

# Safety Valves

## Type 06820



**Safety Valves, angle type, stainless steel, type tested, TÜV-SV.1130. S/G/L**

Standard safety valve

metal to metal seated, "cleaned and degreased for oxygen service"

closed bonnet, gastight cap

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

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

**Part No. 06820.X.000000M (Pmax 550.0 bar)**

**Part No. 06820.X.000000H (Pmax 550.0 bar) stellited version**

with gastight cap



Available options - on request only:

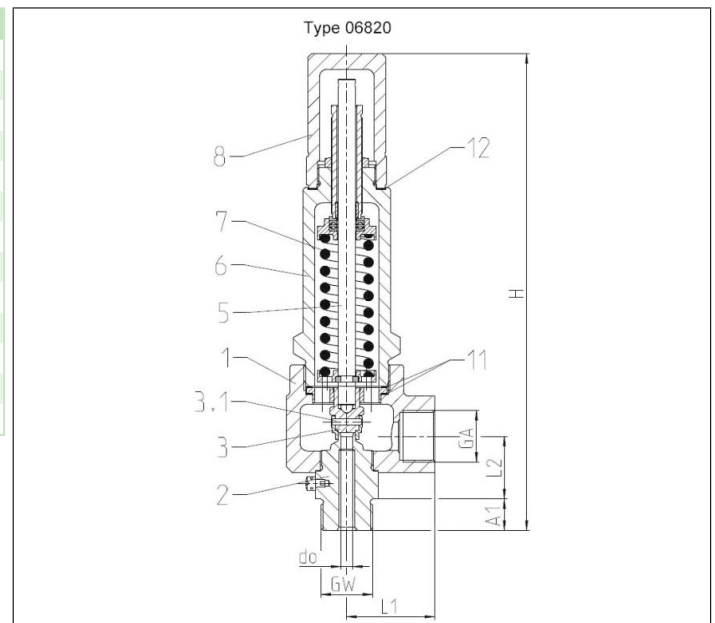
- Flange- or NPT- connection for in- and outlet
- Inlet: Cone & thread connection for d0 6mm - 9M 13/16"-16 UN or 12M 3/4" - 14NPS
- Special materials such as Monel, Hastelloy or Duplex for medium wetted parts

### Applications:

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels. Approved for gases, vapours and liquids. Working temperature: -270°C / -454°F (3K) up to +400°C / +752°F (673K)

Pressure-temperature must be observed, suitable for horizontal installation up to 300 bar

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.4404	A 276 Grade 316L
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
5 Stem	1.4404	A 276 Grade 316L
6 Bonnet	1.4404	A 276 Grade 316L
7 Spring	1.4571	A 313 Grade 316Ti
8 Cap	1.4404	A 276 Grade 316L
Spare Parts		
2 Inlet body	1.4571	316Ti
3 Disc	1.4571	316Ti
3.1 Split pin	1.4310	301
11 Gasket	Graphite	
12 Gasket	Graphite	



Type 06820	Technical data	
Nominal size	<b>GW</b>	<b>3/4</b>
Orifice	d <sub>0</sub>	6.0
Dimension code	.X.	0633
Set pressure range	bar	30-550
Outlet	GA	3/4
Height	H <sub>1</sub>	247
Length	L <sub>1</sub>	45
Length	L <sub>2</sub>	29
Length	A <sub>1</sub>	16
Weight 06820	ca. kg	2.9
Coeff. of discharge gases, vapours	α <sub>w</sub>	0.52
Coeff. of discharge fluids	α <sub>w</sub>	0.42

Dimensions in mm.

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### Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1

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		
	$d_0$ (mm)	6.0		
	$A_0$ (mm <sup>2</sup> )	28.27		
Medium	A	B	C	
30.0	254	350	3473	
40.0	336	468	4011	
60.0	503	708	4912	
80.0	670	953	5672	
100.0	845	1203	6341	
120.0	1032	1451	6947	
140.0	1230	1703	7503	
160.0	1437	1952	8021	
180.0	1688	2194	8508	
200.0	2215	2429	8968	
220.0	-	2659	9406	
240.0	-	2893	9824	
260.0	-	3133	10225	
280.0	-	3374	10611	
300.0	-	3614	10983	
320.0	-	3854	11344	
340.0	-	4094	11693	
360.0	-	4334	12032	
380.0	-	4575	12361	
400.0	-	4815	12683	
420.0	-	5055	12996	
440.0	-	5295	13302	
460.0	-	5535	13601	
480.0	-	5776	13893	
500.0	-	6016	14180	
520.0	-	6256	14460	
550.0	-	6616	14872	

### Pressure-Temperature Rating

Maximum allowable set pressure safety valve type 06820

