



## Angle Cryogenic Safety Valve

ST-101E Rev.0.0

# S3100

**Maximum Pressure**  
**350 Barg**  
**Temperature**  
**-200/+400°C**



The safety valves S3100 have angle screwed connections F/F NPT( ANSI B 1.20.1) or GAS (BSPP ISO228/1). They are suitable to be used with cryogenic fluids up to -200°C or with high temperature fluids up to 400°C. The valve design ensures the achievement of a set pressure of 350 bar with a rating class # 2500.

The stem is guided in the upper part stream and the disk has the blowdown ring. A balanced bellow is provided, on request, for backpressures more than 10% of the set pressure value.

The valves are manufactured according to ASME B16.34 and comply with 97/23/EC (PED) standard requirements.

### Materials

<b>Body/Bonnet</b>	B148/A216WCB A351CF8
<b>Trim</b>	AISI 316/304
<b>Stem</b>	AISI 304
<b>Spring</b>	AISI 316

### Operating Conditions

<b>MOP</b> Max Operative Pressure	350 Barg
<b>MOT</b> Max Operative Temperature	-200/+400°C

### Models/Connections

<b>S31001</b>	3/4" x 1"	FF - NPT o Gas
<b>S31002</b>	1" x 1 1/2"	FF - NPT o Gas
<b>S31003</b>	3/4" x 1 1/2"	FF - NPT o Gas
<b>S31006</b>	1 1/2" x 2"	FF - NPT o Gas
<b>S31007</b>	2" x 2"	FF - NPT o Gas

### Accessories

- Test gag
- Lever with or without packing
- Balanced bellow

### Applications

- Suitable for cryogenic fluids
- Liquid Oxygen -200°C
- Liquid Nitrogen -200°C
- Air
- LPG & LNG

### Characteristics

- Angle body
- Blowdown ring
- Suitable for cryogenic fluids
- Stem/Plug Guided
- Screwed connections F/F
- Max Inlet rating ANSI 2500
- Max Outlet rating ANSI 300
- Orifice from 10 mm to 21,1 mm
- PED Certificate IV Cat.





## S3100 - Angle Cryogenic Safety Valve

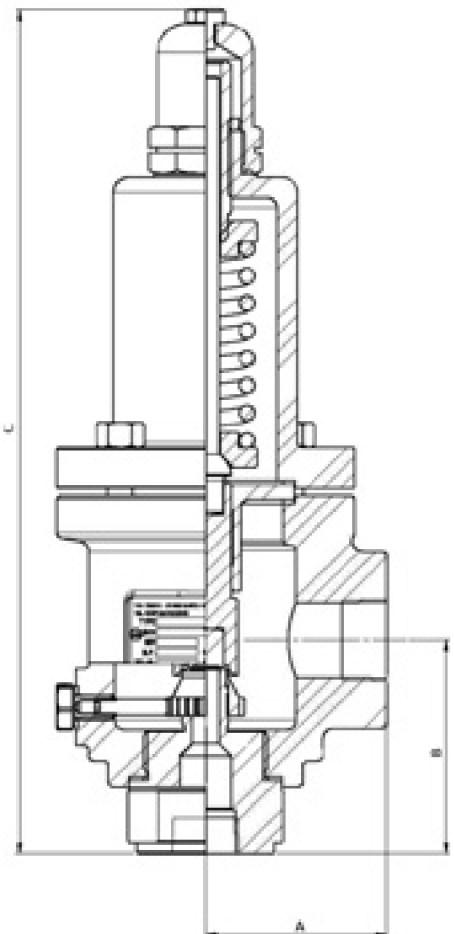
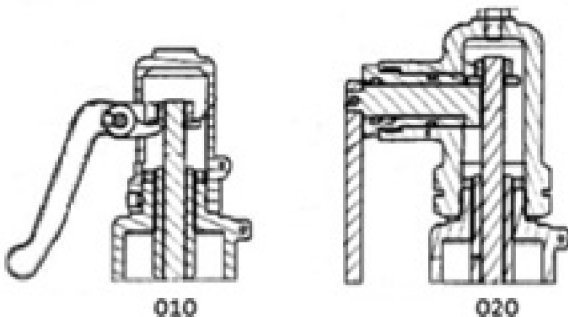
### Overall Dimensions and Technical Characteristic

TYPE	Connections		Orifice			Lift mm	Min. Thick. (S) mm	DIMENSIONS			
	Inlet F	Outlet F	Ø mm	Cm2	Sq.inc			A	B	C	
										STD	LEVER
31001	¾"	1"	10	0.785	0.121	2.5	10	70	83	335	375
31002	1"	1 ½"	13.3	1.390	0.215	3.4	10	70	83	335	375
31003	¾"	1 ½"	10	0.785	0.121	2.5	10.5	70	83	335	375
31003B	½"	1 ½"	8	0.516	0.08	2.5	10.5	70	98	350	390
31004	1"	1 ½"	13.3	1.390	0.215	3.4	10.5	85	88	390	440
31005	1 ½"	2"	16.6	2.164	0.335	4.5	10.5	85	98	400	450
31006	1 ½"	2"	19	2.851	0.442	5	10.5	85	98	400	450
31007	2"	2"	21.2	3.530	0.547	5.5	10.5	85	98	400	450

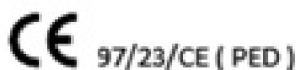
### Operating Characteristic

Discharge Coefficient K	Liquids	Gas
	0,62	0,95
Overpressure	Liquids	Gas
	10%	10%

### Accessories



### Certifications



GOST R N.9239

UNI EN ISO 9001:2008  
ICIM Certificato N. 0075/5



ATEX EX II2G