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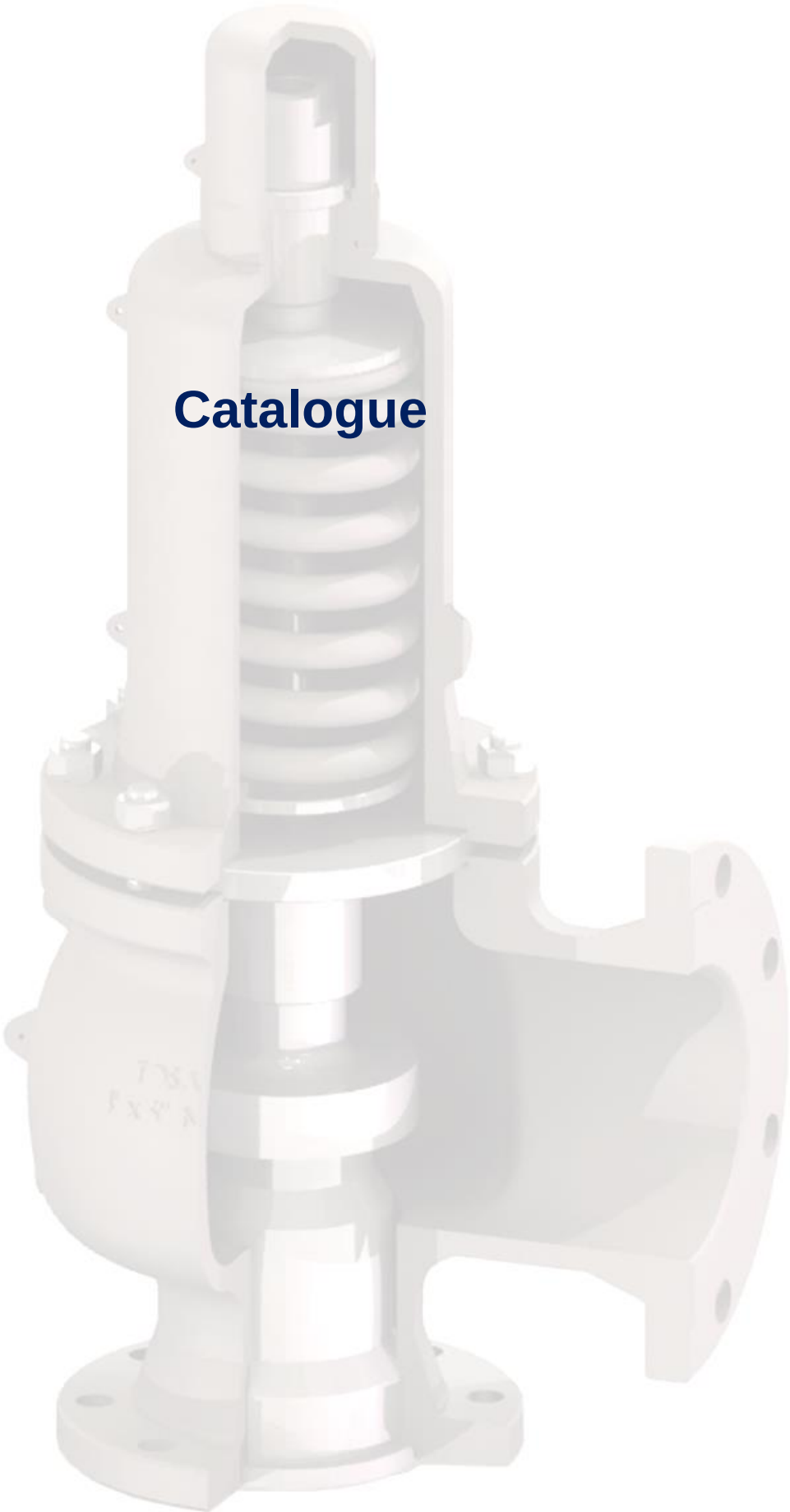
Catalogue

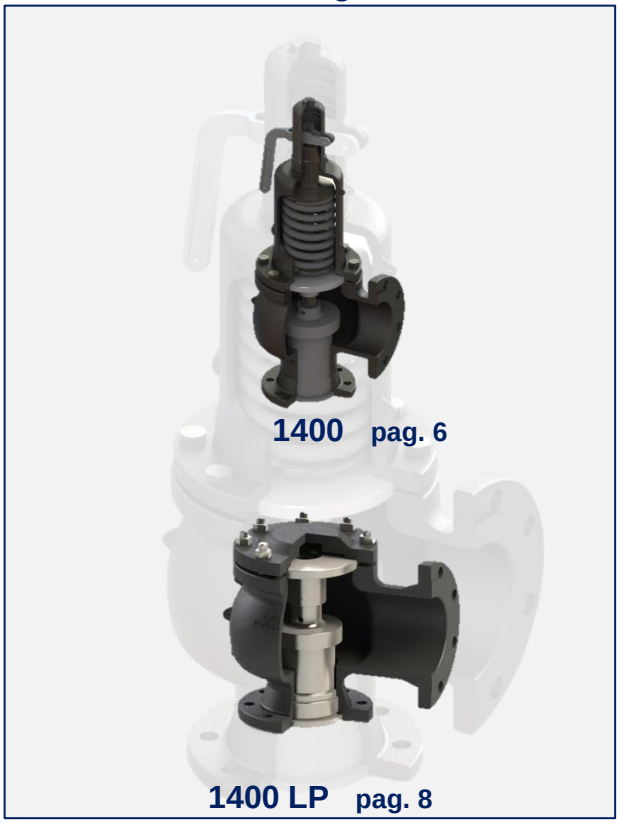


2016-1

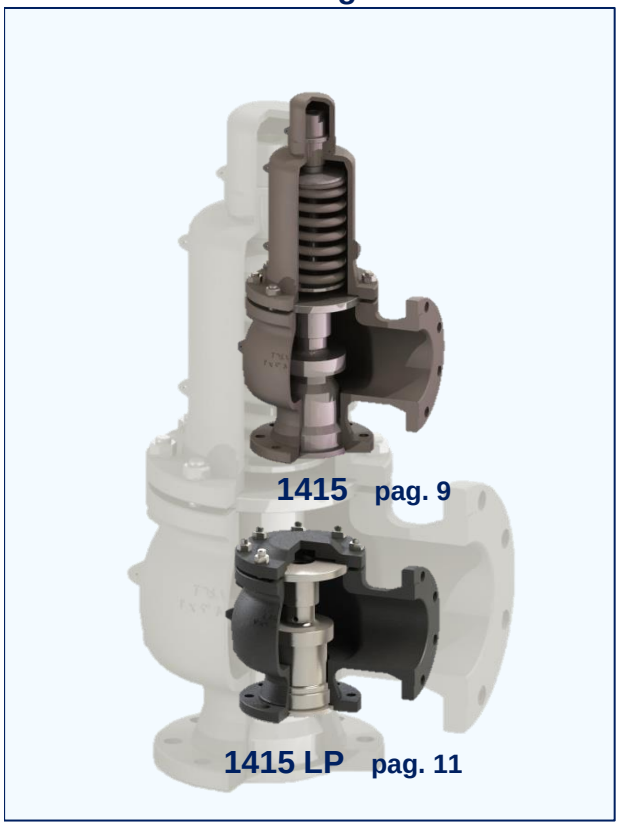
INDEX / INDICE

1216

1400 EN/DIN flanges



1415 ASME flanges



Accesories

TOSACA

Model 1216

Description

Type	Safety and Relief valve		
Connections / Rating	Threaded BSP / NPT	PN-40	
Material	Stainless steel 316 L	Temperature range -20 to +350ºC	Cryogenic service until -196ºC

Technical information

Applications	Steam, gases, vapours and liquids
Min. Set pressure	0,2 barg
Overpressure	10%
Blowdown	Gases 10%, liquids 20%
Tolerance Set pressure	± 3%

Requirements

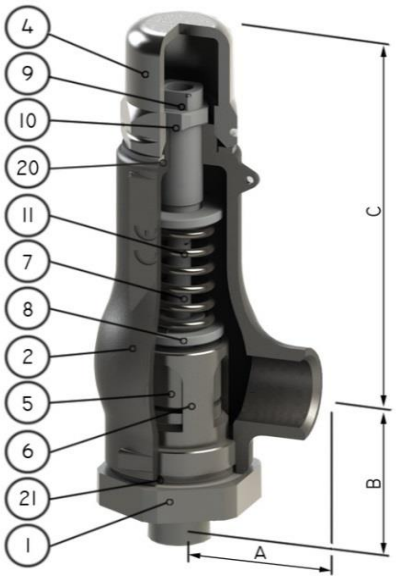
Calculation	EN-4126-1 / 7
Design	EN-12516-1, EN-4126-1 / 7
	DIN 259 and ANSI B2.1
Materials	EN
Inspection	EN-4126-1 / 7

Construction and materials

Item	Description	Material Standard	Material Cryogenic
1	Nozzle	A351 CF-3M	A351 CF-3M
2	Body	A351 CF-3M	A351 CF-3M
4	Cap	A351 CF-8	A351 CF-8
5	Disc	AISI-316L	AISI-316L
6	Guide	A351 CF-3M	A351 CF-3M
7	Push Road	AISI-316L	AISI-316L
8	Spring Button	AISI-303	AISI-303
9	Ajusting Screw	AISI-303	AISI-303
10	Tensor Nut	AISI-303	AISI-303
11	Spring	AISI-302	17 / 7PH
12	Lever	A351 CF-8	A351 CF-8
17	Release nut	AISI-316	AISI-316
18	Lever axis	AISI-303	AISI-303
19	Packing lever axis	AISI-303	AISI-303
20	Gasket	PTFE	PTFE
21	Gasket	PTFE	PTFE
22	Gasket	Viton	Viton
28	Soft seat	Viton / PTFE	Metal

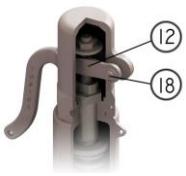
Recommended spare parts

Test gag

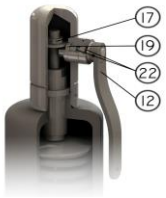


Options

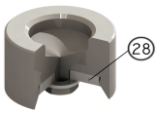
Lifting device



Sealed packing lever



Soft seat



Dimensions

	Orifice	Area (mm^2)	A (mm)	B (mm)	C (mm)	Weight (kg)
1/2" x 3/4"	13	133	45	57	155	2,2
1/2" x 1"	13	133	45	57	155	2,2
3/4" x 1"	14	154	45	57	155	2,2
1" x 1"	16	201	45	60	155	2,2
1" x 1 1/4"	16	201	45	61	155	2,3
1" x 2"	22	380	62	87	234	4,5
11/4" x 1 1/4"	18	254	45	62	155	2,4
1 1/2" x 2"	28	616	62	89	234	4,6
2" x 2"	32	804	62	93	234	5,1

Model 1216 HP

Description

Type	Safety and Relief valve
Connections / Rating	Threaded BSP / NPT PN-100 / 250 /400
Material	Stainless steel 316 L Temperature range -10 to +300ºC Cryogenic service until -196ºC

Technical information

Applications	Steam, gases, vapours and liquids
Min. Set pressure	30 barg Max. Set pressure 300 barg
Overpressure	10%
Blowdown	Gases 10%, liquids 20%
Tolerance Set pressure	± 3%

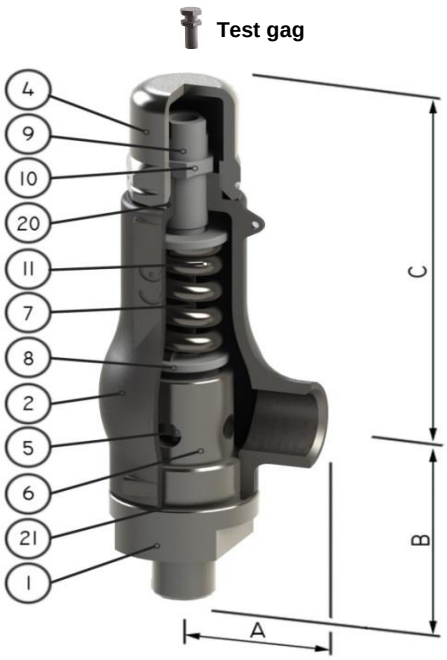
Requirements

Calculation	EN-4126-1 / 7
Design	EN-12516-1, EN-4126-1 / 7
	DIN 259 and ANSI B2.1
Materials	EN
Inspection	EN-4126-1 / 7

Construction and materials

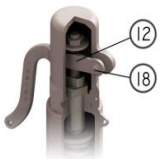
		Material	
Item	Description	Standard	Cryogenic
1	Nozzle	AISI-316L	AISI-316L
2	Body	A351 CF-3M	A351 CF-3M
4	Cap	A351 CF-8	A351 CF-8
5	Disc	17-4-PH	17-4-PH
6	Guide	AISI316L	AISI316L
7	Push Road	AISI-316L	AISI-316L
8	Spring Button	AISI-303	AISI-303
9	Ajusting Screw	AISI-303	AISI-303
10	Tensor Nut	AISI-303	AISI-303
11	Spring	INCONEL X 750	17 / 7PH
12	Lever	A351 CF8	A351 CF8
17	Release nut	AISI-316	AISI-316
18	Lever axis	AISI-303	AISI-303
19	Packing lever axis	AISI-303	AISI-303
20	Gasket	PTFE	PTFE
21	Gasket	GRAPHITE + S.S.	GRAPHITE + S.S.
22	Gasket	Viton	Viton

Recommended spare parts

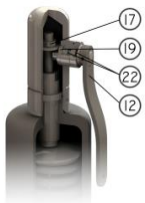


Options

Lifting device



Sealed packing lever



Dimensions

	PN	Orifice	Area (mm^2)	A (mm)	B (mm)	C (mm)	Weight (kg)
1" x 2"	PN-100	16	201	62	100	235	5
1 1/4" x 2"	PN-100	18	254	62	100	235	5
1 1/2" x 2"	PN-100	20	314	62	100	235	6
2" x 2"	PN-100	22	380	62	100	235	6,3
1/2" x 3/4"	PN-250	9	64	45	72	155	3
3/4" x 3/4"	PN-250	9	64	45	72	155	3
1" x 1"	PN-250	9	64	45	77	155	3
1/2" x 3/4"	PN-400	6	28	45	72	155	3
3/4" x 3/4"	PN-400	6	28	45	72	155	3
1" x 1"	PN-400	6	28	45	77	155	3

Model 1216 C

Description

Type	Safety and Relief valve
Connections	Clamp-Clamp or Clamp-BSP PN-10
Material	Stainless steel 316 L Temperature range -10 to +350ºC Cryogenic service until -196ºC

Technical information

Applications	Steam, gases, vapours and liquids
Min. Set pressure	0,2 barg
Overpressure	10%
Blowdown	Gases 10%, liquids 20%
Tolerance Set pressure	± 3%

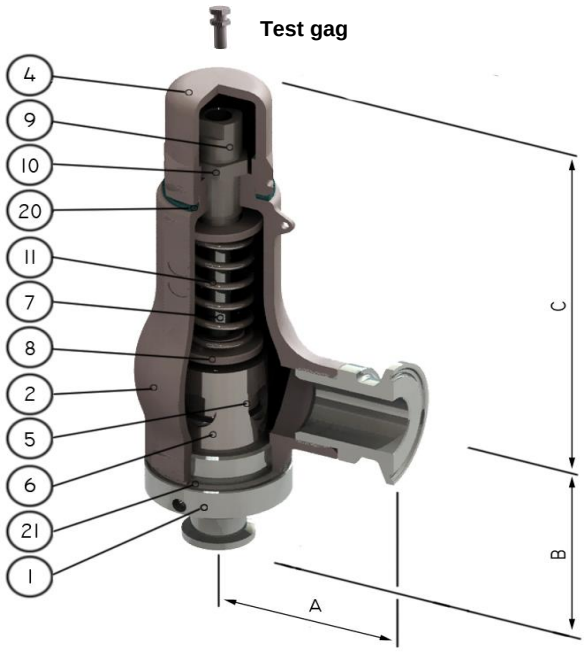
Requirements

Calculation	EN-4126-1 / 7 ISO-2852
Design	EN-12516-1, EN-4126-1 / 7
	DIN 259 and ANSI B2.1
Materials	EN
Inspection	EN-4126-1 / 7

Construction and materials

Item	Description	Material Standard	Material Cryogenic
1	Nozzle	AISI-316L	AISI-316L
2	Body	A351 CF-3M	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 Road	AISI-316L	AISI-316L
8	Spring Button	AISI-303	AISI-303
9	Ajusting Screw	AISI-303	AISI-303
10	Tensor Nut	AISI-303	AISI-303
11	Spring	AISI-302	17 / 7PH
12	Lever	A351 CF-8	A351 CF-8
17	Release nut	AISI-316	AISI-316
18	Lever axis	AISI-303	AISI-303
19	Packing lever axis	AISI-303	AISI-303
20	Gasket	PTFE	PTFE
21	Gasket	PTFE	PTFE
22	Gasket	Viton	Viton
28	Soft seat	Viton / PTFE	Metal

Recommended spare parts

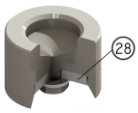


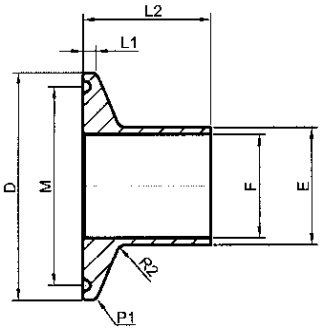
Options

Lifting device

Sealed packing lever

Soft seat





Dimensions

	Connections	Orifice	Area	A	B	C	Weight	Clamp dimensions ISO 2852 D	M	E	L1	L2
			(mm^2)	(mm)	(mm)	(mm)	(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
15 x 25	Clamp- Clamp	9,5	71	73	65	155	2,4	25	19	12,7	2,85	12,7
20 x 25	Clamp- Clamp	15	176,6	73	65	155	2,4	25	19	19	2,85	12,7
25 x 25	Clamp- Clamp	18	254	73	67	155	2,8	50,5	43,5	25,6	2,85	21,5
40 x 40	Clamp- Clamp	32	804	90	98	234	8,2	50,5	43,5	38,6	2,85	21,5
15 x 1"	Clamp- BSP	9,5	71	45	65	155	2	25	19	12,7	2,85	12,7
20 x 1"	Clamp- BSP	15	176,6	45	65	155	2	25	19	19	2,85	12,7
25 x 1"	Clamp- BSP	18	254	45	67	155	2,2	50,5	43,5	25,6	2,85	21,5
40 x 2"	Clamp- BSP	32	804	62	98	234	8,2	50,5	43,5	38,6	2,85	21,5

TOSACA

Model 1216 B

Description

Type	Safety and Relief valve
Connections / Rating	PN,16, PN 40, ANSI150 and ANSI 300
Material	Stainless steel 316 L Temperature range -10 to +350ºC Cryogenic service until -196ºC

Technical information

Applications	Steam, gases, vapours and liquids
Min. Set pressure	0,2 barg
Overpressure	10%
Blowdown	Gases 10%, liquids 20%
Tolerance Set pressure	± 3%

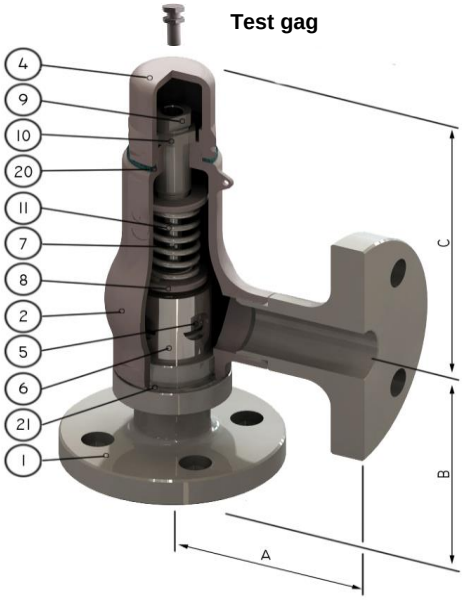
Requirements

Calculation	EN-4126-1 / 7
Design	EN-12516-1, EN-4126-1 / 7
	DIN 259 and ANSI B2.1
Materials	EN
Inspection	EN-4126-1 / 7

Construction and materials

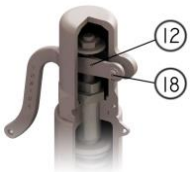
		Material	
Item	Description	Standard	Cryogenic
1	Nozzle	AISI-316L	AISI-316L
2	Body	A351 CF-3M	A351 CF-3M
4	Cap	A351 CF-8	A351 CF-8
5	Disc	AISI-316L	AISI-316L
6	Guide	AISI-316L	AISI-316L
7	Push Road	AISI-316L	AISI-316L
8	Spring Button	AISI-303	AISI-303
9	Ajusting Screw	AISI-303	AISI-303
10	Tensor Nut	AISI-303	AISI-303
11	Spring	AISI-302	17 / 7PH
12	Lever	A351 CF-8	A351 CF-8
17	Release nut	AISI-316	AISI-316
18	Lever axis	AISI-303	AISI-303
19	Packing lever axis	AISI-303	AISI-303
20	Gasket	PTFE	PTFE
21	Gasket	Graphite+SS	Graphite+SS
22	Gasket	Viton	Viton
28	Soft seat	Viton / PTFE	Metal

Recommended spare parts



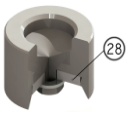
Options

Lifting device



Sealed packing lever

Soft seat



Dimensions

Connections			Orifice	Area	A	B	C	Weight
	Inlet	Outlet		(mm^2)	(mm)	(mm)	(mm)	(kg)
1/2" x 1"	ANSI150 or ANSI300	ANSI150	13	133	70	90	155	3
3/4" x 1"	ANSI150 or ANSI300	ANSI150	14	154	70	90	155	3,2
1" x 1"	ANSI150 or ANSI300	ANSI150	16	201	70	90	155	3,5
1/2" x 1"	ANSI150 or ANSI300	BSP / NPT	13	133	45	90	155	3
3/4" x 1"	ANSI150 or ANSI300	BSP / NPT	14	154	45	90	155	3,2
1" x 1"	ANSI150 or ANSI300	BSP / NPT	16	201	45	90	155	3,5
15 x 25	PN 16 or PN 40	PN 16	13	133	70	90	155	3
20 x 25	PN 16 or PN 40	PN 16	14	154	70	90	155	3,2
25 x 25	PN 16 or PN 40	PN 16	16	201	70	90	155	3,5
15 x 1"	PN 16 or PN 40	BSP / NPT	13	133	45	90	155	3
20 x 1"	PN 16 or PN 40	BSP / NPT	14	154	45	90	155	3,2
25 x 1"	PN 16 or PN 40	BSP / NPT	16	201	45	90	155	3,5

Model 1400

Description

Type	Safety and Relief valve	
Connections / Rating	Flanged EN 1092 PN-16 / 25 / 40 / 63 / 100	
Material	Nodular Iron, Carbon steel, Stainless steel and Duplex	Temperature range: -28ºC to +455ºC

Technical information

Applications	Steam, gases, vapours and liquids
Min. Set pressure	0,2 barg; With bellows 2 barg
Seat	metal-metal, PTFE, Viton and Stellite
Overpressure	10% for steam, gas and vapour
	20% fire exposure, 25% for liquids
Blowdown	10%
Tolerance Set pressure	± 3%

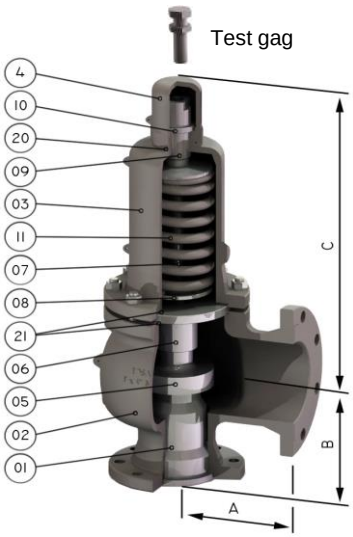
Requirements

Calculation	EN-4126-1 / 7
Design / Size	EN-12516-1, EN-4126-1 / 7
Materials	EN / ASTM
Inspection	EN-4126-1 / 7 API 527 MSS-SP-55
Tolerances	EN-4126-1 y ASME UG-126

Construction and materials

Item	Description	15 x 25 to 25 x 40 PN 16/25 Carbon steel	32 x 50 to 400 x 500 PN 16/25 Nodular iron	15 x 25 to 400 x 500 PN 40/63/100 carbon steel	15 x 25 to 400 x 500 PN 16 to 100 Stainless steel
1	**Nozzle**	AISI-316L	A351 CF-8	A351 CF-8	A351 CF-8
2	**Body**	C.S. 1.0619	EN-JS1030	C.S. 1.0619	1.4409
3	**Bonnet**	C.S. 1.0619	EN-JS1030	C.S. 1.0619	1.4409
4	**Cap**	A351 CF-8	A351 CF-8	A351 CF-8	A351 CF-8
5	**Disc**	AISI-316L	AISI-316L	AISI-316L	AISI-316L
6	**Guide**	AISI-304	AISI-304	AISI-304	AISI-304
7	**Push Road**	AISI-316L	AISI-316L	AISI-316L	AISI-316L
8	**Spring Button**	Carbon steel	Carbon steel	Carbon steel	AISI-303
9	**Ajusting Screw**	AISI-303	AISI-303	AISI-303	AISI-303
10	**Lock Nut**	AISI-303	AISI-303	AISI-303	AISI-303
11	**Spring**	1.8159 C. steel	1.8159 C. steel	1.8159 C.steel	AISI-302
12	**Lever**	A 351 CF 8	A 351 CF 8	A 351 CF 8	A351 CF-8
17	**Release nut**	AISI-303	AISI-303	AISI-303	AISI-316
18	**Lever axis**	AISI-303	AISI-303	AISI-303	AISI-303
19	**Packing lever axis**	AISI-303	AISI-303	AISI-303	AISI-303
20	**Gasket cap**	PTFE	PTFE	PTFE	PTFE
21	**Gasket bonnet**	GRAPHITE +S.S	GRAPHITE +S.S	GRAPHITE+SS	GRAPHITE+SS
22	**Gasket pack. lever**	Viton	Viton	Viton	Viton
27	**Bellow**	AISI-316 Ti	AISI-316 Ti	AISI-316 Ti	AISI-316 Ti
28	**Soft seat**	Viton / PTFE	Viton / PTFE	Viton / PTFE	Viton / PTFE

Recommended spare parts



Options

Lifting device

Sealed packing lever

Open bonnet

Soft seat

Bellows

Model 1400

Dimensions

			Orif. (mm)	Area (mm^2)	PN 16 (mm) A	PN 16 (mm) B	PN 16 (mm) C	PN 16 Weight (kg) W	PN 25 (mm) A	PN 25 (mm) B	PN 25 (mm) C	PN 25 Weight (kg) W	PN 40 (mm) A	PN 40 (mm) B	PN 40 (mm) C	PN 40 Weight (kg) W
15	**x**	**25**	13	133	95	95	275	10	95	95	275	10	95	95	275	10
20	**x**	**25**	13	133	95	95	275	10	95	95	275	10	95	95	275	10
25	**x**	**40**	23,8	445	100	105	280	12	100	105	280	12	100	105	280	12
32	**x**	**50**	29,5	683	110	115	325	15	110	115	325	15	110	115	325	15
40	**x**	**65**	36	1018	115	140	325	19	115	140	325	19	115	140	325	19
50	**x**	**80**	46	1662	120	150	460	29	120	150	460	29	120	150	460	29
65	**x**	**100**	60	2827	140	170	460	36	140	170	460	36	140	170	460	36
80	**x**	**125**	72	4072	160	195	590	58	160	195	590	58	160	195	590	58
100	**x**	**150**	90	6362	180	220	630	85	180	220	630	85	180	220	630	85
125	**x**	**200**	105	8659	200	250	690	140	200	250	690	140	200	250	690	140
150	**x**	**200**	125	12.272	•	•	•	•	•	•	•	•	241	240	695	160
150	**x**	**250**	125	12.272	225	285	715	150	225	285	715	150	•	•	•	•
200	**x**	**250**	153	18.385	•	•	•	•	•	•	•	•	279	276	815	195
200	**x**	**300**	153	18.385	300	290	815	200	•	•	•	•	•	•	•	•
250	**x**	**350**	200	31.415	406	305	1.390	750	•	•	•	•	•	•	•	•
300	**x**	**400**	228	40.828	406	359	1.432	850	•	•	•	•	•	•	•	•
400	**x**	**500**	304	72.950	533	432	1.943	900	•	•	•	•	•	•	•	•

			PN 63 Orif. (mm)	PN 63 Area (mm^2)	PN 63 (mm) A	PN 63 (mm) B	PN 63 (mm) C	PN 63 Weight (kg) W	PN 100 Orif. (mm)	PN 100 Area (mm^2)	PN 100 (mm) A	PN 100 (mm) B	PN 100 (mm) C	PN 100 Weight (kg) W
15	**x**	**25**	9,6 /13	71/133	95	95	275	11	9,6 /13	71/133	95	95	275	11
20	**x**	**25**	9,6 /13	71/133	95	95	275	11	9,6 /13	71/133	95	95	275	11
25	**x**	**50**	20	314	140	105	315	25	16	201	140	105	315	25
32	**x**	**50**	23,8	445	140	105	315	30	20	314	140	105	315	30
40	**x**	**65**	26	531	165	124	430	30	23,8	445	165	124	430	30
50	**x**	**80**	32	804	162	154	400	35	32	804	162	154	400	35
65	**x**	**100**	48	1.809	140	170	460	66	39	1.194	140	170	460	66

Model 1400 LP

Description

Type	Safety and Relief valve
Connections / Ratin	Flanged EN 1092 PN-16
Material	Nodular Iron, Carbon steel, Stainless steel and Duplex Temperature range: -28ºC to +455ºC

Technical information

Applications	Steam, gases, vapours and liquids
Min. Set pressure	**5 mbarg to 200 mbarg**
Overpressure	10%
Blowdown	Gases 10%, liquids 20%
Tolerance Set pressure	± 3%

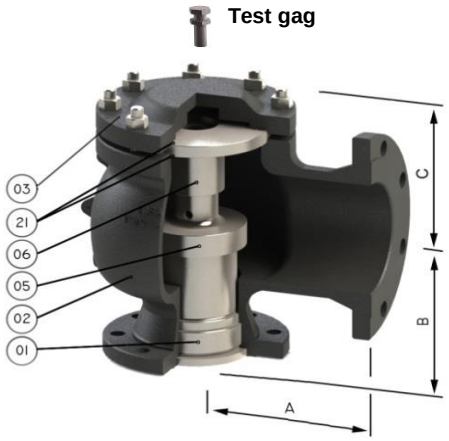
Requirements

Calculation	EN-4126-1 / 7
Design / Size	EN-12516-1, EN-4126-1 / 7
Materials	EN / ASTM
Inspection	EN-4126-1 / 7 API 527 MSS-SP-55
Tolerances	EN-4126-1 y ASME UG-126

Construction and materials

		Material	
Item	Description	Nodular iron	Stainless steel
1	Nozzle	AISI-304	AISI-304
2	Body	EN-JS1030	1,4409
3	Cover	Carbon steel	AISI-304
5	Disc	AISI-316L	AISI-316L
6	Guide	AISI-304	AISI-304
21	Gasket cover	GRAPHITE+S.S.	GRAPHITE+SS
28	Soft seat	PTFE/ Viton	PTFE/ Viton

Recommended spare parts



Dimensions

			PN 16			
				(mm)		Weight (kg)
	Orif. (mm)	Area (mm^2)	A	B	C	W
25 x 40	23,8	445	100	105	75	10
32 x 50	29,5	683	110	115	105	11
40 x 65	36	1018	115	140	105	11
50 x 80	46	1662	120	150	155	20
65 x 100	60	2827	140	170	165	30
80 x 125	72	4072	160	195	175	52
100 x 150	90	6362	180	220	175	75
125 x 200	105	8659	200	250	175	105
150 x 200	125	12.272	241	240	200	120
150 x 250	125	12.272	225	285	200	120
200 x 250	153	18.385	279	276	225	152
200 x 300	153	18.385	300	290	225	152
250 x 350	200	31.415	406	305	250	515
300 x 400	228	40.828	406	359	375	600
400 x 500	304	72.950	533	432	400	900

Model 1415

Description

Type	Safety relief valves
Connections	ASME/ANSI B16.5 ANSI150 / 300 / 600 / 900 / 1500 / 2500
Material	Carbon steel A 216 WCB/ WCC, A 217 WC6, S.S. A 351 CF3M and Duplex Temp. range: -196ºC to +555ºC

Technical information

Applications	Steam, gases, vapours and liquids
Min. Set pressure	0,2 barg; With bellows 2 barg
Seat	metal-metal, PTFE, Viton and Stellite
Overpressure	10% for steam, gas and vapour
	20% for fire exposure, 25% for liquids
Blowdown	10%
Tolerance Set pressure	± 3%

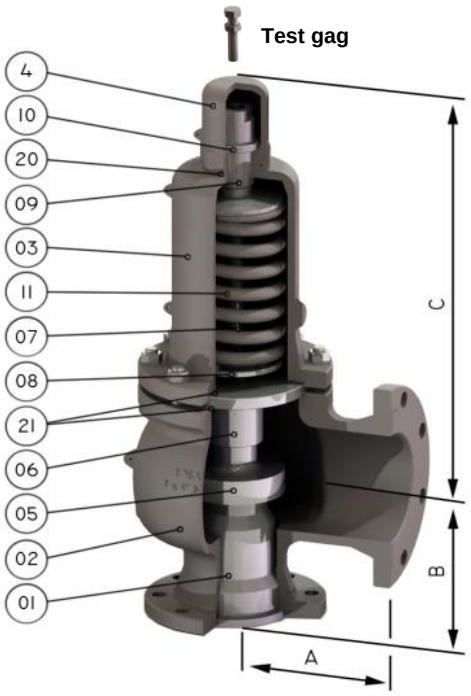
Requirements

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-SP55
Tolerances	EN-4126-1 and ASME UG-126

Construction and materials

Pos	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 Road**	AISI-316L	AISI-316L
8	**Spring Button**	AISI-303	AISI-303
9	**Ajusting Screw**	AISI-420	AISI-303
10	**Lock Nut**	AISI-303	AISI-303
11	**Spring**	1.8159 C. S.	AISI-302
12	**Lever**	A351 CF 8	A351 CF 8
17	**Release nut**	AISI-316L	AISI-316
18	**Lever axis**	AISI-303	AISI-303
19	**Packing lever axis**	AISI-303	AISI-303
20	**Gasket cap**	PTFE	PTFE
21	**Gasket bonnet**	Graphite + S.S.	Graphite + S.S.
22	**Gasket pack. lever**	Viton	Viton
27	**Bellow**	AISI-316 TI	AISI-316 TI
28	**Soft seat**	Viton / PTFE	Viton / PTFE

Recommended spare parts



Options

Lifting device

Sealed packing lever

Open bonnet

Soft seat

Bellows

Model 1415

Dimensions

		Orif. (mm)	Area (mm^2)	ANSI 150 (mm) A	ANSI 150 (mm) B	ANSI 150 (mm) C	ANSI 150 Weight (kg) W	ANSI 300 (mm) A	ANSI 300 (mm) B	ANSI 300 (mm) C	ANSI 300 Weight (kg) W	ANSI 600 (mm) A	ANSI 600 (mm) B	ANSI 600 (mm) C	ANSI 600 Weight (kg) W
D/E	1/2" D / E 1"	9,5 /13	71/133	95	95	275	10	95	95	275	10	95	100	275	11
	3/4" D / E 1"	9,5 /13	71/133	95	95	275	10	95	95	275	10	95	100	275	11
	1" D / E 1"	9,5 /13	71/133	95	95	275	10	95	95	275	10	95	100	275	11
	1" D / E 2"	9,5 /13	71/133	114	105	275	14	114	105	275	16	114	105	275	18
F	1 1/2" F 2"	16	201	121	124	315	17	121	124	315	17	152	124	315	20
	1 1/2" F 2" 300L	16	201	•	•	•	•	152	124	315	17	•	•	•	•
G	1 1/2" G 3"	21	346	121	124	400	26	121	124	400	26	152	124	400	28
	1 1/2" G 3" 300L	21	346	•	•	•	•	152	124	400	26	•	•	•	•
H	1 1/2" H 3"	26	531	124	130	400	26	124	130	400	26	•	•	•	•
	2" H 3"	26	531	•	•	•	•	124	130	400	27	162	154	400	32
J	2" J 3"	32,5	830	124	137	400	28	124	137	400	29	•	•	•	•
	3" J 4"	32,5	830	•	•	•	•	181	184	595	56	181	184	595	62
K	3" K 4"	40	1.195	162	156	595	56	162	156	595	56	181	184	595	62
L	3" L 4"	49	1.866	165	156	595	56	165	156	595	56	•	•	•	•
	4" L 6"	49	1.866	•	•	•	•	181	179	630	56	203	179	630	90
M	4" M 6"	55	2.376	184	178	630	88	184	178	630	90	203	178	630	110
N	4" N 6"	60	2.827	210	197	630	88	210	197	630	90	222	197	630	110
P	4" P 6"	73	4.185	229	181	630	88	229	181	630	90	254	225	630	120
	4" P 6" 300L	73	4.185	•	•	•	•	254	181	630	90	•	•	•	•
Q	6" Q 8"	96	7.238	241	240	690	140	241	240	690	140	241	240	690	190
R	6" R 8"	115	10.387	241	240	690	140	241	240	690	140	•	•	•	•
	6" R 10"	115	10.387	•	•	•	•	267	240	795	198	267	240	795	198
T	8" T 10"	147	16.972	279	276	800	210	279	276	800	220	•	•	•	•
V	10" V 14"	200	31.415	406	305	1.390	750	406	305	1.390	780	•	•	•	•
W	12" W 16"	228	40.828	406	359	1.432	800	406	359	1.432	850	•	•	•	•

		Orif. (mm)	Area (mm^2)	ANSI 900 (mm) A	ANSI 900 (mm) B	ANSI 900 (mm) C	ANSI 900 Weight (kg) W	ANSI 1500 (mm) A	ANSI 1500 (mm) B	ANSI 1500 (mm) C	ANSI 1500 Weight (kg) W	ANSI 2500 (mm) A	ANSI 2500 (mm) B	ANSI 2500 (mm) C	ANSI 2500 Weight (kg) W
D/E	1 1/2" D 2"	9,5 /13	71/133	140	105	315	19	140	105	315	24	•	•	•	•
	1 1/2" D 3"	9,5 /13	71/133	•	•	•	•	•	•	•	•	178	140	325	30
F	1 1/2" F 3"	16	201	165	124	315	22	165	124	315	22	178	140	325	30
G	1 1/2" G 3"	21	346	165	124	430	28	•	•	•	•	•	•	•	•
	2" G 3"	21	346	•	•	•	•	175	156	444	41	175	156	444	50
H	2" H 3"	26	531	162	154	400	32	162	154	430	45	•	•	•	•
J	3" J 4"	32,5	830	181	184	595	62	181	184	595	65	•	•	•	•
K	3" K 6"	40	1.195	216	198	610	90	216	198	610	105	•	•	•	•
L	4" L 6"	49	1.866	222	197	820	120	222	197	820	120	•	•	•	•
M	4" M 6"	55	2.376	222	197	690	120	•	•	•	•	•	•	•	•
N	4" N 6"	60	2.827	222	197	820	120	•	•	•	•	•	•	•	•
P	4" P 6"	73	4.185	254	225	630	120	•	•	•	•	•	•	•	•

Model 1415 LP

Description

Type	Safety relief valves
Connections	ASME/ANSI B16.5 ANSI150
Material	Carbon steel A 216 WCB/ WCC, A 217 WC6, S.S. A 351 CF3M and Duplex
Temperature range	-196ºC to +455ºC

Technical information

Applications	Steam, gases, vapours and liquids
Min. Set pressure	**5 mbarg to 200 mbarg**
Overpressure	10%
Blowdown	Gases 10%, liquids 20%
Tolerance Set pressure	± 3%

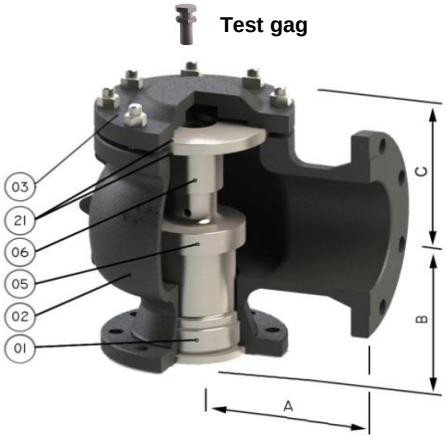
Requirements

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-SP55
Tolerances	EN-4126-1 and ASME UG-126

Construction and materials

		Material	
Item	Description	Carbon steel	Stainless steel
1	Nozzle	AISI-304	AISI-304
2	Body	A216 WCB	A351 CF-3M
3	Cover	Carbon steel	AISI-304
5	Disc	AISI-316L	AISI-316L
6	Guide	AISI-304	AISI-304
21	Gasket cover	GRAPHITE+S.S.	GRAPHITE+SS
28	Soft seat	PTFE/ Viton	PTFE/ Viton

Recommended spare parts



Dimensions

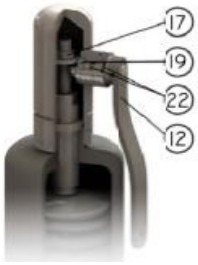
			ANSI150			
				(mm)		Weight (kg)
	Orif. (mm)	Area (mm^2)	A	B	C	W
1" E 2"	13	133	114	105	75	10
1 1/2" F 2"	16	201	121	124	105	12
1 1/2" G 3"	21	346	121	124	110	21
1 1/2" H "3	26	531	124	130	110	21
2" J 3"	32,5	830	124	137	110	23
3" K 4"	40	1195	162	156	175	48
3" L 4"	49	1.866	165	156	175	48
4" M 6"	55	2376	184	178	180	72
4" N 6"	60	2827	210	197	180	72
4" P 6"	73	4185	229	181	180	72
6" Q 8"	96	7238	241	240	200	102
6" R 8"	115	10387	241	240	200	102
8" T 10"	147	16.972	279	276	225	135
10" V 14"	200	31.415	406	305	250	515
12" W 16"	228	40.828	406	359	375	600

Accesories

Lifting device

Manual lifting device to part of routine safety check or during maintenance.
Steam service must have lever according ASME Boiler and Pressure Vessel Code and European Standards
On applications where leakage of the fluid to the atmosphere is acceptable.
NOT recommended for liquids
NOT recommended for polluting or explosives gases

Packed lever



Manual lifting device packed.
This system to ensure that fhe fluid does not escape to the atmosphere.
Packed lever Tosacais a completely sealed.
Recommended for liquids
Recommended for polluting or explosives gases

Test gag

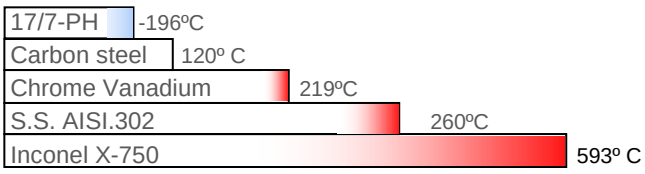
Test gag block the valve then it cannot open the disc
To hydraulic test pressure / clean the installation.
After testing: test gag must be removed.
Test gag is possible for safety transport of the valve.

Lift indicator

Inductive proximity sensors are used to send a electrical signal when open the valve.
Inductive prox 3-wire switching type
Supply voltage 20 to 264 VAC, 50/60 Hz.
Enclosure ratings IEC 144 IP67
Option Eex / ATEX

Specials spring

Maximum operating temperature



Bellows

When the built-up backpressure + imposed are greater than 10% Set pressure, the valve must have bellows according API 520 and European standard EN ISO 4126.
Material: S.S. AISI-316TI and Inconel 625
Minimum set pressure 2 barg

Nozzle ring/ Blowdown ring

The blowdown ring are used to make fine adjustments to the overpressure and blowdown values of the valves-

Blowdown ring is set using inside the valve. As the adjustment is increased, the surface area of the disc that is above the seat increases.
There is a nut on the back of the safety opposite of the outlet on the body of the valve.

Stellite in the seat

Valve Seat hard faced with Stellite 6
Stellite alloy is a range of cobalt-chromium alloys designed for high resistance the valve seat.
It is standard in PN-63, PN-100, ANSI600, 900, 1500& 2500

Heating Jacket

Areas of application are system to be protected from de media wihich are vicous and have tendency to cristallise.
Heating Jackets can be fully welded to the valve.
Material: S.S. AISI-316L
Heating Jackets are suitable for a variety of heating media including hot water, steam and oil.
The standard jacket connection is threaded 1/2" BSP.

ECTFE coating

Halar® ECTFE powder coating have been used successfully for corrosion protection of exhaut duct system. Halar® ECTFE, a copolymer of ethylene and chlorotrifluoroethylene, is a semi-crystalline melt processable partially fluorinated polymer. It is available in different grades that are specifically designed for electrostatic powder coating.
Halar® ECTFE is particularly suitable for use as a coating material in protection and anti-corrosion applications thanks to its unique combination of properties.