



MEKASTER
ISO 9001 : 2008

SAFETY RELIEF VALVES FLANGED TYPE

SERIES 6600

API 526

FULL LIFT

FULL NOZZLE

STEAM, GAS OR LIQUID SERVICE

1" TO 10" - FLANGED ANSI 150 TO 2500



DESIGN FEATURE

- Face to face dimension according to API 526
- Adjusting ring
- Screwed Full Nozzle
- Flanges according to ANSI B 16.5
- ISO PN Flanges (On Request)

CONSTRUCTION

Body Materials

- Carbon Steel
- Stainless Steel
- Cr Mo Steel
- Low temperature Steel
- Nickel Copper Alloy
- Alloy 20

ACCESSORIES

- Balanced Bellows
- Test Gag
- Lifting Lever
- Steam Tracing Jacket
- Nozzle & Disc Stellite



MEKASTER

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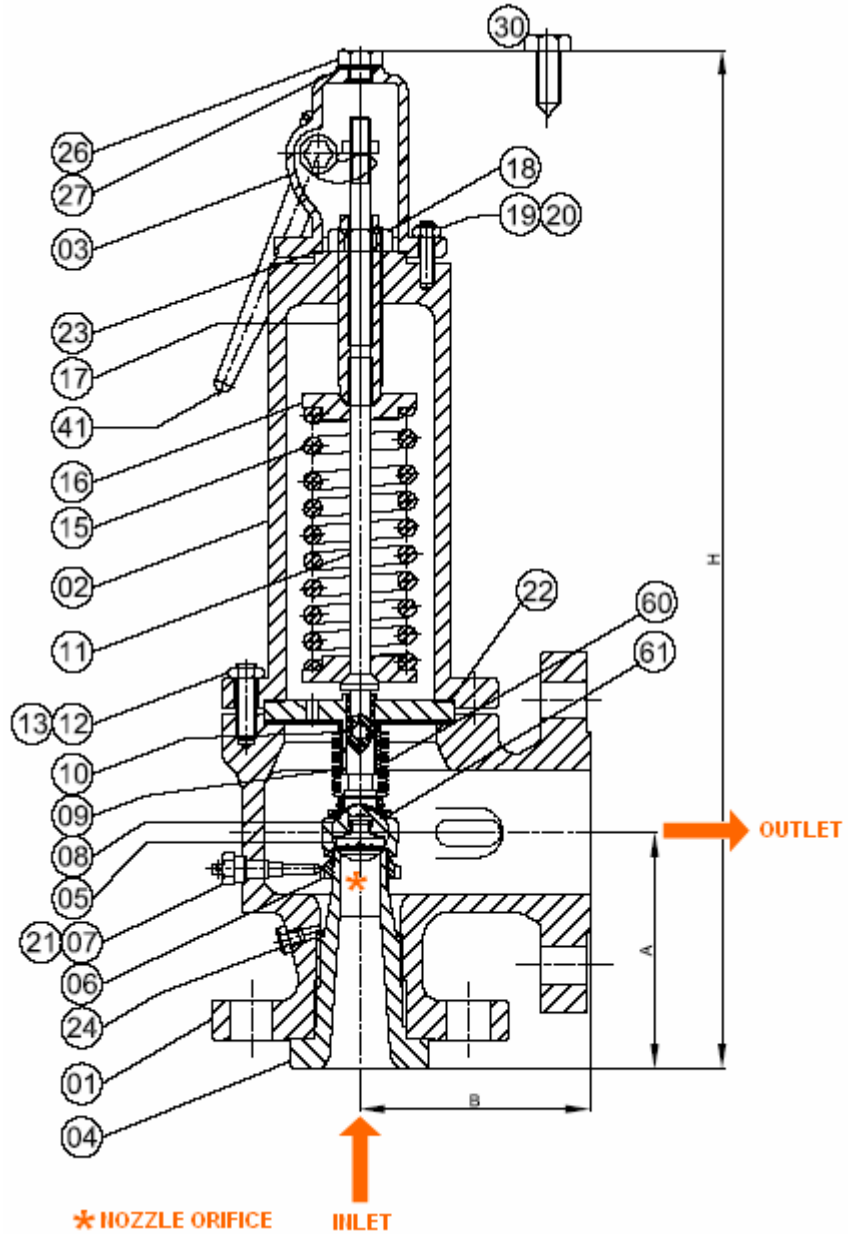
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API 526





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API 526

PART LIST

PART LIST		6636 CARBON STEEL	6656 STAINLESS STEEL CORROSIVE SERVICE	6666 CR MO STEEL	6676 LOW TEMPERATURE
PART NO	DESCRIPTION	TEMP -29°C TO 427°C	TEMP -196°C TO 530°C	TEMP -29°C TO 538°C	TEMP --30°C TO 345°C
01	Body	A 216 GR WCB	A 351 GR CF8M	A 217 GR WC6	A 352 GR LCB
02	Bonnet	A 216 GR WCB	A 351 GR CF8M	A 217 GR WC6	A 352 GR LCB
03	Cap	A 216 GR WCB	A 351 GR CF8M	A 217 GR WC6	A 352 GR LCB
04 (R)	Nozzle	SS – 316 / CF8M	SS – 316 / CF8M	SS – 316 / CF8M	SS – 316 / CF8M
05 (R)	Disc	SS – 316	SS – 316	SS – 316	SS – 316
06	Adj. Ring	A 351 GR CF8M	A 351 GR CF8M	A 351 GR CF8M	A 351 GR CF8M
07	Adj. Ring Pin	SS – 304	SS – 304	SS – 304	SS – 304
08	Disc Holder/ Piston	SS – 304/ 351 GR CF8	SS – 304/ 351 GR CF8	SS – 304/ 351 GR CF8	SS – 304/ 351 GR CF8
09	Guide	SS-316/A 351 GR CF8M	SS-316/A 351 GR CF8M	SS-316/A 351 GR CF8M	SS-316/A 351 GR CF8M
10	Ball	SS – 304	SS – 304	SS – 304	SS – 304
11	Spindle	SS – 304	SS – 304	SS – 304	SS – 304
12	Body-Bonnet Bolting Stud	A 193 GR B7	A 193 GR B8	A 193 GR B7	A 193 GR B7
13	Body-Bonnet Bolting Nut	A 194 GR 2H	A 194 GR 8H	A 194 GR 2H	A 194 GR 2H
15 *	Spring	ACCORDING TO MEDIUM AND TEMPERATURE			
16	Spring Washer	C.S.	SS – 304	SS – 304	C.S.
17	Adj. Screw	SS – 304	SS – 304	SS – 304	SS – 304
18	Lock Nut	SS – 304	SS – 304	SS – 304	SS – 304
19/20	Cap-Bonnet Fastener	CARBON STEEL	SS – 304	CARBON STEEL	CARBON STEEL
21	Set Screw Gasket	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON
22	Guide Gasket	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON
23 *	Cap Gasket	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON
24	Drain Plug	SS – 304	SS – 304	SS – 304	SS – 304
26	Cap Plug	C.S.	SS – 304	C.S.	C.S.
27 *	Plug Gasket	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON
30	Test Gag	C.S.	SS – 304	C.S.	C.S.
41	Lever Assembly	A 479 410	A 479 304	A 479 410	A 479 410
60 (R)	Bellow	SS – 316 L	SS – 316 L	SS – 316 L	SS – 316 L
61 (R)	Bellow Gasket	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON	GRAPHOIL/TEFLON

(R) : Recommended Spares Other materials on Request

Recommended Spring Materials

COLD DIFFERENTIAL TEST PRESSURE (CDTP):

→ Actual service conditions are different from the test conditions, to compensate this effect CDTP is specified for adjusting set pressure at test bench.

→ The CDTP for conventional valve with superimposed constant back pressure, $CDTP = (\text{Set pressure} - \text{Back pressure})(1 + \text{Temp Correction factor})$

→ The temperature correction factor at reliving temp are (+67 to +120 = 1%) (+121 to +200 = +2%) (+201 to +351 = 3%) (+316 to 430' = +4%) (+431' to 450' = +5%)

→ The spring design is suitable to modify the set pressure within 10% of the original set pressure. For other modifications, consult Mekaster.

Material

Temp Range (°C)

- | | |
|---------------------------------|-------------|
| 1. Carbon Steel (C.S.) | -59 to 232 |
| 2. High Temp Alloy Steel (HTAS) | |
| a. 50 CrV4 (Chrome Alloy) | -59 to 350 |
| b. Tungsten Alloy | -59 to 538 |
| c. Inconel | -196 to 538 |
| 3. Low Temp Alloy Steel (SS) | -196 to 260 |



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API 526

SIZES

ORIFICE		ACTUAL AREA (cm ²) Sq In	FLANGES ANSI RF			MAX SET PRESSURE AT 38°C (BAR-g)	DIMENSIONS				APPROX WEIGHT (KG)
API - 526			ND in. Inlet x Outlet	CLASS ANSI			±3 A mm	±3 B mm	±3 E mm	±10 H mm	
DESIGN- ATION	EFFECTIVE AREA (cm ²) Sq In			INLET	OUTLET						
D	(0.71) 0.11	(0.8) 0.124	1" x 2"	150	150	19.6	105	114	32.5	420	18
				300	150	19.6	105	114	32.5	420	18
				300	150	51	105	114	32.5	420	18
				600	150	102	105	114	32.5	420	18
			1.5x 2"	900	300	153	105	140	40.5	512	30
				1500	300	255	105	140	40.5	512	30
1.5" x 3"	2500	300	414	140	178	60	640	42			
E	(1.26) 0.196	(1.43) 0.222	1" x 2"	150	150	19.6	105	114	32.5	420	18
				300	150	19.6	105	114	32.5	420	18
				300	150	51	105	114	32.5	420	18
				600	150	102	105	114	32.5	420	18
			1.5" x 2"	900	300	153	105	140	40.5	512	30
				1500	300	255	105	140	40.5	512	30
1.5" x 3"	2500	300	414	140	178	60	640	42			
F	(1.98) 0.307	(2.27) 0.352	1.5" x 2"	150	150	19.6	124	121	34	530	30
				300	150	19.6	124	121	34	530	30
				300	150	51	124	152	38	530	36
				600	150	102	124	152	38	530	36
			1.5" x 3"	900	300	153	124	165	47	554	48
				1500	300	255	124	165	47	554	48
2500	300	345	140	178	60	640	60				
G	(3.24) 0.503	(3.66) 0.567	1.5" x 3"	150	150	19.6	124	121	34	540	30
				300	150	19.6	124	121	34	540	30
				300	150	51	124	152	38	540	36
				600	150	102	124	152	38	540	36
				900	300	153	124	165	47	650	42
			2" x 3"	1500	300	255	156	171	64	740	78
2500	300	255	156	171	64	740	84				
H	(5.06) 0.785	(5.72) 0.887	1.5" x 3"	150	150	19.6	130	124	36	540	35
				300	150	19.6	130	124	36	540	35
			2" x 3"	300	150	51	130	124	36	540	35
				600	150	102	155	162	42	700	48
				900	150	153	155	162	63	730	78
				1500	300	190	155	162	63	730	82
J	(8.3) 1.287	(9.4) 1.457	2" x 3"	150	150	19.6	137	124	36	559	35
				300	150	19.6	137	124	36	559	35
			3" x 4"	300	150	51	184	143	47	725	58
				600	150	102	184	181	49	750	98
				900	150	153	184	181	53	970	132
				1500	300	186	184	181	67	771	145



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SIZES

ORIFICE		FLANGES ANSI RF				MAX SET PRESSURE IN BAR AT 38°C	DIMENSIONS				APPROX WEIGHT (KG)
API - 526		ACTUAL AREA (cm ²) Sq In	ND in. Inlet x Outlet	CLASS ANSI			±3 A mm	±3 B mm	±3 E mm	±3 H mm	
DESIGN-ATION	EFFECTIVE AREA (cm ²) Sq In			INLET	OUTLET						
K	(11.86) 1.838	(13.53) 2.1	3" x 4"	150	150	19.6	156	162	43.5	700	78
				300	150	19.6	156	162	43.5	700	78
				300	150	51	156	162	43.5	700	78
			3" x 6"	600	150	102	184	181	53	970	130
				900	150	153	198	216	54	1160	156
				1500	300	153	198	216	67	1160	210
L	(18.41) 2.853	(20.83) 3.23	3" x 4"	150	150	19.6	156	165	43.5	700	78
				300	150	19.6	156	165	43.5	700	78
			4" x 6"	300	150	51	179	181	44	990	130
				600	150	69	179	203	52.5	1000	180
				900	150	103	197	222	61	1160	210
				1500	150	103	197	222	71	1160	222
M	(23.2) 3.6	(24.63) 3.82	4" x 6"	150	150	19.6	178	184	44	990	108
				300	150	19.6	178	184	44	990	130
				300	150	51	178	184	44	990	130
				600	150	76	178	203	52.5	1000	180
				900	150	76	197	222	61	1160	210
N	(28) 4.34	(33.17) 5.14	4" x 6"	150	150	19.6	197	210	46	1010	90
				300	150	19.6	197	210	46	1010	130
				300	150	51	197	210	46	1010	130
				600	150	69	197	222	61	1010	205
				900	150	69	197	222	61	1010	210
P	(41.2) 6.38	(46.58) 7.22	4" x 6"	150	150	19.6	181	229	46	1000	136
				300	150	19.6	181	229	46	1000	132
				300	150	36	225	254	46.5	1060	180
				600	150	69	225	254	60	1200	264
				900	150	69	225	254	60	1200	270
Q	(71.2) 11.05	(83.35) 12.92	6" x 8"	150	150	11.5	240	241	43.5	1100	192
				300	150	11.5	240	241	54	1120	264
				300	150	21	240	241	54	1120	264
				600	150	42	240	241	67.5	1133	288
R	(103) 16	(116.4) 18.04	6" x 8"	150	150	7	240	241	43.5	1100	198
				300	150	7	240	241	54	1120	270
			6" x 10	300	150	16	240	267	54	1205	282
				600	150	21	240	267	63	1205	306
T	(168) 26.00	(191.14) 29.63	8" x 10"	150	150	4.5	276	279	47	1346	408
				300	150	8	276	279	60	1400	436
				300	150	21	276	279	60	1400	426

1. Effective co-efficient of discharge as per API 520, For Gas / Vapour / Steam : "Kd" = 0.975 & Liquid : "Kd" = 0.62
2. ASME Certified Co-efficient of discharge for Gas / Vapor: "Kd" = 0.949
3. ASME Co-efficient of discharge for Gas / Vapor: "K" = (0.9 * Kd) = (0.9*0.949) = 0.854
4. IBR Constant "C" = 0.45
5. The flow capacity calculations are provided in ASME Sec VIII / API 520 / API 521 / IBR or as specified.
6. The hydro test is conducted for "Nozzles" at 1.5 times of inlet rating and for "Bodies" at 1.5 times of outlet back pressure limit of valves as per API 526 or as specified
7. Seat Leakage test is conducted as per API 527 or as specified.



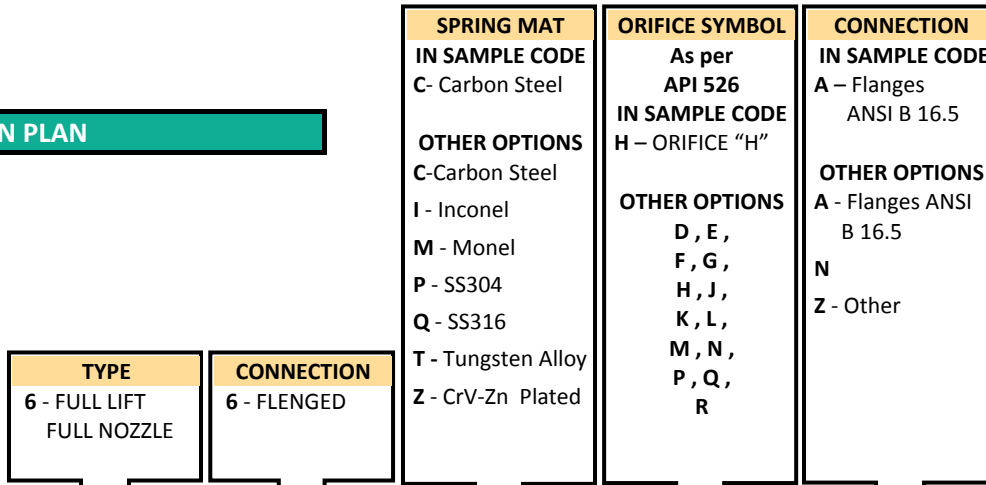
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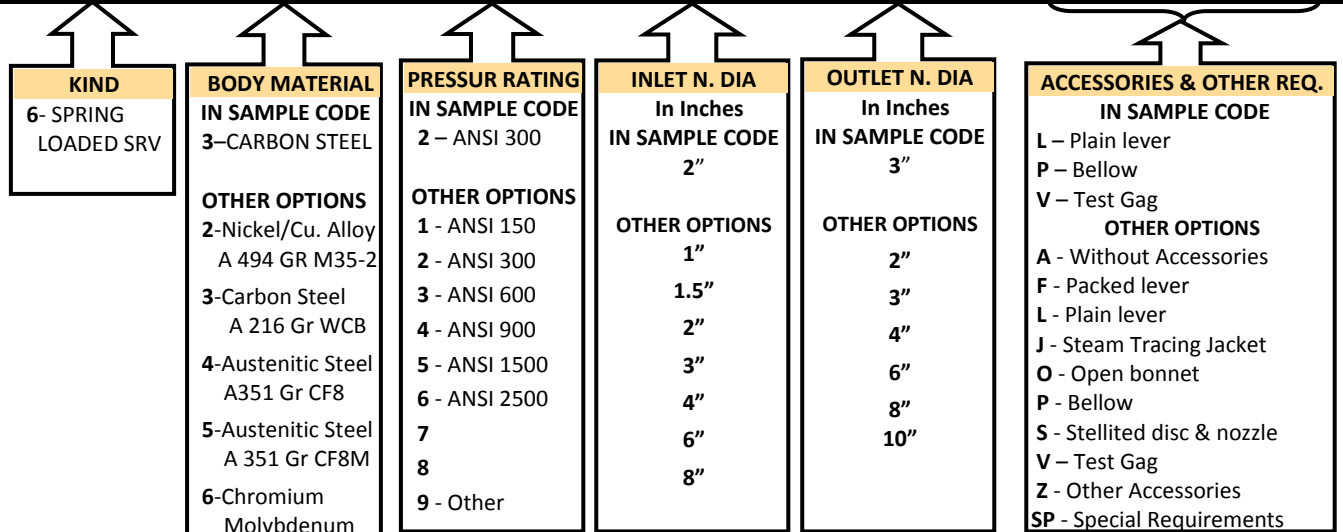
SERIES 6600

API 526

DE-CODIFICATION PLAN



POSITION NO.:	1	2	3	4	5	6	7	8	9	10	11	12											
SAMPLE CODE :	6	-	6	-	3	-	6	-	2	-	C	-	2"	-	H	-	3"	-	A	-	L	.	P	.	V
TRY A CODE:		-		-		-		-		-		-		-		-		-		-		.		.	



- NOTE**
1. IBR, CCOE Approved valves are offered.
 2. Valves for special services such as NACE, Hydrogen etc & Special sizes are also offered
 3. If required, valves also offered for Third Party/Customer Inspection before dispatch.
 4. Valves are supplied with one set of Test Certificate for Hydro Test, Set Pressure Test, Seat Leakage Test, Back Pressure pneumatic Test and with guarantee Certificate of 12 Months from the date of delivery. Other Tests on request