

# SSV 18-20

Special Compensating Bypass  
Check Valve



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overview



PN 10-PN 400  
ANSI 150-2500



up to  
 $\Delta p$  250 bar

3



SSV

# SSV

## Special Compensating Bypass Check Valve



### SSV 18-20

#### (type with integrated non-return valve in the bypass)

##### Range of Applications

Compared to the series SSV 10-12, the series SSV 18-20 uses an integrated non-return valve in the bypass. 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 20 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).

# SSV

The Compensating Bypass Check Valves of the range SSV 18 can be utilized for  $\Delta p$  up to 220 bar, the type SSV 19 for  $\Delta p$  up to 250 bar and the SSV 20 for  $\Delta p$  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 to install 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.

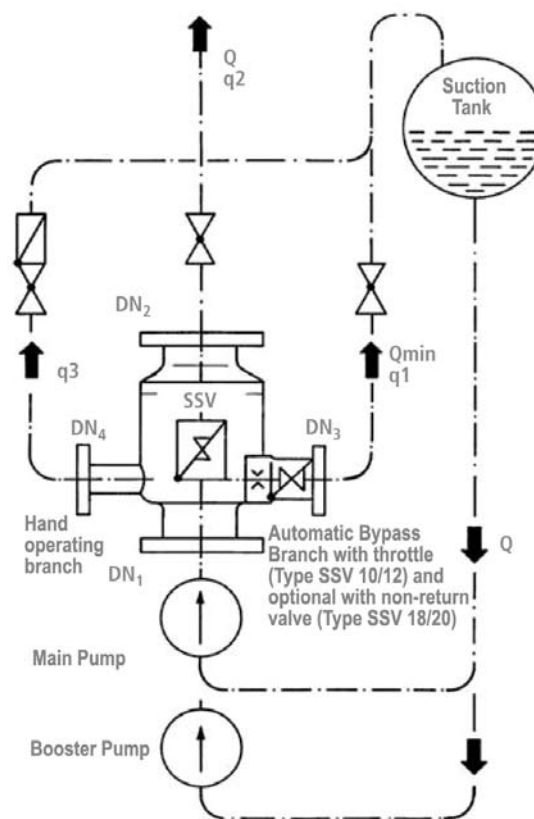


Illustration 1:  
Bypass Return with additional hand operated branch (optional).

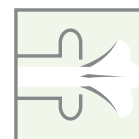
## SSV 18-20



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overview



PN 10-PN 400  
ANSI 150-2500



up to  
 $\Delta p$  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), the throttle (16) and the valve (17) for type SSV 18-20.

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.

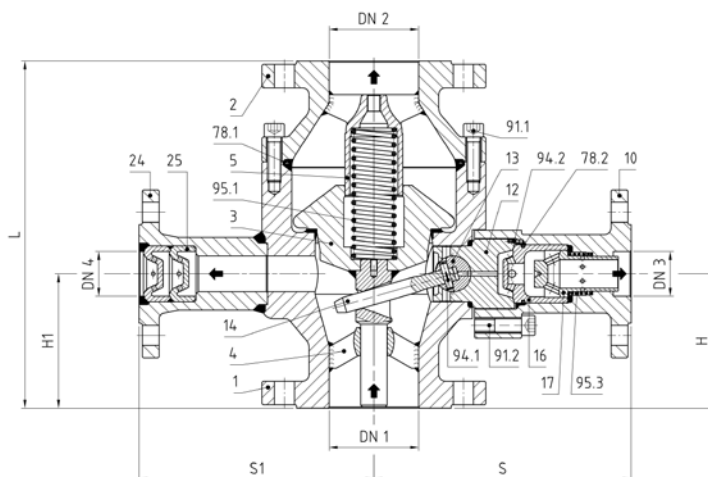
Start-Up-Trim (SUT) substitutes the Bypass valve head during cleaning and start-up of plants and therefore spares the sophisticated regulating parts (optional, permanently open Bypass outlet). Also usable instead of the Hand operating branch.

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 upwards 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.



### SSV 18-20



look at info overview



PN 10-PN 400  
ANSI 150-2500



up to  
 $\Delta p$  250 bar

Standard body material 1.0460 (P250GH)

### SSV 18-20 with non-return valve in the bypass and hand-operated branch (optional)

#### Parts List SSV 18-20

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.	16
Non-Return Valve	Part-No.	17
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
Coil spring	Part-No.	95.1
		(95.2)
Coil spring	Part-No.	95.3

#### Spare/Wear Parts SSV 18-20

<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>Non-Return Valve in the Bypass Branch, complete, consisting of:</u>		
Throttle	Part-No.	16
Non-Return Valve	Part-No.	17
O-Ring	Part-No.	78.2
Coil spring	Part-No.	95.3
<u>Single Spare Parts</u>		
O-Ring	Part-No.	78.1
O-Ring	Part-No.	78.2
Coil spring	Part-No.	95.1
		(95.2)
Coil spring	Part-No.	95.3

Materials according to operating conditions and valid standards.



# SSV

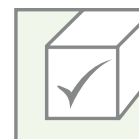
## Special Compensating Bypass Check Valve

Dimensions and Weights of Valve Range SSV 18 - DIN																
Nominal size											Valve	1)				
DN1 mm	PN bar	CV [USG/min]	DN2 mm	DN3 mm	DN4 mm	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg				
25	10-40	2.30	25	15 2	25	220	78	180 170	78	170	20 20	2				
	63	2.30		15 25				270			100		190 190	30 31	3	
	100	2.30		15 25				270			100		190 190	30 31		
	160	2.12		15 25				270			100		190 190	30 31		3.5
	250	2.12		15 25				300			115		195 195	41 42		
32	10-40	2.30	32	15 25	25	220	78	180 170	78	170	20 20	2				
	63	2.30		15 25				270			100		190 190	30 31	3	
	100	2.30		15 25				270			100		190 190	30 31		
	160	2.12		15 25				270			100		190 190	30 31		3.5
	250	2.12		15 25				300			115		195 195	41 41		
40	10-40	2.30	40	15 25 32	25	220	78	180 170 180	78	170	20 20 22	2				
	63	2.30		15 25 32				270			100		190 190 200	30 31 33	3	
	100	2.30		15 25 32				270			100		190 190 200	30 31 33		
	160	2.12		15 25 32				270			100		190 190 200	30 31 33		3.5
	250	2.12		15 25 32				300			115		195 195 205	41 42 44		
50	10-40	2.86	50	15 25 32	25	250	90	190 180 190	90	180	28 28 30	2				
	63	2.86		15 25 32				280			105		200 200 210	36 37 39	3	
	100	2.86		15 25 32				290			105		200 200 210	43 44 46		
	160	2.65		15 25 32				290			105		200 200 210	43 44 46		3.5
	250	2.65		15 25 32				330			125		205 205 215	50 51 53		

# SSV

Dimensions and Weights of Valve Range SSV 18 - DIN												
Nominal size											Valve	1)
DN1 mm	PN bar	CV [USG/min]	DN2 mm	DN3 mm	DN4 mm	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
65	10-40	3.87		25 40 50		280	105	205 205 215	105	205	41 42 44	2
	63	3.87		25 40 50		320	120	220 225 235	120	225	53 55 58	3
	100	3.87	65	25 40 50	40	340	125	220 225 235	125	225	65 67 70	3
	160	3.34		25 40 50		340	125	220 225 235	125	225	65 67 70	3.5
	250	3.34		25 40 50		370	140	240 240 250	140	240	80 82 86	4.5
80	10-40	6.45		25 40 50		310	120	245 230 250	120	230	48 46 50	3
	63	6.45		25 40 50		350	130	245 230 250	130	230	62 60 64	5
	100	6.45	80	25 40 50	40	370	130	250 240 260	130	240	74 73 78	5
	160	5.14		25 40 50		370	130	250 240 260	130	240	74 73 78	6
	250	5.14		25 40 50		400	150	255 250 270	150	250	103 103 108	8
100	10-40	9.67		40 50 65		380	145	280 280 300	145	280	75 76 80	3
	63	9.67		40 50 65		390	145	280 280 300	145	280	96 97 101	6
	100	9.67	100	40 50 65	50	430	155	300 300 320	155	300	116 117 122	6
	160	7.72		40 50 65		430	155	300 300 320	155	300	116 117 122	7
	250	7.72		40 50 65		500	180	320 320 340	180	320	184 185 191	9
125	10-40	15.91		50 65 80		440	165	360 360 380	165	360	116 118 122	4
	63	15.91		50 65 80		460	165	360 360 380	165	360	158 160 165	7
	100	15.91	125	50 65 80	50	500	170	360 360 380	170	360	192 194 200	9
	160	11.96		50 65 80		500	170	360 360 380	170	360	195 197 203	10
	250	11.96		50 65 80		570	190	380 380 400	190	380	265 267 274	12

### SSV 18



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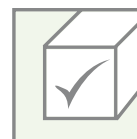


PN 10-PN 400



up to  
Δp 200 bar





look at info  
overview



PN 10-PN 400



up to  
Δp 200 bar

Dimensions and Weights of Valve Range SSV 18 - DIN												
Nominal size											Valve	1)
DN1 mm	PN bar	CV [USG/min]	DN2 mm	DN3 mm	DN4 mm	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
150	10-40	23.13	150	65	65	500	190	390	190	390	181	7
				80				395			184	
				100				415			191	
	63	23.13		65				400			231	
				80				405			234	
		100	425	241								
	100	23.13	65	420	264							
			80	420	266							
			100	440	274							
	160	16.05	65	420	291							
			80	420	293							
			100	440	301							
	250	16.05	65	420	381							
			80	420	383							
			100	440	393							
200	10-40	44.84	200	80	80	630	240	480	240	480	364	10
				100				480			366	
				125				500			372	
	63	44.84		80				485			403	
				100				485			405	
		125	505	411								
	100	44.84	80	510	446							
			100	520	451							
			125	540	459							
	160	20.96	80	520	459							
			100	535	464							
			125	555	473							
	250	20.96	80	590	704							
			100	590	707							
			125	610	717							
250	10-40	55.05	250	100	100	730	265	560	265	560	661	17
				125				560			664	
				150				580			672	
	63	55.05		100				550			699	
				125				550			702	
		150	570	710								
	100	55.05	100	590	788							
			125	590	791							
			150	610	799							
	160	34.97	100	590	814							
			125	590	817							
			150	610	826							
	250	34.97	100	700	1239							
			125	700	1243							
			150	720	1253							
300	10-40	81.85	300	125	125	860	320	640	320	640	826	20
				150				640			829	
				200				660			837	
	63	81.85		125				640			884	
				150				640			887	
		200	660	895								
	100	81.85	125	680	1118							
			150	680	1123							
			200	100	1133							
	160	42.29	125	680	1118							
			150	680	1123							
			200	700	1133							
	250	42.29	125	740	2051							
			150	740	2056							
			200	760	2066							

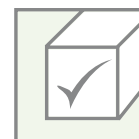
1) Weight of hand-operating branch

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 18 - ANSI												
Nominal size											Valve	1)
DN1 inch	PN lbs	CV [USG/min]	DN2 inch	DN3 inch	DN4 inch	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
1"	150	2.30	1"	0.5" 1"	1"	220	78	180 170	78	170	19 19	2
	300	2.30		0.5" 1"		270	100	180 170	100	170	27 27	3
	600	2.30		0.5" 1"		270	100	190 190	100	190	28 29	3
	900	2.12		0.5" 1"		320	125	200 200	125	200	36 37	3.5
	1500	2.12		0.5" 1"		320	125	200 200	125	200	39 40	4.5
1.25"	150	2.30	1.25"	0.5" 1"	1"	220	78	170 170	78	170	19 19	2
	300	2.30		0.5" 1"		270	100	180 170	100	170	27 27	3
	600	2.30		0.5" 1"		270	100	190 190	100	190	28 29	3
	900	2.12		0.5" 1"		320	125	200 200	125	200	36 37	3.5
	1500	2.12		0.5" 1"		320	125	200 200	125	200	39 40	4.5
1.5"	150	2.30	1.5"	0.5" 1" 1.25"	1"	220	78	180 170 180	78	170	19 19 20	2
	300	2.30		0.5" 1" 1.25"		270	100	180 170 180	100	170	27 27 28	3
	600	2.30		0.5" 1" 1.25"		270	100	190 190 200	100	190	28 29 31	3
	900	2.12		0.5" 1" 1.25"		320	125	200 200 210	125	200	36 37 39	3.5
	1500	2.12		0.5" 1" 1.25"		320	125	200 200 210	125	200	39 40 42	4.5
2"	150	2.86	2"	0.5" 1" 1.25"	1.5"	250	90	190 180 190	90	180	28 28 29	2
	300	2.86		0.5" 1" 1.25"		270	100	190 180 190	100	180	33 33 34	3
	600	2.86		0.5" 1" 1.25"		290	105	200 200 210	105	200	39 40 42	3
	900	2.65		0.5" 1" 1.25"		325	125	210 210 220	125	210	52 53 55	3.5
	1500	2.65		0.5" 1" 1.25"		350	135	210 210 220	135	210	61 62 64	4.5

### SSV 18



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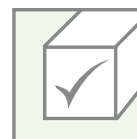
ANSI 150-2500



up to  
Δp 200 bar



Dimensions and Weights of Valve Range SSV 18 - ANSI												
Nominal size											Valve	1)
DN1 inch	PN lbs	CV [USG/min]	DN2 inch	DN3 inch	DN4 inch	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
2.5"	150	3.87	2.5"	1" 1.5" 2"	1.5"	280	105	205 205 215	105	205	43 44 45	2
	300	3.87		1" 1.5" 2"				205 205 215			51 52 53	
	600	3.87		1" 1.5" 2"				220 225 235			62 63 67	
	900	3.34		1" 1.5" 2"				230 235 245			75 77 80	
	1500	3.34		1" 1.5" 2"				240 240 250			91 93 97	
3"	150	6.45	3"	1.5" 2" 2.5"	1.5"	310	120	245 230 250	120	230	48 46 50	3
	300	6.45		1.5" 2" 2.5"				245 230 250			62 60 64	
	600	6.45		1.5" 2" 2.5"				250 240 260			81 80 84	
	900	5.14		1.5" 2" 2.5"				250 245 265			85 85 89	
	1500	5.14		1.5" 2" 2.5"				255 250 270			117 117 121	
4"	150	9.67	4"	1.5" 2" 2.5"	2"	380	145	280 280 300	145	280	77 78 82	3
	300	9.67		1.5" 2" 2.5"				280 280 300			102 103 107	
	600	9.67		1.5" 2" 2.5"				300 300 320			126 128 133	
	900	7.72		1.5" 2" 2.5"				300 310 320			152 155 159	
	1500	7.72		1.5" 2" 2.5"				320 320 340			192 196 202	
5"	150	15.91	5"	2" 2.5" 3"	2"	450	165	360 360 380	165	360	121 123 128	4
	300	15.91		2" 2.5" 3"				370 360 380			160 161 166	
	600	15.91		2" 2.5" 3"				360 360 380			223 225 231	
	900	11.96		2" 2.5" 3"				370 375 395			261 264 271	
	1500	11.96		2" 2.5" 3"				390 390 410			344 346 353	

SSV  
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ANSI 150-2500

up to  
Δp 200 bar

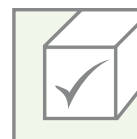
Dimensions and Weights of Valve Range SSV 18 - ANSI												
Nominal size											Valve	1)
DN1 inch	PN lbs	CV [USG/min]	DN2 inch	DN3 inch	DN4 inch	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
6"	150	23.13	6"	2.5"	2.5"	500	190	390	190	390	179	7
	300	23.13		3"				395			181	
				4"				415			187	
				2.5"				390			227	
	600	23.13		3"				395			230	
4"			415	236								
900	16.05	2.5"	420	275								
1500	16.05	3"	420	277								
		4"	440	284								
		2.5"	420	337								
8"	150	44.84	8"	3"	3"	630	240	480	240	480	362	10
	300	44.84		4"				480			364	
				5"				500			370	
				3"				480			392	
	600	44.84		4"				480			394	
5"			500	400								
900	20.96	3"	510	445								
1500	20.96	4"	520	450								
		5"	540	458								
		3"	520	595								
10"	150	55.05	10"	4"	4"	730	265	560	265	560	648	17
	300	55.05		5"				560			650	
				6"				580			656	
				4"				560			692	
	600	55.05		5"				560			694	
6"			580	700								
900	34.67	4"	590	800								
1500	34.67	5"	590	805								
		6"	610	813								
		4"	590	922								
12"	150	81.85	12"	5"	5"	860	320	635	320	635	818	20
	300	81.85		6"				635			820	
				8"				655			826	
				5"				640			881	
	600	81.85		6"				640			883	
8"			660	889								
900	42.29	5"	680	1101								
1500	42.29	6"	680	1106								
		8"	700	1115								
		5"	680	1299								
1500	42.29	6"	680	1304								
		8"	700	1313								
		5"	740	2005								
		6"	740	2012								
			8"	760	2024							

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 20 - DIN												
Nominal size											Valve	1)
DN1 mm	PN bar	CV [USG/min]	DN2 mm	DN3 mm	DN4 mm	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
40	10-40	2.86	40	15	25	220	78	180	78	170	20	2
				25				170			20	
				32				180			21	
	63	2.86		15		270	100	190	100	190	30	3
			25	190	31							
			32	200	32							
	100			15		25		25				
			25	35								
			35									
	160			15				25				
			25	35								
			35									
	250			15				25				
			25	35								
			35									
50	10-40	3.87	50	25	40	260	95	205	95	205	33	2
				40				205			35	
				50				215			38	
	63	3.87		25		300	120	220	120	225	43	3
			40	225	45							
			50	235	48							
	100	3.87		25		40		40				
			40	50								
			50									
	160			25				40				
			40	50								
			50									
	250			25				40				
			40	50								
			50									
65	10-40	6.45	65	25	40	290	110	245	110	230	51	2
				40				230			49	
				50				250			52	
	63	6.45		25		330	125	245	125	230	59	3
			40	230	61							
			50	250	64							
	100			25		40		40				
			40	50								
			50									
	160			25				40				
			40	50								
			50									
	250			25				40				
			40	50								
			50									
80	10-40	9.67	80	40	50	330	130	280	130	280	51	5
				50				280			52	
				65				300			56	
	63	9.67		40		400	150	300	150	300	93	6
			50	300	94							
			65	320	98							
	100	9.67		40		50	150	300	150	300	93	6
			50	300	94							
			65	320	98							
	160	9.67		40		400	150	300	150	300	93	6
			50	300	94							
			65	320	98							
	250			40				300			93	
			50	300	94							
			65	320	98							

### SSV 20



look at info overview



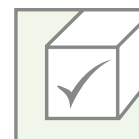
PN 10-PN 400  
ANSI 150-2500



up to  
 $\Delta p$  40 bar

Dimensions and Weights of Valve Range SSV 20 - DIN														
Nominal size											Valve	1)		
DN1 mm	PN bar	CV [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	15.91	100	50	50	410	160	350	160	350	108	5		
				65				350			109			
				80				370			113			
	63	15.91		50				420			160		350	129
				65				350			130			
		80	370	134										
	100	15.91	50	460	170	350	136							
			65	350	137									
			80	370	141									
	160		50	460	170	350	136							
			65	350	137									
			80	370	141									
	250		50	460	170	350	136							
			65	350	137									
			80	370	141									
125	10-40	23.13	125	65	40	470	180	380	180	380	120	7		
				80				385			122			
				100				405			128			
	63	23.13		65				490			180		390	197
				80				395			200			
		100	415	207										
	100		65	490	180	390	197							
			80	395	200									
			100	415	207									
	160		65	490	180	390	197							
			80	395	200									
			100	415	207									
	250		65	490	180	390	197							
			80	395	200									
			100	415	207									
150	10-40	46.79	150	80	80	520	190	440	190	440	187	7		
				100				440			188			
				125				460			195			
	63	46.79		80				550			200		445	240
				100				445			200		445	242
		125	465	249										
	100	46.79	80	550	200	445	240							
			100	445	200	445	242							
			125	465	249									
	160	46.79	80	620	210	470	276							
			100	480	210	470	279							
			125	500	210	470	287							
	250		80	620	210	480	338							
			100	495	210	480	343							
			125	515	210	480	352							
200	10-40	33.33	200	100	100	650	240	530	240	530	390	10		
				125				530			393			
				150				550			402			
	63	33.33		100				670			240		520	449
				125				520			240		520	451
		150	540	460										
	100		100	670	240	520	449							
			125	520	240	520	451							
			150	540	460									
	160		100	720	260	560	517							
			125	560	260	560	520							
			150	580	260	560	532							
	250		100	720	260	560	540							
			125	560	260	560	543							
			150	580	260	560	555							

### SSV 20



look at info overview



PN 10-PN 400  
ANSI 150-2500



up to  
 $\Delta p$  40 bar



Dimensions and Weights of Valve Range SSV 20 - DIN													
Nominal size											Valve	1)	
DN1 mm	PN bar	CV [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	50.56	250	125 150 200	125	750	270	620 620 640	270	620	671 673 683	20	
	63	50.56		125 150 200				620 620 640			712 715 726		
	100			125 150 200									
	160			125 150 200									
300	10-40		300	150 200 250	150								
	63			150 200 250									
	100			150 200 250									
	160			150 200 250									
250		150 200 250											

### SSV 20



look at info  
overview



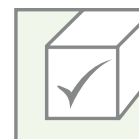
PN 10-PN 400  
ANSI 150-2500



up to  
 $\Delta p$  40 bar

Dimensions and Weights of Valve Range SSV 20 - ANSI												
Nominal size											Valve	1)
DN1 inch	PN lbs	CV [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	2.86	1.5"	0.5"	1"	220	78	180	78	170	19	2
				1"				170			19	
				1.25"				180			20	
	300	2.86		0.5"				180			27	
				1"				170			27	
		1.25"	180	28								
600		0.5"										
		1"										
		1.25"										
900		0.5"										
		1"										
		1.25"										
1500		0.5"										
		1"										
		1.25"										
2"	150	3.87	2"	1"	1.5"	250	90	205	90	250	31	2
				1.5"				205			32	
				2"				215			34	
	300	3.87		1"				205			38	
				1.5"				205			39	
		2"	215	41								
600	3.87	1"			220	42						
		1.5"			225	44						
		2"			235	47						
900		1"										
		1.5"										
		2"										
1500		1"										
		1.5"										
		2"										
2.5"	150	6.45	2.5"	1"	1.5"	290	110	245	110	230	53	2
				1.5"				230			51	
				2"				250			54	
	300	6.45		1"				245			58	
				1.5"				230			56	
		2"	250	59								
600		1"										
		1.5"										
		2"										
900		1"										
		1.5"										
		2"										
1500		1"										
		1.5"										
		2"										
3"	150	9.67	3"	1.5"	2"	330	130	280	130	280	50	3
				2"				280			51	
				2.5"				300			55	
	300	9.67		1.5"				280			62	
				2"				280			63	
		2.5"	300	67								
600	9.67	1.5"			240	85						
		2"			240	86						
		2.5"			260	91						
900	9.67	1.5"			300	105						
		2"			310	106						
		2.5"			320	111						
1500		1.5"										
		2"										
		2.5"										

## SSV 20



look at info  
overview



ANSI 150-900



up to  
 $\Delta p$  40 bar

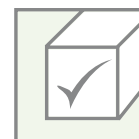


Dimensions and Weights of Valve Range SSV 20 - ANSI													
Nominal size											Valve	1)	
DN1 inch	PN lbs	CV [USG/min]	DN2 inch	DN3 inch	DN4 inch	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg	
4"	150	15.91	4"	2" 2.5" 3"	2"	410	160	350 350 370	160	350	106 107 111	3	
	300	15.91		2" 2.5" 3"				360 360 380			110 111 115		6
	600	15.91		2" 2.5" 3"				360 360 380			134 135 140		
	900			2" 2.5" 3"									
	1500			2" 2.5" 3"									
5"	150	23.13	5"	2.5" 3" 4"	2.5"	480	180	380 385 405	180	380	127 129 134	4	
	300	23.13		2.5" 3" 4"				380 385 405			166 168 173		7
	600			2.5" 3" 4"									
	900			2.5" 3" 4"									
	1500			2.5" 3" 4"									
6"	150	46.79	6"	3" 4" 5"	3"	520	190	440 440 460	190	440	185 186 193	7	
	300	46.79		3" 4" 5"				440 440 460			232 233 241		10
	600	46.79		3" 4" 5"				470 480 500			281 284 292		
	900	46.79		3" 4" 5"				490 505 525			343 348 357		
	1500			3" 4" 5"									
8"	150	33.33	8"	4" 5" 6"	4"	650	240	530 530 550	240	530	387 380 389	10	
	300	33.33		4" 5" 6"				530 530			408 410 419		14
	600			4" 5" 6"									
	900			4" 5" 6"									
	1500			4" 5" 6"									



Dimensions and Weights of Valve Range SSV 20 - ANSI												
Nominal size											Valve	1)
DN1 inch	PN lbs	CV [USG/min]	DN2 inch	DN3 inch	DN4 inch	L mm	H mm	S mm	H1 mm	S1 mm	Weight kg	G1 kg
10"	150	50.56	10"	5"	5"	750	270	620	270	620	677	17
	300	50.56		6"				620			680	
				8"				640			691	
				5"				620			726	
	900	6"		620				729				
1500	8"	620	740									
12"	150		12"	6"	6"							
	300			8"								
				10"								
				6"								
	900			8"								
1500	10"											

### SSV 20



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.

