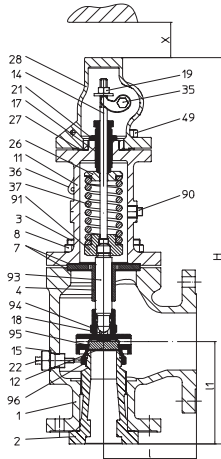
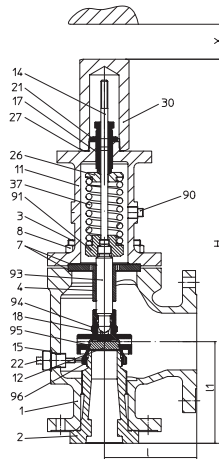
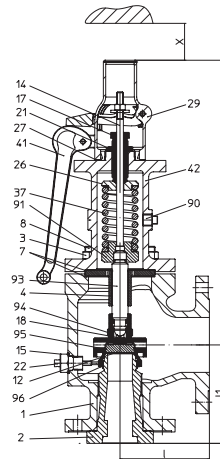



Fig. 971

Fig. ...971
closed lifting device

Fig. ...973
gastight cap

Fig. ...974
open lifting device

Features

- Direct loaded with spring
- Wear resistant seat/disc
- Precision disc alignment and guide
- Possible with soft seal disc
- Possible with stainless steel bellow



Figure	Nom. pressure	Material	Valve size
32.971 / 973 / 974	ANSI150/150	SA216WCC	1" x 2" - 8" x 10"
35.971 / 973 / 974	ANSI300/150	SA216WCC	1" x 2" - 8" x 10"
37.971 / 973 / 974	ANSI600/150	SA216WCC	1" x 2" - 6" x 10"
38.971 / 973 / 974	ANSI900/(150)300	SA216WCC	1,5" x 2" - 4" x 6"
39.971 / 973 / 974	ANSI1500/(150)300	SA216WCC	1,5" x 2" - 4" x 6"
3c.971 / 973 / 974	ANSI2500/300	SA216WCC	1,5" x 3" - 2" x 3"
35.971 / 973 / 974	ANSI300/150	SA217WC6	1" x 2" - 8" x 10"
37.971 / 973 / 974	ANSI600/150	SA217WC6	1" x 2" - 6" x 10"
38.971 / 973 / 974	ANSI900/(150)300	SA217WC6	1,5" x 2" - 4" x 6"
39.971 / 973 / 974	ANSI1500/(150)300	SA217WC6	1,5" x 2" - 4" x 6"
3c.971 / 973 / 974	ANSI2500/300	SA217WC6	1,5" x 3" - 2" x 3"
52.971 / 973	ANSI150/150	SA351CF8M	1" x 2" - 8" x 10"
55.971 / 973	ANSI300/150	SA351CF8M	1" x 2" - 8" x 10"
57.971 / 973	ANSI600/150	SA351CF8M	1" x 2" - 6" x 10"
58.971 / 973	ANSI900/(150)300	SA351CF8M	1,5" x 2" - 4" x 6"
59.971 / 973	ANSI1500/300	SA351CF8M	1,5" x 2" - 3" x 6"
5c.971 / 973	ANSI2500/300	SA351CF8M	1,5" x 3" - 2" x 3"

Details required

- Medium gasform: Mass flow (lb/h), SCFM, molar mass (kg/kmol), temperature (°F), set gauge pressure (psig), back gauge pressure (psig)
- Medium liquid: Volume flow (gal/min), density, viscosity, temperature (°F), set gauge pressure (psi gauge), back gauge pressure (psi gauge)

Selection of possible applications

Industrial installations, processing technology, plant manufacturing, etc.
(other applications on request)

Selection of possible flow media

Steam, gases, vapours and liquids (other flow media on request)

	without metal bellow	with metal bellow
Superimposed back pressure	no backpressure allowed	on request
Built up back pressure	max. 10% from set pressure (gauge) (higher on request)	on request

Material				
Pos.	Description	Fig. 32.971/973/974 3c.971/973/974		Fig. 52.971/973 - 5c.971/973
1	Body	SA216WCC	SA217WC6	SA351CF8M
2	Nozzle *	SA351CF8M (>2": SA479Gr.316L)		
4	Guide	SA351CF8M (liquid+air) / Monel SA494M35-2 (steam)		
7	Gasket (body/bonnet) *	Corrugated soft iron		
11	Bonnet, closed	SA216WCC	SA217WC6	SA351CF8M
12	Disc *	SA479Gr.316L		
14	Stem, top	SA479Gr.316L		
26	Top spring step	SA108Gr.1018		
28	Cap, closed (Fig. 971)	SA216WCC		SA351CF8M
29	Cap, open (Fig. 974)	Gray iron		
30	Cap, gastight (Fig. 973)	SA216WCC		
36	Lifting lever	Gray iron		
37	Spring	SA231/401 (Chrome vanadium) / > 450°F: Inconel X750		SA313Gr.316 / > 550°F: Inconel X750
42	Bonnet, open	SA216WCC	SA217WC6	SA351CF8M
75	O-ring *	Viton		
91	Bottom spring step	SA108Gr.1018		SA479Gr.316L
93	Point	SA479Gr.316L		
96	Adjusting screw	SA351CF8M		

* Spare parts

*last updated 10/16

Orifice Size Set Pressure psig		D	E	F	G	H	J	K	L
		0.1219 in ²	0.2173 in ²	0.340 in ²	0.558 in ²	0.869 in ²	1.427 in ²	2.036 in ²	3.160 in ²
Coeff. of discharge : 0.860		Capacity Charts „Air & Gas in SCFM”¹⁾(incl. 10% overpressure): Orifices D - L ^{1) at 60°F and 14,7 psia}							
< 30 psig with + 3 psig overpressure	5	44	78	122	200	311	511	729	1131
	10	53	95	148	244	379	623	889	1380
	No Code Stamp or NB on Nameplates Below 15 psig								
	15	63	112	175	288	448	736	1050	1629
	20	72	129	202	332	516	848	1210	1878
	30	92	163	256	420	653	1073	1531	2376
40	113	201	315	516	804	1321	1884	2924	
50	134	239	374	613	955	1568	2237	3472	
60	155	276	433	710	1106	1815	2590	4020	
70	176	314	492	807	1256	2063	2943	4568	
80	197	352	550	903	1407	2310	3296	5116	
90	218	389	609	1000	1558	2558	3649	5664	
100	240	427	668	1097	1708	2805	4002	6212	
110	261	465	727	1194	1859	3053	4356	6760	
120	282	503	786	1290	2010	3300	4709	7308	
130	303	540	845	1387	2160	3548	5062	7856	
140	324	578	904	1484	2311	3795	5415	8404	
150	345	616	963	1581	2462	4043	5768	8952	
1 pound increment		2	4	6	10	15	25	35	55
Coeff. of discharge: 0.860		Capacity Charts „Steam in Lb/Hr” (incl. 10% overpressure): Orifices D - L							
< 30 psig with + 3 psig overpressure	5	123	218	342	561	874	1435	2047	3177
	10	150	267	417	685	1066	1751	2498	3877
	No Code Stamp or NB on Nameplates Below 15 psig								
	15	177	315	492	808	1259	2067	2949	4577
	20	204	363	568	932	1451	2383	3400	5276
	30	258	459	718	1179	1836	3015	4301	6676
40	317	565	884	1451	2259	3710	5293	8215	
50	376	671	1050	1723	2683	4405	6285	9755	
60	436	777	1215	1994	3106	5100	7277	11294	
70	495	883	1381	2266	3529	5796	8269	12834	
80	554	988	1547	2538	3953	6491	9261	14374	
90	614	1094	1712	2810	4376	7186	10253	15913	
100	673	1200	1878	3082	4799	7881	11245	17453	
110	733	1306	2043	3354	5223	8576	12237	18992	
120	792	1412	2209	3626	5646	9272	13229	20532	
130	851	1518	2375	3897	6070	9967	14221	22071	
140	911	1624	2540	4169	6493	10662	15212	23611	
150	970	1729	2706	4441	6916	11357	16204	25150	
1 pound increment		6	11	17	27	42	70	99	154
Coeff. of discharge: 0.724		Capacity Charts „Water&Liquid in Gal/Min” (incl. 10% overpressure): Orifices D - L							
< 30 psig with + 3 psig overpressure	5	9	17	26	43	68	111	158	246
	10	12	22	34	55	86	142	202	313
	No Code Stamp or NB on Nameplates Below 15 psig								
	15	14	25	40	65	101	167	238	369
	20	16	29	45	74	115	188	269	417
	30	19	34	54	88	137	226	322	499
40	22	40	62	102	159	260	372	577	
50	25	44	69	114	177	291	415	645	
60	27	49	76	125	194	319	455	706	
70	29	52	82	135	210	344	492	763	
80	31	56	88	144	224	368	525	816	
90	33	59	93	153	238	391	557	865	
100	35	63	98	161	251	412	587	912	
110	37	66	103	169	263	432	616	956	
120	39	69	107	176	275	451	644	999	
130	40	71	112	184	286	469	670	1040	
140	42	74	116	191	297	487	695	1079	
150	43	77	120	197	307	504	719	1117	

*last updated 10/16