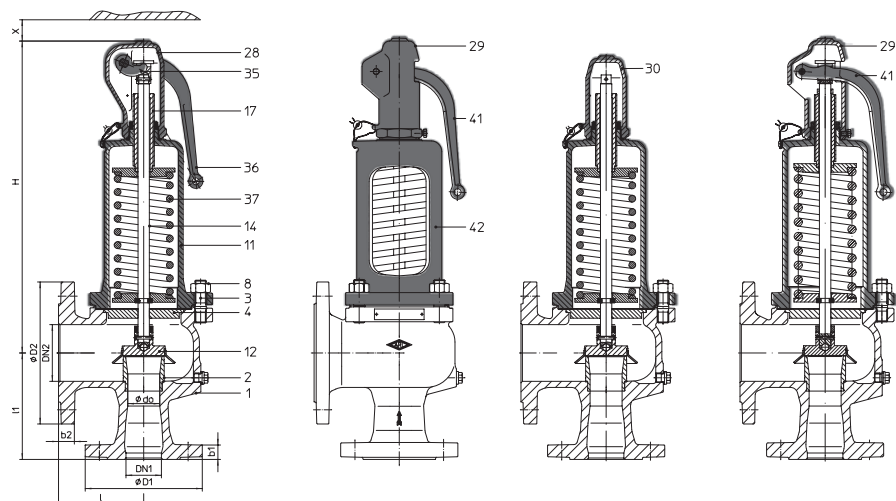


Standard / Full Lift Safety Valve

Fig. 901/902/911/912



Features

- Direct loaded with spring
- Wear resistant seat/disc
- Precision disc alignment and guide
- Possible with soft seal disc
- Possible with EPDM bellow
- Possible with stainless steel bellow
- All common thread types (SAFE-TC / TCP / TCS)
- Free of asbestos



Fig. 901 closed
lifting device closed bonnet

Fig. 902 open
lifting device open bonnet

Fig. 911 gastight
cap closed bonnet

Fig. 912 open
lifting device closed bonnet

Dimensions

DN1 x DN2	20 x 32	25 x 40	32 x 50	40 x 65	50 x 80	65 x 100	80 x 125	100 x 150	125 x 200	150 x 250
do (mm)	18	22.5	29	36	45	58.5	72	90	106	125
DN1	PN16 DIN2533							220	250	285
	PN40 DIN28607	105	115	140	150	165	185	200	235	270
	PN40 DIN2545								235	270
DN2	140	150	165	185	200	220	250	285	340	405
L	85	100	110	115	120	140	160	180	200	225
L1	95	105	115	140	150	170	195	220	250	285
H	270	280	330	390	435	545	610	690	845	890
Weight (kg)	8.5	10	14	20	28	40	53	80	125	165

Material

Pos.	Description	12.901/902/911/912	25.901/902/911/912	35.901/902/911/912	55.901/911 (PN40)	55.901/911 (PN100)
1	Body	EN-JL1040	EN-JS1049	1.0619+N	1.4408	1.4581
2	Seat	1.4571				
4	Spindle guide	1.4021+QT			1.4571	1.4571
11	Bonnet closed	EN-JL1040	EN-JS1049		1.4408	1.4581/EN-JS1049
12	Disc unit	1.4122+QT			1.4571	1.4571
14	Spindle	1.4021+QT			1.4571	1.4571
17	Adjusting screw	1.4021+QT			1.4571	1.4571
28	Cap, closed	EN-JL1040	EN-JS1049		1.4408	1.4581
36	Lifting lever, closed	EN-JS1049			1.4571	EN AC-44200 (Al)
37	Spring	1.8159			1.4310	1.4310/1.8159

Pressure Temperature Ratings

acc. to DIN EN 1092-2										
Material	PN		-60°C to <-10°C*	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C
EN-JL1040	16	(bar)	--	16	14.4	12.8	11.2	9.6	--	--
EN-JS1049	40	(bar)	on request	40	38.8	36.8	34.8	32	28	--
acc. to manufacturers standard										
Material	PN		-60°C to <-10°C*	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C
1.0619+N	40	(bar)	30	40	38.1	35	32	28	25.7	23.8
acc. to DIN EN 1092-1										
Material	PN		-60°C to <-10°C*	-10°C to 100°C	150°C	200°C	250°C	300°C	350°C	400°C
1.4408	40	(bar)	40	40	36.3	33.7	31.8	29.7	28.5	27.4
1.4581	100	(bar)	50	100	98	93.3	88.5	83.3	80.4	78

Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.
 * Studs and nuts made of A4-70 (at temperatures below -10°C)

*last updated 10/16



Capacity Saturated Steam / Air incl.10% Overpressure

DIN Standard Fig. 901 / 902 / 911 / 912

Set Gauge Pressure		I Saturated Steam in kg/h								II Air 0 °C and 1.013 bara in Nm³/h											
bar	DN 20		DN 25		DN 32		DN 40		DN 50		DN 65		DN 80		DN 100		DN 125		DN 150		
	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	
0.2	81	95	126	148	210	246	324	380	506	594	855	1003	1295	1520	2024	2375	2510	2945	3490	4100	
0.4	120	143	185	223	307	370	473	570	739	891	1250	1505	1890	2280	2960	3565	3630	4380	5050	6090	
0.5	132	161	207	252	344	419	529	646	827	1009	1400	1705	2120	2585	3310	4035	4070	4970	5660	6910	
0.6	147	182	230	284	383	472	590	728	923	1135	1560	1920	2360	2910	3690	4545	4470	5520	6220	7675	
0.8	174	218	272	341	453	567	698	873	1090	1365	1840	2305	2790	3490	4360	5460	5240	6555	7280	9115	
1	203	255	317	398	526	661	811	1019	1270	1590	2140	2690	3245	4075	5070	6370	6030	7575	8385	10530	
1.5	272	344	425	538	707	894	1090	1378	1700	2150	2875	3640	4355	5510	6800	8610	8050	10195	11200	14180	
2	305	388	477	607	792	1008	1220	1550	1900	2425	3220	4100	4880	6210	7625	9700	10125	12890	14080	17920	
2.5	366	468	572	731	950	1215	1460	1870	2285	2925	3865	4945	5855	7490	9145	11700	11990	15330	16660	21300	
3	424	544	662	850	1100	1410	1695	2175	2645	3400	4475	5750	6775	8700	10600	13600	13880	17840	19300	24800	
4	535	692	837	1080	1390	1800	2140	2770	3350	4330	5650	7310	8570	11080	13400	17300	17550	22725	24400	31600	
5	640	834	1000	1300	1665	2160	2565	3330	4000	5210	6770	8800	10260	13340	16000	20840	21000	27350	29250	38000	
6	745	975	1165	1520	1940	2530	2990	3900	4665	6090	7890	10300	11950	15600	18650	24370	24500	31900	34050	44400	
7	850	1115	1330	1745	2210	2900	3400	4465	5320	6970	9000	11790	13600	17860	21300	27900	27900	36600	38800	50900	
8	957	1255	1495	1965	2485	3260	3820	5030	5980	7860	10100	13280	15300	20100	23900	31430	31350	41200	43600	57300	
9	1060	1395	1660	2185	2755	3630	4245	5590	6630	8740	11200	14770	16950	22370	26500	34960	34800	45800	48400	63800	
10	1165	1540	1820	2400	3025	3990	4665	6150	7290	9610	12300	16250	18650	24600	29150	38500	38250	50500	53200	70200	
11	1270	1680	1985	2625	3300	4360	5080	6720	7940	10500	13400	17750	20300	26900	31750	42000	41600	55100	58000	76600	
12	1375	1820	2150	2845	3570	4730	5500	7290	8590	11380	14500	19240	22000	29150	34350	45500	45100	59700	62700	83100	
13	1480	1960	2310	3070	3840	5090	5920	7850	9250	12270	15600	20730	23650	31400	37000	49000	48500	64400	67500	89500	
14	1580	2100	2475	3290	4110	5460	6340	8400	9900	13150	16700	22200	25350	33650	39600	52600	52000	69000	72300	96000	
15	1690	2245	2640	3500	4385	5830	6760	8980	10550	14030	17800	23700	27000	35900	42200	56100	55400	73600	77000	102400	
16	1790	2385	2800	3725	4655	6190	7170	9540	11200	14900	18950	25200	28700	38200	44800	59600	58800	78200	81800	108800	
17	1900	2530	2965	3950	4930	6560	7590	10100	11850	15800	20050	26700	30350	40400	47400	63100	62200	82900	86600	115300	
18	2000	2670	3130	4170	5200	6920	8010	10670	12500	16650	21150	28100	32050	42700	50100	66700	65700	87500	91400	121700	
19	2100	2800	3295	4390	5470	7300	8430	11240	13150	17550	22250	29600	33700	44900	52700	70200	69100	92100	96200	128100	
20	2210	2950	3460	4610	5750	7660	8850	11800	13800	18400	23350	31150	35400	47200	55300	73700	72600	96800	101000	134600	
21	2320	3090	3620	4830	6020	8020	9250	12370	14500	19300	24500	32650	37100	49400	57900	77300	76000	101400	105800	141000	
22	2420	3230	3790	5050	6290	8390	9700	12930	15150	20200	25600	34150	38800	51700	60600	80800	79500	106000	110900	147500	
24	2635	3515	4120	5490	6840	9120	10500	14060	16450	21970	27850	37100	42100	56200	65900	87900	86500	115300	120600	160400	
25	2740	3655	4280	5710	7120	9490	10950	14620	17100	22850	28950	38600	43800	58500	-	-	-	90200	120000	125500	166900
26	2850	3800	4450	5930	7390	9850	11350	15190	17800	23730	30050	40100	-	-	-	-	93700	124600	130300	173300	
28	3060	4080	4780	6370	7950	10600	12250	16320	19100	25500	32300	43100	-	-	-	-	-	-	-	-	
30	3270	4360	5120	6810	8500	11320	13100	17450	20450	27250	-	-	-	-	-	-	-	-	-	-	
32	3490	4640	5450	7250	9060	12050	13950	18570	21800	29000	-	-	-	-	-	-	-	-	-	-	
34	-	4925	-	7700	-	12790	-	19700	-	30800	-	-	-	-	-	-	-	-	-	-	
40	-	5770	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Stainless steel execution max. 24 bar for saturated steam

TUV: SV : -663 D/G

DN 125, DN 150 higher pressure on request

Spring Range in bar (gauge)

DN 20	DN 25 - 50	DN 65	DN 80	DN 100	DN 125	DN 150
0.2 - 0.5	0.2 - 0.5	0.2 - 0.5	0.2 - 0.5	0.2 - 0.5	0.2 - 0.4	0.2 - 0.5
0.52 - 1	0.52 - 1	0.52 - 1	0.52 - 1	0.52 - 1	0.42 - 0.75	0.52 - 1
1.05 - 1.5	1.05 - 1.5	1.05 - 1.5	1.05 - 1.5	1.05 - 1.5	0.77 - 1.1	1.05 - 1.5
1.55 - 2.5	1.55 - 2	1.55 - 2	1.55 - 2	1.55 - 2	1.15 - 1.5	1.55 - 1.9
2.55 - 4.5	2.05 - 2.7	2.05 - 2.7	2.05 - 2.7	2.05 - 2.5	1.55 - 1.9	1.95 - 2.3
4.6 - 8.5	2.75 - 3.6	2.75 - 3.6	2.75 - 3.6	2.55 - 3	1.95 - 2.5	2.35 - 2.7
8.6 - 19	3.7 - 5	3.7 - 5	3.7 - 5	3.05 - 3.6	2.55 - 2.95	2.75 - 3.3
19.1 - 28	5.1 - 9	5.1 - 9	5.1 - 9	3.7 - 5	3 - 4	3.35 - 4.1
28.1 - 35	9.1 - 16	9.1 - 16	9.1 - 14	5.1 - 9	4.1 - 5.7	4.2 - 5.5
35.1 - 40	16.1 - 22	16.1 - 22	14.1 - 19	9.1 - 14	5.8 - 8.2	5.6 - 7.4
-	22.1 - 28	22.1 - 28	19.1 - 25	14.1 - 19	8.3 - 12	7.5 - 11
-	28.1 - 34	-	-	19.1 - 24	12.1 - 17	11.1 - 16
-	-	-	-	-	17.1 - 24	16.1 - 21
-	-	-	-	-	24.1 - 27	21.1 - 26

Sizing

For steam, air and water see capacity table, calculation acc. to DIN 3320 part 1, TRD 421 and AD-A2, necessary information for valve layout

Medium gasflow

Mass flow (kg/h), molar mass (kg/kmol), temperature (°C), set gauge pressure (bar), back gauge pressure (bar)

Medium liquid

Mass flow (kg/h), density (kg/m³), viscosity, temperature (°C), set gauge pressure (bar), back gauge pressure (bar)

Order data

ARI-SAFE - safety valve - Figure....., DN....., PN....., Material....., set gauge pressure.....bar

*last updated 10/16

