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TOSACA

2019 CATALOGUE

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TOSACA

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Model 1216

Description

Type	Safety and Relief valve		
Connections	Threaded BSP / NPT PN-40		
Material	Stainless steel 316 L and Duplex	Temperature range -30 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%

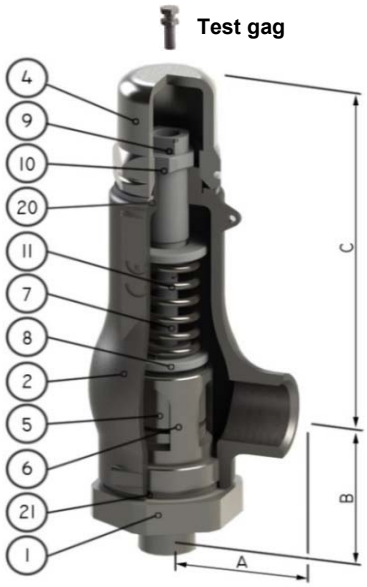
Requirements

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

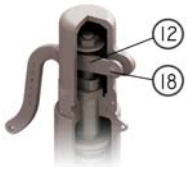
Item	Description	Material		
		Standard	Cryogenic	Duplex
1	Nozzle	A351 CF-3M	A351 CF-3M	DUPLEX 1.4462
2	Body	A351 CF-3M	A351 CF-3M	DUPLEX 1.4462
4	Cap	A351 CF-8	A351 CF-8	DUPLEX 1.4462
5	Disc	AISI-316L	AISI-316L	DUPLEX 1.4462
6	Guide	A351 CF-3M	A351 CF-3M	DUPLEX 1.4462
7	Push Rod	AISI-316L	AISI-316L	DUPLEX 1.4462
8	Spring Button	AISI-303	AISI-303	DUPLEX 1.4462
9	Ajusting Screw	AISI-303	AISI-303	DUPLEX 1.4462
10	Tensor Nut	AISI-303	AISI-303	DUPLEX 1.4462
11	Spring	AISI-302	INCONEL X 750	INCONEL X 750
12	Lever	A351 CF-8	A351 CF-8	DUPLEX 1.4462
17	Release nut	AISI-304	AISI-304	DUPLEX 1.4462
18	Lever axis	AISI-303	AISI-303	DUPLEX 1.4462
19	Packing lever axis	AISI-303	AISI-303	DUPLEX 1.4462
20	Gasket cap	PTFE	PTFE	PTFE
21	Gasket	PTFE	PTFE	PTFE
22	Gasket pack. lever	Viton	Viton	Viton
28	Soft seat	Viton / PTFE	Metal	Metal

Recommended spare parts

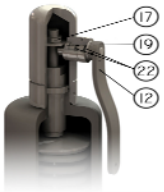


Options

Lifting device



Sealed packing lever



Soft seat

Stainless steel dimensions

	Orifice (mm)	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
1 1/4" 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

Duplex dimensions

	Orifice (mm)	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

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TOSACA

Model 1216 HP PN100 High pressure

Description

Type	Safety and Relief valve		
Connections / Rating	Threaded BSP / NPT	PN-100	
Material	Stainless steel 316 L	Temperature range -30ºC to +350ºC	Cryogenic service until -196ºC

Technical information

Applications	Steam, gases, vapours and liquids
Min. Set pressure	30 barg Max. Set pressure 86 barg
Overpressure	10%
Blowdown	Gases 10%, liquids 20%
Tolerance Set pressure	± 3%

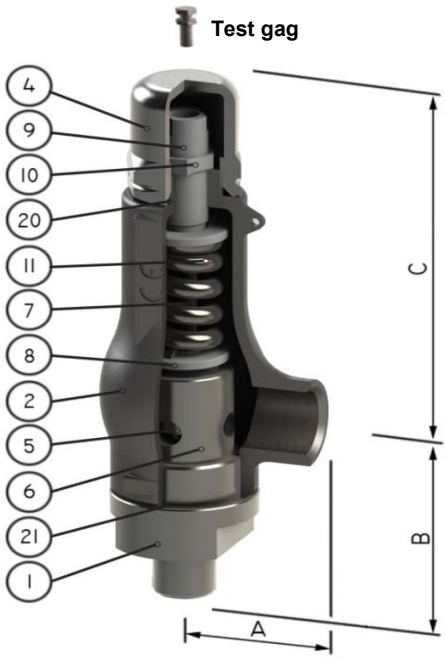
Requirements

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	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	AISI-316L	AISI-316L
7	Push Rod	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	INCONEL X 750
12	Lever	A351 CF8	A351 CF8
17	Release nut	AISI-304	AISI-304
18	Lever axis	AISI-303	AISI-303
19	Packing lever axis	AISI-303	AISI-303
20	Gasket cap	PTFE	PTFE
21	Gasket	GRAPHITE + S.S.	GRAPHITE + S.S.
22	Gasket pack. lever	Viton	Viton

Recommended spare parts



Options

Lifting device

Sealed packing lever

Dimensions

	PN	Orifice (mm)	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

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Model 1216 HP PN400 High pressure

Description

Type	Safety and Relief valve		
Connections / Rating	Threaded BSP / NPT	PN-400	
Material	Stainless steel 316 L	Temperature range -30ºC to +350ºC	Cryogenic service until -196ºC
	Duplex	Temperature range -20ºC to +250ºC	

Technical information

Applications	Steam, gases, vapours and liquids
Min. Set pressure	30 barg Max. Set pressure 350 barg
Overpressure	10%
Blowdown	Gases 10%, liquids 20%
Tolerance Set pressure	± 3%

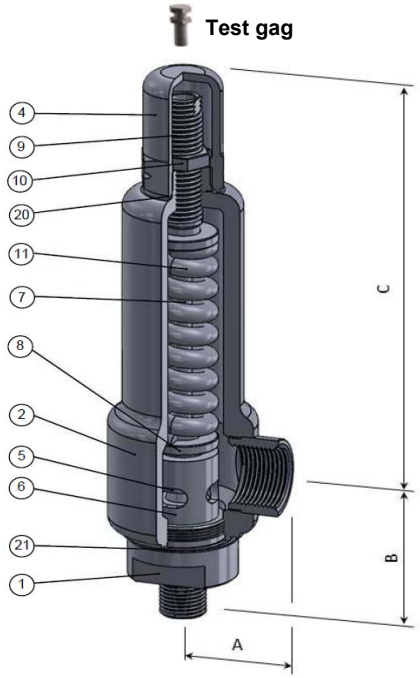
Requirements

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 DUPLEX
1	Nozzle	AISI-316L	DUPLEX 1.4462
2	Body	AISI-316L	DUPLEX 1.4462
4	Cap	A351 CF-8	DUPLEX 1.4462
5	Disc	17-4-PH	DUPLEX 1.4462
6	Guide	AISI-316L	DUPLEX 1.4462
7	Push Rod	AISI-316L	DUPLEX 1.4462
8	Spring Button	AISI-303	DUPLEX 1.4462
9	Ajusting Screw	AISI-303	DUPLEX 1.4462
10	Tensor Nut	AISI-303	DUPLEX 1.4462
11	Spring	INCONEL X 750	INCONEL X 750
12	Lever	A351 CF8	DUPLEX 1.4462
17	Release nut	AISI-304	DUPLEX 1.4462
18	Lever axis	AISI-303	DUPLEX 1.4462
19	Packing lever axis	AISI-303	DUPLEX 1.4462
20	Gasket cap	PTFE	PTFE
21	Gasket	GRAPHITE + S.S.	GRAPHITE + S.S.
22	Gasket pack. lever	Viton	Viton

Recommended spare parts



Options

Lifting device

Sealed packing lever

Dimensions

	PN	Orifice (mm)	Area (mm^2)	A (mm)	B (mm)	C (mm)	Weight (kg)
1/2" x 3/4"	PN-400	6	28	46	75	240	3,1
1/2" x 1"	PN-400	6	28	46	75	240	3,1
3/4" x 3/4"	PN-400	6	28	46	75	240	3,1
3/4" x 1"	PN-400	6	28	46	75	240	3,1
1" x 1"	PN-400	6	28	46	75	240	3,1

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Model 1216 C Clamp

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%

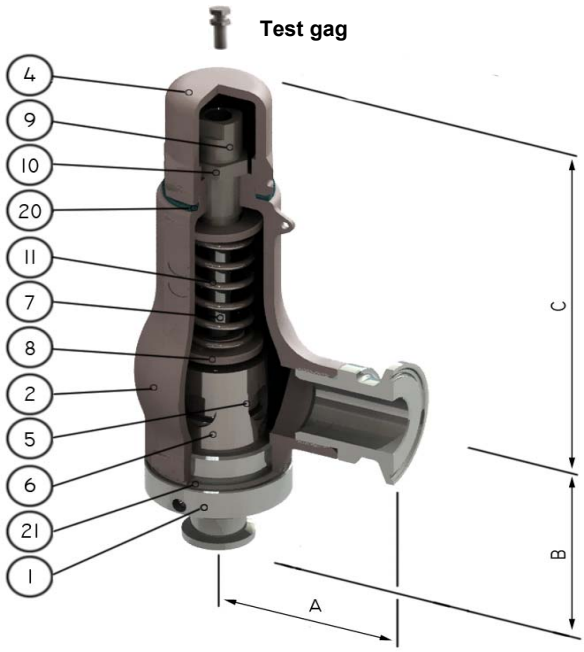
Requirements

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

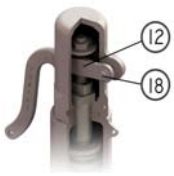
Item	Description	Material	
		Standard	Cryogenic
1	Nozzle	AISI-316L	AISI-316L
2	Body	A351 CF-3M	A351 CF-3M
4	Cap	A351 CF-8	A351 CF-8
5	Disc	AISI-316L	AISI-316L
6	Guide	AISI-316L	AISI-316L
7	Push Rod	AISI-316L	AISI-316L
8	Spring Button	AISI-303	AISI-303
9	Ajusting Screw	AISI-303	AISI-303
10	Tensor Nut	AISI-303	AISI-303
11	Spring	AISI-302	INCONEL X 750
12	Lever	A351 CF-8	A351 CF-8
17	Release nut	AISI-304	AISI-304
18	Lever axis	AISI-303	AISI-303
19	Packing lever axis	AISI-303	AISI-303
20	Gasket cap	PTFE	PTFE
21	Gasket	PTFE	PTFE
22	Gasket pack. lever	Viton	Viton
28	Soft seat	Viton / PTFE	Metal

Recommended spare parts



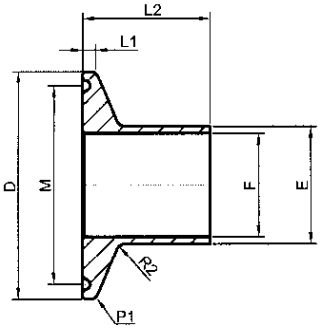
Options

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)	(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	40	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	40	2,85	21,5

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Model 1216 B Flanges

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%

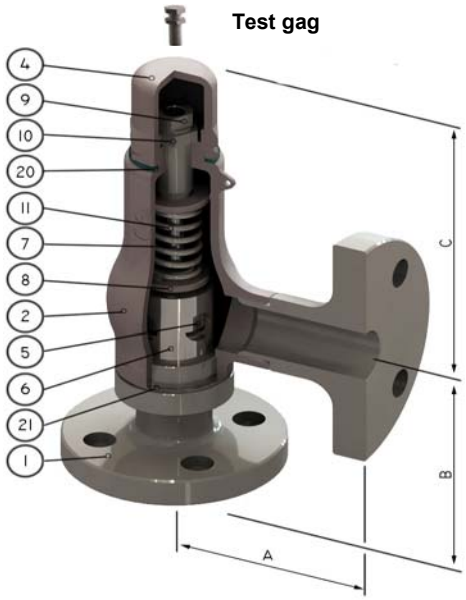
Requirements

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

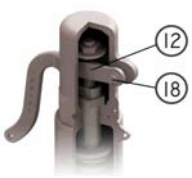
		Material	
Item	Description	Standard	Cryogenic
1	Nozzle	AISI-316L	AISI-316L
2	Body	A351 CF-3M	A351 CF-3M
4	Cap	A351 CF-8	A351 CF-8
5	Disc	AISI-316L	AISI-316L
6	Guide	AISI-316L	AISI-316L
7	Push Rod	AISI-316L	AISI-316L
8	Spring Button	AISI-303	AISI-303
9	Ajusting Screw	AISI-303	AISI-303
10	Tensor Nut	AISI-303	AISI-303
11	Spring	AISI-302	INCONEL X 750
12	Lever	A351 CF-8	A351 CF-8
17	Release nut	AISI-304	AISI-304
18	Lever axis	AISI-303	AISI-303
19	Packing lever axis	AISI-303	AISI-303
20	Gasket cap	PTFE	PTFE
21	Gasket	PTFE	PTFE
22	Gasket pack. lever	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)	(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

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TOSACA

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, LCC, Duplex and SuperDuplex
Temperature range	-196ºC to +425ºC

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
	21% fire exposure, 25% for liquids
Blowdown	10%
Tolerance Set pressure	± 3%

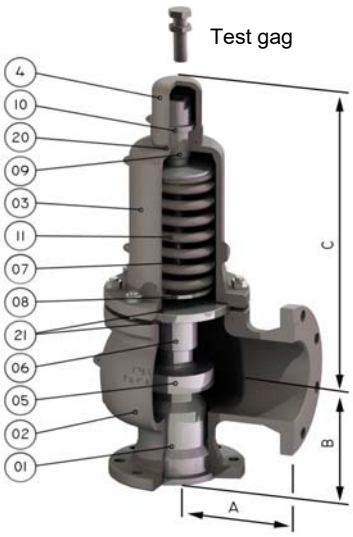
Requirements

Calculation	EN-4126-1 / 7
Design / Size	EN-12516-1, EN-4126-1 / 7
Materials	EN / ASTM
Inspection	EN-4126-1 / 7, MSS-SP-55
Tolerances	EN-4126-1 and 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 Rod**	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-304	AISI-304	AISI-304	AISI-304
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	**Bellows**	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

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TOSACA

Model 1400

Dimensions

				PN 16				PN 25				PN 40			
					(mm)		Weight (kg)		(mm)		Weight (kg)		(mm)		Weight (kg)
		Orif. (mm)	Area (mm^2)	A	B	C	W	A	B	C	W	A	B	C	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					PN 100					
					(mm)		Weight (kg)				(mm)		Weight (kg)
	Orif. (mm)	Area (mm^2)	A	B	C	W	Orif. (mm)	Area (mm^2)	A	B	C	W
15 x **25**	9,5 /13	71/133	95	95	275	11	9,5 /13	71/133	95	95	275	11
20 x **25**	9,5 /13	71/133	95	95	275	11	9,5 /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

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TOSACA

Model 1400 LP

Description

Type	Safety and Relief valve
Connections/Rating	Flanged EN 1092 PN-16
Material	Nodular Iron, Carbon steel, Stainless steel, LCC, Duplex and SuperDuplex
Temperature range	-196ºC to +425ºC

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, MSS-SP-55
Tolerances	EN-4126-1 and ASME UG-126

Construction and materials

		Material		
Item	Description	Nodular iron	Stainless steel	Carbon steel
1	Nozzle	AISI-304	AISI-304	AISI-304
2	Body	EN-JS1030	1.4409	C.S. 1.0619
3	Cover	Carbon steel	AISI-304	Carbon steel
5	Disc	AISI-316L	AISI-316L	AISI-316L
6	Guide	AISI-304	AISI-304	AISI-304
21	Gasket cover	GRAPHITE+S.S.	GRAPHITE+SS	GRAPHITE+S.S.

☐ *Recommended spare parts*

Dimensions

			PN 16			
	Orif. (mm)	Area (mm^2)	(mm) A	B	C	Weight (kg) 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

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TOSACA

Model 1415

Description

Type	Safety relief valves
Connections	ASME/ANSI B16.5 ANSI150 / 300 / 600 / 900 / 1500 / 2500
Material	Carbon steel A 216 WCB, A 217 WC6, S.S. A 351 CF3M, LCC, Duplex and SuperDuplex
Temperature range	-196ºC to +540ºC

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
	21% for fire exposure, 25% for liquids
Blowdown	10%
Tolerance Set pressure	± 3%

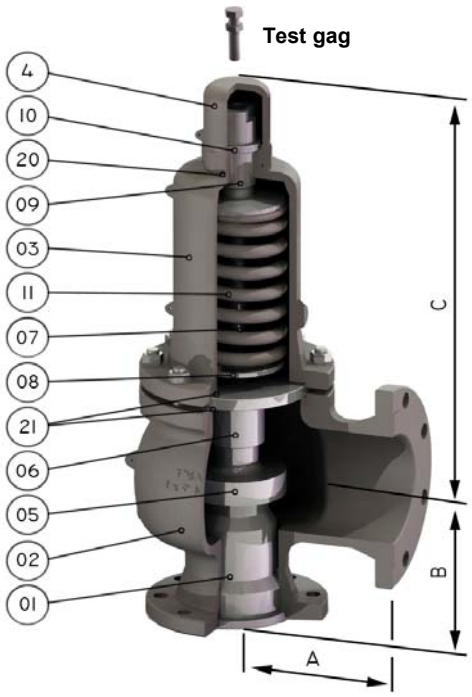
Requirements

Calculation	API RP 520
Design / Size	API STD 526, ASME Section VIII
Materials	EN / ASTM / ASME
Inspection	EN-4126-1/7 API 527 MSS-SP55
Tolerances	EN-4126-1 and ASME UG-126

Construction and materials

Item	Description	Material		
		Carbon steel	Stainless steel	DUPLEX
1	**Nozzle**	AISI-316L	AISI-316L	EN 1.4462
2	**Body**	A216 WCB	A351 CF3M	EN 1.4462
3	**Bonnet**	A216 WCB	A351 CF3M	EN 1.4462
4	**Cap**	A351 CF8	A351 CF8	EN 1.4462
5	**Disc**	AISI-316L	AISI-316L	EN 1.4462
6	**Guide**	AISI-316L	AISI-316L	EN 1.4462
7	**Push Rod**	AISI-316L	AISI-316L	EN 1.4462
8	**Spring Button**	AISI-303	AISI-303	EN 1.4462
9	**Ajusting Screw**	AISI-420	AISI-303	EN 1.4462
10	**Lock Nut**	AISI-303	AISI-303	EN 1.4462
11	**Spring**	1.8159 C. S.	AISI-302	Inconel X 750
12	**Lever**	A351 CF8	A351 CF8	A351 CF8
17	**Release nut**	AISI-304	AISI-304	AISI-304
18	**Lever axis**	AISI-303	AISI-303	AISI-303
19	**Packing lever axis**	AISI-303	AISI-303	AISI-303
20	**Gasket cap**	PTFE	PTFE	PTFE
21	**Gasket bonnet**	Graphite + S.S.	Graphite + S.S.	Graphite + S.S.
22	**Gasket pack. lever**	Viton	Viton	Viton
27	**Bellows**	AISI-316 TI	AISI-316 TI	AISI-316 TI
28	**Soft seat**	Viton / PTFE	Viton / PTFE	Viton / PTFE

Recommended spare parts



Options

Lifting device

Sealed packing lever

Open bonnet

Soft seat

Bellows

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TOSACA

Model 1415

Dimensions

		Orif. (mm)	Area (mm^2)	ANSI 150 (mm) A	B	C	Weight (kg) W	ANSI 300 (mm) A	B	C	Weight (kg) W	ANSI 600 (mm) A	B	C	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	B	C	Weight (kg) W	ANSI 1500 (mm) A	B	C	Weight (kg) W	ANSI 2500 (mm) A	B	C	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	70	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	140	222	197	820	120	•	•	•	•
M	4" M 6"	55	2.376	222	197	690	140	•	•	•	•	•	•	•	•
N	4" N 6"	60	2.827	222	197	820	140	•	•	•	•	•	•	•	•
P	4" P 6"	73	4.185	254	225	630	140	•	•	•	•	•	•	•	•

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TOSACA

Model 1415 LP

Description

Type	Safety relief valves
Connections	ASME/ANSI B16.5 ANSI150
Material	Carbon steel A 216 WCB, A 217 WC6, S.S. A 351 CF3M, LCC, Duplex and SuperDuplex
Temperature range	-196ºC to +540ºC

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%

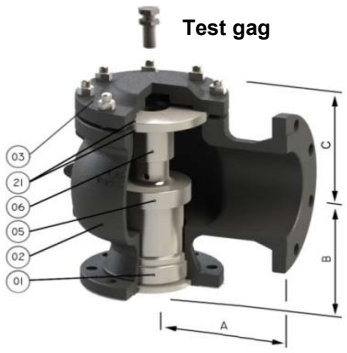
Requirements

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	Duplex
1	Nozzle	AISI-304	AISI-304	EN 1.4462
2	Body	A216 WCB	A351 CF-3M	EN 1.4462
3	Cover	Carbon steel	AISI-304	EN 1.4462
5	Disc	AISI-316L	AISI-316L	EN 1.4462
6	Guide	AISI-304	AISI-304	EN 1.4462
21	Gasket cover	GRAPHITE+S.S.	GRAPHITE+SS	GRAPHITE+S.S.

Recommended spare parts



Dimensions

			ANSI150			
	Orif. (mm)	Area (mm^2)	(mm) A	B	C	Weight (kg) 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

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Model 5400

TOSACA

Description

Type	Changeover Valve
Connections / Rating	Flanged EN 1092 PN-16 / 25 / 40 / 63 / 100
Material	Nodular Iron, Carbon steel, Stainless steel, LCC, Duplex and SuperDuplex
Temperature range	-196ºC to +425ºC

Technical information

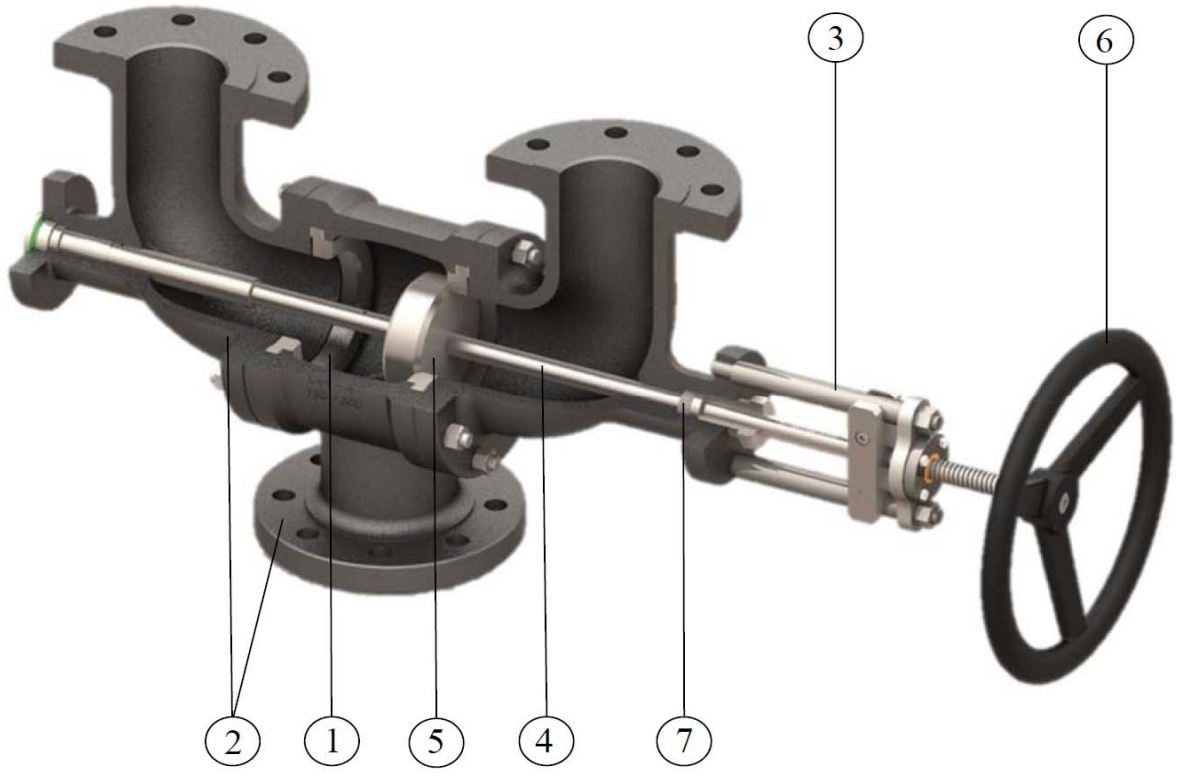
Applications	Steam, gases, vapours and liquids
Seat	metal-metal, PTFE, Viton and Stellite

Requirements

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

Construction and materials

		Material				
Item	Description	Carbon steel	Nodular iron	Stainless steel	Duplex	Super Duplex
1	Nozzle	AISI-316L	AISI-316L	AISI-316L	EN 1.4462	EN 1.4410
2	Body	C.S. 1.0619	EN-JS1030	1.4409	EN 1.4462	A890 Gr. 5A/ 1.4469
3	Yoke rod	C.S. F111	EN-JS1030	AISI-316L	EN 1.4462	EN 1.4410
4	Spindle	AISI-316L	AISI-316L	AISI-316L	EN 1.4462	EN 1.4410
5	Disc	AISI-316L	AISI-316L	AISI-316L	EN 1.4462	EN 1.4410
6	Handwheel	EN-JS1030	EN-JS1030	AISI-316L	EN 1.4462	EN 1.4410
7	Packing	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE



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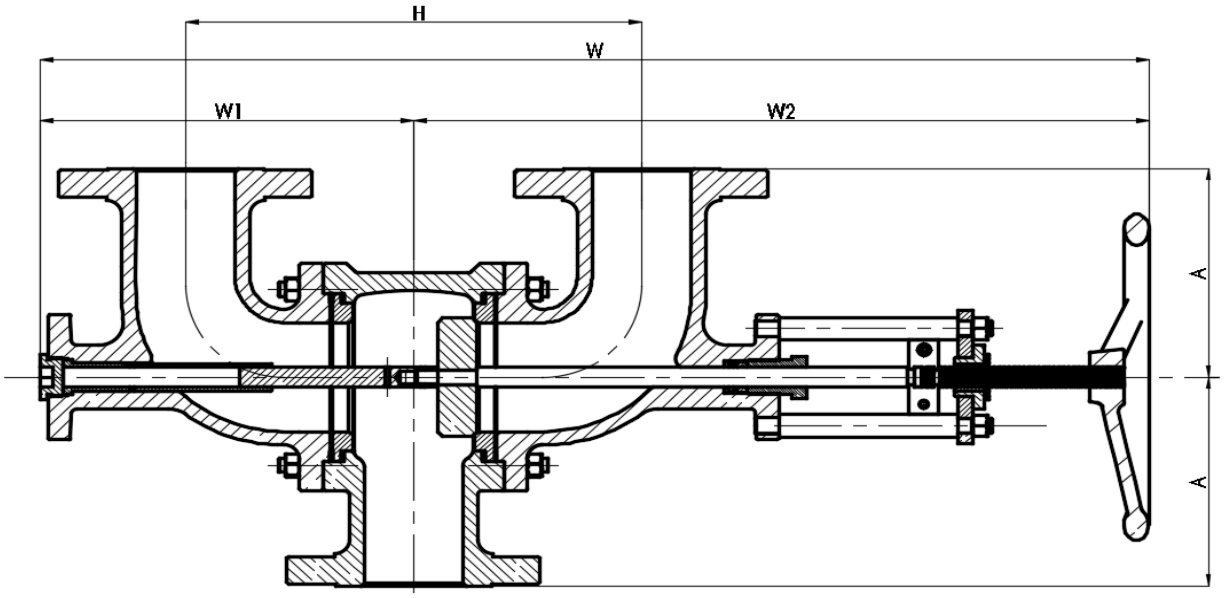
TOSACA

Model 5400

Dimensions

	PN 16						PN 25						PN 40					
			(mm)			Weight			(mm)			Weight			(mm)			Weight
DN	A	H	W	W1	W2	(kg)	A	H	W	W1	W2	(kg)	A	H	W	W1	W2	(kg)
15	115	190	710	190	520	25	115	190	710	190	520	25	115	190	710	190	520	25
20	115	190	710	190	520	25	115	190	710	190	520	25	115	190	710	190	520	25
25	115	190	710	190	520	30	115	190	710	190	520	30	115	190	710	190	520	30
32	150	265	810	220	590	60	150	265	810	220	590	60	150	265	810	220	590	60
40	150	265	810	220	590	60	150	265	810	220	590	60	150	265	810	220	590	60
50	150	265	835	220	615	75	150	265	835	220	615	75	150	265	835	220	615	75
65	190	360	962	280	682	85	190	360	962	280	682	85	190	360	962	280	682	85
80	190	360	1.000	300	700	115	190	360	1.000	300	700	115	190	360	1.000	300	700	115
100	230	460	1.140	350	790	150	230	460	1.140	350	790	150	230	460	1.140	350	790	150
125	250	460	1.145	350	795	255	230	460	1.145	350	795	255	230	460	1.145	350	795	255
150	280	600	1.480	445	1.035	380	280	600	1.480	445	1.035	380	280	600	1.480	445	1.035	380
200	370	800	1.840	605	1.235	550	370	800	1.840	605	1.235	550	370	800	1.840	605	1.235	550
250	430	900	2.010	665	1.345	720	•	•	•	•	•	•	•	•	•	•	•	•
300	450	960	2.185	780	1.405	850	•	•	•	•	•	•	•	•	•	•	•	•
400	500	1.240	2.700	1.000	1.700	1.300	•	•	•	•	•	•	•	•	•	•	•	•



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TOSACA

Model 5415

Description

Type	Changeover Valve
Connections	ASME/ANSI B16.5 ANSI150 / 300 / 600 / 900 / 1500 / 2500
Material	Carbon steel A 216 WCB, A 217 WC6, S.S. A 351 CF3M, LCC, Duplex and SuperDuplex
Temperature range	-196ºC to +540ºC

Technical information

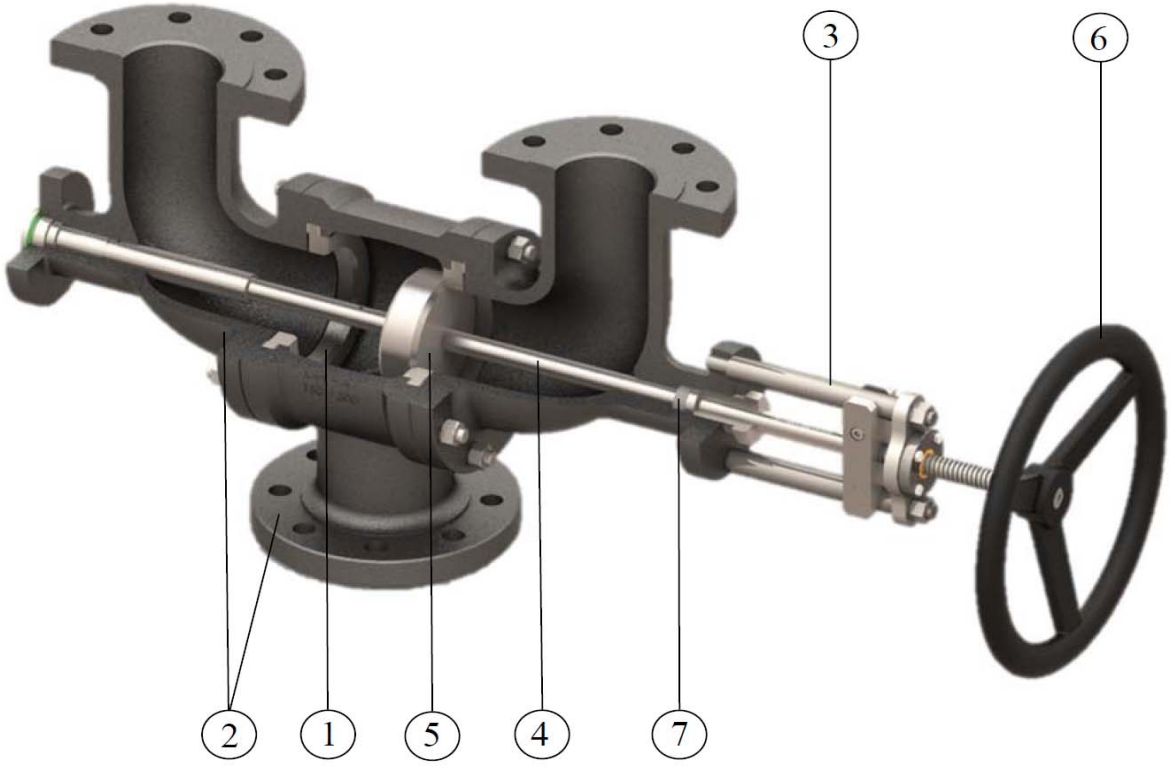
Applications	Steam, gases, vapours and liquids
Seat	metal-metal, PTFE, Viton and Stellite

Requirements

Calculation	API RP 520
Design / Size	API STD 526, ASME Section VIII
Materials	EN / ASTM / ASME
Inspection	EN-4126-1/7 API 527 MSS-SP55
Tolerances	EN-4126-1 and ASME UG-126

Construction and materials

		Material			
Item	Description	Carbon steel	Stainless steel	Duplex	Super Duplex
1	**Nozzle**	AISI-316L	AISI-316L	EN 1.4462	EN 1.4410
2	**Body**	A216 WCB	A351 CF-3M	EN 1.4462	A890 Gr. 5A/ 1.4469
3	**Yoke rod**	C.S. F111	AISI-316L	EN 1.4462	EN 1.4410
4	**Spindle**	AISI-316L	AISI-316L	EN 1.4462	EN 1.4410
5	**Disc**	AISI-316L	AISI-316L	EN 1.4462	EN 1.4410
6	**Handwheel**	EN-JS1030	AISI-316L	EN 1.4462	EN 1.4410
7	**Packing**	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE



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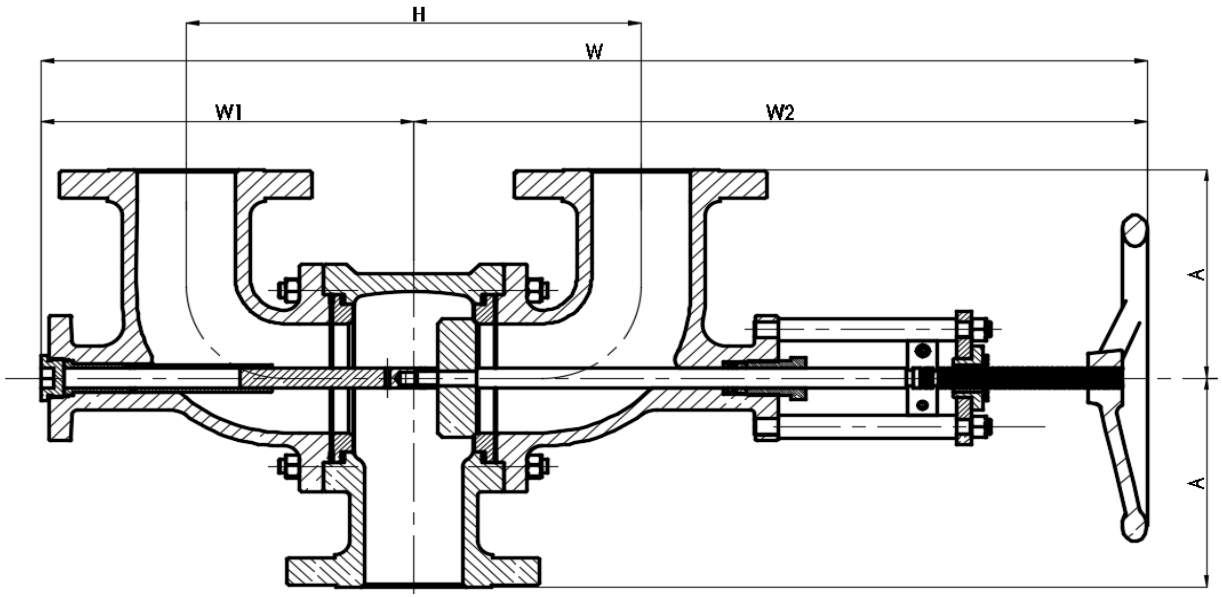
TOSACA

Model 5415

Dimensions

	ANSI 150						ANSI 300						ANSI 600					
			(mm)			Weight			(mm)			Weight			(mm)			Weight
	A	H	W	W1	W2	(kg)	A	H	W	W1	W2	(kg)	A	H	W	W1	W2	(kg)
1/2"	115	190	710	190	520	25	115	190	710	190	520	30	120	190	710	190	520	35
3/4"	115	190	710	190	520	25	115	190	710	190	520	30	120	190	710	190	520	35
1"	115	190	710	190	520	30	115	190	710	190	520	35	120	190	710	190	520	45
1-1/2"	150	265	810	220	590	60	150	265	810	220	590	70	155	265	810	220	590	80
2"	150	265	835	220	615	75	150	265	835	220	615	80	155	265	835	220	615	105
3"	190	360	1.000	300	700	115	190	360	1.000	300	700	135	195	360	1.000	300	700	170
4"	230	460	1.140	350	790	150	230	460	1.140	350	790	190	235	460	1.140	350	790	290
6"	280	600	1.480	445	1.035	380	280	600	1.480	445	1.035	420	285	600	1.480	445	1.035	490
8"	370	800	1.840	605	1.235	550	370	800	1.840	605	1.235	590	375	800	1.840	605	1.235	760
10"	430	900	2.010	665	1.345	720	430	900	2.010	665	1.345	950	•	•	•	•	•	•
12"	450	960	2.185	780	1.405	850	450	960	2.185	780	1.405	1.020	•	•	•	•	•	•
16"	500	1.240	2.700	1.000	1.700	1.300	500	1.240	2.700	1.000	1.700	1.370	•	•	•	•	•	•



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TOSACA

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 Tosaca is a completely sealed.
Recommended for liquids
Recommended for polluting or explosives gases

Test gag

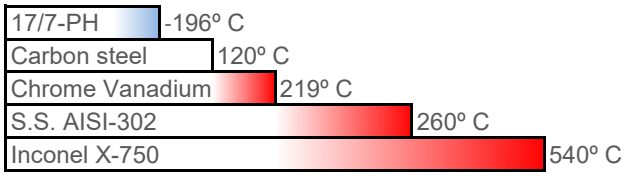
Test gag block the valve then it cannot open the disc
To hydraulic test pressure / clean the installation.
After testing: test gag must be removed.
Test gag is possible for safety transport of the valve.

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



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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.

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