

**TOSACA**  
Safety relief valves

## Model 1415 – Safety Relief Valve



### Description

Type	Safety and Relief valve
Connections	Flanged ASME/ANSI B16.5
Rating	150#/300# 600#/900#/1500#/2500#
Material	Carbon steel A 216 WCB / WCC Carbon steel A 217 WC6 Special constructions
Temperature range	-28°C to +400°C
Stainless steel	-96°C to +400°C

### Requirements

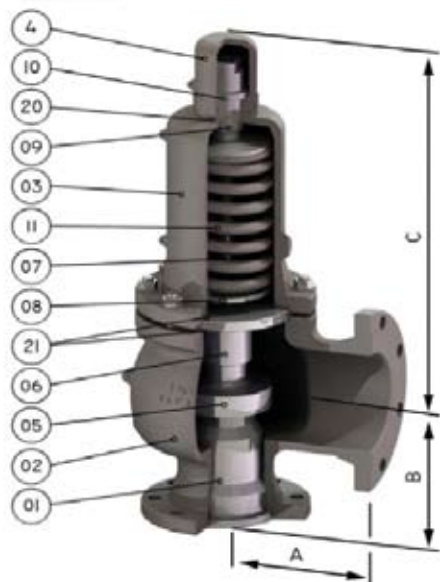
Calculation	API RP 520
Design/Size	API STD 526, ASME Section VIII
Materials	EN / ASTM / ASME
Inspection	EN-4126-1 / 7 API STD 527 MSS-SP-55
Tolerances	EN-4126-1 and ASME UG-126

### Technical Information

Applications	Steam, gases, vapours and liquids
Min. Set pressure	0,2 barg
Seat	metal-metal, PTFE, Viton, Nozzle SS+Stellite (600#, 900#, 1500# & 2500#)
Overpressure	10% for steam, gas and vapour 20% for fire exposure 25% for liquid on thermal relief
Blowdown	7%
Tolerance Set pressure	± 3%
Discharge coefficients	k= 0,94 for gases / k= 0,6 for liquids

Lifting device

Sealed packing lever



Open bonnet



Bellows



Disc o-ring



### Construction and Materials

Item	Description	Material	
		Carbon steel	Stainless steel
1	Nozzle	AISI-316L	AISI-316L
2	Body	A216 WCB	A351 CF-3M
3	Bonnet	A216 WCB	A351 CF-3M
4	Cap	A351 CF 8	A351 CF 8
5 *	Disc	AISI-316L	AISI-316L
6	Guide	AISI-316L	AISI-316L
7	Push Rod	AISI-316L	AISI-316L
8	Spring Button	C. Steel zn.	AISI-304
9	Adjusting Screw	AISI-420	AISI-303
10	Tension Nut	Carbon Steel	AISI-303
11 *	Spring	Carbon Steel	AISI-302
12	Lever	A351 CF 8	A351 CF 8
17	Release nut	AISI-316L	AISI-316L
18	Lever axis	AISI-303	AISI-303
19	Packing lever axis	AISI-303	AISI-303
20 *	Gasket	NBR+MF	NBR
21 *	Gasket	NBR+MF	NBR
22 *	Gasket	Viton	Viton
27 *	Bellow	AISI-316 TI	AISI-316 TI
28 *	Soft seat	Viton / PTFE	Viton / PTFE
	Screw Nut	Carbon Steel	AISI-316

\* Recommended spare parts



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**SAFETY RELIEF VALVES**



Size - Inlet / Outlet	ANSI 150 Flanged - Carbon Steel	ANSI 150 Flanged - Stainless Steel	ANSI 300 Flanged - Carbon Steel	ANSI 300 Flanged - Stainless Steel
	Price	Price	Price	Price
1/2" x 1"	£614.90	£1,617.20	£644.50	£1,718.10
3/4" x 1"	£658.40	£1,617.20	£707.80	£1,751.70
1" x 1"	£822.50	£1,617.20	£862.00	£1,765.50
1" x 2"	£846.20	£1,633.00	£885.70	£1,811.00
1 1/2" x 2"	£1,338.50	£2,137.20	£1,382.00	£2,485.20
1 1/2" x 3"	£1,939.50	£2,752.10	£1,973.10	£3,200.80
2" x 3"	£2,022.50	£3,036.70	£2,147.10	£3,535.00
3" x 4"	£3,094.10	£4,926.80	£3,232.50	£5,735.40
4" x 6"	£5,150.20	£9,895.10	£5,508.10	£10,083.00
6" x 8"	£8,792.00	£17,097.50	£10,045.40	£19,588.60
6" x 10"			£12,625.40	£21,381.80
8" x 10"	£13,578.40	£20,051.30	£15,691.80	£22,662.90
10" x 14"	£44,767.20	£52,597.00	£46,255.50	£52,597.00
12" x 16"	£49,482.20	£55,861.00	£50,545.40	£55,861.00

Size - Inlet / Outlet	ANSI 600 Flanged - Carbon Steel	ANSI 600 Flanged - Stainless Steel	ANSI 900 Flanged - Carbon Steel	ANSI 900 Flanged - Stainless Steel
	Price	Price	Price	Price
1/2" x 1"	£969.90	£1,872.30		
3/4" x 1"	£982.90	£1,913.80		
1" x 1"	£1,038.90	£1,953.30		
1" x 2"	£1,139.60	£1,994.80		
1 1/2" x 2"	£2,465.70	£3,258.20	£3,683.70	£4,325.80
1 1/2" x 3"	£3,610.90	£4,830.70	£4,364.40	£4,499.80
2" x 3"	£3,795.60	£4,918.90	£4,457.70	£5,537.70
3" x 4"	£5,468.60	£7,694.70	£7,684.40	£8,246.30
3" x 6"			£9,073.90	£10,822.40
4" x 6"	£8,160.00	£12,399.50	£9,736.00	£14,645.00
6" x 8"	£11,698.20	£21,152.50		
6" x 10"	£13,440.00	£21,585.40		

Size - Inlet / Outlet	ANSI 1500 Flanged - Carbon Steel	ANSI 1500 Flanged - Stainless Steel	ANSI 2500 Flanged - Carbon Steel	ANSI 2500 Flanged - Stainless Steel
	Price	Price	Price	Price
1 1/2" x 2"	£3,683.70	£5,017.80		
1 1/2" x 3"	£4,364.40	£5,191.70	£4,756.10	£5,191.70
2" x 3"	£4,457.70	£6,229.70	£5,278.40	£6,413.50
3" x 4"	£7,684.40	£8,479.60		
3" x 6"	£9,073.90	£11,362.10		
4" x 6"	£9,726.70	£14,905.00		



### Model 1415 – Safety Relief Valve

DN	Tosaca Model	DN Inlet x Outlet	ANSI Flange Rating		Orif. (mm)	Area (mm <sup>2</sup> )	Dimensions			Weight Kg
			E	S			A	B	C	
D/E	1415 ANSI 150	1/2" D/E 1"	150	150	9.6 / 13	71/133	95	95	275	8
	1415 ANSI 150	3/4" D/E 1"	150	150	9.6 / 13	71/133	95	95	275	8
	1415 ANSI 150	1" D/E 1"	150	150	9.6 / 13	71/133	95	95	275	8
	1415 ANSI 300	1/2" D/E 1"	300	150	9.6 / 13	71/133	95	95	275	9
	1415 ANSI 300	3/4" D/E 1"	300	150	9.6 / 13	71/133	95	95	275	9
	1415 ANSI 300	1" D/E 1"	300	150	9.6 / 13	71/133	95	95	275	9
	1415 ANSI 600	1/2" D/E 1"	600	150	9.6 / 13	71/133	115	100	275	18
	1415 ANSI 600	3/4" D/E 1"	600	150	9.6 / 13	71/133	115	100	275	18
	1415 ANSI 600	1" D/E 1"	600	150	9.6 / 13	71/133	115	100	275	18
	1415 ANSI 150	1" D/E 2"	150	150	9.6 / 13	71/133	114	105	305	14
	1415 ANSI 300	1" D/E 2"	300	150	9.6 / 13	71/133	114	105	305	16
	1415 ANSI 600	1" D/E 2"	600	150	9.6 / 13	71/133	114	105	305	18
	1415 ANSI 900	1 1/2" D/E 2"	900	300	9.6 / 13	71/133	140	105	315	19
	1415 ANSI 1500	1 1/2" D/E 2"	1500	300	9.6 / 13	71/133	140	105	315	24
1415 ANSI 2500	1 1/2" D/E 3"	2500	300	9.6 / 13	71/133	178	140	325	30	
F	1415 ANSI 150	1 1/2" F 2"	150	150	16	201	121	124	315	17
	1415 ANSI 300	1 1/2" F 2"	300	150	16	201	121	124	315	17
	1415 ANSI 600	1 1/2" F 2"	600	150	16	201	152	124	315	20
	1415 ANSI 900	1 1/2" F 3"	900	300	16	201	165	124	315	22
	1415 ANSI 1500	1 1/2" F 3"	1500	300	16	201	165	124	315	22
	1415 ANSI 2500	1 1/2" F 3"	2500	300	16	201	178	140	325	30
G	1415 ANSI 150	1 1/2" G 3"	150	150	21	346	121	124	400	25
	1415 ANSI 300	1 1/2" G 3"	300	150	21	346	121	124	400	25
	1415 ANSI 600	1 1/2" G 3"	600	150	21	346	152	124	400	28
	1415 ANSI 900	1 1/2" G 3"	900	300	21	346	165	124	430	28
	1415 ANSI 1500	2" G 3"	1500	300	21	346	175	156	444	41
H	1415 ANSI 150	1 1/2" H 3"	150	150	26	531	124	130	400	25
	1415 ANSI 300	1 1/2" H 3"	300	150	26	531	124	130	400	25
	1415 ANSI 300	2" H 3"	300	150	26	531	124	130	400	27
	1415 ANSI 600	2" H 3"	600	150	26	531	162	154	400	32
	1415 ANSI 900	2" H 3"	900	150	26	531	162	154	400	32
	1415 ANSI 1500	2" H 3"	1500	300	26	531	162	154	430	35
J	1415 ANSI 150	2" J 3"	150	150	32.5	830	124	137	400	27
	1415 ANSI 300	2" J 3"	300	150	32.5	830	124	137	400	27
	1415 ANSI 300	3" J 4"	300	150	32.5	830	181	184	570	56
	1415 ANSI 600	3" J 4"	600	150	32.5	830	181	184	570	62
	1415 ANSI 900	3" J 4"	900	150	32.5	830	181	184	570	62
	1415 ANSI 1500	3" J 4"	1500	300	32.5	830	181	184	570	65
K	1415 ANSI 150	3" K 4"	150	150	40	1195	162	156	570	56
	1415 ANSI 300	3" K 4"	300	150	40	1195	162	156	570	56
	1415 ANSI 600	3" K 4"	600	150	40	1195	181	184	570	62
	1415 ANSI 900	3" K 6"	900	150	40	1195	216	198	610	90
	1415 ANSI 1500	3" K 6"	1500	300	40	1195	216	198	610	105
L	1415 ANSI 150	3" L 4"	150	150	49	1866	165	156	570	56
	1415 ANSI 300	4" L 6"	300	150	49	1866	181	179	610	56
	1415 ANSI 600	4" L 6"	600	150	49	1866	203	179	610	90
	1415 ANSI 900	4" L 6"	900	150	49	1866	222	197	820	120
	1415 ANSI 1500	4" L 6"	1500	150	49	1866	222	197	820	120
M	1415 ANSI 150	4" M 6"	150	150	55	2376	184	178	610	88
	1415 ANSI 300	4" M 6"	300	150	55	2376	184	178	610	90
	1415 ANSI 600	4" M 6"	600	150	55	2376	203	178	610	110
	1415 ANSI 900	4" M 6"	900	150	55	2376	222	197	820	120
N	1415 ANSI 150	4" N 6"	150	150	60	2827	210	197	610	88
	1415 ANSI 300	4" N 6"	300	150	60	2827	210	197	610	90
	1415 ANSI 600	4" N 6"	600	150	60	2827	222	197	610	110
	1415 ANSI 900	4" N 6"	900	150	60	2827	222	197	820	120
P	1415 ANSI 150	4" P 6"	150	150	73	4185	229	181	610	88
	1415 ANSI 300	4" P 6"	300	150	73	4185	229	181	610	90
	1415 ANSI 600	4" P 6"	600	150	73	4185	254	225	610	94
	1415 ANSI 900	4" P 6"	900	150	73	4185	254	225	610	120
Q	1415 ANSI 150	6" Q 8"	150	150	96	7238	241	240	659	156
	1415 ANSI 300	6" Q 8"	300	150	96	7238	241	240	659	160
	1415 ANSI 600	6" Q 8"	600	150	96	7238	241	240	659	190
R	1415 ANSI 150	6" R 8"	150	150	115	10387	241	240	659	156
	1415 ANSI 300	6" R 8"	300	150	115	10387	241	240	659	160
	1415 ANSI 600	6" R 10"	600	150	115	10387	267	240	659	190
T	1415 ANSI 150	8" T 10"	150	150	147	16972	279	276	795	190
	1415 ANSI 300	8" T 10"	300	150	147	16972	279	276	795	195
V	1415 ANSI 150	10" V 14"	150	150	200	31415	406	305	1390	750
	1415 ANSI 300	10" V 14"	300	150	200	31415	406	305	1390	750
W	1415 ANSI 150	12" W 16"	150	150	228	40828	406	359	1432	850
	1415 ANSI 300	12" W 16"	300	150	228	40828	406	359	1432	850
X	1415 ANSI 150	16" X 20"	150	150	304	72950	533	432	1943	1850
	1415 ANSI 300	16" X 20"	300	150	304	72950	533	432	1943	1850