

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

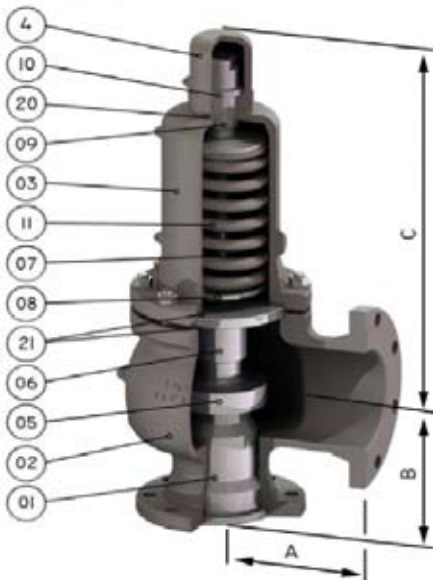
Applications Steam, gases, vapours and liquids
 Min. Set pressure 0,2 barg
 Seat metal-metal, PTFE, Viton,
 Nozzle SS+Stellite (600#, 900#, 1500# & 2500#)
 Overpressure 10% for steam, gas and vapour
 20% for fire exposure
 25% for liquid on thermal relief
 Blowdown 7%
 Tolerance Set pressure ± 3%
 Discharge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

Lifting device

Sealed packing lever



Test gag



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 €	Price £	Price €	Price £	Price €
1/2" x 1"	£658.50	€679.10	£1,732.10	€1,786.20	£690.30	€711.80	£1,840.00	€1,897.50
3/4" x 1"	£705.10	€727.10	£1,732.10	€1,786.20	£758.00	€781.70	£1,876.00	€1,934.70
1" x 1"	£880.80	€908.40	£1,732.10	€1,786.20	£923.20	€952.00	£1,890.90	€1,949.90
1" x 2"	£906.310	€934.60	£1,749.00	€1,803.60	£948.60	€978.30	£1,939.60	€2,000.20
1 1/2" x 2"	£1,433.50	€1,478.30	£2,288.90	€2,360.50	£1,480.10	€1,526.30	£2,661.60	€2,744.80
1 1/2" x 3"	£2,077.20	€2,142.10	£2,947.40	€3,039.60	£2,113.20	€2,179.20	£3,428.10	€3,535.20
2" x 3"	£2,166.10	€2,233.80	£3,252.40	€3,354.00	£2,299.50	€2,371.40	£3,786.00	€3,904.30
3" x 4"	£3,313.80	€3,417.30	£5,276.60	€5,441.50	£3,462.00	€3,570.20	£6,142.60	€6,334.60
4" x 6"	£5,515.90	€5,688.30	£10,597.70	€10,928.90	£5,899.10	€6,083.50	£10,798.80	€11,136.30
6" x 8"	£9,416.20	€9,710.40	£18,311.50	€18,883.70	£10,758.60	€11,094.80	£20,979.40	€21,635.00
6" x 10"					£13,521.80	€13,944.40	£22,899.90	€23,615.50
8" x 10"	£14,542.50	€14,996.90	£21,474.90	€22,146.00	£16,806.00	€17,331.20	£24,272.00	€25,030.50
10" x 14"	£47,945.60	€49,443.90	£56,331.40	€58,091.80	£49,539.70	€51,087.80	£56,331.40	€58,091.80
12" x 16"	£52,995.50	€54,651.60	£59,827.20	€61,696.80	£54,134.10	€55,825.80	£59,827.20	€61,696.80

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 €	Price £	Price €	Price £	Price €
1/2" x 1"	£1,038.70	€1,071.20	£2,005.20	€2,067.90				
3/4" x 1"	£1,052.70	€1,085.60	£2,049.70	€2,113.70				
1" x 1"	£1,112.60	€1,147.40	£2,092.00	€2,157.40				
1" x 2"	£1,220.50	€1,258.60	£2,136.50	€2,203.20				
1 1/2" x 2"	£2,640.80	€2,723.30	£3,489.50	€3,598.60	£3,945.20	€4,068.50	£4,632.90	€4,777.70
1 1/2" x 3"	£3,867.30	€3,988.10	£5,173.70	€5,335.40	£4,674.30	€4,820.40	£4,819.30	€4,969.90
2" x 3"	£4,065.00	€4,192.10	£5,268.20	€5,432.80	£4,774.20	€4,923.40	£5,930.90	€6,116.20
3" x 4"	£5,856.90	€6,039.90	£8,241.00	€8,498.50	£8,230.00	€8,487.20	£8,831.80	€9,107.80
3" x 6"					£9,718.20	€10,021.90	£11,590.80	€11,953.00
4" x 6"	£8,739.40	€9,012.50	£13,279.80	€13,694.80	£10,427.30	€10,753.20	£16,115.70	€16,619.30
6" x 8"	£12,528.80	€12,920.30	£22,654.30	€23,362.20				
6" x 10"	£14,394.20	€14,844.10	£23,118.00	€23,840.40				

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 €	Price £	Price €	Price £	Price €
1 1/2" x 2"	£3,945.20	€4,068.50	£5,374.00	€5,542.00				
1 1/2" x 3"	£4,674.30	€4,820.40	£5,560.40	€5,734.10	£5,093.80	€5,253.00	£5,560.40	€5,734.10
2" x 3"	£4,774.20	€4,923.40	£6,672.00	€6,880.50	£5,653.10	€5,829.80	£6,868.90	€7,083.60
3" x 4"	£8,230.00	€8,487.20	£9,081.60	€9,365.40				
3" x 6"	£9,718.20	€10,021.90	£12,168.80	€12,549.10				
4" x 6"	£10,427.30	€10,753.20	£16,115.70	€16,619.30				



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DN	Tosaca Model	DN Inlet x Outlet	ANSI Flange Rating		Orif. (mm)	Area (mm ²)	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
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
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	1.866	165	156	570	56
	1415 ANSI 300	4" L 6"	300	150	49	1.866	181	179	610	56
	1415 ANSI 600	4" L 6"	600	150	49	1.866	203	179	610	90
	1415 ANSI 900	4" L 6"	900	150	49	1.866	222	197	820	120
	1415 ANSI 1500	4" L 6"	1500	150	49	1.866	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	10.387	267	240	659	190
T	1415 ANSI 150	8" T 10"	150	150	147	16.972	279	276	795	190
	1415 ANSI 300	8" T 10"	300	150	147	16.972	279	276	795	195
V	1415 ANSI 150	10" V 14"	150	150	200	31.415	406	305	1390	750
	1415 ANSI 300	10" V 14"	300	150	200	31.415	406	305	1390	750
W	1415 ANSI 150	12" W 16"	150	150	228	40.828	406	359	1432	850
	1415 ANSI 300	12" W 16"	300	150	228	40.828	406	359	1432	850
X	1415 ANSI 150	16" X 20"	150	150	304	72.950	533	432	1943	1850
	1415 ANSI 300	16" X 20"	300	150	304	72.950	533	432	1943	1850