

SSV 10-12

Special Compensating Bypass
Check Valve



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overview



PN 10-PN 400
ANSI 150-2500



up to
 Δp 250 bar

2



SSV



SSV 10-12

(type with integrated throttles in the bypass)

Range of Applications

The Compensating Bypass Check Valve type SSV 10-12 is a pump protection device. It automatically protects centrifugal pumps – especially those handling hot water – from damage which might occur through partial evaporation of the water content during low load operation.

As soon as the pump capacity drops below a pre-determined flow rate, the bypass valve opens sufficiently to maintain the pump minimum flow rate. This rate is maintained even if the flow through the main valve to the boiler or process is completely shut off. The pressure will be reduced by integrated throttle stages within the bypass.

The type SSV 12 is supplied with a larger Bypass.

This is required for larger bypass flows up to 40 bar differential pressure. The choice is done in our works. The valve range SSV is utilized for fluids with a viscosity ≤ 150 cSt without solids, e.g.:

- in boiler feed water and cooling water plants
- in Petrochemical and Chemical Industry and refrigeration
- in potable water supply and backwater disposal
- Offshore
- in snow production
- in steel production
- for fire fighting systems

The utilization in nuclear power plants emphasizes the reliability of these fittings (certified to KTA 1401).

The Compensating Bypass Check Valves of the range SSV 10 can be utilized for Δp up to 220 bar, the type SSV 11 for Δp up to 250 bar and the SSV 12 for Δp up to 40 bar with temperature ranges from - 250 °C up to + 400 °C. The valves are manufactured in the sizes DN25 to DN500 and the range of nominal pressure is PN 10 up to PN 400 (ANSI 150-ANSI 2500). The bypass flow can be up to 50% of the main flow, recommended is up to 35%.

The valve operates without additional auxiliary energy.

For the protection of fluid pumps with delivery heads of above 2200 m we recommend the range SMA 63/64 (see prospect) with "ON/OFF"-regulation of the bypass.

Mode of Operation

The Compensating Bypass Check Valve is flow controlled, that means the non-return cone (3) is kept in its operating position by main flow only. The valve is designed in such a way, that the cone reaches its utmost upper position at denominated main flow.

The non-return cone activates the Rotary Slide Valve (13) in the bypass by means of a lever (14). If the cone is positioned on the cone seat, the Rotary Slide Valve is completely open. It closes corresponding to the rising of the cone by delivery in main direction. The valve just allows such an amount of bypass flow, as it is necessary for supplement of the required minimum flow of the pump.

As soon as the main flow exceeds the minimum pump flow, the bypass closes. On the other hand the bypass opens again, when the main flow falls short of the bypass flow.

Installation

Valves SSV should preferably be connected directly to the pump discharge branch, and must be mounted vertically with flow entry from below. Limited possibilities for horizontal installation exist, but must be confirmed by the manufacturer.

The bypass flow is piped back to the suction tank.

All bypass valve components are easily serviced. To facilitate serving of the bypass valve, we recommend a removable flanged pipe approx. 1 m long to be fitted to the bypass branch. We also recommend installing a pressure relieve valve and a stop valve. The stop valve must be of a type which can be locked in the "OPEN" position.

Illustration 1 shows a typical arrangement and flow scheme of our Compensating Bypass Check Valve. The hand-operated bypass feature is optional.

In order to avoid vibrations in the valve and the pipes we recommend continuing the connecting line at the outlet (DN2) and Bypass branch (DN3) for approx. 2-3 m in the chosen nominal size. A pipe bend directly at the bypass branch is not admissible.

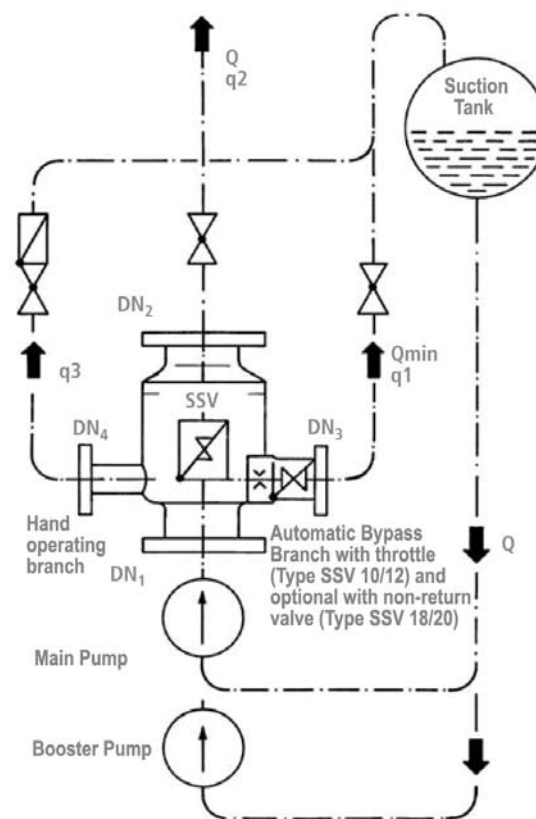
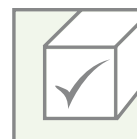


Illustration 1:
Bypass Return with additional hand operated branch (optional).

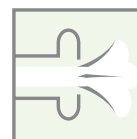
SSV 10-12



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PN 10-PN 400
ANSI 150-2500



up to
 Δp 250 bar



Design

The construction is according to specification AD 2000 and particularly to EN 13445. As per Pressure Equipment Directive 97/23 EG the products are provided with the CE marking and the Declaration of Conformity. Certified according to the Module H1 (Pressure Equipment Directive 97/23 EG) all dangerous material classes of category 1 to 4 are covered. Suitable nominal size and nominal pressure are to be chosen according to the pump pressure branch. However, it must be observed, that the admissible flow velocity of 10 m/s may not be exceeded (guarantee). Compensating Bypass Check Valves in larger sizes, for higher pressures and in special designs, which are not listed here, can also be supplied (on request).

If the bypass flow has been indicated too low, it may result in vibrations within the plant, a hammering Compensating Bypass Check Valve resp. a damage of the Valve and the pump (see "inquiry specification").

Construction

The Valve SSV comprises a radial split body with non-return cone (3), and a separate bypass device in the bypass branch.

All sliding parts are machined from proven stainless steels suitably matched to each other. Parts subjects to wear such as the check valve seat are stellite-faced. The coil springs are also made of stainless steel. In the standard version the casing is of forged steel P250GH (1.0460). In addition high-quality steels of various qualities can be supplied.

In the Bypass the minimum flow is passed off automatically by the Bypass valve head (12).

The pressure reduction from pump pressure to the counter pressure in the bypass line takes place via the Bypass Valve Head (12) and the throttle (15), for higher pressure with multistage throttles.

The hand operating branch with multiport-throttle is fitted at the casing below the cone seat and serves to pass off the minimum flow via a hand-operated valve combination. We recommend the branch for protection of the internal bypass parts at extreme operating conditions, e.g. at high differential pressures and frequent operation in the range of bypass flow as well as for filling and start-up of the plant.

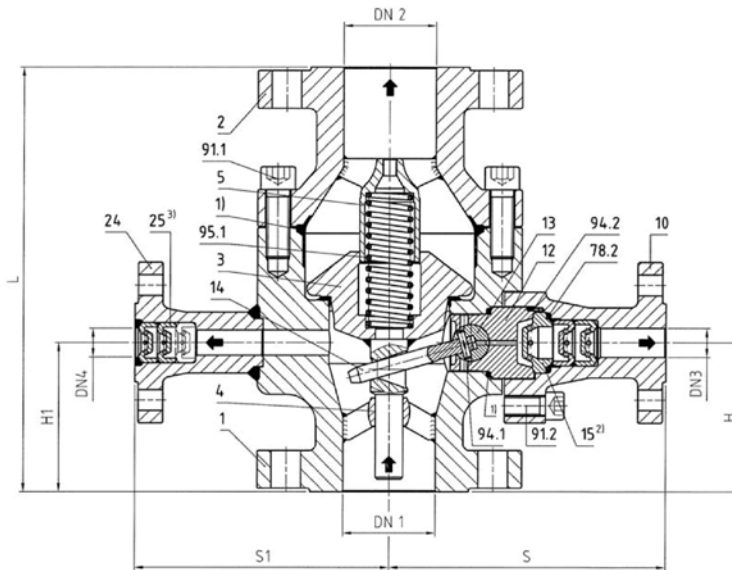
Start-Up-Trim (SUT) substitutes the Bypass valve head during cleaning and start-up of plants and therefore spares the sophisticated regulating parts (optional, permanently open Bypass outlet). Also usable instead of the Hand operating branch.

Warm-up branch, pressure gauge branch, draining branch etc. can be provided, if required.

Flange designs to DIN, ANSI, BS, ISO and all related standards are possible.

Furthermore we supply:

- Compensating Bypass Check Valves with control disc and bearing plate in the bypass for high bypass flows at low pump pressure
- Autonomous Minimum Flow System Type SMA 63/64 from DN65 up-wards at pump pressures from PN 250-400 bar.
- Multiport throttles for pressure- and flow reduction of high-pressure media from DN15 upwards and pressures from PN 10 to PN 640 bar.



Standard body material 1.0460 (P250GH)

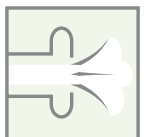
SSV 10-12



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PN 10-PN 400
ANSI 150-2500



up to
 Δp 250 bar

SSV 10-12 with throttles in the bypass and hand-operated branch (optional)

Parts List SSV 10-12

Lower body	Part-No.	1
Upper body	Part-No.	2
Cone	Part-No.	3
Cone guide	Part-No.	4
Cone guide	Part-No.	5
Bypass branch	Part-No.	10
Valve head casing	Part-No.	12
Rotary slide valve	Part-No.	13
Operating lever	Part-No.	14
Throttle	Part-No.	15
Hand-op. branch	Part-No.	24
Multi-port throttle	Part-No.	25
O-Ring	Part-No.	78.1
O-Ring	Part-No.	78.2
Socket screw	Part-No.	91.1
Socket screw	Part-No.	91.2
Dowel pin	Part-No.	94.1
Dowel pin	Part-No.	94.2
Coil spring	Part-No.	95.1
		(95.2)
Coil spring	Part-No.	95.3

Spare/Wear Parts SSV 10-12

<u>Bypass Valve Head, complete</u>	Part-No.	60, consisting of:
Casing	Part-No.	12
Rotary slide valve	Part-No.	13
Operating lever	Part-No.	14
Dowel pin	Part-No.	94.1
Dowel pin	Part-No.	94.2
<u>Throttle in the Bypass Branch, consisting of:</u>		
Throttle	Part-No.	15
O-Ring	Part-No.	78.2
<u>Single Spare Parts</u>		
O-Ring	Part-No.	78.1
Coil spring	Part-No.	95.1
		(95.2)

Materials according to operating conditions and valid standards.



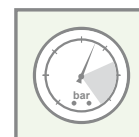
Dimensions and Weights of Valve Range SSV 10 - DIN														
Nominal size		CV											Valve	1)
DN1 mm	PN bar	1-stage [USG/min]	2-stage [USG/min]	3-stage [USG/min]	DN2 mm	DN3 mm	DN4 mm	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
32	10-40	2.48				15 25		240	93	165 165	93	165	18 19	2
	63	2.48	1.81			15 25								3
	100	2.48	1.81	1.44	32	15 25	25							3
	160					15 25								3.5
	250					15 25								4.5
40	10-40	2.48				15 25 32		220	78	170 170 180	78	170	19 20 22	2
	63	2.48	1.81			15 25 32		270	100	190 190 200	100	190	30 31 33	3
	100	2.48	1.81	1.44	40	15 25 32	25	270	100	190 190 200	100	190	30 31 33	3
	160	2.25	1.71	1.40		15 25 32		270	100	190 190 200	100	190	30 31 33	3.5
	250	2.25	1.71	1.40		15 25 32		300	115	195 195 200	115	195	41 42 44	4.5
50	10-40	3.21				15 25 32		250	90	180 180 200	90	180	27 28 30	2
	63	3.21	2.03			15 25 32		250	105	200 200	105	200	36 37 39	3
	100	3.21	2.03	1.55	50	15 25 32	25	290	105	200 200	105	200	43 44 46	3
	160	2.93	1.96	1.51		15 25 32		290	105	200 200	105	200	43 44 46	3.5
	250	2.93	1.96	1.51		15 25 32		330	125	205 205	125	205	50 51 51	4.5
65	10-40	4.42				25 40 50		280	105	200 200 210	105	200	41 42 44	2
	63	4.42	2.99			25 40 50		320	120	220 225 235	120	220	54 55 57	3
	100	4.42	2.99	2.33	65	25 40 50	25	340	125	220 225 235	125	220	66 67 69	3
	160	3.67	2.73	2.21		25 40 50		340	125	220 225 235	125	220	66 67 69	3.5
	250	3.67	2.73	2.21		25 40 50		370	140	240 240 250	140	240	81 82 85	4.5

Dimensions and Weights of Valve Range SSV 10 - DIN															
Nominal size		CV												Valve	1)
DN1 mm	PN bar	1-stage [USG/min]	2-stage [USG/min]	3-stage [USG/min]	DN2 mm	DN3 mm	DN4 mm	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg	
80	10-40	7.38				25 40 50		310	120	220 220 240	120	220	45 46 49	3	
	63	7.38	4.59			25 40 50		350	130	230 230 250	130	230	59 60 61	5	
	100	7.38	4.59	3.50	80	25 40 50	25	370	130	240 240 260	130	240	72 73 77	5	
	160	5.57	4.04	3.23		25 40 50		370	130	240 240 260	130	240	72 73 74	6	
	250	5.57	4.04	3.23		25 40 50		400	150	250 250 270	150	250	102 103 107	8	
100	10-40	11.00				40 50 65		380	145	280 280 300	145	280	75 76 79	3	
	63	11.00	6.85			40 50 65		390	145	280 280 300	145	280	96 97 100	6	
	100	11.00	6.85	5.22	100	40 50 65	380	430	155	300 300 320	155	300	116 117 121	6	
	160	8.34	6.04	4.83		40 50 65		430	155	300 300 320	155	300	116 117 121	7	
	250	8.34	6.04	4.83		40 50 65		500	180	320 320 340	180	320	183 185 190	9	
125	10-40	17.71				40 50 65		440	165	360 360 380	165	360	192 118 123	4	
	63	17.71	12.01			40 50 65		460	165	360 360 380	165	360	158 160 165	7	
	100	17.71	12.01	9.36	125	40 50 65	40	500	170	360 360 380	170	360	192 194 200	9	
	160	12.68	10.02	8.32		40 50 65		500	170	360 360 380	170	360	192 194 200	10	
	250	12.68	10.02	8.32		40 50 65		570	190	380 380 400	190	380	264 267 274	12	
150	10-40	22.78				50 65 80		500	190	380 390 410	190	380	179 181 186	7	
	63	22.78	16.12			50 65 80		520	190	400 400 420	190	400	229 231 236	10	
	100	22.78	16.12	12.75	150	50 65 80	50	580	190	400 400 420	190	400	261 264 270	13	
	160	18.73	14.47	11.88		50 65 80		580	190	400 400 420	190	400	288 291 297	15	
	250	18.73	13.49	11.32		50 65 80		630	220	420 420 440	220	420	378 381 389	19	

SSV 10



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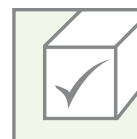
PN 10-PN 400



up to
 Δp 220 bar



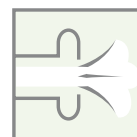
Dimensions and Weights of Valve Range SSV 10 - DIN															
Nominal size		CV												Valve	1)
DN1 mm	PN bar	1-stage [USG/min]	2-stage [USG/min]	3-stage [USG/min]	DN2 mm	DN3 mm	DN4 mm	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg	
200	10-40	55.42				65 80 100		630	240	460 470 490	240	460	360 364 370	10	
	63	55.45	30.47			65 80 100		650	240	480 480 500	240	480	401 403 409	14	
	100	55.45	30.47	22.51	200	65 80 100	65	680	240	500 500 520	240	500	443 446 454	17	
	160	31.78	23.96	19.47		65 80 100		720	240	520 520 540	240	520	456 459 467	20	
	250	21.47	18.50	16.18		65 80 100		830	265	590 590 610	265	590	700 704 714	27	
250	10-40	67.44				80 100 125		730	265	520 520 540	265	520	658 661 667	17	
	63	67.44	45.06			80 100 125		760	265	550 550 570	265	550	696 699 705	22	
	100	67.44	45.06	34.86	250	80 100 125	80	840	280	590 590 610	280	590	784 788 796	23	
	160	39.82	33.27	28.47		80 100 125		880	280	590 590 610	280	590	810 814 822	29	
	250	37.65	31.93	27.62		80 100 125		1050	340	700 700 720	340	700	1234 1239 1249	59	
300	10-40	100.27				100 125 150		860	320	580 580 600	320	580	823 826 832	20	
	63	100.27	68.81			100 125 150		900	320	640 640 660	320	640	881 884 890	28	
	100	100.27	68.81	53.37	300	100 125 150	100	1050	330	650 650 670	330	650	1113 1118 1126	29	
	160	50.79	44.56	39.57		100 125 150		1050	330	650 650 670	330	650	1113 1118 1126	38	
	250	50.79	44.56	39.57		100 125 150		1200	380	740 740 760	380	740	2043 2051 2062	75	



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PN 10-PN 400



up to
 Δp 220 bar

1) Weight of hand-operating branch

Other pipe sizes, pressure ranges and special designs are deliverable on request.
With reservation to changes of dimensions and weights.

Dimensions and Weights of Valve Range SSV 10 - ANSI														
Nominal size		CV											Valve	1)
DN1 inch	PN lbs	1-stage [USG/min]	2-stage [USG/min]	3-stage [USG/min]	DN2 inch	DN3 inch	DN4 inch	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
1.25"	150	2.48				0.5" 1"		240	93	165 165	96	165	18 19	2
	300	2.48	1.81			0.5" 1"		280	103	170 170	103	170	26 27	3
	600	2.48	1.81	1.44	1.25"	0.5" 1"	1"						29	3
	900					0.5" 1"							37	3.5
	1500					0.5" 1"							40	4.5
1.5"	150	2.48				0.5" 1" 1.25"		220	78	170 170 180	78	170	19 19 20	2
	300	2.48	1.81			0.5" 1" 1.25"		270	100	170 170 180	100	170	27 27 28	3
	600	2.48	1.81	1.44	1.5"	0.5" 1" 1.25"	1"	270	100	190 190 200	100	190	28 29 31	3
	900	2.25	1.71	1.40		0.5" 1" 1.25"		320	125	200 200 210	125	200	36 37 39	3.5
	1500	2.25	1.71	1.40		0.5" 1" 1.25"		320	125	200 200 210	125	200	39 40 42	4.5
2"	150	3.21				0.5" 1" 1.25"		250	90	180 180 190	90	180	27 28 29	2
	300	3.21	2.03			0.5" 1" 1.25"		270	100	180 180 190	100	180	32 33 34	3
	600	3.21	2.03	1.55	2"	0.5" 1" 1.25"	1"	290	105	200 200 210	105	200	39 40 42	3
	900	2.93	1.96	1.51		0.5" 1" 1.25"		325	125	210 210 220	125	210	52 53 55	3.5
	1500	2.93	1.96	1.51		0.5" 1" 1.25"		350	135	210 210 220	135	210	61 62 64	4.5
2.5"	150	4.42				1" 1.5" 2"		280	105	200 200 210	105	200	43 44 45	2
	300	4.42	2.99			1" 1.5" 2"		300	115	200 200 210	115	200	51 52 53	3
	600	4.42	2.99	2.33	2.5"	1" 1.5" 2"	1"	340	125	220 225 235	125	220	62 64 65	3
	900	3.67	2.73	2.21		1" 1.5" 2"		370	140	230 235 245	140	230	75 77 79	3.5
	1500	3.67	2.73	2.21		1" 1.5" 2"		390	150	240 240 250	150	240	91 93 96	4.5

SSV 10



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ANSI 150-2500



up to
Δp 220 bar



Dimensions and Weights of Valve Range SSV 10 - ANSI														
Nominal size		CV											Valve	1)
DN1 inch	PN lbs	1-stage [USG/min]	2-stage [USG/min]	3-stage [USG/min]	DN2 inch	DN3 inch	DN4 inch	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
3"	150	7.38				1" 1.5" 2"		310	120	220 220 240	120	220	45 46 49	3
	300	7.38	4.59			1" 1.5" 2"		330	125	230 230 250	125	230	59 60 63	5
	600	7.38	4.59	3.50	3"	1" 1.5" 2"	1"	370	130	240 240 260	130	240	79 80 84	5
	900	5.57	4.04	3.23		1" 1.5" 2"		390	140	240 240 260	140	240	84 85 89	6
	1500	5.57	4.04	3.23		1" 1.5" 2"		430	160	250 255 275	160	250	116 117 121	8
4"	150	11.00				1.5" 2" 2.5"		380	145	280 280 300	145	280	77 78 82	3
	300	11.00	6.85			1.5" 2" 2.5"		390	145	280 280 300	145	280	102 103 107	6
	600	11.00	6.85	5.22	4"	1.5" 2" 2.5"	1.5"	430	155	300 300 320	155	300	127 128 133	6
	900	8.34	6.04	4.83		1.5" 2" 2.5"		450	165	300 300 320	165	300	154 155 160	7
	1500	8.34	6.04	4.83		1.5" 2" 2.5"		520	190	320 320 340	190	320	194 196 202	9
5"	150	17.71				1.5" 2" 2.5"		450	165	360 360 380	165	360	119 121 126	4
	300	17.71	12.01			1.5" 2" 2.5"		460	165	360 360 380	165	360	158 160 165	7
	600	17.71	12.01	9.36	5"	1.5" 2" 2.5"	1.5"	500	170	360 360 380	170	360	221 223 229	9
	900	12.68	10.02	8.32		1.5" 2" 2.5"		530	185	360 370 390	185	360	258 261 268	10
	1500	12.68	10.02	8.32		1.5" 2" 2.5"		630	230	390 390 410	230	390	341 344 351	12
6"	150	22.78				2" 2.5" 3"		500	190	380 380 400	190	380	178 179 184	7
	300	22.78	16.12			2" 2.5" 3"		520	190	400 400 420	190	400	224 227 333	10
	600	22.78	16.12	12.75	6"	2" 2.5" 3"	2"	580	190	400 400 420	190	400	273 27282	13
	900	18.73	14.47	11.88		2" 2.5" 3"		600	200	410 420 430	200	410	335 337 344	15
	1500	16.73	13.49	11.32		2" 2.5" 3"		700	260	420 420 440	260	420	410 413 421	19

Dimensions and Weights of Valve Range SSV 10 - ANSI															
Nominal size		CV												Valve	1)
DN1 inch	PN lbs	1-stage [USG/min]	2-stage [USG/min]	3-stage [USG/min]	DN2 inch	DN3 inch	DN4 inch	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg	
8"	150	55.42				2.5" 3" 4"		630	240	460 470 490	240	460	360 362 368	10	
	300	55.42	30.47			2.5" 3" 4"		650	240	480 480 500	240	480	390 392 398	14	
	600	55.42	30.47	22.51	8"	2.5" 3" 4"	2.5"	680	240	500 500 520	240	500	442 445 453	17	
	900	31.78	23.96	19.47		2.5" 3" 4"		750	250	530 530 550	250	530	592 595 603	20	
	1500	21.47	18.50	16.18		2.5" 3" 4"		880	295	590 590 610	295	590	727 730 740	27	
10"	150	67.44				3" 4" 5"		730	265	520 520 540	265	520	646 648 654	17	
	300	67.44	45.06			3" 4" 5"		750	270	530 530 550	270	530	690 692 698	22	
	600	67.44	45.06	34.86	10"	3" 4" 5"	3"	840	280	590 590 610	280	590	795 800 808	23	
	900	39.82	33.27	28.47		3" 4" 5"		900	290	590 590 610	290	590	917 922 930	29	
	1500	37.65	31.93	27.62		3" 4" 5"		1100	370	700 700 720	370	700	1149 1455 1465	59	
12"	150	100.27				4" 5" 6"		860	320	590 590 600	320	580	816 818 842	20	
	300	100.27	68.81			4" 5" 6"		880	320	600 600 620	320	600	879 881 887	28	
	600	100.27	68.81	53.37	12"	4" 5" 6"	4"	1050	330	650 650 670	330	350	1096 1101 1110	29	
	900	50.79	44.56	39.57		4" 5" 6"		1050	330	650 650 670	330	650	1294 1299 1308	38	
	1500	50.79	44.56	39.57		4" 5" 6"		1250	410	740 740 760	410	740	1998 2005 2016	75	

SSV 10



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ANSI 150-2500



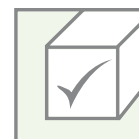
up to
Δp 220 bar

1) Weight of hand-operating branch

Other pipe sizes, pressure ranges and special designs are deliverable on request.
With reservation to changes of dimensions and weights.



Dimensions and Weights of Valve Range SSV 12 - DIN													
Nominal size		CV										Valve	1)
DN1 mm	PN bar	1-stage [USG/min]	2-stage [USG/min]	DN2 mm	DN3 mm	DN4 mm	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
100	10-40	17.71			40 50 65		410	160	350 350 370	160	350	104 105 110	3
	63	17.71	11.77		40 50 65		420	160	350 350 370	160	350	125 126 131	6
	100	17.71	11.77	100	40 50 65	40	460	170	350 350 370	170	350	132 134 140	6
	160	17.71	11.77		40 50 65		480	170	350 350 370	170	350	132 134 140	7
	250				40 50 65								
125	10-40	18.73			50 65 80		470	180	380 390 140	180	380	120 123 129	4
	63	18.73	14.24		50 65 80								
	100			125	50 65 80	50							
	160				50 65 80								
	250				50 65 80								
150	10-40	48.16			65 80 100		520	190	420 430 450	190	420	183 186 193	7
	63	48.16	42.56		65 80 100								
	100	48.16	42.56	150	65 80 100	65	620	210	460 460 480	210	480	278 281 290	13
	160	48.16	42.56		65 80 100		620	210	490 490 510	210	490	320 323 331	15
	250				65 80 100								
200	10-40	39.82			80 100 125		650	240	490 490 510	240	490	366 370 376	1
	63	39.82	32.87		80 100 125		680	270	520 520 540	270	520	409 411 418	14
	100			200	80 100 125	80							
	160				80 100 125								
	250				80 100 125								

SSV
12look at info
overview

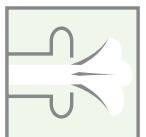
PN 10-PN 160

up to
Δp 40 bar

Dimensions and Weights of Valve Range SSV 12 - DIN													
Nominal size		CV										Valve	1)
DN1 mm	PN bar	1-stage [USG/min]	2-stage [USG/min]	DN2 mm	DN3 mm	DN4 mm	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
250	10-40	53.25		250	100 125 150	100	750	270	560 560 580	270	560	662 664 672	17
	63	53.25	32.82		100 125 150				100 125 150				
	100				100 125 150								
	160				100 125 150								
300	10-40	172.02		300	125 150 200	125	860	320	580 580 600	320	580	830 832 842	20
	63	172.02	80.39		125 150 200								
	100				125 150 200								
	160				125 150 200								
	250				125 150 200								

SSV
12look at info
overview

PN 10-PN 400

up to
Δp 40 bar

1) Weight of hand-operating branch

Other pipe sizes, pressure ranges and special designs are deliverable on request.
With reservation to changes of dimensions and weights.

Dimensions and Weights of Valve Range SSV 12 - ANSI													
Nominal size		CV										Valve	1)
DN1 inch	PN lbs	1-stage [USG/min]	2-stage [USG/min]	DN2 inch	DN3 inch	DN4 inch	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
1.5"	150	2.93		1.5"	0.5" 1" 1.5"	1"	220	78	170 170 180	78	170	19 19 20	2
	300	2.93	1.91		0.5" 1" 1.5"		270	100	170 170 180	100	170	27 27 28	3
	600				0.5" 1" 1.5"								
	900				0.5" 1" 1.5"								
	1500				0.5" 1" 1.5"								
2"	150	3.67		2"	1" 1.5" 2"	1"	250	90	200 200 210	90	200	29 30 32	2
	300	3.67	2.67		1" 1.5" 2"		280	105	200 200 210	105	200	35 36 38	3
	600				1" 1.5" 2"								
	900				1" 1.5" 2"								
	1500				0.5" 1" 1.25"								
2.5"	150	5.57		2.5"	1" 1.5" 2"	1"	290	110	220 220 230	110	220	47 48 50	2
	300	5.57	3.96		1" 1.5" 2"		310	120	230 230 250	120	230	55 56 59	3
	600				1" 1.5" 2"								
	900				1" 1.5" 2"								
	1500				0.5" 1" 1.25"								
3"	150	8.34	5.92	3"	1.5" 2" 2.5"	1.5"	330	130	280 280 300	130	280	50 51 55	3
	300	8.34	5.92		1.5" 2" 2.5"		350	135	280 280 300	135	280	62 63 67	
	600	8.34	5.92		1.5" 2" 2.5"		390	140	300 300 320	140	300	85 86 91	5
	900	8.34	5.92		1.5" 2" 2.5"		410	150	300 300 320	150	300	105 106 111	6
	1500				1.5" 2" 2.5"								

SSV 12



look at info
overview



ANSI 150-900



up to
Δp 40 bar



Dimensions and Weights of Valve Range SSV 12 - ANSI														
Nominal size		CV										Valve	1)	
DN1 inch	PN lbs	1-stage [USG/min]	2-stage [USG/min]	DN2 inch	DN3 inch	DN4 inch	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg	
4"	150	17.71		14"	1.5"	1.5"	410	160	350	160	350	104	3	
					2"							106		
					2.5"							111		
	300	17.71	11.77		1.5"							350		108
					2"							350		110
			2.5"	370	115									
	600	17.71	11.77	1.5"	360	132								
				2"	360	134								
				2.5"	380	140								
	900	17.71	11.77	1.5"									7	
	1500			2"										
				2.5"										
5"	150	18.73		5"	2"	2"	480	180	370	180	370	125	4	
					2.5"							127		
					3"							132		
	300	18.73	14.24		2"							390		164
					2.5"							390		166
			3"	410	171									
	600			2"										
				2.5"										
				3"										
	900			2"										
	1500			2.5"										
				3"										
6"	150	48.16		6"	2.5"	2.5"	520	190	420	190	420	183	7	
					3"							185		
					4"							191		
	300	48.16	42.56		2.5"							440		229
					3"							440		232
			4"	460	238									
	600	48.16	42.56	2.5"	460	287								
				3"	460	281								
				4"	480	289								
	900	48.16	42.56	2.5"	500	340								
				3"	500	343								
				4"	520	351								
	1500			2.5"										
				3"										
				4"										
				5"										
8"	150	39.82		8"	3"	3"	650	240	490	240	490	368	1	
					4"							370		
					5"							376		
	300	39.82	32.87		3"							500		398
					4"							500		400
			5"	520	406									
	600			3"										
				4"										
				5"										
	900			3"										
				4"										
				5"										
	1500			3"										
				4"										
				5"										

SSV 12

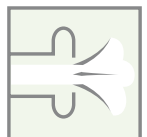
Dimensions and Weights of Valve Range SSV 12 - ANSI													
Nominal size		CV										Valve	1)
DN1 inch	PN lbs	1-stage [USG/min]	2-stage [USG/min]	DN2 inch	DN3 inch	DN4 inch	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
10"	150	53.25			4" 5" 6"		750	270	560 560 580	270	560	662 664 670	17
	300	53.25	32.82		4" 5" 6"		770	275	580 580 600	275	580	705 707 716	
	600			10"	4" 5" 6"	4"							
	900				4" 5" 6"								
	1500				4" 5" 6"								
12"	150	172.02			5" 6" 8"		860	320	580 580 600	320	580	830 832 842	20
	300	172.02	80.39		5" 6" 8"		880	320	580 580 600	320	580	896 898 908	
	600			12"	5" 6" 8"	5"							
	900				5" 6" 8"								
	1500				5" 6" 8"								



look at info
overview



ANSI 150-900



up to
Δp 40 bar

1) Weight of hand-operating branch

Other pipe sizes, pressure ranges and special designs are deliverable on request.
With reservation to changes of dimensions and weights.

