

# Safety Valves

## Type 06311



**Safety Valves, angle type, stainless steel, type tested, TÜV-SV.909. D/G/F**

Full lift safety valve  
 Standard safety valve for fluids  
 metal to metal seated,  
 closed bonnet, with lifting device  
 Inlet: male thread type G (BSPP) acc. to ISO 228/1  
 Outlet: female thread type G (BSPP) acc. to ISO 228/1

**Part No. 06311.X.0000**

Available options - on request only:  
 · Disc with soft sealing (NBR, CR, EPDM, FKM, FFKM, PCTFE, PTFE-FDA)



### Applications:

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

Approved for gases, vapours and fluids.

Working temperatures: -196°C / -321°F (77K) up to +300°C / +572°F (573K)

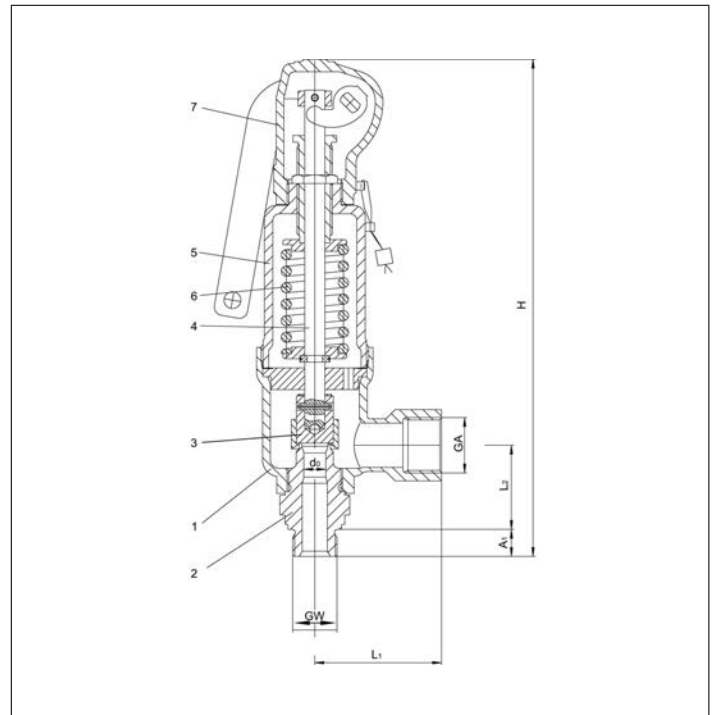
Materials	DIN EN	ASTM
1 Outlet body	1.4404	A 276 Grade 316L
2 Inlet body	1.4404	A 276 Grade 316L
3 Disc	1.4404	A 276 Grade 316L
4 Stem	1.4404	A 276 Grade 316L
5 Bonnet	1.4404	A 276 Grade 316L
6 Spring	1.4310	A 313 Grade 301
7 Lifting device	1.4408	A 351 CF 8M

**Essential:** Valves are delivered at a set pressure, therefore when ordering please confirm set pressure, medium and temperature.

Standard marking acc. to Pressure Equipment Directive 97/23/EC (PED).



Marking acc. to ASME Code Section VIII.



Type 06311	Technical data			
<b>Nominal size</b>	<b>GW</b>	<b>3/4</b>	<b>3/4</b>	<b>1</b>
Orifice	d <sub>0</sub>	9	13	17.5
Dimension code	.X.	0906	1306	1710
Set pressure saturated steam	bar	1.5-200	0.2-200	0.2-100
Set pressure air and fluids	bar	1.5-250	0.2-200	0.2-100
Outlet	GA	1	1	1-1/2
Height	H	280	280	281
Length	L <sub>1</sub>	50	50	54
Length	L <sub>2</sub>	75	75	75
Length	A <sub>1</sub>	16	16	18
Weight	ca. kg	2.6	2.6	3.0
Coeff. of discharge gases, vapours	α <sub>w</sub>	0.83	0.81	0.79
Coeff. of discharge fluids	α <sub>w</sub>	0.61	0.53	0.52

Dimensions in mm.

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### Discharge capacities

Calculation of mass flow 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.

$d_0$  - orifice

$A_0$  - flow area

Set pressure in bar (g)	GW	3/4			3/4			1		
	$d_0$ (mm)	9			13			17.5		
	$A_0$ (mm <sup>2</sup> )	63.6			132.7			240.6		
	Medium	A	B	C	A	B	C	A	B	C
0.2	-	-	-	53	61	1960	85	98	3480	
0.5	-	-	-	84	98	2770	134	157	4930	
1.0	-	-	-	120	143	3750	200	238	6670	
2.0	93	113	2930	190	229	5310	331	400	9440	
3.0	127	155	3590	258	316	6500	456	558	11600	
4.0	158	195	4140	322	396	7510	569	700	13300	
5.0	189	234	4630	386	477	8390	681	842	14900	
6.0	220	274	5070	449	557	9190	793	985	16300	
8.0	282	353	5860	573	718	10600	1013	1269	18900	
10.0	343	432	6550	699	879	11900	1235	1554	21100	
15.0	496	629	8020	1009	1281	14500	1783	2264	25800	
20.0	650	827	9260	1323	1685	16800	2338	2977	29800	
25.0	802	1025	10400	1632	2087	18800	2885	3688	33400	
30.0	957	1223	11300	1949	2490	20600	3445	4401	36500	
40.0	1268	1618	13100	2582	3295	23700	4562	5824	42200	
50.0	1588	2014	14600	3234	4101	26500	5715	7247	47200	
60.0	1910	2409	16000	3889	4906	29100	6874	8671	51700	
80.0	2583	3201	18500	5259	6517	33600	9294	11518	59700	
100.0	3296	3992	20700	6711	8127	37500	11862	14364	66700	
150.0	5438	5969	25400	11072	12153	46000	-	-	-	
200.0	-	7947	29300	-	16181	53100	-	-	-	
250.0	-	9924	32700	-	20248	59500	-	-	-	