Tee_(316SS, NPT-1/4x	
	Accessory		Preassembly Screws_(304SS)	Preassembly Screws_(304SS)	Preassembly Screws_(304	
	Accessory		Jack Screws_(304SS)			
_	Accessory		Stud Bolts & Nuts_(B7/2H)			
_	Accessory					
-	Dwg. No.		RRK-FS-004	RRK-FS-005	RRK-FS-005	
	OTE				•	
					1	
				 		
				B 28-N	May-24 R. Jung J. H. Ju	

PROJECT : .	I1 PROJECT		JINSUNG ENG CO., LTD.		
GENERAL DE	SCRIPTION	[7]	[8]	[9]	
1 Tag. No.		RD-1231C(PG-1231C)	RD-1231D(PG-1231D)	RD-1231E(PG-1231E	
2 Quantity		1 SET	1 SET	1 SET	
3 Service		PSV-1231C INLET	PSV-1231D INLET	PSV-1231E INLET	
4 P&ID No. /	Pining Class	J1-PID-1202B / AB1	J1-PID-1202B / AB1	J1-PID-1202C / AB1	
Line Size &	, ,	1/2" / ANSI 150# R.F	1/2" / ANSI 150# R.F	1/2" / ANSI 150# R.F	
DESIGN CON		172 7 711401 1001/11.1	172 7 711401 1001/11.1	1/2 / /((0) 100// 11.1	
Applied cod		API RP520	API RP520	API RP520	
7 Fluid & Stat		H-2312 / LIQUID	H-2312 / LIQUID	H-2312 / LIQUID	
		19.1 kg/hr	19.1 kg/hr	19.1 kg/hr	
Reg'd capa		_	_	_	
	ondary or Combination	Combination	Combination	Combination	
0 Application		Outlet Blocked	Outlet Blocked	Outlet Blocked	
1 MAWP		04.57.15	04.57.15	04 57 1 5	
2 Oper. Press		21.57 kPa	21.57 kPa	21.57 kPa	
3 Set. Burst P		0.667 MPa	0.667 MPa	0.667 MPa	
4 Burst. Toler	ance	±5 %	±5 %	±5 %	
5 Manufacturi	ng Range	0%	0%	0%	
6 Vacuum Op	er./ Max.				
7 Const. Back	Press.	21.57 kPa	21.57 kPa	21.57 kPa	
8 Press Static	or Puls.	Static	Static	Static	
	Operat. Cond (cP)	0.623	0.623	0.623	
	actor Z @Operat. Cond	1	1	1	
1 Specific He		0	0	0	
-	- P	95 ℃	95 ℃	95 ℃	
Oper. Tem		95 C	95 C	95 ℃ 105 ℃	
3 Relieving Te	mp.				
4 MW/SG		MW:276.3 / SG: 2.25	MW:276.3 / SG: 2.25	MW:276.3 / SG: 2.25	
RUPTURE DI	SC SPEC.	KODDK	KODDK	KODDK	
5 Model		KSRRK	KSRRK	KSRRK	
6 Type		Reverse Dome/Shear type	Reverse Dome/Shear type	Reverse Dome/Shear ty	
27 Size		0.5 in	0.5 in	0.5 in	
8 KOSHA Cer	t. type				
	Disc	316LSS	316LSS	316LSS	
9 Material	Seal				
\	/ac. Support				
0 Coating inle	t / outlet				
1 Q'ty per Ass		5 / Tag	5 / Tag	5 / Tag	
2 Discharge A	•	0.2 in²	0.2 in²	0.2 in²	
3 Rated capa		15,828.62 kg/hr	15,828.62 kg/hr	15,828.62 kg/hr	
HOLDER SPE		10,020.02 Ng/111	10,020.02 Ng/111	10,020.02 Ng/111	
	<u></u>	Quick Insert type	Quick Insert type	Quick Insert type	
4 Type			,,		
5 Model	/ D .::	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single t	
6 Flange Size		1/2" / ANSI 150# R.F	1/2" / ANSI 150# R.F	1/2" / ANSI 150# R.F	
	Holder - up	316SS	316SS	316SS	
7 Material	Holder - middle				
ŀ	Holder – down	316SS	316SS	316SS	
ACCESSORIE	S				
88 Accessory 1		Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~100	
9 Accessory 2)	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-	
0 Accessory 3		Nipple & Tee_(316SS, NPT-1/4x1/2)	Nipple & Tee_(316SS, NPT-1/4x1/2)	Nipple & Tee_(316SS, NPT-1/4	
1 Accessory 4		Preassembly Screws_(304SS)	Preassembly Screws_(304SS)	Preassembly Screws_(304	
2 Accessory 5		,,,	,,,	,(
3 Accessory 6					
4 Accessory 7		DDIV FO OOF	DDV FO OOF	DDN EC OUE	
5 Dwg. No.		RRK-FS-005	RRK-FS-005	RRK-FS-005	
NOTE			<u> </u>		
			B 28-M	ay-24 R. Jung J. H. J	

	PROJECT : J1 PROJECT		JINSUNG ENG CO., LTD.	
	GENERAL DESCRIPTION	[10]	[11]	[12]
1	Tag. No.	RD-1231F(PG-1231F)	RD-1231G(PG-1231G)	RD-1231H(PG-1231H)
2	Quantity	1 SET	1 SET	1 SET
3	Service	PSV-1231F INLET	PSV-1231G INLET	PSV-1231H INLET
4	P&ID No. / Piping Class	J1-PID-1202C / AB1	J1-PID-1202D / AB1	J1-PID-1202D / AB1
	Line Size & Rating	1/2" / ANSI 150# R.F	1/2" / ANSI 150# R.F	1/2" / ANSI 150# R.F
[DESIGN CONDITION			
	Applied code or STD.	API RP520	API RP520	API RP520
	Fluid & State	H-2312 / LIQUID	H-2312 / LIQUID	H-2312 / LIQUID
	Reg'd capatity	19.1 kg/hr	19.1 kg/hr	19.1 kg/hr
	Prim or Secondary or Combination	Combination	Combination	Combination
		Outlet Blocked	Outlet Blocked	Outlet Blocked
	Application	Outlet Blocked	Outlet Blocked	Outlet Blocked
	MAWP	04.57.15	04.57.18	04 57 1 5
	Oper. Press.	21.57 kPa	21.57 kPa	21.57 kPa
	Set. Burst Press.	0.667 MPa	0.667 MPa	0.667 MPa
14	Burst. Tolerance	±5 %	±5 %	±5 %
15	Manufacturing Range	0%	0%	0%
16	Vacuum Oper./ Max.			
17	Const. Back Press.	21.57 kPa	21.57 kPa	21.57 kPa
18	Press Static or Puls.	Static	Static	Static
	Viscosity @Operat. Cond (cP)	0.623	0.623	0.623
	Compress Factor Z @Operat. Cond	1	1	1
	Specific Heat Ratio (C_p/C_v)	0	0	0
	Oper. Temp.	95 ℃	95 ℃	95 ℃
		105 °C	105 °C	105 °C
	Relieving Temp.			
	MW/SG	MW:276.3 / SG: 2.25	MW:276.3 / SG: 2.25	MW:276.3 / SG: 2.25
	RUPTURE DISC SPEC.	1 1/055/		
25	Model	KSRRK	KSRRK	KSRRK
26	Type	Reverse Dome/Shear type	Reverse Dome/Shear type	Reverse Dome/Shear typ
27	Size	0.5 in	0.5 in	0.5 in
28	KOSHA Cert. type			
	Disc	316LSS	316LSS	316LSS
29	Material Seal			
	Vac. Support			
3 N	Coating inlet / outlet			
		5 / Tag	5 / Tag	5 / Tag
	Q'ty per Ass'y	0.2 in ²	0.2 in ²	0.2 in ²
	Discharge Area			
	Rated capacity	15,828.62 kg/hr	15,828.62 kg/hr	15,828.62 kg/hr
	HOLDER SPEC.	П		
34	Type	Quick Insert type	Quick Insert type	Quick Insert type
35	Model	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type
36	Flange Size / Rating	1/2" / ANSI 150# R.F	1/2" / ANSI 150# R.F	1/2" / ANSI 150# R.F
	Holder – up	316SS	316SS	316SS
37	Material Holder - middle			
	Holder – down	316SS	316SS	316SS
- 1	ACCESSORIES		1	
	Accessory 1	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa	Pressure Gauge_(316SS, NPT-1/2, 0~1000
50	Accessory 2	Excess Flow Valve_(316SS, NPT-1/2)	Excess Flow Valve_(316SS, NPT-1/2)	
30	Accessory 3	Nipple & Tee_(316SS, NPT-1/4x1/2)	Nipple & Tee_(316SS, NPT-1/4x1/2)	
		pp.o d 100_(01000, NI 1 1/4X1/2)	Preassembly Screws_(304SS)	
40	·	Programbly Carous (20400)	LETERSSELLIDIV OCIEWS TOUADOL	Preassembly Screws_(3045
40 41	Accessory 4	Preassembly Screws_(304SS)		,
40 41 42	Accessory 4 Accessory 5	Preassembly Screws_(304SS)		, , ,
40 41 42 43	Accessory 4 Accessory 5 Accessory 6	Preassembly Screws_(304SS)		7
40 41 42 43	Accessory 4 Accessory 5			
40 41 42 43 44	Accessory 4 Accessory 5 Accessory 6	Preassembly Screws_(304SS) RRK-FS-005	RRK-FS-005	RRK-FS-005
40 41 42 43 44 45	Accessory 4 Accessory 5 Accessory 6 Accessory 7			
40 41 42 43 44 45	Accessory 4 Accessory 5 Accessory 6 Accessory 7 Dwg. No.			
40 41 42 43 44 45	Accessory 4 Accessory 5 Accessory 6 Accessory 7 Dwg. No.			
40 41 42 43 44 45	Accessory 4 Accessory 5 Accessory 6 Accessory 7 Dwg. No.			
40 41 42 43 44 45	Accessory 4 Accessory 5 Accessory 6 Accessory 7 Dwg. No.			
40 41 42 43 44 45	Accessory 4 Accessory 5 Accessory 6 Accessory 7 Dwg. No.		RRK-FS-005	RRK-FS-005
40 41 42 43 44 45	Accessory 4 Accessory 5 Accessory 6 Accessory 7 Dwg. No.		RRK-FS-005	

GEN	DJECT : J1 PROJECT	CUSTOMER:	JINSUNG ENG CO., LTD.		
	IERAL DESCRIPTION	[13]	[14]	[15]	
1 Tag	g. No.	RD-1231I(PG-1231I)	RD-1231J(PG-1231J)	RD-1345C(PG-1345C	
2 Qua	antity	1 SET	1 SET	1 SET	
	rvice	PSV-1231I INLET	PSV-1231J INLET	PSV-1345C INLET	
	ID No. / Piping Class	J1-PID-1202E / AB1	J1-PID-1202E / AB1	J1-PID-1305A / BA1	
	e Size & Rating	1/2" / ANSI 150# R.F	1/2" / ANSI 150# R.F	1/2" / ANSI 300# R.F	
	SIGN CONDITION	172 771101 1007 11.1	172 771101 1007 11.1	1/2 / /11401 0001/ 11.1	
	plied code or STD.	API RP520	API RP520	API RP520	
	'	H-2312 / LIQUID	H-2312 / LIQUID	C4F6 / LIQUID	
	id & State				
	q'd capatity	19.1 kg/hr	19.1 kg/hr	1.54 kg/hr	
	m or Secondary or Combination	Combination	Combination	Combination	
	plication	Outlet Blocked	Outlet Blocked	Outlet Blocked	
1 MA					
	er. Press.	21.57 kPa	21.57 kPa	2,131 kPa	
3 Set	t. Burst Press.	0.667 MPa	0.667 MPa	2,942 kPa	
4 Bur	rst. Tolerance	±5 %	±5 %	±5 %	
5 Mar	nufacturing Range	0%	0%	0%	
6 Vac	cuum Oper./ Max.				
7 Cor	nst. Back Press.	21.57 kPa	21.57 kPa	9.8 kPa	
8 Pre	ess Static or Puls.	Static	Static	Static	
9 Viso	cosity @Operat. Cond (cP)	0.623	0.623	0.5	
0 Cor	mpress Factor Z @Operat. Cond	1	1	1	
_	ecific Heat Ratio (C _D /C _V)	0	0	0	
-	er. Temp.	95 ℃	95 ℃	10 ℃	
	lieving Temp.	105 ℃	105 °C	35 ℃	
		MW:276.3 / SG: 2.25	MW:276.3 / SG: 2.25	1.3	
4 MW		WW.270.3 / 3G. 2.23	WW.270.3 / 3G. 2.23	1.0	
	TURE DISC SPEC.	KCDDK	KSRRK	KCDCD	
5 Mod		KSRRK		KSRSR	
6 Тур		Reverse Dome/Shear type	Reverse Dome/Shear type		
7 Size		0.5 in	0.5 in	0.5 in	
8 KO	SHA Cert. type				
	Disc	316LSS	316LSS	316LSS	
9 Mat	terial Seal				
	Vac. Support				
0 Coa	ating inlet / outlet				
1 Q'ty	y per Ass'y	5 / Tag	5 / Tag	5 / Tag	
	scharge Area	0.2 in²	0.2 in²	0.2 in²	
	ted capacity	15,828.62 kg/hr	15,828.62 kg/hr	25,379.14 kg/hr	
	DER SPEC.		, ,	, ,	
4 Typ		Quick Insert type	Quick Insert type	Quick Insert type	
5 Mod		FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single type)	FS(Insert Flat Seat Single ty	
	inge Size / Rating	1/2" / ANSI 150# R.F	1/2" / ANSI 150# R.F	1/2" / ANSI 300# R.F	
		316SS	316SS	316SS	
o i iai	Holder - up	31033	01000	31033	
	· ·		1	Ì	
	terial Holder - middle	01600	21600	316SS	
7 Mat	terial Holder - middle Holder - down	316SS	316SS	316SS	
7 Mat	Holder - middle Holder - down ESSORIES				
7 Mat ACC 8 Acc	Holder - middle Holder - down DESSORIES Cessory 1	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~0.0	
7 Mat ACC 8 Acc	Holder - middle Holder - down ESSORIES			Pressure Gauge_(316SS, NPT-1/2, 0~0.0	
7 Mat ACC 8 Acc 9 Acc	Holder - middle Holder - down DESSORIES Cessory 1	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2)	Pressure Gauge_(316SS, NPT-1/2, 0~0.6 Excess Flow Valve_(316SS, NPT-	
7 Mat ACC 8 Acc 9 Acc 0 Acc	Holder – middle Holder – down CESSORIES cessory 1 cessory 2	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0-0.4 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x	
7 Mat ACC 8 Acc 9 Acc 0 Acc 1 Acc	Holder - middle Holder - down CESSORIES cessory 1 cessory 2 cessory 3	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0-0.1 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304	
7 Mat ACC 8 Acc 9 Acc 0 Acc 1 Acc 2 Acc	Holder - middle Holder - down CESSORIES cessory 1 cessory 2 cessory 3 cessory 4	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0~0.4 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS)	
7 Mat ACC 8 Acc 9 Acc 1 Acc 2 Acc 3 Acc	Holder – middle Holder – down ESSORIES cessory 1 cessory 2 cessory 3 cessory 4 cessory 5	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0~0.4 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS)	
7 Mate ACC 8 Acc 9 Acc 0 Acc 1 Acc 2 Acc 3 Acc 4 Acc	Holder – middle Holder – down DESSORIES Cessory 1 Cessory 2 Cessory 3 Cessory 4 Cessory 5 Cessory 6 Cessory 7	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-0. Excess Flow Valve_(316SS, NPT-1/4) Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)	
7 Mat ACC 8 Acc 9 Acc 0 Acc 1 Acc 2 Acc 3 Acc 4 Acc 5 Dws	Holder – middle Holder – down DESSORIES Cessory 1 Cessory 2 Cessory 3 Cessory 4 Cessory 5 Cessory 6 Cessory 7 rg. No.	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2)	Pressure Gauge_(316SS, NPT-1/2, 0-0. Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS)	
7 Mat ACC 8 Acc 9 Acc 0 Acc 1 Acc 2 Acc 3 Acc 4 Acc 5 Dwg	Holder – middle Holder – down DESSORIES Cessory 1 Cessory 2 Cessory 3 Cessory 4 Cessory 5 Cessory 6 Cessory 7 rg. No.	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-0.4 Excess Flow Valve_(316SS, NPT-1/4) Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)	
7 Mat ACC 8 Acc 9 Acc 0 Acc 1 Acc 2 Acc 3 Acc 4 Acc	Holder – middle Holder – down DESSORIES Cessory 1 Cessory 2 Cessory 3 Cessory 4 Cessory 5 Cessory 6 Cessory 7 rg. No.	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-0.6 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2	
7 Mat ACC 8 Acc 9 Acc 1 Acc 2 Acc 3 Acc 4 Acc 5 Dwg	Holder – middle Holder – down DESSORIES Cessory 1 Cessory 2 Cessory 3 Cessory 4 Cessory 5 Cessory 6 Cessory 7 rg. No.	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-0.4 Excess Flow Valve_(316SS, NPT-1/4) Nipple & Tee_(316SS, NPT-1/4) Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2)	
7 Mat ACC 8 Acc 9 Acc 1 Acc 2 Acc 3 Acc 4 Acc 5 Dwg	Holder – middle Holder – down DESSORIES Cessory 1 Cessory 2 Cessory 3 Cessory 4 Cessory 5 Cessory 6 Cessory 7 rg. No.	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-0.6 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2	
7 Mat ACC 8 Acc 9 Acc 1 Acc 2 Acc 3 Acc 4 Acc 5 Dwg	Holder – middle Holder – down DESSORIES Cessory 1 Cessory 2 Cessory 3 Cessory 4 Cessory 5 Cessory 6 Cessory 7 rg. No.	Pressure Gauge_(316SS, NPT-1/2, 0~1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS)	Pressure Gauge_(316SS, NPT-1/2, 0-1000kPa) Excess Flow Valve_(316SS, NPT-1/2) Nipple & Tee_(316SS, NPT-1/4x1/2) Preassembly Screws_(304SS) RRK-FS-005	Pressure Gauge_(316SS, NPT-1/2, 0-0.6 Excess Flow Valve_(316SS, NPT- Nipple & Tee_(316SS, NPT-1/4x Preassembly Screws_(304 Jack Screws_(304SS) Stud Bolts & Nuts_(B7/2	

		J1 PROJECT	CUSTOMER:	UNIVOUNG E	•	I D.	r 7	
		DESCRIPTION	[16]		[]		[]	
1	Tag. No.		RD-1345D(PG-1345D)					
2	Quantity		1 SET					
3	Service		PSV-1345D INLET					
4	P&ID No.	/ Piping Class	J1-PID-1305A / BA1					
5	Line Size	& Rating	1/2" / ANSI 300# R.F					
[DESIGN CO	ONDITION						
6	Applied co	ode or STD.	API RP520					
7	Fluid & St	ate	C4F6 / LIQUID					
3	Req'd cap	patity	1.54 kg/hr					
9	Prim or Se	econdary or Combination	Combination					
0	Applicatio	n	Outlet Blocked					
	MAWP							
	Oper. Pre	SS.	2,131 kPa					
	Set. Burst		2,942 kPa					
	Burst. Tol		±5 %					
		uring Range	0%					
		per./ Max.						
	Const. Ba		9.8 kPa					
_	Press Stat		Static					
_		@Operat. Cond (cP)	0.5					
		Factor Z @Operat. Cond	1					
	Specific F		0					
_			10 ℃					
	Oper. Ter		35 °C					
	Relieving	lemp.						
	MW/SG		1.3					
		DISC SPEC.						
	Model		KSRSR					
26	Туре		Reverse Dome/Scored type					
27	Size		0.5 in					
28	KOSHA C	ert. type						
		Disc	316LSS					
29	Material	Seal						
		Vac. Support						
30	Coating in	let / outlet						
1	Q'ty per A	ss'y	5 / Tag					
32	Discharge	Area	0.2 in²					
3	Rated cap	acity	25,379.14 kg/hr					
H	HOLDER S	PEC.						
	Туре		Quick Insert type					
	Model		FS(Insert Flat Seat Single type)					
		ze / Rating	1/2" / ANSI 300# R.F					
	95 012	Holder - up	316SS					
37	Material	Holder - middle						
•		Holder – down	316SS					
-	ACCESSOF		0.000					
	Accessory		Pressure Gauge_(316SS, NPT-1/2, 0~0.6MPa)					
	-		Excess Flow Valve_(316SS, NPT-1/2)					
	Accessory							
	Accessory		Nipple & Tee_(316SS, NPT-1/4x1/2)					
	Accessory		Preassembly Screws_(304SS)					
	Accessory		Jack Screws_(304SS)					
	Accessory		Stud Bolts & Nuts_(B7/2H)					
_	Accessory	/ /						
	Dwg. No.		RSR-FS-002					
۲	<u>IOTE</u>							
					В	28-May-24	R. Jung	J. H. Ju

♦ <u>I</u>	F DC CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	§ STATE	R1 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1101A(F	PG-1102A)	
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		981	kPa	x 0.	145 =	142.28	PSIG
Relieving Pressure	e (P ₀₁)	142.28	PSIG	x 1.2	1 =	172.16	PSIG
(Using set pressu	re plus 21% over pressure	as permitte	ed by the	API code)		
Absolute Relieving	g Pressure (P ₁)	172.16	PSIG	+ 1	4.7 =	186.86	PSIA
Relieving temperate	ure of the Inlet. Rankine(T)	51.3	$^{\circ}$	(°C + 273	.15) x 1.8 =	584.01	R
Flow Required (W	')	5,217	kg/hr	x 2.	205 =	11,501.51	lb/hr
Mol. Weight(M)					116.5		
REQUIRED D	ISCHARGE AREA (A)		A =	C x Kd x l	K _R x P ₁ x Kc	$\sqrt{\frac{TZ}{M}}$	
A	$A = \frac{11,501.514}{326 \times 0.62 \times 1 \times 186}$		1.966	=	0.6	Sq.in	
THEORETICAL (I	BY CALCULATION) SIZE		D =		4 A π		
<u></u>	4 x 0.59868856 π	0.87	inch	(22	mm)	
REQUIRED S	IZE BY CLIENT :		2	in			
RECOMMEN	DED SIZE BY VENDO	OR:	2	in			
* NOTE							
				I	R. Jung	J. H. Jung	28-May-2
				Rev. No.	DES'D	APP'D	Date

O <u>I</u>	F <u>DC</u> CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC		
PROJECT IN	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	Ю.	-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	R1 / GAS	1 / GAS		
JOB NO.	220701	TAG. NO.		О.	RD-1101B(F	-1101B(PG-1102B)		
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow		
Set Pressrue (P ₀)		981	kPa	x 0.	145 =	142.28	PSIG	
Relieving Pressur	re (P ₀₁)	142.28	PSIG	x 1.2	1 =	172.16	PSIG	
(Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)			
Absolute Relievin	g Pressure (P ₁)	172.16	PSIG	+ 1	4.7 =	186.86	PSIA	
Relieving temperat	ture of the Inlet. Rankine(T)	51.3	${\mathbb C}$	(°C + 273	.15) x 1.8 =	584.01	R	
Flow Required (W	/)	5,217	kg/hr	x 2.	205 =	11,501.51	lb/hr	
Mol. Weight(M)					116.5			
REQUIRED D	DISCHARGE AREA (A)		A =	C x Kd x	K _R x P ₁ x Kc	√_TZ M		
,	A = 11,501.514 326 x 0.62 x 1 x 18		1.966	=	0.6	Sq.in		
THEORETICAL (BY CALCULATION) SIZE	0.00 X 1	D =		4 A π			
<u></u>	4 x 0.59868856 π =	0.87	inch	(22	mm)		
REQUIRED S	IZE BY CLIENT :		2	in				
RECOMMEN	DED SIZE BY VENDO	OR:	2	in				
* NOTE								
							1	
				I	R. Jung	J. H. Jung	28-May-2	
				Rev. No.	DES'D	APP'D	Date	

Q <u>1</u>	F <u>DC</u> CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INI	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	Ю.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	R2 / GAS		
JOB NO.	220701	TAG. NO.		RD-1103A(F	-1103A(PG-1104A)		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		0.49	MPa	x 145	.0377 =	71.07	PSIG
Relieving Pressur	re (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG
(Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperat	ture of the Inlet. Rankine(T)	129.6	${\mathbb C}$	(°C + 273	5.15) x 1.8 =	724.95	i R
Flow Required (W	/)	10,312	kg/hr	x 2.	205 =	22,734.06	lb/hr
Mol. Weight(M)					40		
	22,734.064	<u> </u>	A =	C x Kd x l	K _R x P ₁ x Kc		
,	$A = \frac{22,754.354}{338 \times 0.62 \times 1 \times 100}$		4.0745	=	4.39	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		<mark>4 Α</mark> π		
<u></u>	4 x 4.38977055 π =	2.36	inch	(60	mm)	
REQUIRED S	IZE BY CLIENT :		3	in			
RECOMMEN	DED SIZE BY VENDO	OR:	3	in			
* NOTE							
							ı
				I	R. Jung	J. H. Jung	28-May-2
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Q <u>1</u>	F <i>DC</i> CALCULA	TION S	HEET	FOR F	RUPTURE	E DISC		
PROJECT IN	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	Ю.	-			
PROJECT	J1 PROJECT		FLUID & STATE		R2 / GAS			
JOB NO.	220701		TAG. N	О.	RD-1103B(F	PG-1104B)		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	ritical Flow		
Set Pressrue (P ₀))	0.49	MPa	x 145	45.0377 = 71.07 PSI			
Relieving Pressur	re (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG	
Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)	1		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	14.7 =	100.69	PSIA	
Relieving temperat	ture of the Inlet. Rankine(T)	129.6	$^{\circ}$	(°C + 273	3.15) x 1.8 =	724.95	ī R	
Flow Required (W	V)	10,312	kg/hr	x 2.	205 =	22,734.06	lb/hr	
Mol. Weight(M)					40			
REQUIRED D	DISCHARGE AREA (A)		$A = \frac{W}{C \times Kd \times K_R \times P_1 \times Kc} \sqrt{\frac{TZ}{M}}$					
	A = 22,734.064 338 x 0.62 x 1 x 100		4.0745		4.39	Sq.in		
THEORETICAL (BY CALCULATION) SIZE		D =	\(\sigma \)	4 A π			
$\sqrt{-}$	4 x 4.38977055 π =	2.36	inch	(60	mm)		
REQUIRED S	IZE BY CLIENT :		3	in				
RECOMMEN	DED SIZE BY VENDO	OR:	3	in				
* NOTE								
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Q <u>1</u>	F DC CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT INI	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	§ STATE	H2 / GAS		
JOB NO.	220701		TAG. NO.		RD-1124(P0	G-1125)	
CALCULATIO	N DATA - API RP520 7	EDIT. PART	Γ1 SEC.	3.6.2 Sizir	ng for Gas Cr	ritical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	PSIG
Relieving Pressur	re (P ₀₁)	71.07	7 PSIG x 1.21 = 85.99 PS			PSIG	
(Using set pressu	re plus 21% over pressure	as permitte	ed by the	API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperat	ture of the Inlet. Rankine(T)	169.4	°C	(°C + 273	.15) x 1.8 =	796.59	R
Flow Required (W	/)	914	kg/hr	x 2.	205 =	2,015.02	lb/hr
Mol. Weight(M)					255.9		
REQUIRED D	DISCHARGE AREA (A)		A =	C x Kd x	K _R x P ₁ x Kc	√ <u>TZ</u> M	
,	$A = \frac{2,015.025}{323 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.6305	=	0.16	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		4 A π		
<u></u>	4 x 0.16292913 π =	0.46	inch	(12	mm)	
REQUIRED S	IZE BY CLIENT :		1	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1	in			
* NOTE							
				I	R. Jung	J. H. Jung	28-May-2
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◆ <u>F</u>	F DC CALCULA	ATION S	HEET	FOR R	RUPTURE	DISC		
PROJECT INF	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	H2 / GAS			
JOB NO.	220701		TAG. NO.		RD-1131A(F	PG-1139A)		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow		
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07 PSIG		
Relieving Pressure	e (P ₀₁)	71.07	PSIG x 1.21 = 85.99 PS			PSIG		
(Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)			
Absolute Relieving	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA	
Relieving temperate	ure of the Inlet. Rankine(T)	224.7	°C	(°C + 273	3.15) x 1.8 =	896.13	3 R	
Flow Required (W	')	5,877	kg/hr	x 2.	205 =	12,956.56	6 lb/hr	
Mol. Weight(M)					273.1			
REQUIRED D		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_ <u>TZ</u> M			
F	$A = \frac{12,956.565}{338 \times 0.62 \times 1 \times 100}$		1.5253	=	0.94	Sq.in		
THEORETICAL (I	BY CALCULATION) SIZE		D =		4 A π			
V-	4 x 0.93654924 π =	1.09	inch	(28	mm)		
REQUIRED S	IZE BY CLIENT :		1.5	in				
	DED SIZE BY VENDO	OR:	1.5	in				
<u>* NOTE</u>								
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Q <u>I</u>	F <u>DC</u> CALCULA	TION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	§ STATE	H2 / GAS		
JOB NO.	220701		TAG. NO.		RD-1131B(F	PG-1139B)	
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	ritical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	PSIG
Relieving Pressur	re (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG
(Using set pressu	re plus 21% over pressure	as permitte	ed by the	API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	14.7 =	100.69	PSIA
Relieving temperat	ure of the Inlet. Rankine(T)	224.7	$^{\circ}$	(°C + 273	3.15) x 1.8 =	896.13	R
Flow Required (W	/)	5,877	kg/hr	x 2.	205 =	12,956.56	b lb/hr
Mol. Weight(M)					273.1		
REQUIRED D	ISCHARGE AREA (A)		A =	C x Kd x l	K _R x P ₁ x Kc	$\sqrt{\frac{TZ}{M}}$	
,	A = \frac{12,956.565}{338 \times 0.62 \times 1 \times 100}		1.5253	=	0.94	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =	\(\sigma \)	4 A π		
	4 x 0.93654924 π	1.09	inch	(28	mm)	
REQUIRED S	IZE BY CLIENT :		1.5	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1.5	in			
<u>* NOTE</u>							
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				Rev. No.	DES'D	APP'D	Date

Q 1	F D C CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT INI	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID & STATE		H2 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1137(PC	G-1138)	
CALCULATIO	N DATA - API RP520 71	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	PSIG
Relieving Pressur	re (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG
(Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperat	ture of the Inlet. Rankine(T)	176.3	${\mathbb C}$	(°C + 273	5.15) x 1.8 =	809.01	R
Flow Required (W	/)	8,639	kg/hr	x 2.	205 =	19,045.73	lb/hr
Mol. Weight(M)					273.6		
	DISCHARGE AREA (A) 19,045.731		A =	C x Kd x	K _R x P ₁ x Kc	·	
,	A = 322 x 0.62 x 1 x 10	0.69 x 1	1.5769	=	1.49	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		4 A π		
<u></u>	4 x 1.49406106 π	1.38	inch	(35	mm)	
REQUIRED S	IZE BY CLIENT :		2	in			
RECOMMEN * NOTE	DED SIZE BY VENDO	OR:	2	in			
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O <u>I</u>	F <u>DC</u> CALCULA	TION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	JINSUNG ENG CO., LTD.		Ю.	-		
PROJECT	J1 PROJECT		FLUID & STATE		H2 / GAS		
JOB NO.	220701	TAG. NO.		RD-1201A(PG-1203A)			
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490 kPa		x 0.145 =		71.07 PSIG	
Relieving Pressure (P ₀₁)		71.07 PSIG		x 1.21 =		85.99 PSIG	
(Using set pressu	re plus 21% over pressure	as permitte	ed by the	API code)		
Absolute Relieving Pressure (P ₁)		85.99 PSIG		+ 14.7 =		100.69 PSIA	
Relieving temperature of the Inlet. Rankine(T)		176.3 ℃		(°C + 273.15) x 1.8 =		809.01 R	
Flow Required (W)		4,405	4,405 kg/hr x 2.205 =			9,711.36 lb/hr	
Mol. Weight(M)		273.6					
REQUIRED D		$A = \frac{W}{C \times Kd \times K_R \times P_1 \times Kc} \sqrt{\frac{TZ}{M}}$					
,	A = 9,711.361 322 x 0.62 x 1 x 100	0 69 x 1	1.5769	=	0.76	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		4 A π		
	4 x 0.76181722 π	0.98	inch	(25	mm)	
REQUIRED S	IZE BY CLIENT :		2	in			
RECOMMEN	DED SIZE BY VENDO	OR:	2	in			
* NOTE							
							ı
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				Rev. No.	DES'D	APP'D	Date

O <u>I</u>	F <u>DC</u> CALCULA	TION S	HEET	FOR F	RUPTURE	DISC		
PROJECT INI	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	Ю.	-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	H2 / GAS	H2 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1201B(PG-1203B)			
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow		
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	PSIG	
Relieving Pressur	re (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG	
(Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)			
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA	
Relieving temperat	ture of the Inlet. Rankine(T)	176.3	${\mathbb C}$	(°C + 273	5.15) x 1.8 =	809.01	R	
Flow Required (W	/)	4,405	kg/hr	x 2.	205 =	9,711.36	b/hr	
Mol. Weight(M)					273.6			
REQUIRED D	OISCHARGE AREA (A)		A =	C x Kd x l	K _R x P ₁ x Kc	√_TZ_ M		
,	A = 9,711.361 322 x 0.62 x 1 x 100	D.69 x 1	1.5769	=	0.76	Sq.in		
THEORETICAL (BY CALCULATION) SIZE		D =	\(\sigma \)	4 A π			
$\sqrt{-}$	4 x 0.76181722 π	0.98	inch	(25	mm)		
REQUIRED S	IZE BY CLIENT :		2	in				
RECOMMEN	DED SIZE BY VENDO	OR:	2	in				
* NOTE								
							<u> </u>	
				I	R. Jung	J. H. Jung	28-May-2	
				Rev. No.	DES'D	APP'D	Date	

Q <u>1</u>	F DC CALCULA	TION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INI	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	Ю.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	H2 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1201C(PG-1203C)		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	PSIG
Relieving Pressur	re (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG
(Using set pressu	re plus 21% over pressure	as permitte	ed by the	API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperat	ture of the Inlet. Rankine(T)	176.3	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	809.01	R
Flow Required (W	/)	4,405	kg/hr	x 2.	205 =	9,711.36	lb/hr
Mol. Weight(M)					273.6		
REQUIRED D	OISCHARGE AREA (A)		A =	C x Kd x	K _R x P ₁ x Kc	√ <u>TZ</u> M	
,	A = 9,711.361 322 x 0.62 x 1 x 100	0.69 x 1	1.5769	=	0.76	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		4 A π		
<u></u>	4 x 0.76181722 π	0.98	inch	(25	mm)	
REQUIRED S	IZE BY CLIENT :		2	in			
RECOMMEN	DED SIZE BY VENDO	OR:	2	in			
* NOTE							
							ı
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				Rev. No.	DES'D	APP'D	Date

Q <u>1</u>	F <i>DC</i> CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	Ю.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	H2 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1201D(PG-1203D)		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	PSIG
Relieving Pressur	re (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG
(Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	14.7 =	100.69	PSIA
Relieving temperat	ture of the Inlet. Rankine(T)	176.3	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	809.01	R
Flow Required (W	V)	4,405	kg/hr	x 2.	205 =	9,711.36	lb/hr
Mol. Weight(M)					273.6		
REQUIRED D	DISCHARGE AREA (A)		A =	C x Kd x	K _R x P ₁ x Kc	√_TZ M	
	A = 9,711.361 322 x 0.62 x 1 x 100	0.69 x 1	1.5769	=	0.76	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		4 A π		
$\sqrt{-}$	$\frac{4 \times 0.76181722}{\pi} =$	0.98	inch	(25	mm)	
REQUIRED S	IZE BY CLIENT :		2	in			
RECOMMEN	DED SIZE BY VENDO	OR:	2	in			
* NOTE							
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				Rev. No.	DES'D	APP'D	Date

♦ <u>F</u>	TDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	ORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	§ STATE	R1,H2 / GAS	3	
JOB NO.	220701		TAG. N	О.	RD-1202A		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		98	kPa	x 0.	145 =	14.21	PSIG
Relieving Pressure	e (P ₀₁)	14.21	PSIG	x 1.2	1 =	17.2	PSIG
(Using set pressur	e plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relieving	g Pressure (P ₁)	17.2	PSIG	+ 1	14.7 =	31.9) PSIA
Relieving temperatu	ure of the Inlet. Rankine(T)	123	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	713.07	' R
Flow Required (W)	19,970	kg/hr	x 2.	205 =	44,026.31	lb/hr
Mol. Weight(M)					276.7		
REQUIRED DI	SCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
Д	$x = \frac{44,026.306}{356 \times 0.62 \times 1 \times 3}$		1.6053	=	10.04	Sq.in	
THEORETICAL (E	BY CALCULATION) SIZE		D =		4 A π		
$\sqrt{-2}$	^{4 × 10.03831549} =	3.58	inch	(91	mm)	
REQUIRED SI	ZE BY CLIENT:		4	in			
	DED SIZE BY VENDO	OR:	4	in			
* NOTE							
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♦ <u>F</u>	TDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	ORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	R1,H2 / GAS	3	
JOB NO.	220701		TAG. N	0.	RD-1202B		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		98	kPa	x 0.	145 =	14.21	PSIG
Relieving Pressure	e (P ₀₁)	14.21	PSIG	x 1.2	1 =	17.2	PSIG
(Using set pressur	e plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relieving	g Pressure (P ₁)	17.2	PSIG	+ 1	4.7 =	31.9) PSIA
Relieving temperatu	ure of the Inlet. Rankine(T)	123	$^{\circ}$	(°C + 273	s.15) x 1.8 =	713.07	' R
Flow Required (W)	19,970	kg/hr	x 2.	205 =	44,026.31	lb/hr
Mol. Weight(M)					276.7		
REQUIRED DISCHARGE AREA (A) A =				V C x Kd x l	V K _R x P ₁ x Kc	<u>√_TZ</u> M	
Д	$x = \frac{44,026.306}{356 \times 0.62 \times 1 \times 3}$		1.6053	=	10.04	Sq.in	
THEORETICAL (E	BY CALCULATION) SIZE		D =	\(\sigma \)	4 A π		
$\sqrt{-2}$	⁴ x 10.03831549 =	3.58	inch	(91	mm)	
REQUIRED SI	ZE BY CLIENT :		4	in			
	DED SIZE BY VENDO	OR:	4	in			
<u>* NOTE</u>							
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				Rev. No.	DES'D	APP'D	Date

♦ <u>F</u>	TDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	ORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	FLUID & STATE R1,H2 / GAS		3	
JOB NO.	220701		TAG. N	О.	RD-1202C		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		98	kPa	x 0.	145 =	14.21	PSIG
Relieving Pressure	e (P ₀₁)	14.21	PSIG	x 1.2	1 =	17.2	PSIG
(Using set pressur	e plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relieving	g Pressure (P ₁)	17.2	PSIG	+ 1	14.7 =	31.9	PSIA
Relieving temperatu	ure of the Inlet. Rankine(T)	123	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	713.07	' R
Flow Required (W)	19,970	kg/hr	x 2.	205 =	44,026.31	lb/hr
Mol. Weight(M)					276.7		
REQUIRED DI	SCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
Α	44,026.306 356 x 0.62 x 1 x 3		1.6053	=	10.04	Sq.in	
THEORETICAL (E	BY CALCULATION) SIZE		D =		4 A π		
$\sqrt{-2}$	⁴ x 10.03831549 =	3.58	inch	(91	mm)	
REQUIRED SI	ZE BY CLIENT :		4	in			
	DED SIZE BY VENDO	OR:	4	in			
* NOTE							
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♦ <u>F</u>	TDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	ORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	STATE R1,H2 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1202D		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		98	kPa	x 0.	145 =	14.21	PSIG
Relieving Pressure	e (P ₀₁)	14.21	PSIG	x 1.2	1 =	17.2	PSIG
(Using set pressur	e plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relieving	g Pressure (P ₁)	17.2	PSIG	+ 1	4.7 =	31.9	PSIA
Relieving temperatu	ure of the Inlet. Rankine(T)	123	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	713.07	' R
Flow Required (W)	19,970	kg/hr	x 2.	205 =	44,026.31	lb/hr
Mol. Weight(M)					276.7		
REQUIRED DI	ISCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√TZ M	
Д	$x = \frac{44,026.306}{356 \times 0.62 \times 1 \times 3}$		1.6053	=	10.04	Sq.in	
THEORETICAL (E	BY CALCULATION) SIZE		D =		4 A π		
$\sqrt{-2}$	⁴ x 10.03831549 =	3.58	inch	(91	mm)	
REQUIRED SI	ZE BY CLIENT :		4	in			
	DED SIZE BY VENDO	OR:	4	in			
<u>* NOTE</u>							
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				Rev. No.	DES'D	APP'D	Date

♦ <u>F</u>	T <u>D C</u> CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	ORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	R1,H2 / GAS	3	
JOB NO.	220701		TAG. N	О.	RD-1202E		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		98	kPa	x 0.	145 =	14.21	PSIG
Relieving Pressure	e (P ₀₁)	14.21	PSIG	x 1.2	1 =	17.2	PSIG
(Using set pressur	e plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relieving	Pressure (P ₁)	17.2	PSIG	+ 1	4.7 =	31.9	PSIA
Relieving temperatu	ure of the Inlet. Rankine(T)	123	$^{\circ}$	(°C + 273	3.15) x 1.8 =	713.07	' R
Flow Required (W))	19,970	kg/hr	x 2.	205 =	44,026.31	lb/hr
Mol. Weight(M)					276.7		
REQUIRED DI	REQUIRED DISCHARGE AREA (A)				V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
A	$A = \frac{44,026.306}{356 \times 0.62 \times 1 \times 3}$		1.6053	=	10.04	Sq.in	
THEORETICAL (E	BY CALCULATION) SIZE		D =		4 A π		
$\sqrt{-4}$	⁴ x 10.03831549 =	3.58	inch	(91	mm)	
REQUIRED SI	ZE BY CLIENT:		4	in			
	DED SIZE BY VENDO	OR:	4	in			
<u>* NOTE</u>							
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Q 1	F <u>DC</u> CALCULA	TION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	IO.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE H-2312 / GA		\S	
JOB NO.	220701		TAG. NO. RD-1211A(PG-1212A)			PG-1212A)	
CALCULATIO	ALCULATION DATA - API RP520 7ED			3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressur	re (P ₀₁)	71.07	PSIG	x 1.1	=	78.18	PSIG
(Using set pressu	re plus 10% over pressure	as permitte	ed by the	API code)		
Absolute Relievin	g Pressure (P ₁)	78.18	PSIG	+ 1	14.7 =	92.88	B PSIA
Relieving temperat	cure of the Inlet. Rankine(T)	177.3	$^{\circ}$	(°C + 273	3.15) x 1.8 =	810.81	R
Flow Required (W	/)	1,917	kg/hr	x 2.	205 =	4,226.26	6 lb/hr
Mol. Weight(M)					276.2		
REQUIRED D	DISCHARGE AREA (A)		A =	C x Kd x	K _R x P ₁ x Kc	√_TZ M	
,	A = 4,226.261 328 x 0.62 x 1 x 92	0.00 v 1	1.5694	=	0.35	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =	\(\sigma \)	4 A π		
<u></u>	4 x 0.35117139 π	0.67	inch	(17	mm)	
REQUIRED S	IZE BY CLIENT :		1	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1	in			
<u>* NOTE</u>							
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				Rev. No.	DES'D	APP'D	Date

♦ <u>F</u>	FDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE H-2312 / G		\S	
JOB NO.	220701		TAG. NO. RD-1211B(PG-1212B			PG-1212B)	
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressure	e (P ₀₁)	71.07	PSIG	x 1.1	l =	78.18	PSIG
(Using set pressur	e plus 10% over pressure	as permitte	d by the	API code)		
Absolute Relieving	g Pressure (P ₁)	78.18	PSIG	+ 1	4.7 =	92.88	PSIA
Relieving temperati	ure of the Inlet. Rankine(T)	177.3	$^{\circ}$	(℃ + 273	s.15) x 1.8 =	810.81	R
Flow Required (W)	1,917	kg/hr	x 2.	205 =	4,226.26	lb/hr
Mol. Weight(M)					276.2		
REQUIRED DISCHARGE AREA (A) A =					V K _R x P ₁ x Kc	$\sqrt{\frac{TZ}{M}}$	
A	4,226.261 328 x 0.62 x 1 x 92	2.88 x 1	1.5694	=	0.35	Sq.in	
THEORETICAL (E	BY CALCULATION) SIZE		D =		4 A π		
$\sqrt{-2}$	^{4 x 0.35117139} =	0.67	inch	(17	mm)	
REQUIRED SI	IZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
<u>* NOTE</u>							
				I	R. Jung	J. H. Jung	28-May-2
				Rev. No.	DES'D	APP'D	Date

Q <u>1</u>	F <u>DC</u> CALCULA	TION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	§ STATE	H-2312 / GA	\S	
JOB NO.	220701		TAG. NO. RD-1211C(PG-1212C)			PG-1212C)	
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	PSIG
Relieving Pressur	re (P ₀₁)	71.07	PSIG	x 1.1	=	78.18	PSIG
(Using set pressu	re plus 10% over pressure	as permitte	ed by the	API code)		
Absolute Relievin	g Pressure (P ₁)	78.18	PSIG	+ 1	14.7 =	92.88	PSIA
Relieving temperat	ure of the Inlet. Rankine(T)	177.3	$^{\circ}$	(°C + 273	5.15) x 1.8 =	810.81	R
Flow Required (W	/)	1,917	kg/hr	x 2.	205 =	4,226.26	5 lb/hr
Mol. Weight(M)					276.2		
	4,226.261		A =	C x Kd x	K _R x P ₁ x Kc	·	
,	A = 328 x 0.62 x 1 x 92	2.88 x 1	1.5694	=	0.35	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		4 A π		
	4 x 0.35117139 π	0.67	inch	(17	mm)	
REQUIRED S	IZE BY CLIENT :		1	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1	in			
* NOTE							
				I	R. Jung	J. H. Jung	28-May-2
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Q <u>1</u>	F <i>DC</i> CALCULA	TION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	Ю.	-		
PROJECT	J1 PROJECT		FLUID & STATE H-2312 / GAS				
JOB NO.	220701		TAG. NO. RD-1211D(PG-1212D)				
CALCULATIO	ON DATA - API RP520 7E	DIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	ritical Flow	
Set Pressrue (P ₀))	490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressu	re (P ₀₁)	71.07	PSIG	x 1.1	1 =	78.18	PSIG
(Using set pressu	ıre plus 10% over pressure	as permitte	d by the	API code)		
Absolute Relievin	ng Pressure (P ₁)	78.18	PSIG	+ 1	14.7 =	92.88	PSIA
Relieving tempera	ture of the Inlet. Rankine(T)	177.3	°C	(°C + 273	3.15) x 1.8 =	810.81	R
Flow Required (V	V)	1,917	kg/hr	x 2.	205 =	4,226.26	i lb/hr
Mol. Weight(M)					276.2		
REQUIRED D	DISCHARGE AREA (A)		A =	C x Kd x	V K _R x P ₁ x Kc	√	
	A = 4,226.261 328 x 0.62 x 1 x 92	88 x 1	1.5694	=	0.35	Sq.in	
THEORETICAL ((BY CALCULATION) SIZE		D =		4 Α π		
$\sqrt{-}$	4 x 0.35117139 π	0.67	inch	(17	mm)	
REQUIRED S	SIZE BY CLIENT :		1	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1	in			
* NOTE							
				I	R. Jung	J. H. Jung	28-May-2
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♦ <u>F</u>	F <u>DC</u> CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID & STATE H-2312 / GAS				
JOB NO.	220701		TAG. NO. RD-1211E(PG-1212E)				
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressure	e (P ₀₁)	71.07	PSIG	x 1.1	l =	78.18	PSIG
(Using set pressur	e plus 10% over pressure	as permitte	d by the	API code)		
Absolute Relieving	g Pressure (P ₁)	78.18	PSIG	+ 1	4.7 =	92.88	PSIA
Relieving temperatu	ure of the Inlet. Rankine(T)	177.3	°C	(℃ + 273	s.15) x 1.8 =	810.81	R
Flow Required (W)	1,917	kg/hr	x 2.	205 =	4,226.26	3 lb/hr
Mol. Weight(M)					276.2		
REQUIRED DI	ISCHARGE AREA (A)		A =	C x Kd x l	V K _R x P ₁ x Kc	√ <u>TZ</u> M	
А	A = 4,226.261 328 x 0.62 x 1 x 92	2.88 x 1	1.5694	=	0.35	Sq.in	
THEORETICAL (E	BY CALCULATION) SIZE		D =		4 A π		
	4 x 0.35117139 π =	0.67	inch	(17	mm)	
REQUIRED SI	IZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
<u>* NOTE</u>							
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Q	F <i>DC</i> CALCULA	TION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	Ю.	-		
PROJECT	J1 PROJECT		FLUID 8	FLUID & STATE H-2312 / GAS			
JOB NO.	220701		TAG. N	О.	RD-1211F(PG-1212F)		
CALCULATIO	ON DATA - API RP520 7E	DIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	ritical Flow	
Set Pressrue (P ₀))	490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressu	re (P ₀₁)	71.07	PSIG	x 1.1	1 =	78.18	PSIG
Using set pressu	ıre plus 10% over pressure	as permitte	d by the	API code)	•	
Absolute Relievin	ng Pressure (P ₁)	78.18	PSIG	+ 1	14.7 =	92.88	PSIA
Relieving tempera	ture of the Inlet. Rankine(T)	177.3	°C	(°C + 273	3.15) x 1.8 =	810.81	R
Flow Required (V	V)	1,917	kg/hr	x 2.	205 =	4,226.26	b lb/hr
Mol. Weight(M)			276.2				
REQUIRED [DISCHARGE AREA (A)		A =	V C x Kd x	V K _R x P ₁ x Kc	√TZ M	
	A = 4,226.261 328 x 0.62 x 1 x 92	.88 x 1	1.5694	=	0.35	Sq.in	
THEORETICAL ((BY CALCULATION) SIZE		D =		4 A π		
$\sqrt{-}$	4 x 0.35117139 π =	0.67	inch	(17	mm)	
REQUIRED S	SIZE BY CLIENT :		1	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1	in			
* NOTE							
				I	R. Jung	J. H. Jung	28-May-2
				Rev. No.	DES'D	APP'D	Date

♦ <u>F</u>	F.D.C CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID & STATE H-2312 / GAS			\S	
JOB NO.	220701		TAG. NO. RD-1211G(PG-1212G)				
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressure	e (P ₀₁)	71.07	PSIG	x 1.1	l =	78.18	PSIG
(Using set pressur	e plus 10% over pressure	as permitte	d by the	API code)		
Absolute Relievinç	g Pressure (P ₁)	78.18	PSIG	+ 1	4.7 =	92.88	PSIA
Relieving temperato	ure of the Inlet. Rankine(T)	177.3	°C	(℃ + 273	s.15) x 1.8 =	810.81	R
Flow Required (W)	1,917	kg/hr	x 2.	205 =	4,226.26	lb/hr
Mol. Weight(M)					276.2		
REQUIRED D	ISCHARGE AREA (A)		A =	C x Kd x l	V K _R x P ₁ x Kc	$\sqrt{\frac{TZ}{M}}$	
A	A = 4,226.261 328 x 0.62 x 1 x 92	2.88 x 1	1.5694	=	0.35	Sq.in	
THEORETICAL (E	BY CALCULATION) SIZE		D =		4 A π		
	4 x 0.35117139 π =	0.67	inch	(17	mm)	
REQUIRED SI	IZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
<u>* NOTE</u>							
				I	R. Jung	J. H. Jung	28-May-2
				Rev. No.	DES'D	APP'D	Date

♦ <u>F</u>	TDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	ORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID & STATE H-2312 / GAS				
JOB NO.	220701		TAG. NO. RD-1211H(PG-1212H)				
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressure	e (P ₀₁)	71.07	PSIG	x 1.1	l =	78.18	PSIG
(Using set pressur	e plus 10% over pressure	as permitte	d by the	API code)		
Absolute Relieving	g Pressure (P ₁)	78.18	PSIG	+ 1	4.7 =	92.88	PSIA
Relieving temperatu	ure of the Inlet. Rankine(T)	177.3	$^{\circ}$	(℃ + 273	s.15) x 1.8 =	810.81	R
Flow Required (W)	1,917	kg/hr	x 2.	205 =	4,226.26	lb/hr
Mol. Weight(M)					276.2		
REQUIRED DI	SCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
Α	4,226.261 328 x 0.62 x 1 x 92	2.88 x 1	1.5694	=	0.35	Sq.in	
THEORETICAL (E	BY CALCULATION) SIZE		D =		4 A π		
$\sqrt{-2}$	⁴ x 0.35117139 =	0.67	inch	(17	mm)	
REQUIRED SI	ZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
<u>* NOTE</u>							
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				Rev. No.	DES'D	APP'D	Date

O <u>I</u>	F <i>DC</i> CALCULA	TION S	HEET	FOR F	RUPTURE	DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	Ю.	-		
PROJECT	J1 PROJECT		FLUID 8	LUID & STATE H-2312 / GAS			
JOB NO.	220701		TAG. N	О.	RD-1211I(PG-1212I)		
CALCULATIO	N DATA - API RP520 7E	DIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀))	490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressu	re (P ₀₁)	71.07	PSIG	x 1.1	1 =	78.18	PSIG
(Using set pressu	ıre plus 10% over pressure	as permitte	d by the	API code)		
Absolute Relievin	g Pressure (P ₁)	78.18	PSIG	+ 1	14.7 =	92.88	PSIA
Relieving tempera	ture of the Inlet. Rankine(T)	177.3	$^{\circ}$	(°C + 273	3.15) x 1.8 =	810.81	R
Flow Required (V	V)	1,917	kg/hr	x 2.	205 =	4,226.26	lb/hr
Mol. Weight(M)			276.2				
REQUIRED D	DISCHARGE AREA (A)		A =	C x Kd x	V K _R x P ₁ x Kc	√TZM	
	A = 4,226.261 328 x 0.62 x 1 x 92	90 v 1	1.5694	=	0.35	Sq.in	
THEORETICAL ((BY CALCULATION) SIZE		D =	\[\sqrt{-\frac{1}{2}}	4 Α π		
<u></u>	4 x 0.35117139 π	0.67	inch	(17	mm)	
REQUIRED S	SIZE BY CLIENT :		1	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1	in			
* NOTE							
				I	R. Jung	J. H. Jung	28-May-2
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♦ <u>F</u>	TDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	ORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID & STATE H-2312 / GAS			\S	
JOB NO.	220701		TAG. NO. RD-1211J(PG-1212J)				
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressure	e (P ₀₁)	71.07	PSIG	x 1.1	=	78.18	PSIG
(Using set pressur	e plus 10% over pressure	as permitte	d by the	API code)		
Absolute Relieving	g Pressure (P ₁)	78.18	PSIG	+ 1	4.7 =	92.88	PSIA
Relieving temperatu	ure of the Inlet. Rankine(T)	177.3	$^{\circ}$	(°C + 273	s.15) x 1.8 =	810.81	R
Flow Required (W)	1,917	kg/hr	x 2.	205 =	4,226.26	lb/hr
Mol. Weight(M)					276.2		
REQUIRED DI	SCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
Α	4,226.261 328 x 0.62 x 1 x 92	2.88 x 1	1.5694	=	0.35	Sq.in	
THEORETICAL (E	BY CALCULATION) SIZE		D =		4 A π		
$\sqrt{-2}$	⁴ x 0.35117139 =	0.67	inch	(17	mm)	
REQUIRED SI	ZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
<u>* NOTE</u>							
				I	R. Jung	J. H. Jung	28-May-2
				Rev. No.	DES'D	APP'D	Date

♦ <u>F</u>	F D C	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID & STATE H4 / GAS				
JOB NO.	220701		TAG. NO. RD-1222A(PG-1227A)				
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	T. PART 1 SEC.3.6.2 Sizing for Gas Critical Flow				
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressure	e (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG
Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relieving	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperate	ure of the Inlet. Rankine(T)	177.3	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	810.81	R
Flow Required (W	')	1,328	kg/hr	x 2.	205 =	2,927.74	lb/hr
Mol. Weight(M)					276.3		
REQUIRED D	ISCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_TZ M	
ļ	$A = \frac{2,927.738}{322 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.5691	=	0.23	Sq.in	
THEORETICAL (I	BY CALCULATION) SIZE		D =		4 A π		
V	4 x 0.22852627 π =	0.54	inch	(14	mm)	
REQUIRED S	IZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
* NOTE							
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				Rev. No.	DES'D	APP'D	Date

♦ <u>F</u>	F D C	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID & STATE H4 / GAS				
JOB NO.	220701		TAG. NO. RD-1222B(PG-1227B)				
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressure	e (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG
(Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relieving	g Pressure (P ₁)	85.99	PSIG	+ 1	14.7 =	100.69) PSIA
Relieving temperate	ure of the Inlet. Rankine(T)	177.3	$^{\circ}$	(°C + 273	3.15) x 1.8 =	810.81	R
Flow Required (W	')	1,328	kg/hr	x 2.	205 =	2,927.74	lb/hr
Mol. Weight(M)					276.3		
REQUIRED D	ISCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√	
A	$A = \frac{2,927.738}{322 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.5691	=	0.23	Sq.in	
THEORETICAL (I	BY CALCULATION) SIZE		D =	\(\sigma \)	4 A π		
<u></u>	4 x 0.22852627 π =	0.54	inch	(14	mm)	
REQUIRED S	IZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
<u>* NOTE</u>							
							1
							1
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♦ <u>/</u>	F D C	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID & STATE H4 / GAS				
JOB NO.	220701		TAG. NO. RD-1223A(PG-1228A)				
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	. PART 1 SEC.3.6.2 Sizing for Gas Critical Flow				
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressur	e (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99) PSIG
(Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperat	ure of the Inlet. Rankine(T)	177.3	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	810.81	R
Flow Required (W	')	1,198	kg/hr	x 2.	205 =	2,641.14	lb/hr
Mol. Weight(M)					276.3		
REQUIRED D	ISCHARGE AREA (A)		A =	V C x Kd x	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
,	$A = \frac{2,641.137}{322 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.5691	=	0.21	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		4 A π		
	4 x 0.20615548 π =	0.51	inch	(13	mm)	
REQUIRED S	IZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
<u>* NOTE</u>							
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♦ <u>F</u>	F DC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID & STATE H4 / GAS				
JOB NO.	220701		TAG. NO. RD-1223B(PG-1228B)				
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	. PART 1 SEC.3.6.2 Sizing for Gas Critical Flow				
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressure	e (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99) PSIG
(Using set pressur	re plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relieving	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperate	ure of the Inlet. Rankine(T)	177.3	$^{\circ}$	(°C + 273	3.15) x 1.8 =	810.81	R
Flow Required (W	()	1,198	kg/hr	x 2.	205 =	2,641.14	lb/hr
Mol. Weight(M)					276.3		
REQUIRED D	ISCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
P	$A = \frac{2,641.137}{322 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.5691	=	0.21	Sq.in	
THEORETICAL (I	BY CALCULATION) SIZE		D =		4 A π		
V-	4 x 0.20615548 π =	0.51	inch	(13	mm)	
REQUIRED SI	IZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
* NOTE							
							1
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O <u>I</u>	F <i>DC</i> CALCULA	TION S	HEET	FOR F	RUPTURE	DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	Ю.	-		
PROJECT	J1 PROJECT		FLUID 8	ID & STATE H4 / GAS			
JOB NO.	220701		TAG. N	О.	RD-1225A(F	PG-1229A)	
CALCULATIO	N DATA - API RP520 7E	DIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀))	490	kPa	x 0.	145 =	71.07	PSIG
Relieving Pressu	re (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG
(Using set pressu	ıre plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	14.7 =	100.69	PSIA
Relieving tempera	ture of the Inlet. Rankine(T)	215.6	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	879.75	R
Flow Required (V	V)	1,329	kg/hr	x 2.	205 =	2,929.94	lb/hr
Mol. Weight(M)			391.8				
REQUIRED D	DISCHARGE AREA (A)		A =	C x Kd x	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
	A = 2,929.943		1.3717		0.2	V M Sq.in	
	319 x 0.62 x 1 x 100).69 x 1	ı			•	
THEORETICAL ((BY CALCULATION) SIZE		D =		4 A π		
<u></u>	4 x 0.20181227 π =	0.51	inch	(13	mm)	
REQUIRED S	SIZE BY CLIENT :		1	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1	in			
* NOTE							
				I	R. Jung	J. H. Jung	28-May-2
				Rev. No.	DES'D	APP'D	Date

♦ <u>I</u>	F DC CALCULA	TION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID & STATE H4 / GAS				
JOB NO.	220701		TAG. NO. RD-1225B(PG-1229B)				
CALCULATIO	N DATA - API RP520 7E	DIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressur	e (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG
(Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperat	ure of the Inlet. Rankine(T)	215.6	$^{\circ}$	(°C + 273	3.15) x 1.8 =	879.75	ī R
Flow Required (W	')	1,329	kg/hr	x 2.	205 =	2,929.94	lb/hr
Mol. Weight(M)					391.8		
REQUIRED D	ISCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
ŀ	$A = \frac{2,929.943}{319 \times 0.62 \times 1 \times 100}$).69 x 1	1.3717	=	0.2	Sq.in	
THEORETICAL (I	BY CALCULATION) SIZE		D =		4 A π		
<u></u>	4 x 0.20181227 π =	0.51	inch	(13	mm)	
REQUIRED S	IZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
<u>* NOTE</u>							
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◆ <u>I</u>	F DC CALCULA	TION S	HEET	FOR F	RUPTURE	DISC		
PROJECT INF	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	IO.	-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	H2 / GAS	H2 / GAS		
JOB NO.	220701		TAG. NO.		RD-1302A(F	PG-1305A)		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow		
Set Pressrue (P ₀)		186	kPa	x 0.	145 =	26.98	PSIG	
Relieving Pressur	rieving Pressure (P ₀₁) ring set pressure plus 21% over pressure			x 1.2	1 =	32.64	PSIG	
(Using set pressu				API code)			
Absolute Relievin	g Pressure (P ₁)	32.64	PSIG	+ 1	4.7 =	47.34	PSIA	
Relieving temperat	ure of the Inlet. Rankine(T)	214.5	${\mathbb C}$	(°C + 273	5.15) x 1.8 =	877.77	'R	
Flow Required (W	<i>'</i>)	1,954	kg/hr	x 2.	205 =	4,307.83	lb/hr	
Mol. Weight(M)		391.4						
REQUIRED D	ISCHARGE AREA (A)		A =	C x Kd x	K _R x P ₁ x Kc	√_TZ M		
ļ	$A = \frac{4,307.832}{319 \times 0.62 \times 1 \times 47}$	'.34 x 1	1.3701	=	0.63	Sq.in		
THEORETICAL (BY CALCULATION) SIZE		D =		4 Α π			
	4 x 0.63033403 π =	0.9	inch	(23	mm)		
REQUIRED S	IZE BY CLIENT :		1.5	in				
RECOMMEN	DED SIZE BY VENDO	OR:	1.5	in				
* NOTE								
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O <u>I</u>	F <i>DC</i> CALCULA	TION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	H2 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1302B(F	PG-1305B)	
CALCULATIO	N DATA - API RP520 7E	DIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀))	186	kPa	x 0.	145 =	26.98	PSIG
Relieving Pressur	lieving Pressure (P ₀₁)			x 1.2	1 =	32.64	PSIG
Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relievin	g Pressure (P ₁)	32.64	PSIG	+ 1	4.7 =	47.34	PSIA
Relieving temperat	ture of the Inlet. Rankine(T)	214.5	$^{\circ}$	(°C + 273	s.15) x 1.8 =	877.77	' R
Flow Required (W	V)	1,954	kg/hr	x 2.	205 =	4,307.83	3 lb/hr
Mol. Weight(M)		391.4					
REQUIRED D	DISCHARGE AREA (A)		A =	V C x Kd x	V K _R x P ₁ x Kc	√TZM	
,	A = 4,307.832 319 x 0.62 x 1 x 47	.34 x 1	1.3701	=	0.63	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =	\(\sigma \)	4 A π		
$\sqrt{-}$	4 x 0.63033403 π =	0.9	inch	(23	mm)	
REQUIRED S	IZE BY CLIENT :		1.5	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1.5	in			
* NOTE							
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♦ <u>F</u>	TDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC		
PROJECT INF	ORMATION							
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-	-		
PROJECT	J1 PROJECT		FLUID 8	§ STATE	H4 / GAS			
JOB NO.	220701		TAG. N	О.	RD-1303(P0	G-1309)		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow		
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG	
Relieving Pressure	lieving Pressure (P ₀₁)			x 1.1	=	78.18	PSIG	
(Using set pressur	ing set pressure plus 10% over pressure			API code)			
Absolute Relieving	g Pressure (P ₁)	78.18	PSIG	+ 1	4.7 =	92.88	PSIA	
Relieving temperatu	ure of the Inlet. Rankine(T)	86.5	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	647.37	' R	
Flow Required (W)	337	kg/hr	x 2.	205 =	742.96	6 lb/hr	
Mol. Weight(M)					162.3			
REQUIRED DI	ISCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc			
А	742.958 322 x 0.62 x 1 x 92	2.88 x 1	1.8521	=	0.07	Sq.in		
THEORETICAL (E	BY CALCULATION) SIZE		D =		4 A π			
	1 x 0.07421342 π =	0.31	inch	(8	mm)		
REQUIRED SI	IZE BY CLIENT:		0.75	in				
	DED SIZE BY VENDO	OR:	0.75	in				
* NOTE								
			ĺ					
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♦ <u>F</u>	TDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC		
PROJECT INF	ORMATION							
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID 8	§ STATE	P1 / GAS			
JOB NO.	220701		TAG. N	О.	RD-1312A(F	PG-1312A)		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow		
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG	
Relieving Pressure	ieving Pressure (P ₀₁)			x 1.2	1 =	85.99) PSIG	
(Using set pressur	ng set pressure plus 21% over pressure			API code)			
Absolute Relieving	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA	
Relieving temperatu	ure of the Inlet. Rankine(T)	200.7	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	852.93	3 R	
Flow Required (W)	436.1	kg/hr	x 2.	205 =	961.44	lb/hr	
Mol. Weight(M)					162.3			
REQUIRED D	ISCHARGE AREA (A)		A =	C x Kd x l	V K _R x P ₁ x Kc			
A	323 x 0.62 x 1 x 100	0.69 x 1	2.232	=	0.11	Sq.in		
THEORETICAL (E	BY CALCULATION) SIZE		D =		4 A π			
V	^{4 x 0.10642141} =	0.37	inch	(9	mm)		
REQUIRED SI	ZE BY CLIENT:		0.75	in				
	DED SIZE BY VENDO	OR:	0.75	in				
* NOTE								
			ĺ					
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				Rev. No.	DES'D	APP'D	Date	

♦ <u>F</u>	TDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC		
PROJECT INF	ORMATION							
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID 8	§ STATE	P1 / GAS	P1 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1312B(F	PG-1312B)		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow		
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	PSIG	
Relieving Pressure	ieving Pressure (P ₀₁)			x 1.2	1 =	85.99	PSIG	
(Using set pressur	ng set pressure plus 21% over pressure			API code)			
Absolute Relieving	Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA	
Relieving temperatu	ure of the Inlet. Rankine(T)	200.7	$^{\circ}$	(°C + 273	3.15) x 1.8 =	852.93	R	
Flow Required (W)	436.1	kg/hr	x 2.	205 =	961.44	lb/hr	
Mol. Weight(M)					162.3			
REQUIRED DI	SCHARGE AREA (A)		$A = \frac{W}{C \times Kd \times K_R \times P_1 \times Kc} \sqrt{\frac{TZ}{M}}$					
Д	323 x 0.62 x 1 x 100	0.69 x 1	2.232	=	0.11	Sq.in		
THEORETICAL (E	BY CALCULATION) SIZE		D =		4 A π			
$\sqrt{-2}$	1 x 0.10642141 =	0.37	inch	(9	mm)		
REQUIRED SI	ZE BY CLIENT:		0.75	in				
	DED SIZE BY VENDO	OR:	0.75	in				
* NOTE								
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♦ <u>I</u>	F DC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	P1 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1322A(F	PG-1322A)	
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressure	ieving Pressure (P ₀₁)			x 1.2	1 =	85.99	PSIG
(Using set pressur	ing set pressure plus 21% over pressure			API code)		
Absolute Relieving	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperate	ure of the Inlet. Rankine(T)	86.6	$^{\circ}$	(°C + 273	3.15) x 1.8 =	647.55	i R
Flow Required (W	')	768	kg/hr	x 2.	205 =	1,693.15	lb/hr
Mol. Weight(M)					162.3		
REQUIRED D	ISCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
A	$A = \frac{1,693.15}{327 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.8524	=	0.15	Sq.in	
THEORETICAL (I	BY CALCULATION) SIZE		D =		4 A π		
<u></u>	4 x 0.1536328 π	0.44	inch	(11	mm)	
REQUIRED S	IZE BY CLIENT :		0.75	in			
	DED SIZE BY VENDO	OR:	0.75	in			
<u>* NOTE</u>							
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♦ <u>F</u>	F DC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	P1 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1322B(F	PG-1322B)	
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressure	ieving Pressure (P ₀₁)			x 1.2	1 =	85.99	PSIG
(Using set pressur	ing set pressure plus 21% over pressure			API code)		
Absolute Relieving	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperate	ure of the Inlet. Rankine(T)	86.6	$^{\circ}$	(°C + 273	3.15) x 1.8 =	647.55	ī R
Flow Required (W)	768	kg/hr	x 2.	205 =	1,693.15	lb/hr
Mol. Weight(M)					162.3		
REQUIRED D	ISCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
A	$A = \frac{1,693.15}{327 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.8524	=	0.15	Sq.in	
THEORETICAL (E	BY CALCULATION) SIZE		D =		4 A π		
V	4 x 0.1536328 π	0.44	inch	(11	mm)	
REQUIRED S	IZE BY CLIENT :		0.75	in			
	DED SIZE BY VENDO	OR:	0.75	in			
* NOTE							
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♦ <u>I</u>	F D C	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	P1 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1322C(F	PG-1322C)	
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	PSIG
Relieving Pressur	ieving Pressure (P ₀₁)			x 1.2	1 =	85.99	PSIG
(Using set pressu	ing set pressure plus 21% over pressure			API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperat	ure of the Inlet. Rankine(T)	86.6	$^{\circ}$	(°C + 273	3.15) x 1.8 =	647.55	R
Flow Required (W	')	768	kg/hr	x 2.	205 =	1,693.15	lb/hr
Mol. Weight(M)					162.3		
REQUIRED D	ISCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc		
A	$A = \frac{1,693.15}{327 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.8524	=	0.15	Sq.in	
THEORETICAL (I	BY CALCULATION) SIZE		D =		4 A π		
<u></u>	4 x 0.1536328 π	0.44	inch	(11	mm)	
REQUIRED S	IZE BY CLIENT :		0.75	in			
	DED SIZE BY VENDO	OR:	0.75	in			
<u>* NOTE</u>							
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♦ <u>I</u>	F D C	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	TD. DOC. NO		-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	P1 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1332A(F	PG-1332A)	
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressur	lieving Pressure (P ₀₁)			x 1.2	1 =	85.99	PSIG
(Using set pressu	ing set pressure plus 21% over pressure			API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperat	ure of the Inlet. Rankine(T)	66.1	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	610.65	ī R
Flow Required (W	')	1,309 kg/hr x 2.205 =				2,885.85	lb/hr
Mol. Weight(M)					162		
REQUIRED D	ISCHARGE AREA (A)		A =	C x Kd x	V K _R x P ₁ x Kc	√	
ļ	$A = \frac{2,885.85}{322 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.7656	=	0.25	Sq.in	
THEORETICAL (I	BY CALCULATION) SIZE		D =		4 A π		
<u></u>	4 x 0.25346561 π =	0.57	inch	(14	mm)	
REQUIRED S	IZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
<u>* NOTE</u>							
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♦ <u>I</u>	F D C	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	D. DOC. NO		-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	P1 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1332B(F	PG-1332B)	
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressur	lieving Pressure (P ₀₁)			x 1.2	1 =	85.99	PSIG
(Using set pressu	ing set pressure plus 21% over pressure			API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperat	ure of the Inlet. Rankine(T)	66.1	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	610.65	ī R
Flow Required (W	')	1,309	kg/hr	x 2.	205 =	2,885.85	lb/hr
Mol. Weight(M)					162		
REQUIRED D	ISCHARGE AREA (A)		A =	C x Kd x	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
ļ	$A = \frac{2,885.85}{322 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.7656	=	0.25	Sq.in	
THEORETICAL (I	BY CALCULATION) SIZE		D =		4 A π		
$\sqrt{-}$	4 x 0.25346561 π =	0.57	inch	(14	mm)	
REQUIRED S	IZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
<u>* NOTE</u>							
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♦ <u>I</u>	F D C	ATION S	HEET	FOR F	RUPTURE	DISC		
PROJECT INF	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. NO.		-			
PROJECT	J1 PROJECT		FLUID 8	§ STATE	P1 / GAS			
JOB NO.	220701		TAG. N	О.	RD-1333(PC	G-1335)		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow		
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG	
Relieving Pressure	lieving Pressure (P ₀₁)			x 1.2	1 =	85.99	PSIG	
(Using set pressur	ing set pressure plus 21% over pressure			API code)			
Absolute Relieving	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA	
Relieving temperate	ure of the Inlet. Rankine(T)	66	$^{\circ}$	(°C + 273	3.15) x 1.8 =	610.47	' R	
Flow Required (W	')	896 kg/hr x 2.205 =				1,975.34	lb/hr	
Mol. Weight(M)					162			
REQUIRED D	ISCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_ <u>TZ</u> M		
F	$A = \frac{1,975.342}{322 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.776	=	0.17	Sq.in		
THEORETICAL (I	BY CALCULATION) SIZE		D =		4 A π			
V-	4 x 0.17451524 π =	0.47	inch	(12	mm)		
REQUIRED S	IZE BY CLIENT :		1	in				
	DED SIZE BY VENDO	OR:	1	in				
<u>* NOTE</u>								
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♦ <u>I</u>	F <u>DC</u> CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC		
PROJECT INF	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	.TD.	D. DOC. NO.		-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	P1 / GAS			
JOB NO.	220701		TAG. N	О.	RD-1334A(F	PG-1336A)		
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	ritical Flow		
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	PSIG	
Relieving Pressure	ieving Pressure (P ₀₁)			x 1.1	1 =	78.18	PSIG	
(Using set pressu	sing set pressure plus 10% over pressure as pe			API code)	•		
Absolute Relieving	g Pressure (P ₁)	78.18	PSIG	+ 1	14.7 =	92.88	PSIA	
Relieving temperate	ure of the Inlet. Rankine(T)	66	$^{\circ}$	(°C + 273	3.15) x 1.8 =	610.47	'R	
Flow Required (W)	896	kg/hr	x 2.	205 =	1,975.34	lb/hr	
Mol. Weight(M)					162			
CALCULATIO REQUIRED D	ISCHARGE AREA (A)		A =		V K _R x P ₁ x Kc	$\sqrt{\frac{TZ}{M}}$		
F	$A = \frac{1,975.342}{322 \times 0.62 \times 1 \times 92}$	2.88 x 1	1.776 = 0.19 Sq.in					
THEORETICAL (I	BY CALCULATION) SIZE		D =	_	4 Α π			
V-	4 x 0.1892046 π	0.49	inch	(12	mm)		
REQUIRED S	IZE BY CLIENT:		1	in				
	DED SIZE BY VENDO	OR:	1	in				
<u>* NOTE</u>								
				ı	R. Jung	J. H. Jung	28-May-24	
				Rev. No.	DES'D	APP'D	Date	

O <u>I</u>	F <i>DC</i> CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID & STATE P1 / GAS				
JOB NO.	220701		TAG. NO. RD-1334B(PG-1336B)				
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀))	490	kPa	x 0.	145 =	71.07	PSIG
Relieving Pressu	re (P ₀₁)	71.07	PSIG	x 1.1	1 =	78.18	PSIG
Using set pressu	ıre plus 10% over pressure	as permitte	ed by the	API code	·)		
Absolute Relievin	g Pressure (P ₁)	78.18	PSIG	+ -	14.7 =	92.88	PSIA
Relieving tempera	ture of the Inlet. Rankine(T)	66	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	610.47	R
Flow Required (V	V)	896	kg/hr	x 2.	205 =	1,975.34	· lb/hr
Mol. Weight(M)					162		
REQUIRED [DISCHARGE AREA (A) 1,975.342		$A = \frac{W}{C \times Kd \times K_R \times P_1 \times Kc} \sqrt{\frac{TZ}{M}}$				
	A = \frac{1,973.342}{322 \times 0.62 \times 1 \times 92}	2.88 x 1	1.776	=	0.19	Sq.in	
THEORETICAL ((BY CALCULATION) SIZE		D =	_	4 A π		
$\sqrt{-}$	4 x 0.1892046 π	0.49	inch	(12	mm)	
REQUIRED S	SIZE BY CLIENT :		1	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1	in			
* NOTE							
				- I	R. Jung	J. H. Jung	28-May-2
				Rev. No.	DES'D	APP'D	Date

Q 1	F D C CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT INI	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	Ю.	-		
PROJECT	J1 PROJECT		FLUID & STATE P1 / GAS				
JOB NO.	220701		TAG. NO. RD-1334C(PG-1336C)				
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	ritical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	PSIG
Relieving Pressur	re (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG
(Using set pressu	re plus 21% over pressure	as permitte	ed by the	API code)	l	
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperat	cure of the Inlet. Rankine(T)	66	$^{\circ}$	(°C + 273	.15) x 1.8 =	610.47	' R
Flow Required (W	/)	896	kg/hr	x 2.	205 =	1,975.34	lb/hr
Mol. Weight(M)					162		
REQUIRED D	DISCHARGE AREA (A)		A =	C x Kd x	K _R x P ₁ x Kc	√TZ M	
,	A = 1,975.342 322 x 0.62 x 1 x 10	0 60 v 1	1.776	=	0.17	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		4 Α π		
<u></u>	4 x 0.17451524 π =	0.47	inch	(12	mm)	
REQUIRED S	IZE BY CLIENT :		1	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1	in			
* NOTE							
							1
				I	R. Jung	J. H. Jung	28-May-2
				Rev. No.	DES'D	APP'D	Date

Q <u>I</u>	F D C CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID & STATE		P1 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1334D(F	PG-1336D)	
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	x 0.145 =		' PSIG
Relieving Pressur	eving Pressure (P ₀₁)			x 1.2	1 =	85.99	PSIG
(Using set pressu	ng set pressure plus 21% over pressure as permitted by the API co						
Absolute Relieving	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperat	ture of the Inlet. Rankine(T)	66	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	610.47	' R
Flow Required (W	/)	896	kg/hr	x 2.	205 =	1,975.34	lb/hr
Mol. Weight(M)					162		
REQUIRED D	DISCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
,	$A = \frac{1,975.342}{322 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.776	=	0.17	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		4 A π		
	4 x 0.17451524 π	0.47	inch	(12	mm)	
REQUIRED S	IZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
* NOTE							
				I	R. Jung	J. H. Jung	28-May-2
				Rev. No.	DES'D	APP'D	Date

Q <u>I</u>	F <u>D C</u> CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC		
PROJECT INF	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID & STATE P1 / GAS TAG. NO. RD-1347A(PG-1348A)				,	
JOB NO.	220701							
CALCULATIO	ON DATA - API RP520 7EDIT. PART 1 SEC.3.6.2 Sizing for Gas Critical Flow							
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	PSIG	
Relieving Pressur	re (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG	
(Using set pressu	re plus 21% over pressure	as permitte	ed by the	API code)			
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	14.7 =	100.69	PSIA	
Relieving temperat	ure of the Inlet. Rankine(T)	66	$^{\circ}$	(°C + 273	3.15) x 1.8 =	610.47	'R	
Flow Required (W	/)	1,859	kg/hr	x 2.	205 =	4,098.39	lb/hr	
Mol. Weight(M)					162.3			
REQUIRED D	ISCHARGE AREA (A)		A =	C x Kd x l	K _R x P ₁ x Kc	$\sqrt{\frac{TZ}{M}}$		
,	$A = \frac{4,098.393}{322 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.7743	=	0.36	Sq.in		
THEORETICAL (BY CALCULATION) SIZE		D =		4 A π			
	4 x 0.36174538 π =	0.68	inch	(17	mm)		
REQUIRED S	IZE BY CLIENT :		1.5	in				
RECOMMEN	DED SIZE BY VENDO	OR:	1.5	in				
* NOTE								
				I	R. Jung	J. H. Jung	28-May-2	
				Rev. No.	DES'D	APP'D	Date	

♦ <u>/</u>	F D C	ATION S	HEET	FOR F	RUPTURE	DISC		
PROJECT INF	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID & STATE		P1 / GAS			
JOB NO.	220701	TAG. NO. RD-1347B(PG-1348B)			PG-1348B)			
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow		
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG	
Relieving Pressur	e (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG	
Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)			
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA	
Relieving temperat	ure of the Inlet. Rankine(T)	66	$^{\circ}$	(°C + 273	3.15) x 1.8 =	610.47	' R	
Flow Required (W	')	1,859	kg/hr	x 2.	205 =	4,098.39) lb/hr	
Mol. Weight(M)					162.3			
REQUIRED D	ISCHARGE AREA (A)		A =	C x Kd x	V K _R x P ₁ x Kc	√_ <u>TZ</u> M		
ļ	A = 4,098.393 322 x 0.62 x 1 x 100	0.69 x 1	1.7743	=	0.36	Sq.in		
THEORETICAL (BY CALCULATION) SIZE		D =		4 A π			
<u></u>	4 x 0.36174538 π =	0.68	inch	(17	mm)		
REQUIRED S	IZE BY CLIENT :		1.5	in				
	DED SIZE BY VENDO	OR:	1.5	in				
<u>* NOTE</u>								
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				Rev. No.	DES'D	APP'D	Date	

♦ <u>I</u>	F D C	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	H2 / GAS		
JOB NO.	220701		TAG. N	0.	RD-1301A(F	PG-1306A)	
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressur	e (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	.99 PSIG
Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperat	ure of the Inlet. Rankine(T)	179.4	$^{\circ}$	(°C + 273	3.15) x 1.8 =	814.59	R
Flow Required (W	')	738	kg/hr	x 2.	205 =	1,627.01	lb/hr
Mol. Weight(M)					133.7		
REQUIRED D	ISCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
ŀ	$A = \frac{1,627.011}{322 \times 0.62 \times 1 \times 100}$	0.69 x 1	2.3129	=	0.19	Sq.in	
THEORETICAL (I	BY CALCULATION) SIZE		D =		4 A π		
$\sqrt{-}$	4 x 0.18719551 π =	0.49	inch	(12	mm)	
REQUIRED S	IZE BY CLIENT :		1	in			
	DED SIZE BY VENDO	OR:	1	in			
<u>* NOTE</u>							
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				Rev. No.	DES'D	APP'D	Date

Q	FDC CALCULA	TION S	HEET	FOR F	RUPTURE	DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	H2 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1301B(F	PG-1306B)	
CALCULATIO	ON DATA - API RP520 7E	DIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀))	490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressu	re (P ₀₁)	71.07	PSIG	x 1.2	1 =	85.99	PSIG
Using set pressu	ıre plus 21% over pressure	as permitte	permitted by the API code)				
Absolute Relievin	ng Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving tempera	ture of the Inlet. Rankine(T)	179.4	$^{\circ}$	(°C + 273	s.15) x 1.8 =	814.59) R
Flow Required (V	V)	738	kg/hr	x 2.	205 =	1,627.01	lb/hr
Mol. Weight(M)					133.7		
REQUIRED [DISCHARGE AREA (A)		A =	C x Kd x	V K _R x P ₁ x Kc	√_TZ M	
	$A = \frac{1,627.011}{322 \times 0.62 \times 1 \times 100}$	2.00 4	2.3129	=	0.19	Sq.in	
THEORETICAL ((BY CALCULATION) SIZE		D =		4 A π		
<u></u>	4 x 0.18719551 π	0.49	inch	(12	mm)	
REQUIRED S	SIZE BY CLIENT :		1	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1	in			
* NOTE							
				I	R. Jung	J. H. Jung	28-May-2
				Rev. No.	DES'D	APP'D	Date

Q 1	F <i>DC</i> CALCULA	TION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	Ю.	-		
PROJECT	J1 PROJECT	FLUID & STATE H4 / GAS					
JOB NO.	220701		TAG. NO. RD-1221A(PG-1226A)				
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	Γ1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		186	kPa	x 0.	145 =	26.98	PSIG
Relieving Pressur	re (P ₀₁)	26.98	PSIG	x 1.2	1 =	32.64	PSIG
(Using set pressu	re plus 21% over pressure	as permitte	ed by the	API code)		
Absolute Relievin	g Pressure (P ₁)	32.64	PSIG	+ 1	14.7 =	47.34	PSIA
Relieving temperat	cure of the Inlet. Rankine(T)	209.1	°C	(°C + 273	3.15) x 1.8 =	868.05	i R
Flow Required (W	/)	2,018	kg/hr	x 2.	205 =	4,448.93	lb/hr
Mol. Weight(M)					337.8		
REQUIRED D	DISCHARGE AREA (A)		A =	C x Kd x	V K _R x P ₁ x Kc	$\sqrt{\frac{TZ}{M}}$	
,	A = 4,448.928 320 x 0.62 x 1 x 47		1.4995	= C x Kd x	0.71	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		4 Α π		
	4 x 0.71025116 π	0.95	inch	(24	mm)	
REQUIRED S	IZE BY CLIENT :		1.5	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1.5	in			
* NOTE							
				I	R. Jung	J. H. Jung	28-May-2
				Rev. No.	DES'D	APP'D	Date

Q 1	FDC CALCULA	TION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT INI	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	IO.	-		
PROJECT	J1 PROJECT		FLUID & STATE H4 / GAS				
JOB NO.	220701		TAG. NO. RD-1221B(PG-1226B)				
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	ritical Flow	
Set Pressrue (P ₀)	1	186	kPa	x 0.	145 =	26.98	PSIG
Relieving Pressur	re (P ₀₁)	26.98	PSIG	x 1.2	1 =	32.64	PSIG
(Using set pressu	re plus 21% over pressure	as permitte	ed by the	API code)		
Absolute Relievin	g Pressure (P ₁)	32.64	PSIG	+ 1	14.7 =	47.34	PSIA
Relieving temperat	ture of the Inlet. Rankine(T)	209.1	$^{\circ}$	(°C + 273	3.15) x 1.8 =	868.05	i R
Flow Required (W	/)	2,018	kg/hr	x 2.	205 =	4,448.93	lb/hr
Mol. Weight(M)					337.8		
REQUIRED D	DISCHARGE AREA (A)		A =	C x Kd x	V K _R x P ₁ x Kc	$\sqrt{\frac{TZ}{M}}$	
,	A = 4,448.928 320 x 0.62 x 1 x 47		1.4995	= =	0.71	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		4 Α π		
<u></u>	4 x 0.71025116 π =	0.95	inch	(24	mm)	
REQUIRED S	IZE BY CLIENT :		1.5	in			
RECOMMEN	DED SIZE BY VENDO	OR:	1.5	in			
* NOTE							
				I	R. Jung	J. H. Jung	28-May-2
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O <u>I</u>	F <i>DC</i> CALCULA	TION S	HEET	FOR F	RUPTURE	DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	Ю.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	P1 / GAS		
JOB NO.	220701		TAG. N	О.	RD-1338(PC	G-1337)	
CALCULATIO	N DATA - API RP520 7E	DIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀))	490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressu	re (P ₀₁)	71.07 PSIG x 1.21 = 8				85.99	PSIG
(Using set pressu	ıre plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	14.7 =	100.69	PSIA
Relieving tempera	ture of the Inlet. Rankine(T)	153.4	$^{\circ}$	(°C + 273	3.15) x 1.8 =	767.79	R
Flow Required (V	V)	525	kg/hr	x 2.	205 =	1,157.43	lb/hr
Mol. Weight(M)					169.9		
REQUIRED D	DISCHARGE AREA (A)		A =	C x Kd x	V K _R x P ₁ x Kc	√_TZ M	
	1,157.427 A =		2.0423		0.12	V M Sq.in	
THEORETICAL (321 x 0.62 x 1 x 100	J.09 X 1	D =		4 A π		
<u></u>	4 x 0.11795694 π	0.39	inch	(10	mm)	
REQUIRED S	SIZE BY CLIENT :		0.75	in			
RECOMMEN	DED SIZE BY VENDO	OR:	0.75	in			
* NOTE							
				I	R. Jung	J. H. Jung	28-May-2
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♦ <u>I</u>	F D C	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID & STATE		P1 / GAS		
JOB NO.	220701	701 TAG. NO. RD-1319(PG-					
CALCULATIO	N DATA - API RP520 7E	EDIT. PART	1 SEC.	3.6.2 Sizir	ng for Gas Cr	itical Flow	
Set Pressrue (P ₀)		490	kPa	x 0.	145 =	71.07	' PSIG
Relieving Pressur	eving Pressure (P ₀₁)			x 1.2	1 =	85.99) PSIG
(Using set pressu	re plus 21% over pressure	as permitte	d by the	API code)		
Absolute Relievin	g Pressure (P ₁)	85.99	PSIG	+ 1	4.7 =	100.69	PSIA
Relieving temperat	ure of the Inlet. Rankine(T)	86.5	${\mathbb C}$	(°C + 273	3.15) x 1.8 =	647.37	' R
Flow Required (W	')	123	kg/hr	x 2.	205 =	271.17	lb/hr
Mol. Weight(M)					162.3		
REQUIRED D	ISCHARGE AREA (A)		A =	V C x Kd x l	V K _R x P ₁ x Kc	√_ <u>TZ</u> M	
A	$A = \frac{271.169}{322 \times 0.62 \times 1 \times 100}$	0.69 x 1	1.8521	=	0.02	Sq.in	
THEORETICAL (I	BY CALCULATION) SIZE		D =		4 A π		
$\sqrt{-}$	4 x 0.02498385 π	0.18	inch	(5	mm)	
REQUIRED S	IZE BY CLIENT :		0.75	in			
	DED SIZE BY VENDO	OR:	0.75	in			
<u>* NOTE</u>							
				I	R. Jung	J. H. Jung	28-May-2
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② <u>1</u>	F <i>DC</i> CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	C4F6 / LIQU	JID	
JOB NO.	220701		TAG. N	0.	RD-1344A(F	PG-1344A)	
CALCULATIO	ON DATA - API RP520 7	EDIT. PART	1 SEC.:	3.8 Sizing	for Liquid		
SET PRESSURE	: (P ₀)	735.5	kPa	x 0.	145 =	106.68	PSIG
RELIEVING PRE	ELIEVING PRESSURE (P ₁) 10			Х	1.1 =	117.34	PSIG
	ıre plus 10% over pressure	as permitte	ed by the	API code)		
BACK PRESSUR	RE (P ₂)	1.95	kg/cm²	x 14.2	223343 =	27.73552	PSIG
CORRECTION F	ACTOR TO VISCOSITY(K	(v)					0.98316
FLOW REQUIRE	ED (Q)	7	kg/hr	x 0.	004 =	0.03	GPM
SPECIFIC GRAV	/ITY(G)		1	.11			
REQUIRED D	DISCHARGE AREA (A)	Kc =1 Kv = 1	A _R = -	38 x Kd x	Q KR x Kc x K	$\frac{G}{P_1-P_2}$	_
А	$R = \frac{0.028}{38 \times 0.62 \times 1 \times 1}$	1 x 1	0.1113	=	0	Sq.in	
THEORETICAL ((BY CALCULATION) SIZE		D =	$\sqrt{}$	<u>4A</u> π	0	mm
	$A = \frac{A_R}{K_V} =$	0Sq.in,	D = ,	$\sqrt{\frac{4 \times 0.0}{}}$	00013341 π	0.01	inch
REQUIRED S	SIZE BY CLIENT :		0.5	in			
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in			
* NOTE							
							-
				I	R. Jung	J. H. Jung	28-May-2
				Rev. No.	DES'D	APP'D	Date

Q	FDC CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO.,	LTD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	C4F6 / LIQU	JID	
JOB NO.	220701		TAG. N	0.	RD-1344B(F	PG-1344B)	
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.	3.8 Sizing	for Liquid		
SET PRESSURE	(P ₀)	735.5	kPa	x 0.	145 =	106.68	PSIG
RELIEVING PRE	SSURE (P ₁)	106.68	PSIG	Х	1.1 =	117.34	PSIG
(Using set pressu	re plus 10% over pressure	e as permitte	ed by the	API code)		
BACK PRESSUR	RE (P ₂)	1.95	kg/cm²	x 14.2	223343 =	27.73552	PSIG
CORRECTION F	ACTOR TO VISCOSITY(F	۲۷)					0.98316
FLOW REQUIRE	D (Q)	7	kg/hr	x 0.	004 =	0.03	GPM
SPECIFIC GRAV	'ITY(G)		1	.11		<u> </u>	
	DISCHARGE AREA (A) 0.028	Kc =1 Kv = 1	A _R = -	38 x Kd x	Q KR x Kc x K	$ \frac{G}{P_1 - P_2} $ Sq.in	-
	38 x 0.62 x 1 x	1 x 1	1			' 	
THEORETICAL (BY CALCULATION) SIZE	<u> </u>	D =		<u>4A</u> π	0	mm
	$A = \frac{A_R}{K_V} =$	0Sq.in,	D = ,	$\sqrt{4 \times 0.0}$	00013341 π	0.01	inch
REQUIRED S	IZE BY CLIENT :		0.5	in			
RECOMMEN	DED SIZE BY VEND	OR:	0.5	in			
* NOTE							
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				I	R. Jung	J. H. Jung	28-May-2
				Rev. No.	DES'D	APP'D	Date

O <u>I</u>	F <i>DC</i> CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	O.	-		
PROJECT	J1 PROJECT		FLUID 8	STATE	VR / LIQUID)	
JOB NO.	220701		TAG. NO	Э.	RD-1345A(F	PG-1345A)	
CALCULATIO	N DATA - API RP520 71	EDIT. PART	1 SEC.3	3.8 Sizing	for Liquid		
SET PRESSURE	E (P ₀)	2,942	kPa	x 0.	145 =	426.7	PSIG
RELIEVING PRE	SSURE (P ₁)	426.7	PSIG	Х	1.1 =	469.37	PSIG
Using set pressu	ıre plus 10% over pressure	as permitte	ed by the	API code)		
BACK PRESSUF	RE (P ₂)	0.1	kg/cm²	x 14.2	223343 =	1.42233	PSIG
CORRECTION F	ACTOR TO VISCOSITY(K	(v)					0.97986
FLOW REQUIRE	ED (Q)	1.8	kg/hr	x 0.	004 =	0.01	GPM
SPECIFIC GRAV	/ITY(G)		1	.11			
А	DISCHARGE AREA (A) $= \frac{0.007}{38 \times 0.62 \times 1 \times 1}$	Kv = 1	0.0487	38 x Kd x =	0 4A	P_1-P_2 Sq.in	
	(BY CALCULATION) SIZE $A = \frac{A_R}{K_V} =$	0Sq.in,	D = \	$\sqrt{\frac{4 \times 0}{}}$	π 0000151 π =	L	mm
REQUIRED S	SIZE BY CLIENT :		0.5	in			
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in			
<u>* NOTE</u>				ı	R. Jung	J. H. Jung	28-May-2

O	F <i>DC</i> CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	_TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	STATE	VR / LIQUID)	
JOB NO.	220701		TAG. N	Э.	RD-1345B(F	PG-1345B)	
CALCULATIO	ON DATA - API RP520 7	EDIT. PART	1 SEC.3	3.8 Sizing	for Liquid		
SET PRESSURE	E (P ₀)	2,942	kPa	x 0.	145 =	426.7	PSIG
RELIEVING PRE	SSURE (P ₁)	426.7	PSIG	Х	1.1 =	469.37	PSIG
(Using set pressu	ıre plus 10% over pressure	e as permitte	ed by the	API code)		
BACK PRESSUF	RE (P ₂)	0.1	kg/cm²	x 14.2	223343 =	1.42233	PSIG
CORRECTION F	ACTOR TO VISCOSITY(K	(v)					0.97986
FLOW REQUIRE	ED (Q)	1.8	kg/hr	x 0.	004 =	0.01	GPM
SPECIFIC GRAV	/ITY(G)		1	.11			
	DISCHARGE AREA (A) $R = \frac{0.007}{38 \times 0.62 \times 1 \times 1}$	Kv = 1	A _R = -	38 x Kd x	0 4A	P_1-P_2 Sq.in	
THEORETICAL	(BY CALCULATION) SIZE		D =		π	0	mm
	$A = \frac{A_R}{K_V} =$	0Sq.in,	D = \	$\sqrt{\frac{4 \times 0}{}}$	0000151 π	0	inch
REQUIRED S	SIZE BY CLIENT:		0.5	in			
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in			
* NOTE							
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♦ <u>F</u>	F.D.C CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC		
PROJECT INF	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	.TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	CTFE / LIQI	JID		
JOB NO.	220701		TAG. N	0.	RD-1101C(F	PG-1102C)		
CALCULATIO	N DATA - API RP520 71	EDIT. PART	Γ1 SEC.	3.8 Sizing	for Liquid			
SET PRESSURE	(P ₀)	892	kPa	x 0.	145 =	129.37	PSIG	
RELIEVING PRES	SSURE (P ₁)	129.37	PSIG	Х	1.1 =	142.31	PSIG	
(Using set pressur	set pressure plus 10% over pressure as permitted by the API code)							
BACK PRESSURI	E (P ₂)	677	kPa	x 0.1	45038 =	98.19052	PSIG	
CORRECTION FA	ACTOR TO VISCOSITY(K	(v)					0.96949	
FLOW REQUIRED	D (Q)	5.8	kg/hr	x 0.	003 =	0.02	GPM	
SPECIFIC GRAVI	TY(G)			1.3				
REQUIRED DISCHARGE AREA (A) $Kc = 1 \\ Kv = 1$ $A_R = \frac{Q}{38 \times Kd \times KR \times Kc \times K} \sqrt{\frac{G}{P_1 - P_2}}$							-	
A _B	0.02		- 0.1717	=	0	Sq.in		
	38 x 0.62 x 1 x	1 x 1				· 		
THEORETICAL (E	BY CALCULATION) SIZE		D =		<u>4A</u> π	0	mm	
A	$A = \frac{A_R}{K_V} =$	0Sq.in,	D = ,	$\sqrt{\frac{4\times0.0}{}}$	00014762 π	0.01	inch	
REQUIRED SI	IZE BY CLIENT :		0.5	in				
RECOMMENI	DED SIZE BY VENDO	OR:	0.5	in				
* NOTE								
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Q	F <i>DC</i> CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., I	LTD.	DOC. N	Ο.	-		
PROJECT	J1 PROJECT		FLUID 8	STATE	CTFE / LIQI	JID	
JOB NO.	220701		TAG. NO) .	RD-1101D(F	PG-1102D)	
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.3	3.8 Sizing	for Liquid		
SET PRESSURE	E (P ₀)	892	kPa	x 0.	145 =	129.37	PSIG
RELIEVING PRE	SSURE (P ₁)	129.37	PSIG	Х	1.1 =	142.31	PSIG
(Using set pressu	ıre plus 10% over pressure	e as permitte	ed by the	API code)		
BACK PRESSUR	RE (P ₂)	677	kPa	x 0.1	45038 =	98.19052	PSIG
CORRECTION F	ACTOR TO VISCOSITY(F	(v)					0.96949
FLOW REQUIRE	ED (Q)	5.8	kg/hr	x 0.	003 =	0.02	GPM
SPECIFIC GRAV	'ITY(G)		1	1.3			
	DISCHARGE AREA (A) $R = \frac{0.02}{38 \times 0.62 \times 1 \times 1}$	Kv = 1	A _R = -	38 x Kd x	KR x Kc x K	$ \sqrt{\frac{G}{P_1 - P_2}} $ Sq.in	_
THEORETICAL ((BY CALCULATION) SIZE	<u> </u>	D =		4A π	0	mm
	$A = \frac{A_R}{K_V} =$	0Sq.in,	D = \	$\sqrt{\frac{4 \times 0.0}{4 \times 0.0}}$	00014762 π	0.01	inch
REQUIRED S	SIZE BY CLIENT:		0.5	in			
RECOMMEN	DED SIZE BY VEND	OR:	0.5	in			
* NOTE							
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			ŀ	В	R. Jung	J. H. Jung	28-May-2

Q <u>I</u>	FDC CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC		
PROJECT INI	FORMATION							
CUSTOMER	JINSUNG ENG CO., I	_TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	CTFE / LIQI	JID		
JOB NO.	220701		TAG. N	О.	RD-1101F(F	PG-1102F)		
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.	3.8 Sizing	for Liquid			
SET PRESSURE	(P ₀)	892	kPa	x 0.	145 =	129.37	PSIG	
RELIEVING PRE	SSURE (P ₁)	129.37	PSIG	Х	1.1 =	142.31	PSIG	
(Using set pressu	re plus 10% over pressure as permitted by the API code)							
BACK PRESSUR	RE (P ₂)	9.8	kPa	x 0.1	45038 =	1.42137	PSIG	
CORRECTION F.	ACTOR TO VISCOSITY((v)					0.97406	
FLOW REQUIRE	D (Q)	5.5	kg/hr	x 0.	003 =	0.02	GPM	
SPECIFIC GRAV	TITY(G)			1.3				
REQUIRED D	DISCHARGE AREA (A)	Kc =1 Kv = 1	A _R = -	38 x Kd x	Q KR x Kc x K	$\frac{G}{P_1-P_2}$	_	
	0.019		<u> </u>			V		
A_{l}	38 x 0.62 x 1 x	1 x 1	- 0.0961	=	0	Sq.in		
THEORETICAL (BY CALCULATION) SIZE		D =		4A π	0	mm	
,	$A = \frac{A_R}{K_V} =$	0Sq.in,	D = ,	$\sqrt{\frac{4 \times 0}{}}$.000078 π	0.01	inch	
REQUIRED S	IZE BY CLIENT :		0.5	in				
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in				
* NOTE								
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◆ <u>1</u>	F DC CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC		
PROJECT INF	FORMATION							
CUSTOMER	JINSUNG ENG CO., I	_TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	CTFE / LIQI	JID		
JOB NO.	220701		TAG. N	О.	RD-1101G(I	PG-1102G)		
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.	3.8 Sizing	for Liquid			
SET PRESSURE	(P ₀)	892	kPa	x 0.	145 =	129.37	PSIG	
RELIEVING PRE	SSURE (P ₁)	129.37	PSIG	Х	1.1 =	142.31	PSIG	
(Using set pressu	re plus 10% over pressure as permitted by the API code)							
BACK PRESSUR	E (P ₂)	9.8	kPa	x 0.1	45038 =	1.42137	PSIG	
CORRECTION F	ACTOR TO VISCOSITY(k	(v)					0.97406	
FLOW REQUIRE	D (Q)	5.5	kg/hr	x 0.	003 =	0.02	GPM	
SPECIFIC GRAV	ITY(G)			1.3				
REQUIRED D	SISCHARGE AREA (A)	Kc =1 Kv = 1	A _R = -	38 x Kd x	Q KR x Kc x K	$\frac{G}{P_1-P_2}$		
	0.019							
A_{F}	38 x 0.62 x 1 x	1 x 1	- 0.0961	=	0	Sq.in		
THEORETICAL (BY CALCULATION) SIZE		D =		4A π	0	mm	
,	$A = \frac{A_R}{K_V} =$	0Sq.in,	D = ,	$\sqrt{\frac{4 \times 0}{}}$.000078 π	0.01	inch	
REQUIRED S	IZE BY CLIENT :		0.5	in				
	DED SIZE BY VENDO	OR:	0.5	in				
<u>* NOTE</u>								
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Q	F <i>DC</i> CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	_TD.	DOC. N	0.	-		
PROJECT	J1 PROJECT		FLUID 8	STATE	H-2312 / LIC	QUID	
JOB NO.	220701		TAG. NO	Э.	RD-1231A(F	PG-1231A)	
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.3	3.8 Sizing	for Liquid		
SET PRESSURE	(P ₀)	0.667	MPa	x 145	.0377 =	96.74	PSIG
RELIEVING PRE	SSURE (P ₁)	96.74	PSIG	Х	1.1 =	106.41	PSIG
(Using set pressu	re plus 10% over pressure	as permitte	ed by the	API code)		
BACK PRESSUR	RE (P ₂)	21.57	kPa	x 0.1	45038 =	3.12846	PSIG
CORRECTION F	ACTOR TO VISCOSITY(k	(v)					0.98824
FLOW REQUIRE	D (Q)	19.1	kg/hr	x 0.	002 =	0.04	GPM
SPECIFIC GRAV	'ITY(G)		2	.25			
A	DISCHARGE AREA (A) $R = \frac{0.037}{38 \times 0.62 \times 1 \times 10^{-10}}$	1 x 1	0.1476	38 x Kd x	0 4A	P_1-P_2 Sq.in	
	BY CALCULATION) SIZE $A = \frac{A_R}{K_V} =$	0Sq.in,	D = \	$\sqrt{\frac{4 \times 0.0}{4 \times 0.0}}$	π 00023693 π		mm
REQUIRED S	SIZE BY CLIENT:		0.5	in			
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in			
<u>* NOTE</u>							
			ł	В	R. Jung	J. H. Jung	28-May-24

Q <u>I</u>	F D C CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC		
PROJECT IN	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	_TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	H-2312 / LIC	QUID		
JOB NO.	220701		TAG. N	О.	RD-1231B(F	PG-1231B)		
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.	3.8 Sizing	for Liquid			
SET PRESSURE	(P ₀)	0.667	MPa	x 145	.0377 =	96.74	PSIG	
RELIEVING PRE	SSURE (P ₁)	96.74	PSIG	Х	1.1 =	106.41	PSIG	
(Using set pressu	ure plus 10% over pressure as permitted by the API code)							
BACK PRESSUR	RE (P ₂)	21.57	kPa	x 0.1	45038 =	3.12846	PSIG	
CORRECTION F.	ACTOR TO VISCOSITY(k	(v)					0.98824	
FLOW REQUIRE	D (Q)	19.1	kg/hr	x 0.	002 =	0.04	GPM	
SPECIFIC GRAV	TITY(G)		2	2.25				
REQUIRED D	DISCHARGE AREA (A)	Kc =1 Kv = 1	A _R = -	38 x Kd x	Q KR x Kc x K	$\frac{G}{P_1-P_2}$	_	
	0.037					V		
A_{\parallel}	38 x 0.62 x 1 x	1 x 1	0.1476	=	0	Sq.in		
THEORETICAL (BY CALCULATION) SIZE		D =		4A π	0	mm	
,	$A = \frac{A_R}{K_V} =$	0Sq.in,	D = ,	$\sqrt{\frac{4\times0.0}{}}$	00023693 π	0.02	inch	
REQUIRED S	IZE BY CLIENT :		0.5	in				
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in				
<u>* NOTE</u>								
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	FDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC		
PROJECT IN	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	_TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	H-2312 / LIC	QUID		
JOB NO.	220701		TAG. N	О.	RD-1231C(F	PG-1231C)		
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.3	3.8 Sizing	for Liquid			
SET PRESSURE	(P ₀)	0.667	MPa	x 145	.0377 =	96.74	PSIG	
RELIEVING PRE	SSURE (P ₁)	96.74	PSIG	Х	1.1 =	106.41	PSIG	
(Using set pressu	ssure plus 10% over pressure as permitted by the API code)							
BACK PRESSUR	RE (P ₂)	21.57	kPa	x 0.1	45038 =	3.12846	PSIG	
CORRECTION F	ACTOR TO VISCOSITY(k	(v)					0.98824	
FLOW REQUIRE	D (Q)	19.1	kg/hr	x 0.	002 =	0.04	GPM	
SPECIFIC GRAV	'ITY(G)		2	2.25		<u> </u>		
REQUIRED DISCHARGE AREA (A) $Kc = 1 \qquad A_R = \frac{Q}{38 \times Kd \times KR \times Kc \times K} \sqrt{\frac{G}{P_1 - P_2}}$							<u>-</u> -	
Δ.	0.037		0.4470					
A	38 x 0.62 x 1 x	1 x 1	0.1476	=	0	Sq.in		
THEORETICAL (BY CALCULATION) SIZE		D =		<u>4A</u> π	0	mm	
	$A = \frac{A_R}{K_V} =$	0Sq.in,	D = '	$\sqrt{4 \times 0.0}$	00023693 π	0.02	inch	
REQUIRED S	SIZE BY CLIENT :		0.5	in				
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in				
<u>* NOTE</u>								
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	FDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC		
PROJECT IN	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	_TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	H-2312 / LIC	QUID		
JOB NO.	220701		TAG. N	О.	RD-1231D(F	PG-1231D)		
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.:	3.8 Sizing	for Liquid			
SET PRESSURE	(P ₀)	0.667	MPa	x 145	.0377 =	96.74	PSIG	
RELIEVING PRE	SSURE (P ₁)	96.74	PSIG	Х	1.1 =	106.41	PSIG	
(Using set pressu	ssure plus 10% over pressure as permitted by the API code)							
BACK PRESSUR	RE (P ₂)	21.57	kPa	x 0.1	45038 =	3.12846	PSIG	
CORRECTION F	ACTOR TO VISCOSITY(k	(v)					0.98824	
FLOW REQUIRE	D (Q)	19.1	kg/hr	x 0.	002 =	0.04	GPM	
SPECIFIC GRAV	'ITY(G)		2	2.25				
REQUIRED D	DISCHARGE AREA (A)	Kc =1 Kv = 1	A _R = -	38 x Kd x	Q KR x Kc x K	$\frac{G}{P_1-P_2}$	_	
	0.037							
A	38 x 0.62 x 1 x	1 x 1	0.1476	=	0	Sq.in		
THEORETICAL (BY CALCULATION) SIZE		D =		<u>4A</u> π	0	mm	
	$A = \frac{A_R}{K_V} =$	0Sq.in,	D = ,	$\sqrt{\frac{4\times0.0}{}}$	00023693 π	0.02	inch	
REQUIRED S	IZE BY CLIENT :		0.5	in				
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in				
* NOTE								
					<u> </u>	Ι		
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	FDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC		
PROJECT IN	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	_TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	H-2312 / LIC	QUID		
JOB NO.	220701		TAG. N	О.	RD-1231E(F	PG-1231E)		
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.:	3.8 Sizing	for Liquid			
SET PRESSURE	(P ₀)	0.667	MPa	x 145	.0377 =	96.74	PSIG	
RELIEVING PRE	SSURE (P ₁)	96.74	PSIG	Х	1.1 =	106.41	PSIG	
(Using set pressu	sure plus 10% over pressure as permitted by the API code)							
BACK PRESSUR	RE (P ₂)	21.57	kPa	x 0.1	45038 =	3.12846	PSIG	
CORRECTION F	ACTOR TO VISCOSITY(k	(v)					0.98824	
FLOW REQUIRE	.D (Q)	19.1	kg/hr	x 0.	002 =	0.04	GPM	
SPECIFIC GRAV	'ITY(G)		2	2.25				
REQUIRED D	DISCHARGE AREA (A)	Kc =1 Kv = 1	A _R = -	38 x Kd x	Q KR x Kc x K	$\frac{G}{P_1-P_2}$	_	
	0.037							
A	38 x 0.62 x 1 x	1 x 1	0.1476	=	0	Sq.in		
THEORETICAL (BY CALCULATION) SIZE		D =		<u>4A</u> π	0	mm	
	$A = \frac{A_R}{K_V} =$	0Sq.in,	D = ,	$\sqrt{\frac{4\times0.0}{}}$	00023693 π	0.02	! inch	
REQUIRED S	IZE BY CLIENT :		0.5	in				
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in				
* NOTE								
					<u> </u>	Ι		
				В	R. Jung	J. H. Jung	28-May-24	
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igoplus FDC CALCULATION SHEET FOR RUPTURE DISC								
PROJECT IN	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	_TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	H-2312 / LIC	QUID		
JOB NO.	220701		TAG. N	Э.	RD-1231F(F	PG-1231F)		
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.:	3.8 Sizing	for Liquid			
SET PRESSURE	0.667	MPa	x 145	.0377 =	96.74	PSIG		
RELIEVING PRE	SSURE (P ₁)	96.74	PSIG	Х	1.1 =	106.41	PSIG	
(Using set pressu	re plus 10% over pressure	as permitte	ed by the	API code)			
BACK PRESSUR	RE (P ₂)	21.57	kPa	x 0.1	45038 =	3.12846	PSIG	
CORRECTION F	ACTOR TO VISCOSITY(k	(v)					0.98824	
FLOW REQUIRE	D (Q)	19.1	kg/hr	x 0.	002 =	0.04	GPM	
SPECIFIC GRAV	'ITY(G)		2	2.25				
REQUIRED D	Kc =1 Kv = 1	$A_{R} = \frac{Q}{38 \times Kd \times KR \times Kc \times K} \sqrt{\frac{G}{P_{1}-P_{2}}}$				-		
	0.037							
A	38 x 0.62 x 1 x	1 x 1	0.1476	=	0	Sq.in		
THEORETICAL (BY CALCULATION) SIZE		D =		<u>4A</u> π	0	mm	
	$A = \frac{A_R}{K_V} =$	0Sq.in,	$D = \sqrt{\frac{4 \times 0.00023693}{\pi}} =$			= 0.02 inch		
REQUIRED S	IZE BY CLIENT :		0.5	in				
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in				
* NOTE								
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igoplus FDC CALCULATION SHEET FOR RUPTURE DISC								
PROJECT IN	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	_TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID 8	& STATE	H-2312 / LIC	QUID		
JOB NO.	220701		TAG. N	0.	RD-1231G(I	PG-1231G)		
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.	3.8 Sizing	for Liquid			
SET PRESSURE	0.667	MPa	x 145	.0377 =	96.74	PSIG		
RELIEVING PRE	SSURE (P ₁)	96.74	PSIG	Х	1.1 =	106.41	PSIG	
(Using set pressu	re plus 10% over pressure	as permitte	ed by the	API code)			
BACK PRESSUR	RE (P ₂)	21.57	kPa	x 0.1	45038 =	3.12846	PSIG	
CORRECTION F.	ACTOR TO VISCOSITY(k	(v)					0.98824	
FLOW REQUIRE	.D (Q)	19.1	kg/hr	x 0.	002 =	0.04	GPM	
SPECIFIC GRAV	'ITY(G)		2	2.25		L		
REQUIRED D	Kc =1 Kv = 1	$A_{R} = \frac{Q}{38 \times Kd \times KR \times Kc \times K} \sqrt{\frac{G}{P_{1}-P_{2}}}$						
A	0.037		- 0.1476	=	0	Sq.in		
	38 x 0.62 x 1 x	1 x 1				Τ		
THEORETICAL (BY CALCULATION) SIZE		D =		<u>4A</u> π	0	mm	
,	$A = \frac{A_R}{K_V} =$	0Sq.in,	$D = \sqrt{\frac{4 \times 0.00023693}{\pi}} =$			= 0.02 inch		
REQUIRED S	SIZE BY CLIENT:		0.5	in				
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in				
* NOTE								
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② 1	FDC CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	_TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	H-2312 / LIC	QUID	
JOB NO.	220701		TAG. N	Э.	RD-1231H(F	PG-1231H)	
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.:	3.8 Sizing	for Liquid		
SET PRESSURE	0.667	MPa	x 145	.0377 =	96.74	PSIG	
RELIEVING PRE	SSURE (P ₁)	96.74	PSIG	Х	1.1 =	106.41	PSIG
(Using set pressu	re plus 10% over pressure	as permitte	ed by the	API code)		
BACK PRESSUR	RE (P ₂)	21.57	kPa	x 0.1	45038 =	3.12846	PSIG
CORRECTION F	ACTOR TO VISCOSITY(k	(v)					0.98824
FLOW REQUIRE	.D (Q)	19.1	kg/hr	x 0.	002 =	0.04	GPM
SPECIFIC GRAV	'ITY(G)		2	2.25			
REQUIRED D	Kc =1 Kv = 1	A _R =			$\frac{G}{P_1-P_2}$	- -	
	0.037					V	
A	38 x 0.62 x 1 x	1 x 1	0.1476	=	0	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		4A π	0	mm
	$A = \frac{A_R}{K_V} =$	0Sq.in,	$D = \sqrt{\frac{4 \times 0.00023693}{\pi}} =$			= 0.02 inch	
REQUIRED S	IZE BY CLIENT :		0.5	in			
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in			
* NOTE							
					<u> </u>	Ι	
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Q 1	F <i>DC</i> CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	_TD.	DOC. N	O.	-		
PROJECT	J1 PROJECT		FLUID 8	STATE	H-2312 / LIC	QUID	
JOB NO.	220701		TAG. NO	Э.	RD-1231I(P	G-1231I)	
CALCULATIO	EDIT. PART	1 SEC.3	3.8 Sizing	for Liquid			
SET PRESSURE	ET PRESSURE (P ₀) 0.66			x 145	.0377 =	96.74	PSIG
RELIEVING PRE	SSURE (P ₁)	96.74	PSIG	Х	1.1 =	106.41	PSIG
(Using set pressu	re plus 10% over pressure	e as permitte	ed by the	API code)		
BACK PRESSUR	RE (P ₂)	21.57	kPa	x 0.1	45038 =	3.12846	PSIG
CORRECTION F	ACTOR TO VISCOSITY(k	(v)					0.98824
FLOW REQUIRE	D (Q)	19.1	kg/hr	x 0.	002 =	0.04	GPM
SPECIFIC GRAV	TITY(G)		2	.25			
	DISCHARGE AREA (A) $R = \frac{0.037}{38 \times 0.62 \times 1 \times 1}$		A _R = -	=	0 4A	P_1-P_2 Sq.in	_
THEORETICAL (BY CALCULATION) SIZE A _R		D =		π 00023693	0	mm
,	$A = \frac{K_V}{K_V} =$	0Sq.in,	D = \		π =	0.02	inch
REQUIRED S	IZE BY CLIENT:		0.5	in			
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in			
<u>* NOTE</u>							
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igoplus FDC CALCULATION SHEET FOR RUPTURE DISC								
PROJECT IN	FORMATION							
CUSTOMER	JINSUNG ENG CO., L	_TD.	DOC. N	О.	-			
PROJECT	J1 PROJECT		FLUID 8	STATE	H-2312 / LIC	QUID		
JOB NO.	220701		TAG. N	Э.	RD-1231J(F	PG-1231J)		
CALCULATIO	N DATA - API RP520 7	EDIT. PART	1 SEC.3	3.8 Sizing	for Liquid			
SET PRESSURE	0.667	MPa	x 145	.0377 =	96.74	PSIG		
RELIEVING PRE	SSURE (P ₁)	96.74	PSIG	Х	1.1 =	106.41	PSIG	
(Using set pressu	re plus 10% over pressure	as permitte	ed by the	API code)			
BACK PRESSUR	RE (P ₂)	21.57	kPa	x 0.1	45038 =	3.12846	PSIG	
CORRECTION F	ACTOR TO VISCOSITY(k	(v)					0.98824	
FLOW REQUIRE	D (Q)	19.1	kg/hr	x 0.	002 =	0.04	GPM	
SPECIFIC GRAV	'ITY(G)		2	2.25				
REQUIRED D	Kc =1 Kv = 1	$A_{R} = \frac{Q}{38 \times Kd \times KR \times Kc \times K} \sqrt{\frac{G}{P_{1}P_{2}}}$				-		
	0.037							
A	38 x 0.62 x 1 x	1 x 1	0.1476	=	0	Sq.in		
THEORETICAL (BY CALCULATION) SIZE		D =		<u>4A</u> π	0	mm	
	$A = \frac{A_R}{K_V} =$	0Sq.in,	$D = \sqrt{\frac{4 \times 0.00023693}{\pi}} =$			= 0.02 inch		
REQUIRED S	IZE BY CLIENT :		0.5	in				
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in				
* NOTE								
					<u> </u>	Ι		
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◆ <u>F</u>	T <u>DC</u> CALCULA	ATION S	HEET	FOR F	RUPTURE	DISC	
PROJECT INF	ORMATION						
CUSTOMER	JINSUNG ENG CO., L	JINSUNG ENG CO., LTD.			-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	C4F6 / LIQU	JID	
JOB NO.	220701		TAG. NO	Э.	RD-1345C(F	PG-1345C)	
CALCULATION	N DATA - API RP520 7	EDIT. PART	Γ 1 SEC.3	3.8 Sizing	for Liquid		
SET PRESSURE	2,942	kPa	x 0.	145 =	426.7	PSIG	
RELIEVING PRES	SSURE (P ₁)	426.7	PSIG	Х	1.1 =	469.37	PSIG
(Using set pressur	e plus 10% over pressure	as permitte	ed by the	API code)		
BACK PRESSURE	E (P₂)	9.8	kPa	x 0.1	45038 =	1.42137	PSIG
CORRECTION FA	ACTOR TO VISCOSITY(K	(v)					0.97935
FLOW REQUIRED		<u>, </u>	kg/hr	x 0.	003 =	0.01	GPM
SPECIFIC GRAVI	• •			1.3			
REQUIRED DI	Kc =1 Kv = 1	A _R = -	38 x Kd x	Q KR x Kc x K	$\frac{G}{P_1-P_2}$	-	
A_R	= 0.005 38 x 0.62 x 1 x	1 x 1	- 0.0527	=	0	Sq.in	
THEORETICAL (E	BY CALCULATION) SIZE		D =	$\sqrt{}$	<u>4A</u> π	0	mm
А	$A = \frac{A_R}{K_V} =$	0Sq.in, $D = \sqrt{\frac{4 \times 0.0000119}{\pi}} = 0$ inc					inch
REQUIRED SI	ZE BY CLIENT:		0.5	in			
RECOMMENI	DED SIZE BY VENDO	OR:	0.5	in			
* NOTE	DED SIZE DI VENDO						
	SEE SIEE DI VEND						
	SEE SIEE DI VEND		[
	SEE DI VE.			В	R. Jung	J. H. Jung	28-May-2

② <u>1</u>	F <i>DC</i> CALCULA	ATION S	HEET	FOR F	RUPTURE	E DISC	
PROJECT IN	FORMATION						
CUSTOMER	JINSUNG ENG CO., L	_TD.	DOC. N	О.	-		
PROJECT	J1 PROJECT		FLUID 8	& STATE	C4F6 / LIQU	JID	
JOB NO.	220701		TAG. N	O.	RD-1345D(F	PG-1345D)	
CALCULATIO	N DATA - API RP520 7	EDIT. PART	Γ1 SEC.	3.8 Sizing	for Liquid		
SET PRESSURE (P ₀)		2,942	kPa	x 0.	145 =	426.7	PSIG
RELIEVING PRE	SSURE (P ₁)	426.7	PSIG	Х	1.1 =	469.37	PSIG
(Using set pressu	re plus 10% over pressure	as permitte	ed by the	API code)		
BACK PRESSUR	RE (P ₂)	9.8	kPa	x 0.1	45038 =	1.42137	PSIG
CORRECTION F	ACTOR TO VISCOSITY(k	(v)					0.97935
FLOW REQUIRE	D (Q)	1.54	kg/hr	x 0.	003 =	0.01	GPM
SPECIFIC GRAV	'ITY(G)			1.3		1	
REQUIRED D	Kc =1 Kv = 1	$A_{R} = \frac{Q}{38 \times Kd \times KR \times Kc \times K} \sqrt{\frac{G}{P_{1}-P_{2}}}$				_	
	0.005		<u> </u>			V	
А	38 x 0.62 x 1 x	1 x 1	- 0.0527	=	0	Sq.in	
THEORETICAL (BY CALCULATION) SIZE		D =		4A π	0	mm
	$A = \frac{A_R}{K_V} =$	0Sq.in,	$D = \sqrt{\frac{4 \times 0.0000119}{\pi}} =$			0 inch	
REQUIRED S	IZE BY CLIENT :		0.5	in			
RECOMMEN	DED SIZE BY VENDO	OR:	0.5	in			
* NOTE							
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