

# Safety Valves

## Type 06318



**Safety Valves, angle type, ductile casting GGG-40.3, type tested, TÜV-SV.847. S/G/L (G 3/8 - G 1/2) type tested, TÜV-SV.878. S/G/L (G 3/4 - G 1-1/4)**

metal to metal seated, closed bonnet

Inlet: male thread type G (BSPP) acc. to ISO 228/1

Outlet: female thread type G (BSPP) acc. to ISO 228/1

**Part No. 06318.X.0000**

with lifting device - head A

**Part No. 06318.X.0020**

with gastight cap - head C

Available options - on request only:

- Disc with soft sealing (EPDM, FKM, PTFE)



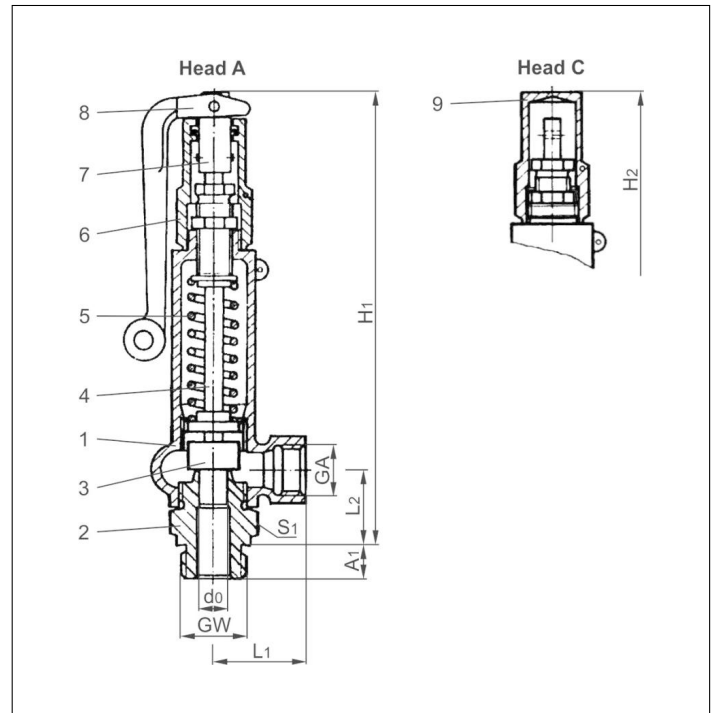
### Applications:

Provided as safety device for protection against excessive pressure in pressure vessels.

Approved for gases, vapours and fluids.

Working temperatures: -10°C / +14°F (263K) up to +280°C / +536°F (553K)

Materials	DIN EN	ASME/ASTM
1 Body + Bonnet	0.7043	A 395
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
4 Stem	1.4104	A 276 Grade 430F
5 Spring	1.4310	A 313 Grade 301
6 Lifting cap	1.4104	A 276 Grade 430F
7 Lifting stem	1.4305	A 276 Grade 303
8 Lever	3.2581	no reference
9 Cap	1.0718	A 108



Type 06318	Technical data										
Nominal size	GW	3/8	1/2	1/2	1/2	3/4	3/4	1	1	1-1/4	1-1/4
Orifice	d <sub>0</sub>	10	8	10	12.5	12.5	16	12.5	16	16	20
Dimension code	.X.	1003	0804	1004	1204	1206	1606	1210	1610	1612	2012
Set pressure range	bar	0.1-140	20-200	0.1-140	0.1-70	32-70	0.1-32	32-70	0.1-32	0.1-32	0.1-20
Outlet	GA	1/2	1/2	1/2	1/2	1	1	1	1	1	1
Height	H <sub>1</sub>	200	200	200	200	230	230	230	230	230	230
Height	H <sub>2</sub>	185	185	185	185	215	215	215	215	215	215
Length	L <sub>1</sub>	40	40	40	40	50	50	50	50	50	50
Length	L <sub>2</sub>	34	34	34	34	40	40	40	40	40	40
Length	A <sub>1</sub>	12	12	14	14	16	16	18	18	20	20
Wrench size across flats	S <sub>1</sub>	32	32	32	32	41	41	41	41	50	50
Weight	ca. kg	1.0	1.0	1.0	1.0	1.6	1.6	1.6	1.6	1.8	1.8
Coeff. of discharge gases, vapours	α <sub>w</sub>	0.38	0.42	0.38	0.27	0.37	0.29	0.37	0.29	0.29	0.11
Coeff. of discharge fluids	α <sub>w</sub>	0.30	0.30	0.30	0.20	0.29	0.23	0.29	0.23	0.23	0.08

Dimensions in mm.

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### Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

**A = Saturated steam** in kg/h

**B = Air** in m<sup>3</sup>/h at 0°C and 1013.25 mbar

**C = Water** in kg/h at 20°C

**The capacity indicated below is for a fully opened valve.**

d<sub>0</sub> - orifice

A<sub>0</sub> - flow area

Set pressure in bar (g)	GW	1/2			3/8 & 1/2			1/2			3/4 & 1		
	d <sub>0</sub> (mm)	8			10			12.5			12.5		
	A <sub>0</sub> (mm <sup>2</sup> )	50.3			78.5			122.7			122.7		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C
0.1	-	-	-	12	15	536	12	15	558	-	-	-	
0.4	-	-	-	17	24	847	19	26	883	-	-	-	
1.0	-	-	-	33	40	1257	36	44	1309	-	-	-	
2.0	-	-	-	51	64	1778	57	72	1852	-	-	-	
3.0	-	-	-	68	88	2177	76	97	2268	-	-	-	
4.0	-	-	-	85	110	2514	95	122	2619	-	-	-	
6.0	-	-	-	119	155	3079	132	172	3207	-	-	-	
8.0	-	-	-	152	200	3555	169	222	3703	-	-	-	
10.0	-	-	-	186	245	3975	207	272	4140	-	-	-	
20.0	249	333	3598	351	471	5621	390	523	5855	-	-	-	
30.0	366	494	4406	518	698	6884	575	775	7171	-	-	-	
35.0	425	575	4759	601	812	7436	667	902	7746	914	1236	11232	
40.0	484	656	5088	684	927	7949	759	1029	8280	1040	1410	12007	
50.0	602	819	5688	851	1157	8888	945	1285	9258	1295	1760	13424	
60.0	722	983	6231	1021	1389	9736	1133	1542	10141	1553	2113	14706	
70.0	843	1148	6730	1192	1622	10516	1324	1801	10954	1814	2469	15884	
80.0	968	1314	7195	1368	1858	11242	-	-	-	-	-	-	
90.0	1096	1482	7632	1549	1549	11924	-	-	-	-	-	-	
100.0	1225	1650	8044	1731	1731	12569	-	-	-	-	-	-	
120.0	1486	1991	8812	2100	2100	13769	-	-	-	-	-	-	
140.0	1754	2337	9518	2479	2479	14872	-	-	-	-	-	-	
160.0	-	2725	10186	-	-	-	-	-	-	-	-	-	
180.0	-	3065	10704	-	-	-	-	-	-	-	-	-	
200.0	-	3406	11376	-	-	-	-	-	-	-	-	-	

Set pressure in bar (g)	GW	3/4, 1 & 1-1/4			1-1/4		
	d <sub>0</sub> (mm)	16			20		
	A <sub>0</sub> (mm <sup>2</sup> )	201.1			314.2		
	Medium	A	B	C	A	B	C
0.1	23	29	1052	13	16	572	
0.4	36	50	1663	19	27	904	
1.0	67	81	2467	39	48	1341	
2.0	100	127	3489	59	75	1896	
3.0	134	171	4273	79	102	2322	
4.0	167	215	4934	99	128	2682	
6.0	232	303	6043	138	180	3284	
8.0	298	391	6978	177	232	3792	
10.0	363	479	7801	215	284	4240	
20.0	686	920	11033	407	545	5996	
30.0	1011	1364	13512	-	-	-	
35.0	1174	1587	14595	-	-	-	