

TECHNICAL DATA SHEET

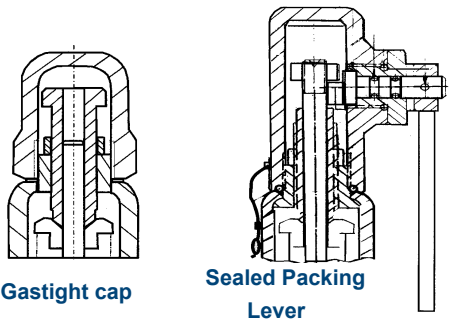
Model 1216 - 1216SS

Description

Type	Safety and Relief Valve				
Conections	Threaded DIN 259 or ANSI B-2.1				
Material	Carbon Steel and Stainless Steel				
Nominal Pressure	16 - 40				
Temperature min.	- 10° C				
Temperature max.(° C)	120	200	250	300	350
according/EN 1092 Pres.(bar) PN-16	16	13	11	10	-
according/EN 1092 Pres.(bar) PN-40	40	35	32	28	24

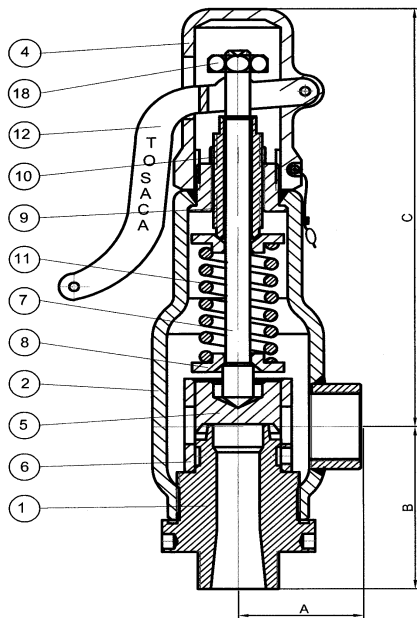
Seating Surface

Fluid	type	temperature (°C)	
		min	max
Steam	Metal	-10	350
Liquid/Gas	Vitón (FPM)	-10	150
Liquid/Gas	Teflón (PTFE)	-10	230



Construction and materials

Item	Description	Material	
		1216 Carbon Steel	1216 SS Stainless Steel
1	Nozzle	AISI-316L	AISI-316L
2	Body	ASTM A106 Gr.b	AISI-316L
4	Open Cap	Brass	Brass zn.
	Closed Cap	Brass	AISI-316L
5	Disc	AISI-316L	AISI-316L
	O-ring	Viton / PTFE	Viton / PTFE
6	Guide	AISI-316L	AISI-316L
7	Push Road	AISI-316L	AISI-316L
8	Spring Button	Carbon Steel zn.	AISI-303
9	Ajusting Screw	Brass / AISI-303	AISI-303
10	Tensor Nut	Brass / AISI-303	AISI-303
11	Spring	C.S. DIN 1.7223	AISI-302
12	Lever	Brass	Brass zn.
14	Elastic Pin	AISI-316	AISI-316
15	Ajusting Ring	AISI-316	AISI-316
16	Gasket	PTFE	PTFE
17	Elastic Pin	Carbon Steel	AISI-304
18	Release Nut	Carbon Steel	AISI-316
20	Gasket	PTFE	PTFE
21	Gasket	Carbon Steel	AISI-316



Dimensions

Inlet	Outlet	Orif (mm)	Area (mm²)	A	B	C		Weight (kg)	
						With Lever	Without Lever	With Lever	Without Lever
1/2"	3/4"	13	133	37	60	150	136	1,9	1,8
1/2"	1"	13	133	40	62	152	138	2	1,9
3/4"	3/4"	14	154	37	61	150	136	1,9	1,8
3/4"	1"	14	154	40	63	152	138	2	1,9
3/4"	1 1/4"	14	154	42	68	147	133	2,1	2
1"	1"	16	201	40	65	152	138	2	1,9
1"	1 1/4"	16	201	42	68	147	133	2,1	2
1 1/4"	1 1/4"	18	254	42	69	147	133	2,1	2

Lifting Device



Water capacity

Valve type 1216 PN-16/40

Water capacity chart (kg/h)

10% Overpressure

Set gauge pressure (barg)	Size threaded BSP/NPT							
	1/2"x3/4"	1/2"x 1"	3/4"x3/4"	3/4"x1"	3/4"x11/4"	1" x 1"	1"x11/4"	11/4"x11/4"
	Orifice (mm)							
	13	13	14	14	14	16	16	18
Area (mm ²)								
	133	133	154	154	154	201	201	254
0,5	2.506	2.506	2.906	2.906	2.906	3.796	3.796	4.804
1	3.544	3.544	4.110	4.110	4.110	5.368	5.368	6.794
1,5	4.340	4.340	5.034	5.034	5.034	6.575	6.575	8.321
2	5.012	5.012	5.812	5.812	5.812	7.592	7.592	9.608
2,5	5.603	5.603	6.498	6.498	6.498	8.488	8.488	10.742
3	6.138	6.138	7.119	7.119	7.119	9.298	9.298	11.768
3,5	6.630	6.630	7.689	7.689	7.689	10.043	10.043	12.710
4	7.087	7.088	8.220	8.220	8.220	10.736	10.736	13.588
4,5	7.517	7.518	8.719	8.719	8.719	11.387	11.387	14.412
5	7.924	7.924	9.190	9.190	9.190	12.003	12.003	15.192
5,5	8.311	8.311	9.639	9.639	9.639	12.589	12.589	15.933
6	8.680	8.680	10.067	10.067	10.067	13.149	13.149	16.642
6,5	9.035	9.035	10.478	10.478	10.478	13.686	13.686	17.321
7	9.376	9.376	10.874	10.874	10.874	14.203	14.203	17.975
7,5	9.705	9.705	11.256	11.256	11.256	14.701	14.701	18.606
8	10.023	10.023	11.625	11.625	11.625	15.183	15.183	19.216
8,5	10.332	10.332	11.982	11.982	11.982	15.651	15.651	19.808
9	10.631	10.631	12.330	12.330	12.330	16.104	16.104	20.382
9,5	10.922	10.923	12.668	12.668	12.668	16.546	16.546	20.941
10	11.206	11.206	12.997	12.997	12.997	16.975	16.975	21.485
11	11.753	11.753	13.631	13.631	13.631	17.804	17.804	22.533
12	12.276	12.276	14.237	14.237	14.237	18.596	18.596	23.535
13	12.777	12.777	14.819	14.819	14.819	19.355	19.355	24.496
14	13.259	13.260	15.378	15.378	15.378	20.086	20.086	25.421
15	13.725	13.725	15.918	15.918	15.918	20.791	20.791	26.313
16	14.175	14.175	16.440	16.440	16.440	21.472	21.472	27.176
17	14.611	14.611	16.946	16.946	16.946	22.133	22.133	28.012
18	15.035	15.035	17.437	17.437	17.437	22.775	22.775	28.825
19	15.447	15.447	17.915	17.915	17.915	23.399	23.399	29.614
20	15.848	15.848	18.380	18.380	18.380	24.007	24.007	30.384
21	16.239	16.240	18.834	18.834	18.834	24.600	24.600	31.134
22	16.621	16.622	19.277	19.277	19.277	25.179	25.179	31.867
23	16.995	16.995	19.711	19.711	19.711	25.745	25.745	32.583
24	17.360	17.361	20.135	20.135	20.135	26.298	26.298	33.284
25	17.718	17.719	20.550	20.550	20.550	26.841	26.841	33.970
26	18.069	18.070	20.957	20.957	20.957	27.372	27.372	34.643
27	18.414	18.414	21.356	21.356	21.356	27.894	27.894	35.303
28	18.751	18.752	21.748	21.748	21.748	28.405	28.405	35.951
29	19.083	19.084	22.133	22.133	22.133	28.908	28.908	36.587
30	19.410	19.410	22.511	22.511	22.511	29.402	29.402	37.212
31	19.730	19.731	22.883	22.883	22.883	29.888	29.888	37.827
32	20.046	20.047	23.249	23.249	23.249	30.367	30.367	38.433
33	20.357	20.358	23.610	23.610	23.610	30.837	30.837	39.029
34	20.663	20.664	23.965	23.965	23.965	31.301	31.301	39.616
35	20.965	20.965	24.315	24.315	24.315	31.758	31.758	40.194
36	21.262	21.263	24.660	24.660	24.660	32.209	32.209	40.764
37	21.555	21.556	25.000	25.000	25.000	32.653	32.653	41.326
38	21.845	21.845	25.336	25.336	25.336	33.091	33.091	41.881
39	22.130	22.131	25.667	25.667	25.667	33.524	33.524	42.429
40	22.412	22.413	25.994	25.994	25.994	33.951	33.951	42.969

Calculation acc.: ISO EN: 4126-1

Air capacity

Valve type 1216 PN-16&40

Air capacity chart (kg/h)

10% Overpressure Temperature 20° C

Set gauge pressure (barg)	Size threaded BSP/NPT							
	1/2"x3/4"	1/2"x 1"	3/4"x3/4"	3/4"x1"	3/4"x11/4"	1" x 1"	1"x11/4"	11/4"x11/4"
	Orifice (mm)							
	13	13	14	14	14	16	16	18
Area (mm ²)								
	133	133	154	154	154	201	201	254
0,5	88	88	102	102	102	133	133	169
1	119	119	138	138	138	180	180	228
1,5	150	150	174	174	174	227	227	287
2	181	181	210	210	210	274	274	347
2,5	212	212	246	246	246	321	321	406
3	243	243	282	282	282	368	368	465
3,5	274	274	317	317	317	415	415	525
4	305	305	353	353	353	461	461	584
4,5	336	336	389	389	389	508	508	643
5	367	367	425	425	425	555	555	703
5,5	397	397	461	461	461	602	602	762
6	428	428	497	497	497	649	649	821
6,5	459	459	533	533	533	696	696	881
7	490	490	569	569	569	743	743	940
7,5	521	521	605	605	605	790	790	999
8	552	552	640	640	640	837	837	1.059
8,5	583	583	676	676	676	883	883	1.118
9	614	614	712	712	712	930	930	1.177
9,5	645	645	748	748	748	977	977	1.237
10	676	676	784	784	784	1.024	1.024	1.296
11	738	738	856	856	856	1.118	1.118	1.415
12	800	800	928	928	928	1.212	1.212	1.534
13	862	862	999	999	999	1.305	1.305	1.652
14	924	924	1.071	1.071	1.071	1.399	1.399	1.771
15	986	986	1.143	1.143	1.143	1.493	1.493	1.890
16	1.047	1.048	1.215	1.215	1.215	1.587	1.587	2.008
17	1.109	1.109	1.287	1.287	1.287	1.681	1.681	2.127
18	1.171	1.171	1.358	1.358	1.358	1.774	1.774	2.246
19	1.233	1.233	1.430	1.430	1.430	1.868	1.868	2.364
20	1.295	1.295	1.502	1.502	1.502	1.962	1.962	2.483
21	1.357	1.357	1.574	1.574	1.574	2.056	2.056	2.602
22	1.419	1.419	1.646	1.646	1.646	2.149	2.149	2.720
23	1.481	1.481	1.717	1.717	1.717	2.243	2.243	2.839
24	1.543	1.543	1.789	1.789	1.789	2.337	2.337	2.958
25	1.605	1.605	1.861	1.861	1.861	2.431	2.431	3.076
26	1.667	1.667	1.933	1.933	1.933	2.525	2.525	3.195
27	1.728	1.728	2.005	2.005	2.005	2.618	2.618	3.314
28	1.790	1.790	2.076	2.076	2.076	2.712	2.712	3.432
29	1.852	1.852	2.148	2.148	2.148	2.806	2.806	3.551
30	1.914	1.914	2.220	2.220	2.220	2.900	2.900	3.670
31	1.976	1.976	2.292	2.292	2.292	2.993	2.993	3.789
32	2.038	2.038	2.364	2.364	2.364	3.087	3.087	3.907
33	2.100	2.100	2.435	2.435	2.435	3.181	3.181	4.026
34	2.162	2.162	2.507	2.507	2.507	3.275	3.275	4.145
35	2.224	2.224	2.579	2.579	2.579	3.368	3.368	4.263
36	2.286	2.286	2.651	2.651	2.651	3.462	3.462	4.382
37	2.347	2.348	2.723	2.723	2.723	3.556	3.556	4.501
38	2.409	2.409	2.794	2.794	2.794	3.650	3.650	4.619
39	2.471	2.471	2.866	2.866	2.866	3.744	3.744	4.738
40	2.533	2.533	2.938	2.938	2.938	3.837	3.837	4.857

Calculation acc.: ISO EN: 4126-1

Steam capacity

Valve type 1216 PN-16/40

Steam capacity chart (kg(h))

10% Overpressure

		Size threaded BSP/NPT							
		1/2"x3/4"	1/2"x 1"	3/4"x3/4"	3/4"x1"	3/4"x1 1/4"	1" x 1"	1"x1 1/4"	1 1/4"x1 1/4"
		Orifice (mm)							
Set gauge pressure (barg)	Saturated steam Temp. (°C)	13	13	14	14	14	16	16	18
		Area (mm ²)							
		133	133	154	154	154	201	201	254
0,5	111	59	59	68	68	68	89	89	113
1	120	80	80	92	92	92	120	120	152
1,5	127	100	100	116	116	116	152	152	192
2	134	121	121	140	140	140	183	183	232
2,5	138	142	142	164	164	164	214	214	271
3	144	162	162	188	188	188	246	246	311
3,5	147	183	183	212	212	212	277	277	351
4	153	204	204	236	236	236	309	309	391
4,5	155	224	224	260	260	260	340	340	430
5	159	245	245	284	284	284	371	371	470
5,5	161	266	266	308	308	308	403	403	510
6	165	286	286	332	332	332	434	434	549
6,5	167	307	307	356	356	356	465	465	589
7	170	328	328	380	380	380	497	497	629
7,5	172	349	349	404	404	404	528	528	668
8	175	369	369	428	428	428	559	559	708
8,5	177	390	390	452	452	452	591	591	748
9	180	411	411	476	476	476	622	622	787
9,5	181	431	431	500	500	500	653	653	827
10	184	452	452	524	524	524	685	685	867
11	187	493	493	572	572	572	747	747	946
12	192	535	535	620	620	620	810	810	1.025
13	194	576	576	668	668	668	873	873	1.105
14	198	618	618	716	716	716	936	936	1.184
15	201	659	659	764	764	764	998	998	1.263
16	204	700	700	812	812	812	1.061	1.061	1.343
17	207	742	742	860	860	860	1.124	1.124	1.422
18	209	783	783	908	908	908	1.186	1.186	1.501
19	212	825	825	956	956	956	1.249	1.249	1.581
20	215	866	866	1.004	1.004	1.004	1.312	1.312	1.660
21	217	907	907	1.052	1.052	1.052	1.374	1.374	1.740
22	220	949	949	1.100	1.100	1.100	1.437	1.437	1.819
23	222	990	990	1.148	1.148	1.148	1.500	1.500	1.898
24	224	1.032	1.032	1.196	1.196	1.196	1.563	1.563	1.978
25	226	1.073	1.073	1.244	1.244	1.244	1.625	1.625	2.057
26	228	1.114	1.114	1.292	1.292	1.292	1.688	1.688	2.136
27	230	1.156	1.156	1.340	1.340	1.340	1.751	1.751	2.216
28	232	1.197	1.197	1.388	1.388	1.388	1.813	1.813	2.295
29	234	1.238	1.239	1.436	1.436	1.436	1.876	1.876	2.374
30	236	1.280	1.280	1.484	1.484	1.484	1.939	1.939	2.454
31	238	1.321	1.321	1.532	1.532	1.532	2.001	2.001	2.533
32	240	1.363	1.363	1.580	1.580	1.580	2.064	2.064	2.612

Calculation acc.: ISO EN: 4126-1 and EN 1092-1

Useful conversions:

lbs/h = kg/h x 2,2046

TECHNICAL DATA SHEET

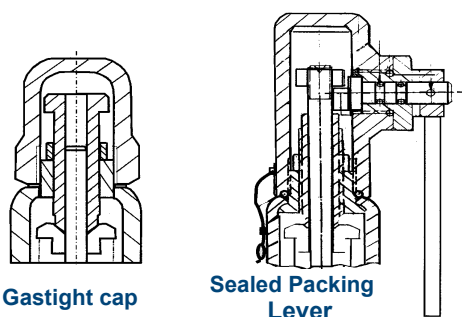
Model 1400-1400SS PN63/100

Description

Type	Safety and Relief Valve				
Flanged	EN 1092-1				
Flanged facing	EN 1092 type A				
Material	Carbon Steel and Stainless Steel				
Nominal Pressure	63 - 100				
Temperature min.	- 10° C				
Temperature max. (° C)	120	200	250	300	350
according/EN 1092 Pres.(bar) PN-63	63	50	45	40	36
according/EN 1092 Pres.(bar) PN-100	100	80	70	60	56

Seating surface

temperature (°C)		
Fluid	type	min max
Steam	Metal	-10 to 230
Liquid/Gas	Vitón (FPM)	-10 to 150
Liquid/Gas	Teflón (PTFE)	-10 to 230

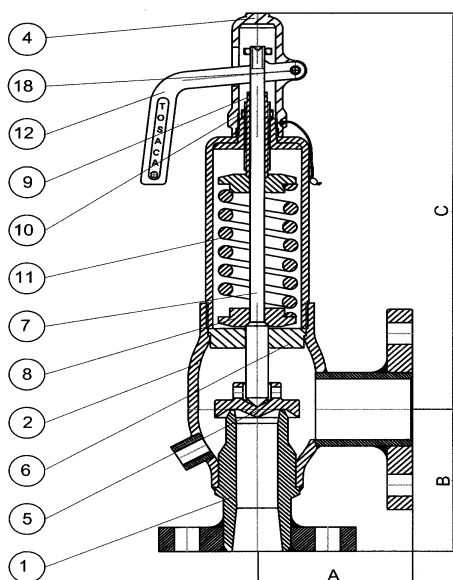


Gastight cap

Sealed Packing Lever

Construction and materials

Item	Description	Material	
		1400 PN 63/100	1400 SS PN63/100
1	Nozzle	AISI-316L + Stellite	AISI-316L + Stellite
2	Body	ASTM A106 Gr.b	AISI-316L
3	Open Bonnet	GGG40	AISI-316L
	Closed Bonnet	ASTM A106 Gr.b	
4	Open Cap	Brass	Brass
	Closed Cap	Carbon Steel	AISI-316L
5	Disc	AISI-316L	AISI-316L
	O-ring	AISI-316L+Viton / PTFE	Viton / PTFE
6	Guide	Carbon Steel zn.	AISI-316L
7	Push Road	AISI-420	AISI-316L
8	Spring Button	Carbon Steel zn.	AISI-303
9	Ajusting Screw	AISI-303	AISI-303
10	Tensor Nut	AISI-303	AISI-303
11	Spring	DIN 1.7233 41 Cr Mo	AISI-302
12	Lever	Brass	Brass zn.
14	Elastic Pin	Carbon Steel	AISI-316
17	Release Nut	Carbon Steel	AISI-316
18	Elastic Pin	Carbon Steel	AISI-304
20	Gasket	PTFE	PTFE
21	Gasket	PTFE	PTFE
25	Flanged	AC / F 111	AISI-316L
26	Flanged PN-16	AC / F 111	AISI-316L



Lifting Device

Dimensions

Inlet	Outlet	Orifice		A	B	C		Weight (kg)	
		PN-63 (mm)	PN-100 (mm)			With Lever	Without Lever	With Lever	Without Lever
15	25	13	13	75	95	255	220	7	6,8
20	32	13	13	100	95	255	220	7,5	7,3
25	50	20	16	100	114	255	220	8	7,8
32	50	23,8	20	110	115	305	270	11,5	11,3
40	65	26	23,8	115	140	305	270	12,5	12,3
50	80	32	32	120	150	305	270	14	13,8
65	100	48	39	140	170	377	329	27	25



Water capacity

Valve type 1400 PN-63&100

Water capacity chart (kg/h)

10% Overpressure

Set gauge pressure (barg)	PN-63						PN-100					
	Flanges EN-1092-1						Flanges EN-1092-1					
	15 x 25		32 x 50				15 x 25		32 x 50			
	20 x 32	25 x 50	40 x 65	50 x 80	65 x 100	20 x 32	25 x 50	40 x 65	50 x 80	65 x 100		
	Orifice (mm)						Orifice (mm)					
	13	20	23,8	26	32	48	13	16	20	23,8	32	39
	Area (mm ²)						Area (mm ²)					
	133	314	445	531	804	1.810	133	201	314	445	804	1.195
33	21.986	52.038	73.691	87.945	133.218	299.740	21.986	33.304	52.038	73.691	133.218	197.875
34	22.317	52.821	74.800	89.267	135.221	304.248	22.317	33.805	52.821	74.800	135.221	200.851
35	22.643	53.592	75.892	90.570	137.195	308.690	22.643	34.299	53.592	75.892	137.195	203.783
36	22.964	54.352	76.968	91.855	139.142	313.068	22.964	34.785	54.352	76.968	139.142	206.674
37	23.281	55.102	78.030	93.122	141.061	317.387	23.281	35.265	55.102	78.030	141.061	209.525
38	23.593	55.842	79.077	94.372	142.954	321.647	23.593	35.739	55.842	79.077	142.954	212.337
39	23.901	56.572	80.111	95.606	144.823	325.852	23.901	36.206	56.572	80.111	144.823	215.113
40	24.206	57.292	81.131	96.824	146.668	330.003	24.206	36.667	57.292	81.131	146.668	217.854
42	24.804	58.707	83.135	99.215	150.290	338.153	24.804	37.573	58.707	83.135	150.290	223.233
44	25.387	60.089	85.091	101.550	153.827	346.110	25.387	38.457	60.089	85.091	153.827	228.487
46	25.958	61.439	87.004	103.832	157.284	353.889	25.958	39.321	61.439	87.004	157.284	233.622
48	26.516	62.760	88.875	106.065	160.667	361.500	26.516	40.167	62.760	88.875	160.667	238.647
50	27.063	64.055	90.708	108.252	163.980	368.955	27.063	40.995	64.055	90.708	163.980	243.568
52	27.599	65.323	92.504	110.396	167.227	376.261	27.599	41.807	65.323	92.504	167.227	248.391
54	28.125	66.568	94.266	112.499	170.413	383.429	28.125	42.603	66.568	94.266	170.413	253.123
56	28.641	67.789	95.996	114.563	173.540	390.465	28.641	43.385	67.789	95.996	173.540	257.768
58	29.148	68.989	97.695	116.591	176.612	397.376	29.148	44.153	68.989	97.695	176.612	262.330
60	29.646	70.168	99.365	118.584	179.631	404.170	29.646	44.908	70.168	99.365	179.631	266.815
62	30.136	71.328	101.008	120.545	182.600	410.850	30.136	45.650	71.328	101.008	182.600	271.226
64							30.618	46.381	72.470	102.624	185.522	275.565
66							31.093	47.100	73.593	104.215	188.398	279.838
68							31.561	47.808	74.700	105.783	191.232	284.046
70							32.021	48.506	75.790	107.327	194.024	288.193
72							32.476	49.194	76.866	108.849	196.776	292.281
74							32.924	49.873	77.926	110.351	199.490	296.313
76							33.366	50.542	78.972	111.832	202.168	300.290
78							33.802	51.203	80.004	113.294	204.811	304.216
80							34.232	51.855	81.023	114.737	207.420	308.091
82							34.658	52.499	82.030	116.163	209.997	311.919
84							35.078	53.136	83.024	117.571	212.542	315.700
86							35.493	53.764	84.007	118.962	215.058	319.436
88							35.903	54.386	84.978	120.337	217.544	323.129
90							36.309	55.001	85.938	121.697	220.002	326.780
92							36.710	55.608	86.888	123.042	222.433	330.391
94							37.107	56.209	87.827	124.372	224.838	333.963
96							37.500	56.804	88.757	125.688	227.217	337.497
98							37.888	57.393	89.676	126.991	229.572	340.995
100							38.273	57.976	90.587	128.280	231.903	344.457

Calculation acc.: ISO EN: 4126-1

Air capacity

Valve type 1400 PN-63&100

Air capacity chart (kg/h)

10% Overpressure Temperature 20° C

Set gauge pressure (barg)	PN-63						PN-100					
	Flanges EN-1092-1						Flanges EN-1092-1					
	15 x 25	25 x 50	32 x 50	40 x 65	50 x 80	65 x100	15 x 25	25 x 50	32 x 50	40 x 65	50 x 80	65 x100
	Orifice (mm)						Orifice (mm)					
13	20	23,8	26	32	48	13	16	20	23,8	32	39	
Area (mm ²)						Area (mm ²)						
133	314	445	531	804	1.810	133	201	314	445	804	1.195	
33	2.688	6.362	9.009	10.752	16.286	36.644	2.688	4.072	6.362	9.009	16.286	24.191
34	2.767	6.549	9.275	11.069	16.767	37.725	2.767	4.192	6.549	9.275	16.767	24.904
35	2.846	6.737	9.540	11.385	17.247	38.805	2.846	4.312	6.737	9.540	17.247	25.617
36	2.926	6.925	9.806	11.702	17.727	39.885	2.926	4.432	6.925	9.806	17.727	26.331
37	3.005	7.112	10.071	12.019	18.207	40.966	3.005	4.552	7.112	10.071	18.207	27.044
38	3.084	7.300	10.337	12.336	18.687	42.046	3.084	4.672	7.300	10.337	18.687	27.757
39	3.163	7.487	10.603	12.653	19.167	43.126	3.163	4.792	7.487	10.603	19.167	28.470
40	3.243	7.675	10.868	12.970	19.647	44.206	3.243	4.912	7.675	10.868	19.647	29.183
42	3.401	8.050	11.399	13.604	20.608	46.367	3.401	5.152	8.050	11.399	20.608	30.609
44	3.560	8.425	11.931	14.238	21.568	48.528	3.560	5.392	8.425	11.931	21.568	32.036
46	3.718	8.800	12.462	14.872	22.528	50.688	3.718	5.632	8.800	12.462	22.528	33.462
48	3.876	9.175	12.993	15.506	23.488	52.849	3.876	5.872	9.175	12.993	23.488	34.888
50	4.035	9.550	13.524	16.140	24.449	55.009	4.035	6.112	9.550	13.524	24.449	36.315
52	4.193	9.925	14.055	16.774	25.409	57.170	4.193	6.352	9.925	14.055	25.409	37.741
54	4.352	10.300	14.586	17.408	26.369	59.331	4.352	6.592	10.300	14.586	26.369	39.167
56	4.510	10.676	15.118	18.042	27.329	61.491	4.510	6.832	10.676	15.118	27.329	40.594
58	4.669	11.051	15.649	18.676	28.290	63.652	4.669	7.072	11.051	15.649	28.290	42.020
60	4.827	11.426	16.180	19.310	29.250	65.812	4.827	7.312	11.426	16.180	29.250	43.446
62	4.986	11.801	16.711	19.943	30.210	67.973	4.986	7.553	11.801	16.711	30.210	44.873
64							5.144	7.793	12.176	17.242	31.170	46.299
66							5.303	8.033	12.551	17.774	32.131	47.725
68							5.461	8.273	12.926	18.305	33.091	49.152
70							5.620	8.513	13.301	18.836	34.051	50.578
72							5.778	8.753	13.676	19.367	35.011	52.004
74							5.937	8.993	14.051	19.898	35.972	53.431
76							6.095	9.233	14.427	20.429	36.932	54.857
78							6.254	9.473	14.802	20.961	37.892	56.283
80							6.412	9.713	15.177	21.492	38.852	57.710
82							6.571	9.953	15.552	22.023	39.813	59.136
84							6.729	10.193	15.927	22.554	40.773	60.562
86							6.888	10.433	16.302	23.085	41.733	61.989
88							7.046	10.673	16.677	23.617	42.694	63.415
90							7.205	10.913	17.052	24.148	43.654	64.841
92							7.363	11.154	17.427	24.679	44.614	66.268
94							7.522	11.394	17.802	25.210	45.574	67.694
96							7.680	11.634	18.178	25.741	46.535	69.120
98							7.838	11.874	18.553	26.272	47.495	70.546
100							7.997	12.114	18.928	26.804	48.455	71.973

Calculation acc.: ISO EN: 4126-1

Steam capacity

Valve type 1400 PN-63&100

Steam capacity chart (kg(h))

10% Overpressure

		PN-63						PN-100							
		Flanges EN-1092-1						Flanges EN-1092-1							
		15 x 25		20 x 32		25 x 50		32 x 50		40 x 65		50 x 80		65 x100	
Set gauge pressure (barg)	Saturated steam Temp. (°C)	Orifice (mm)						Orifice (mm)							
		13	20	23,8	26	32	48	13	16	20	23,8	32	39		
		Area (mm ²)						Area (mm ²)							
		133	314	445	531	804	1.810	133	201	314	445	804	1.195		
33	241	1.664	3.939	5.578	6.656	10.083	22.687	1.664	2.521	3.939	5.578	10.083	14.977		
34	242	1.713	4.055	5.742	6.853	10.380	23.356	1.713	2.595	4.055	5.742	10.380	15.418		
35	243	1.762	4.171	5.906	7.049	10.677	24.024	1.762	2.669	4.171	5.906	10.677	15.860		
36	244	1.811	4.287	6.071	7.245	10.975	24.693	1.811	2.744	4.287	6.071	10.975	16.301		
37	245	1.860	4.403	6.235	7.441	11.272	25.362	1.860	2.818	4.403	6.235	11.272	16.743		
38	247	1.909	4.519	6.400	7.637	11.569	26.031	1.909	2.892	4.519	6.400	11.569	17.184		
39	248	1.958	4.635	6.564	7.834	11.866	26.700	1.958	2.967	4.635	6.564	11.866	17.626		
40	250	2.007	4.751	6.729	8.030	12.164	27.368	2.007	3.041	4.751	6.729	12.164	18.067		
42	254	2.106	4.984	7.057	8.422	12.758	28.706	2.106	3.190	4.984	7.057	12.758	18.950		
44	257	2.204	5.216	7.386	8.815	13.353	30.044	2.204	3.338	5.216	7.386	13.353	19.833		
46	259	2.302	5.448	7.715	9.207	13.947	31.381	2.302	3.487	5.448	7.715	13.947	20.717		
48	261							2.400	3.635	5.680	8.044	14.542	21.600		
50	264							2.498	3.784	5.913	8.373	15.136	22.483		
52	265							2.596	3.933	6.145	8.702	15.731	23.366		
54	266							2.694	4.081	6.377	9.031	16.325	24.249		
56	269							2.792	4.230	6.609	9.359	16.920			
58	273							2.891	4.379	6.841	9.688	17.514			
60	275							2.989	4.527	7.074	10.017	18.109			
62	278							3.087	4.676	7.306	10.346				
64	280							3.185	4.824	7.538	10.675				
66	281							3.283	4.973	7.770					
68	283							3.381	5.122	8.003					
70	286							3.479	5.270	8.235					

Calculation acc.: ISO EN: 4126-1 and EN 1092-1

Useful conversions:

lbs/h = kg/h x 2,2046

TECHNICAL DATA SHEET

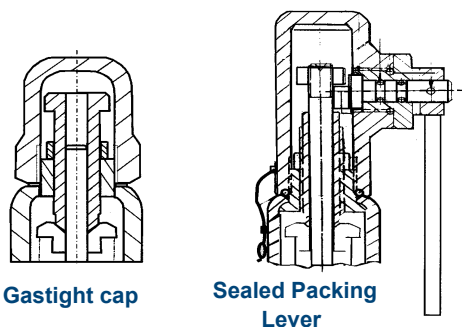
Model 1400D - 1400D SS

Description

Type	Safety and Relief Valve				
Flanged	EN 1092-1				
Flanged facing	EN 1092 type A				
Material	Carbon Steel and Stainless Steel				
Nominal Pressure	16 - 25 - 40				
Temperature min.	- 10° C				
Temperature max. (° C)	120	200	250	300	350
according/EN 1092 Pres.(bar) PN-16	16	13	11	10	-
according/EN 1092 Pres.(bar) PN-25	25	22	20	17	16
according/EN 1092 Pres.(bar) PN-40	40	35	32	28	24

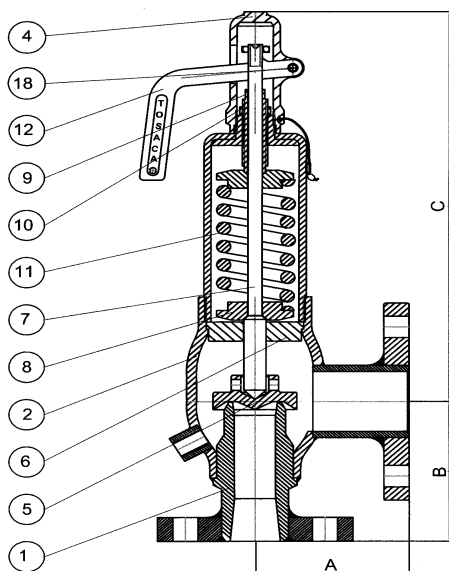
Seating Surface

temperature (°C)		
Fluid	type	min max
Steam	Metal	-10 to 230
Liquid/Gas	Vitón (FPM)	-10 to 150
Liquid/Gas	Teflón (PTFE)	-10 to 230



Construction and materials

Item	Description	Material	
		1400 D PN-16/25/40	1400D SS S. Steel
1	Nozzle	C.Steel+AISI-308L	AISI-316L
2	Body	ASTM A106 Gr.b	AISI-316L
3	Open Bonnet	GGG40	AISI-316L
	Closed Bonnet	ASTM A106 Gr.b	
4	Open Cap	Brass	Brass zn.
	Closed Cap	Brass / Carbon Steel	AISI-316L
5	Disc	AISI-420	AISI-303
	O-ring	AISI 316L+Vitón / PTFE	Vitón / PTFE
6	Guide	Carbon Steel zn.	AISI-316L
7	Push Road	AISI-420	AISI-316L
8	Spring Button	Carbon Steel zn.	AISI-303
9	Ajusting Screw	Brass	AISI-303
10	Tensor Nut	Brass	AISI-303
11	Spring	DIN 1.7221 51 CrV 4	AISI-302
12	Lever	Brass	Brass zn.
14	Elastic Pin	Carbon Steel	AISI-304
17	Release Nut	Carbon Steel	AISI-316
18	Elastic Pin	Carbon Steel	AISI-304
20	Gasket	PTFE	PTFE
21	Gasket	PTFE	PTFE
25	Flanged	AC F 111	AISI-316L
26	Flanged PN-16	AC F 111	AISI-316L



Lifting Device

Dimensions

Inlet	Outlet	Orif (mm)	Area (mm²)	A	B	C		Peso (kg)	
						With Lever	Without Lever	With Lever	Without Lever
15	25	16	201	85	95	253	214	7	6,8
20	32	18	254	85	95	253	214	7,5	7,3
25	40	23,8	445	100	105	275	232	8	7,8
32	50	29,5	683	110	115	308	266	11,5	11,3
40	65	36	1018	115	140	310	268	12,5	12,3
50	80	46	1662	120	150	343	300	14	13,8
65	100	59,5	2781	140	170	384	331	27	25



Water capacity

Valve type 1400 PN-16/25/40

Water capacity chart (kg/h)

10% Overpressure

Set gauge pressure (barg)	Flanges EN-1092-1											
	15 x 25	20 x 32	25 x 40	32 x 50	40 x 65	50 x 80	65x100	80x125	100x150	125x200	150x200	200x250
	Orifice (mm)											
	16	18	23,8	29,5	36	46	59,5	72	90	105	125	153
	Area (mm ²)											
	201	254	445	683	1.018	1.662	2.781	4.072	6.362	8.659	12.272	18.385
0,5	4.099	5.188	9.071	13.936	20.754	33.885	56.692	83.015	129.711	176.551	250.213	374.864
1	5.798	7.338	12.828	19.708	29.350	47.920	80.175	117.401	183.439	249.680	353.855	530.137
1,5	7.101	8.987	15.711	24.138	35.946	58.690	98.194	143.786	224.665	305.795	433.382	649.283
2	8.199	10.377	18.142	27.872	41.507	67.770	113.385	166.030	259.421	353.101	500.427	749.727
2,5	9.167	11.602	20.283	31.162	46.407	75.769	126.768	185.627	290.042	394.779	559.494	838.221
3	10.042	12.709	22.219	34.136	50.836	83.001	138.867	203.344	317.725	432.459	612.895	918.225
3,5	10.846	13.727	23.999	36.871	54.909	89.651	149.994	219.636	343.182	467.109	662.002	991.796
4	11.595	14.675	25.656	39.417	58.700	95.841	160.350	234.801	366.877	499.360	707.710	1.060.275
4,5	12.298	15.565	27.212	41.808	62.261	101.655	170.077	249.044	389.132	529.652	750.640	1.124.591
5	12.964	16.407	28.684	44.069	65.629	107.153	179.277	262.516	410.181	558.302	791.244	1.185.423
5,5	13.596	17.208	30.084	46.220	68.832	112.383	188.027	275.329	430.201	585.552	829.864	1.243.282
6	14.201	17.973	31.422	48.275	71.893	117.381	196.388	287.572	449.331	611.589	866.765	1.298.566
6,5	14.781	18.707	32.705	50.247	74.829	122.174	204.407	299.314	467.678	636.562	902.157	
7	15.339	19.413	33.940	52.143	77.653	126.786	212.123	310.613	485.333	660.592	936.213	
7,5	15.877	20.095	35.131	53.973	80.379	131.236	219.569	321.515	502.367	683.777	969.072	
8	16.398	20.754	36.283	55.744	83.015	135.540	226.769	332.059	518.842	706.202	1.000.854	
8,5	16.903	21.392	37.400	57.459	85.570	139.711	233.749	342.279	534.811	727.937	1.031.656	
9	17.393	22.013	38.484	59.125	88.050	143.761	240.525	352.202	550.316	749.041	1.061.565	
9,5	17.869	22.616	39.539	60.745	90.463	147.701	247.116	361.853	565.395	769.566	1.090.655	
10	18.334	23.203	40.566	62.323	92.813	151.538	253.536	371.253	580.083	789.558	1.118.988	
11	19.228	24.336	42.546	65.365	97.343	158.934	265.911	389.374	608.397	828.096		
12	20.083	25.418	44.438	68.272	101.672	166.001	277.735	406.688	635.450	864.918		
13	20.903	26.456	46.252	71.059	105.824	172.780	289.075	423.294	661.397	900.235		
14	21.692	27.455	47.998	73.742	109.818	179.302	299.988	439.273	686.364	934.218		
15	22.454	28.418	49.683	76.330	113.673	185.595	310.517	454.691	710.454	967.007		
16	23.190	29.350	51.312	78.833	117.401	191.682	320.700	469.603	733.754	998.721		
17	23.904	30.253	52.891	81.259	121.014	197.581	330.570	484.055	756.336			
18	24.597	31.131	54.425	83.615	124.522	203.309	340.154	498.089	778.264			
19	25.271	31.984	55.916	85.907	127.934	208.881	349.475	511.738	799.590			
20	25.927	32.814	57.369	88.138	131.258	214.307	358.554	525.032	820.362			
21	26.568	33.625	58.785	90.315	134.499	219.599	367.408	537.997	840.621			
22	27.193	34.416	60.169	92.440	137.664	224.767	376.054	550.658	860.403			
23	27.804	35.190	61.521	94.518	140.758	229.819	384.506	563.034	879.740			
24	28.402	35.946	62.844	96.551	143.786	234.761	392.776	575.143	898.661			
25	28.988	36.688	64.140	98.542	146.751	239.602	400.875	587.003				
26	29.562	37.414	65.410	100.493	149.657	244.347	408.814	598.628				
27	30.125	38.127	66.656	102.407	152.508	249.002	416.602	610.032				
28	30.678	38.827	67.879	104.287	155.306	253.571	424.247	621.226				
29	31.221	39.514	69.081	106.133	158.055	258.060	431.756	632.222				
30	31.755	40.189	70.262	107.947	160.757	262.471	439.137	643.030				
31	32.279	40.854	71.423	109.731	163.415	266.810	446.396	653.659				
32	32.796	41.507	72.566	111.487	166.030	271.079	453.539	664.118				
33	33.304	42.151	73.691	113.216	168.604	275.282	460.571					
34	33.805	42.785	74.800	114.918	171.139	279.422	467.497					
35	34.299	43.409	75.892	116.596	173.638	283.501	474.322					
36	34.785	44.025	76.968	118.250	176.101	287.523	481.051					
38	35.739	45.232	79.077	121.490	180.927	295.402	494.232					
40	36.667	46.407	81.131	124.646	185.627	303.076	507.072					

Calculation acc.: ISO EN: 4126-1

Air capacity

Valve type 1400 PN-16/25/40

Air capacity chart (kg/h)

10% Overpressure Temperature 20° C

Set gauge pressure (barg)	Flanges EN-1092-1											
	15 x 25	20 x 32	25 x 40	32 x 50	40 x 65	50 x 80	65x100	80x125	100x150	125x200	150x200	200x250
	Orifice (mm)											
	16	18	23,8	29,5	36	46	59,5	72	90	105	125	153
	Area (mm ²)											
	201	254	445	683	1.018	1.662	2.781	4.072	6.362	8.659	12.272	18.385
0,5	171	216	377	580	863	1.410	2.359	3.454	5.396	7.345	10.410	15.596
1	231	292	510	784	1.167	1.906	3.189	4.669	7.295	9.930	14.073	21.084
1,5	291	368	643	988	1.471	2.402	4.019	5.884	9.194	12.515	17.736	26.572
2	351	444	776	1.192	1.775	2.898	4.849	7.100	11.093	15.099	21.399	32.060
2,5	411	520	909	1.396	2.079	3.394	5.678	8.315	12.992	17.684	25.062	37.548
3	471	596	1.041	1.600	2.383	3.890	6.508	9.530	14.891	20.269	28.725	43.036
3,5	531	672	1.174	1.804	2.686	4.386	7.338	10.746	16.790	22.853	32.388	48.524
4	591	748	1.307	2.008	2.990	4.882	8.168	11.961	18.689	25.438	36.052	54.011
4,5	651	824	1.440	2.212	3.294	5.378	8.998	13.176	20.588	28.023	39.715	59.499
5	711	899	1.573	2.416	3.598	5.874	9.828	14.392	22.487	30.607	43.378	64.987
5,5	771	975	1.705	2.620	3.902	6.370	10.658	15.607	24.386	33.192	47.041	70.475
6	831	1.051	1.838	2.824	4.206	6.867	11.488	16.822	26.285	35.777	50.704	75.963
6,5	891	1.127	1.971	3.028	4.509	7.363	12.318	18.038	28.184	38.361	54.367	
7	951	1.203	2.104	3.232	4.813	7.859	13.148	19.253	30.083	40.946	58.030	
7,5	1.011	1.279	2.237	3.436	5.117	8.355	13.978	20.468	31.982	43.531	61.693	
8	1.071	1.355	2.369	3.640	5.421	8.851	14.808	21.684	33.881	46.115	65.356	
8,5	1.131	1.431	2.502	3.844	5.725	9.347	15.638	22.899	35.780	48.700	69.019	
9	1.191	1.507	2.635	4.048	6.029	9.843	16.468	24.114	37.679	51.285	72.682	
9,5	1.251	1.583	2.768	4.252	6.332	10.339	17.298	25.330	39.578	53.869	76.346	
10	1.311	1.659	2.900	4.456	6.636	10.835	18.128	26.545	41.476	56.454	80.009	
11	1.431	1.811	3.166	4.864	7.244	11.827	19.788	28.976	45.274	61.623		
12	1.551	1.963	3.432	5.272	7.852	12.819	21.448	31.406	49.072	66.793		
13	1.671	2.115	3.697	5.680	8.459	13.812	23.108	33.837	52.870	71.962		
14	1.791	2.267	3.963	6.088	9.067	14.804	24.768	36.268	56.668	77.132		
15	1.911	2.419	4.228	6.496	9.675	15.796	26.428	38.698	60.466	82.301		
16	2.031	2.571	4.494	6.904	10.282	16.788	28.088	41.129	64.264	87.470		
17	2.151	2.722	4.760	7.312	10.890	17.780	29.748	43.560	68.062			
18	2.271	2.874	5.025	7.720	11.498	18.772	31.408	45.990	71.860			
19	2.391	3.026	5.291	8.129	12.105	19.764	33.067	48.421	75.658			
20	2.511	3.178	5.556	8.537	12.713	20.757	34.727	50.851	79.455			
21	2.631	3.330	5.822	8.945	13.321	21.749	36.387	53.282	83.253			
22	2.751	3.482	6.088	9.353	13.928	22.741	38.047	55.713	87.051			
23	2.871	3.634	6.353	9.761	14.536	23.733	39.707	58.143	90.849			
24	2.991	3.786	6.619	10.169	15.144	24.725	41.367	60.574	94.647			
25	3.111	3.938	6.884	10.577	15.751	25.717	43.027	63.005				
26	3.231	4.090	7.150	10.985	16.359	26.709	44.687	65.435				
27	3.351	4.242	7.416	11.393	16.967	27.701	46.347	67.866				
28	3.471	4.394	7.681	11.801	17.574	28.694	48.007	70.297				
29	3.591	4.545	7.947	12.209	18.182	29.686	49.667	72.727				
30	3.712	4.697	8.212	12.617	18.790	30.678	51.327	75.158				
31	3.832	4.849	8.478	13.025	19.397	31.670	52.987	77.589				
32	3.952	5.001	8.743	13.433	20.005	32.662	54.647	664.118				
33	4.072	5.153	9.009	13.841	20.612	33.654	56.307					
34	4.192	5.305	9.275	14.249	21.220	34.646	57.967					
35	4.312	5.457	9.540	14.657	21.828	35.639	59.626					
36	4.432	5.609	9.806	15.065	22.435	36.631	61.286					
38	4.672	5.913	10.337	15.881	23.651	38.615	64.606					
40	4.912	6.217	10.868	16.697	24.866	40.599	67.926					

Calculation acc.: ISO EN: 4126-1

Steam capacity

Valve type 1400 PN-16/25/40

Steam capacity chart (kg(h)) 10% Overpressure

		Flanges EN-1092-1											
Set gauge pressure (barg)	Saturated steam Temp. (°C)	15 x 25	20 x 32	25 x 40	32 x 50	40 x 65	50 x 80	65x100	80x125	100x150	125x200	150x200	200x250
		Orifice (mm)											
		16	18	23,8	29,5	36	46	59,5	72	90	105	125	153
		Area (mm ²)											
		201	254	445	683	1.018	1.662	2.781	4.072	6.362	8.659	12.272	18.385
0,5	111	106	134	234	359	535	873	1.460	2.138	3.341	4.547	6.445	9.655
1	120	143	181	316	485	723	1.180	1.974	2.891	4.517	6.148	8.713	13.053
1,5	127	180	228	398	612	911	1.487	2.488	3.643	5.692	7.748	10.980	16.451
2	134	217	275	480	738	1.099	1.794	3.002	4.395	6.868	9.348	13.248	19.848
2,5	138	254	322	562	864	1.287	2.101	3.516	5.148	8.044	10.948	15.516	23.246
3	144	291	369	645	990	1.475	2.408	4.029	5.900	9.219	12.548	17.784	26.643
3,5	147	329	416	727	1.117	1.663	2.715	4.543	6.653	10.395	14.149	20.052	30.041
4	153	366	463	809	1.243	1.851	3.023	5.057	7.405	11.570	15.749	22.320	33.439
4,5	155	403	510	891	1.369	2.039	3.330	5.571	8.158	12.746	17.349	24.587	36.836
5	159	440	557	974	1.496	2.227	3.637	6.085	8.910	13.922	18.949	26.855	40.234
5,5	161	477	604	1.056	1.622	2.416	3.944	6.599	9.662	15.097	20.549	29.123	43.632
6	165	514	651	1.138	1.748	2.604	4.251	7.112	10.415	16.273	22.149	31.391	47.029
6,5	167	551	698	1.220	1.875	2.792	4.558	7.626	11.167	17.449	23.750	33.659	
7	170	589	745	1.302	2.001	2.980	4.865	8.140	11.920	18.624	25.350	35.927	
7,5	172	626	792	1.385	2.127	3.168	5.172	8.654	12.672	19.800	26.950	38.194	
8	175	663	839	1.467	2.254	3.356	5.480	9.168	13.424	20.976	28.550	40.462	
8,5	177	700	886	1.549	2.380	3.544	5.787	9.682	14.177	22.151	30.150	42.730	
9	180	737	933	1.631	2.506	3.732	6.094	10.195	14.929	23.327	31.751	44.998	
9,5	181	774	980	1.713	2.633	3.920	6.401	10.709	15.682	24.503	33.351	47.266	
10	184	812	1.027	1.796	2.759	4.109	6.708	11.223	16.434	25.678	34.951	49.534	
11	187	886	1.121	1.960	3.011	4.485	7.322	12.251	17.939	28.030	38.151		
12	192	960	1.215	2.125	3.264	4.861	7.937	13.278	19.444	30.381	41.352		
13	194	1.034	1.309	2.289	3.517	5.237	8.551	14.306	20.949	32.732	44.552		
14	198	1.109	1.403	2.453	3.769	5.613	9.165	15.334	22.453	35.083	47.752		
15	201	1.183	1.497	2.618	4.022	5.990	9.779	16.362	23.958	37.435	50.953		
16	204	1.257	1.591	2.782	4.275	6.366	10.393	17.389	25.463	39.786	54.153		
17	207	1.332	1.685	2.947	4.527	6.742	11.008	18.417	26.968	42.137			
18	209	1.406	1.780	3.111	4.780	7.118	11.622	19.445	28.473	44.489			
19	212	1.480	1.874	3.276	5.032	7.494	12.236	20.472	29.978	46.840			
20	215	1.555	1.968	3.440	5.285	7.871	12.850	21.500	31.482	49.191			
21	217	1.629	2.062	3.604	5.538	8.247	13.465	22.528	32.987	51.542			
22	220	1.703	2.156	3.769	5.790	8.623	14.079	23.555	34.492	53.894			
23	222	1.778	2.250	3.933	6.043	8.999	14.693	24.583	35.997	56.245			
24	224	1.852	2.344	4.098	6.295	9.375	15.307	25.611	37.502	58.596			
25	226	1.926	2.438	4.262	6.548	9.752	15.922	26.638	39.006				
26	228	2.001	2.532	4.427	6.801	10.128	16.536	27.666	40.511				
27	230	2.075	2.626	4.591	7.053	10.504	17.150	28.694	42.016				
28	232	2.149	2.720	4.755	7.306	10.880	17.764	29.721	43.521				
29	234	2.223	2.814	4.920	7.559	11.256	18.379	30.749	45.026				
30	236	2.298	2.908	5.084	7.811	11.633	18.993	31.777	46.531				
31	238	2.372	3.002	5.249	8.064	12.009	19.607	32.804	48.035				
32	240	2.446	3.096	5.413	8.316	12.385	20.221	33.832	49.540				

Calculation acc.: ISO EN: 4126-1 and EN 1092-1

Useful conversions:

lbs/h = kg/h x 2,2046

TECHNICAL DATA SHEET

Model 1400F - 1400F SS

Description

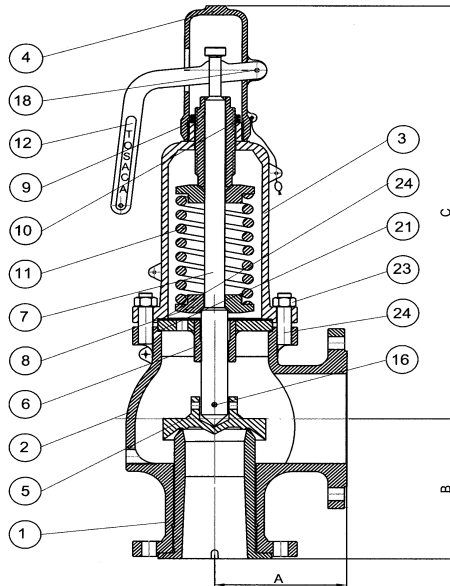
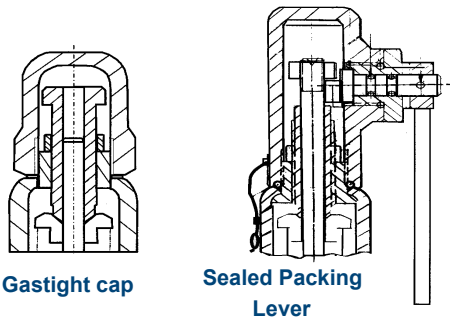
Type	Safety and Relief Valve				
Flanged	EN 1092-1				
Flanged facing	EN 1092 type B				
Material	Fund.Nodular,C.Steel and S.Steel				
Nominal Pressure	16 - 25 - 40				
Temperature min.	- 10° C				
Temperature max.(° C)	120	200	250	300	350
according/EN 1092 Pres.(bar) PN-16	16	13	11	10	-
according/EN 1092 Pres.(bar) PN-25	25	22	20	17	16
according/EN 1092 Pres.(bar) PN-40	40	35	32	28	24

Seating surface

Fluid	tipo	temperature (°C)	
		min	max
Steam	Metal	-10	230
Liquid/Gas	Vitón (FPM)	-10	150
Liquid/Gas	Teflón (PTFE)	-10	230

Construction and materials

Item	Description	Material		
		1400 F PN-16/25	1400 F PN-40	1400 F SS PN-40
1	Nozzle	C.Steel+AISI-308L	C.Steel+AISI-308L	AISI-316L
2	Body	GGG40	1.0619	1.4408
3	Bonnet	GGG40	1.0619	1.4408
4	Open Cap	Brass	Brass	Brass zn.
	Closed Cap	GGG40	Carbon Steel	1.4408
5	Disc	C.Steel+AISI-308L	C.Steel+AISI-308L	AISI-316L
6	Guide	C.Steel + AISI-304	C.Steel + AISI-304	AISI-316L
7	Push Road	AISI-420	AISI-420	AISI-316L
8	Spring Button	Carbon Steel zn.	Carbon Steel zn.	AISI-304
9	Ajusting Screw	AISI-420	AISI-420	AISI-431
10	Tensor Nut	Carbon Steel zn.	Carbon Steel zn.	AISI-304
11	Spring	DIN 1.7223 50 CrMo 4	DIN 1.7223 50 CrMo 4	AISI-302
12	Lever	Brass	Brass	Brass zn.
14	Elastic Pin	Carbon Steel	Carbon Steel	AISI-304
17	Release Nut	AISI-420	AISI-420	AISI-316L
18	Elastic Pin	Carbon Steel	Carbon Steel	AISI-304
20	Gasket	PTFE	PTFE	PTFE
21	Gasket	PTFE	PTFE	PTFE
23	Screw	Carbon Steel	Carbon Steel	AISI-316
24	Screw-nut	Carbon Steel	Carbon Steel	AISI-316
25	Flanged	GGG40	10.619	AISI-316L
26	Flanged PN-16	GGG40	10.619	AISI-316L



Lifting Device

Dimensions

Inlet	Outlet	Orif (mm)	Area (mm ²)	A	B	C		Weight (kg)	
						With Lever	Without Lever	With Lever	Without Lever
80	125	72	4072	160	195	595	545	58	55
100	150	90	6362	210	197	663	585	84	80
125	200	105	8659	242	240	760	680	140	136
150	200	125	12272	242	240	760	680	150	146
200	250	153	18385	280	276	795	715	180	175



Water capacity

Valve type 1400 PN-16/25/40

Water capacity chart (kg/h)

10% Overpressure

Set gauge pressure (barg)	Flanges EN-1092-1											
	15 x 25	20 x 32	25 x 40	32 x 50	40 x 65	50 x 80	65x100	80x125	100x150	125x200	150x200	200x250
	Orifice (mm)											
	16	18	23,8	29,5	36	46	59,5	72	90	105	125	153
	Area (mm ²)											
	201	254	445	683	1.018	1.662	2.781	4.072	6.362	8.659	12.272	18.385
0,5	4.099	5.188	9.071	13.936	20.754	33.885	56.692	83.015	129.711	176.551	250.213	374.864
1	5.798	7.338	12.828	19.708	29.350	47.920	80.175	117.401	183.439	249.680	353.855	530.137
1,5	7.101	8.987	15.711	24.138	35.946	58.690	98.194	143.786	224.665	305.795	433.382	649.283
2	8.199	10.377	18.142	27.872	41.507	67.770	113.385	166.030	259.421	353.101	500.427	749.727
2,5	9.167	11.602	20.283	31.162	46.407	75.769	126.768	185.627	290.042	394.779	559.494	838.221
3	10.042	12.709	22.219	34.136	50.836	83.001	138.867	203.344	317.725	432.459	612.895	918.225
3,5	10.846	13.727	23.999	36.871	54.909	89.651	149.994	219.636	343.182	467.109	662.002	991.796
4	11.595	14.675	25.656	39.417	58.700	95.841	160.350	234.801	366.877	499.360	707.710	1.060.275
4,5	12.298	15.565	27.212	41.808	62.261	101.655	170.077	249.044	389.132	529.652	750.640	1.124.591
5	12.964	16.407	28.684	44.069	65.629	107.153	179.277	262.516	410.181	558.302	791.244	1.185.423
5,5	13.596	17.208	30.084	46.220	68.832	112.383	188.027	275.329	430.201	585.552	829.864	1.243.282
6	14.201	17.973	31.422	48.275	71.893	117.381	196.388	287.572	449.331	611.589	866.765	1.298.566
6,5	14.781	18.707	32.705	50.247	74.829	122.174	204.407	299.314	467.678	636.562	902.157	
7	15.339	19.413	33.940	52.143	77.653	126.786	212.123	310.613	485.333	660.592	936.213	
7,5	15.877	20.095	35.131	53.973	80.379	131.236	219.569	321.515	502.367	683.777	969.072	
8	16.398	20.754	36.283	55.744	83.015	135.540	226.769	332.059	518.842	706.202	1.000.854	
8,5	16.903	21.392	37.400	57.459	85.570	139.711	233.749	342.279	534.811	727.937	1.031.656	
9	17.393	22.013	38.484	59.125	88.050	143.761	240.525	352.202	550.316	749.041	1.061.565	
9,5	17.869	22.616	39.539	60.745	90.463	147.701	247.116	361.853	565.395	769.566	1.090.655	
10	18.334	23.203	40.566	62.323	92.813	151.538	253.536	371.253	580.083	789.558	1.118.988	
11	19.228	24.336	42.546	65.365	97.343	158.934	265.911	389.374	608.397	828.096		
12	20.083	25.418	44.438	68.272	101.672	166.001	277.735	406.688	635.450	864.918		
13	20.903	26.456	46.252	71.059	105.824	172.780	289.075	423.294	661.397	900.235		
14	21.692	27.455	47.998	73.742	109.818	179.302	299.988	439.273	686.364	934.218		
15	22.454	28.418	49.683	76.330	113.673	185.595	310.517	454.691	710.454	967.007		
16	23.190	29.350	51.312	78.833	117.401	191.682	320.700	469.603	733.754	998.721		
17	23.904	30.253	52.891	81.259	121.014	197.581	330.570	484.055	756.336			
18	24.597	31.131	54.425	83.615	124.522	203.309	340.154	498.089	778.264			
19	25.271	31.984	55.916	85.907	127.934	208.881	349.475	511.738	799.590			
20	25.927	32.814	57.369	88.138	131.258	214.307	358.554	525.032	820.362			
21	26.568	33.625	58.785	90.315	134.499	219.599	367.408	537.997	840.621			
22	27.193	34.416	60.169	92.440	137.664	224.767	376.054	550.658	860.403			
23	27.804	35.190	61.521	94.518	140.758	229.819	384.506	563.034	879.740			
24	28.402	35.946	62.844	96.551	143.786	234.761	392.776	575.143	898.661			
25	28.988	36.688	64.140	98.542	146.751	239.602	400.875	587.003				
26	29.562	37.414	65.410	100.493	149.657	244.347	408.814	598.628				
27	30.125	38.127	66.656	102.407	152.508	249.002	416.602	610.032				
28	30.678	38.827	67.879	104.287	155.306	253.571	424.247	621.226				
29	31.221	39.514	69.081	106.133	158.055	258.060	431.756	632.222				
30	31.755	40.189	70.262	107.947	160.757	262.471	439.137	643.030				
31	32.279	40.854	71.423	109.731	163.415	266.810	446.396	653.659				
32	32.796	41.507	72.566	111.487	166.030	271.079	453.539	664.118				
33	33.304	42.151	73.691	113.216	168.604	275.282	460.571					
34	33.805	42.785	74.800	114.918	171.139	279.422	467.497					
35	34.299	43.409	75.892	116.596	173.638	283.501	474.322					
36	34.785	44.025	76.968	118.250	176.101	287.523	481.051					
38	35.739	45.232	79.077	121.490	180.927	295.402	494.232					
40	36.667	46.407	81.131	124.646	185.627	303.076	507.072					

Calculation acc.: ISO EN: 4126-1

Air capacity

Valve type 1400 PN-16/25/40

Air capacity chart (kg/h)

10% Overpressure Temperature 20° C

Set gauge pressure (barg)	Flanges EN-1092-1											
	15 x 25	20 x 32	25 x 40	32 x 50	40 x 65	50 x 80	65x100	80x125	100x150	125x200	150x200	200x250
	Orifice (mm)											
	16	18	23,8	29,5	36	46	59,5	72	90	105	125	153
	Area (mm ²)											
	201	254	445	683	1.018	1.662	2.781	4.072	6.362	8.659	12.272	18.385
0,5	171	216	377	580	863	1.410	2.359	3.454	5.396	7.345	10.410	15.596
1	231	292	510	784	1.167	1.906	3.189	4.669	7.295	9.930	14.073	21.084
1,5	291	368	643	988	1.471	2.402	4.019	5.884	9.194	12.515	17.736	26.572
2	351	444	776	1.192	1.775	2.898	4.849	7.100	11.093	15.099	21.399	32.060
2,5	411	520	909	1.396	2.079	3.394	5.678	8.315	12.992	17.684	25.062	37.548
3	471	596	1.041	1.600	2.383	3.890	6.508	9.530	14.891	20.269	28.725	43.036
3,5	531	672	1.174	1.804	2.686	4.386	7.338	10.746	16.790	22.853	32.388	48.524
4	591	748	1.307	2.008	2.990	4.882	8.168	11.961	18.689	25.438	36.052	54.011
4,5	651	824	1.440	2.212	3.294	5.378	8.998	13.176	20.588	28.023	39.715	59.499
5	711	899	1.573	2.416	3.598	5.874	9.828	14.392	22.487	30.607	43.378	64.987
5,5	771	975	1.705	2.620	3.902	6.370	10.658	15.607	24.386	33.192	47.041	70.475
6	831	1.051	1.838	2.824	4.206	6.867	11.488	16.822	26.285	35.777	50.704	75.963
6,5	891	1.127	1.971	3.028	4.509	7.363	12.318	18.038	28.184	38.361	54.367	
7	951	1.203	2.104	3.232	4.813	7.859	13.148	19.253	30.083	40.946	58.030	
7,5	1.011	1.279	2.237	3.436	5.117	8.355	13.978	20.468	31.982	43.531	61.693	
8	1.071	1.355	2.369	3.640	5.421	8.851	14.808	21.684	33.881	46.115	65.356	
8,5	1.131	1.431	2.502	3.844	5.725	9.347	15.638	22.899	35.780	48.700	69.019	
9	1.191	1.507	2.635	4.048	6.029	9.843	16.468	24.114	37.679	51.285	72.682	
9,5	1.251	1.583	2.768	4.252	6.332	10.339	17.298	25.330	39.578	53.869	76.346	
10	1.311	1.659	2.900	4.456	6.636	10.835	18.128	26.545	41.476	56.454	80.009	
11	1.431	1.811	3.166	4.864	7.244	11.827	19.788	28.976	45.274	61.623		
12	1.551	1.963	3.432	5.272	7.852	12.819	21.448	31.406	49.072	66.793		
13	1.671	2.115	3.697	5.680	8.459	13.812	23.108	33.837	52.870	71.962		
14	1.791	2.267	3.963	6.088	9.067	14.804	24.768	36.268	56.668	77.132		
15	1.911	2.419	4.228	6.496	9.675	15.796	26.428	38.698	60.466	82.301		
16	2.031	2.571	4.494	6.904	10.282	16.788	28.088	41.129	64.264	87.470		
17	2.151	2.722	4.760	7.312	10.890	17.780	29.748	43.560	68.062			
18	2.271	2.874	5.025	7.720	11.498	18.772	31.408	45.990	71.860			
19	2.391	3.026	5.291	8.129	12.105	19.764	33.067	48.421	75.658			
20	2.511	3.178	5.556	8.537	12.713	20.757	34.727	50.851	79.455			
21	2.631	3.330	5.822	8.945	13.321	21.749	36.387	53.282	83.253			
22	2.751	3.482	6.088	9.353	13.928	22.741	38.047	55.713	87.051			
23	2.871	3.634	6.353	9.761	14.536	23.733	39.707	58.143	90.849			
24	2.991	3.786	6.619	10.169	15.144	24.725	41.367	60.574	94.647			
25	3.111	3.938	6.884	10.577	15.751	25.717	43.027	63.005				
26	3.231	4.090	7.150	10.985	16.359	26.709	44.687	65.435				
27	3.351	4.242	7.416	11.393	16.967	27.701	46.347	67.866				
28	3.471	4.394	7.681	11.801	17.574	28.694	48.007	70.297				
29	3.591	4.545	7.947	12.209	18.182	29.686	49.667	72.727				
30	3.712	4.697	8.212	12.617	18.790	30.678	51.327	75.158				
31	3.832	4.849	8.478	13.025	19.397	31.670	52.987	77.589				
32	3.952	5.001	8.743	13.433	20.005	32.662	54.647	664.118				
33	4.072	5.153	9.009	13.841	20.612	33.654	56.307					
34	4.192	5.305	9.275	14.249	21.220	34.646	57.967					
35	4.312	5.457	9.540	14.657	21.828	35.639	59.626					
36	4.432	5.609	9.806	15.065	22.435	36.631	61.286					
38	4.672	5.913	10.337	15.881	23.651	38.615	64.606					
40	4.912	6.217	10.868	16.697	24.866	40.599	67.926					

Calculation acc.: ISO EN: 4126-1

Steam capacity

Valve type 1400 PN-16/25/40

Steam capacity chart (kg(h)) 10% Overpressure

		Flanges EN-1092-1											
		15 x 25	20 x 32	25 x 40	32 x 50	40 x 65	50 x 80	65x100	80x125	100x150	125x200	150x200	200x250
		Orifice (mm)											
		16	18	23,8	29,5	36	46	59,5	72	90	105	125	153
Set gauge pressure (barg)	Saturated steam Temp. (°C)	Area (mm ²)											
		201	254	445	683	1.018	1.662	2.781	4.072	6.362	8.659	12.272	18.385
0,5	111	106	134	234	359	535	873	1.460	2.138	3.341	4.547	6.445	9.655
1	120	143	181	316	485	723	1.180	1.974	2.891	4.517	6.148	8.713	13.053
1,5	127	180	228	398	612	911	1.487	2.488	3.643	5.692	7.748	10.980	16.451
2	134	217	275	480	738	1.099	1.794	3.002	4.395	6.868	9.348	13.248	19.848
2,5	138	254	322	562	864	1.287	2.101	3.516	5.148	8.044	10.948	15.516	23.246
3	144	291	369	645	990	1.475	2.408	4.029	5.900	9.219	12.548	17.784	26.643
3,5	147	329	416	727	1.117	1.663	2.715	4.543	6.653	10.395	14.149	20.052	30.041
4	153	366	463	809	1.243	1.851	3.023	5.057	7.405	11.570	15.749	22.320	33.439
4,5	155	403	510	891	1.369	2.039	3.330	5.571	8.158	12.746	17.349	24.587	36.836
5	159	440	557	974	1.496	2.227	3.637	6.085	8.910	13.922	18.949	26.855	40.234
5,5	161	477	604	1.056	1.622	2.416	3.944	6.599	9.662	15.097	20.549	29.123	43.632
6	165	514	651	1.138	1.748	2.604	4.251	7.112	10.415	16.273	22.149	31.391	47.029
6,5	167	551	698	1.220	1.875	2.792	4.558	7.626	11.167	17.449	23.750	33.659	
7	170	589	745	1.302	2.001	2.980	4.865	8.140	11.920	18.624	25.350	35.927	
7,5	172	626	792	1.385	2.127	3.168	5.172	8.654	12.672	19.800	26.950	38.194	
8	175	663	839	1.467	2.254	3.356	5.480	9.168	13.424	20.976	28.550	40.462	
8,5	177	700	886	1.549	2.380	3.544	5.787	9.682	14.177	22.151	30.150	42.730	
9	180	737	933	1.631	2.506	3.732	6.094	10.195	14.929	23.327	31.751	44.998	
9,5	181	774	980	1.713	2.633	3.920	6.401	10.709	15.682	24.503	33.351	47.266	
10	184	812	1.027	1.796	2.759	4.109	6.708	11.223	16.434	25.678	34.951	49.534	
11	187	886	1.121	1.960	3.011	4.485	7.322	12.251	17.939	28.030	38.151		
12	192	960	1.215	2.125	3.264	4.861	7.937	13.278	19.444	30.381	41.352		
13	194	1.034	1.309	2.289	3.517	5.237	8.551	14.306	20.949	32.732	44.552		
14	198	1.109	1.403	2.453	3.769	5.613	9.165	15.334	22.453	35.083	47.752		
15	201	1.183	1.497	2.618	4.022	5.990	9.779	16.362	23.958	37.435	50.953		
16	204	1.257	1.591	2.782	4.275	6.366	10.393	17.389	25.463	39.786	54.153		
17	207	1.332	1.685	2.947	4.527	6.742	11.008	18.417	26.968	42.137			
18	209	1.406	1.780	3.111	4.780	7.118	11.622	19.445	28.473	44.489			
19	212	1.480	1.874	3.276	5.032	7.494	12.236	20.472	29.978	46.840			
20	215	1.555	1.968	3.440	5.285	7.871	12.850	21.500	31.482	49.191			
21	217	1.629	2.062	3.604	5.538	8.247	13.465	22.528	32.987	51.542			
22	220	1.703	2.156	3.769	5.790	8.623	14.079	23.555	34.492	53.894			
23	222	1.778	2.250	3.933	6.043	8.999	14.693	24.583	35.997	56.245			
24	224	1.852	2.344	4.098	6.295	9.375	15.307	25.611	37.502	58.596			
25	226	1.926	2.438	4.262	6.548	9.752	15.922	26.638	39.006				
26	228	2.001	2.532	4.427	6.801	10.128	16.536	27.666	40.511				
27	230	2.075	2.626	4.591	7.053	10.504	17.150	28.694	42.016				
28	232	2.149	2.720	4.755	7.306	10.880	17.764	29.721	43.521				
29	234	2.223	2.814	4.920	7.559	11.256	18.379	30.749	45.026				
30	236	2.298	2.908	5.084	7.811	11.633	18.993	31.777	46.531				
31	238	2.372	3.002	5.249	8.064	12.009	19.607	32.804	48.035				
32	240	2.446	3.096	5.413	8.316	12.385	20.221	33.832	49.540				

Calculation acc.: ISO EN: 4126-1 and EN 1092-1

Useful conversions:

lbs/h = kg/h x 2,2046