

Eshteal Arak Industrial Engineering Company is the only manufacturer of high-capacity rotary cup burners in the country, and these burners are used by all boiler companies in the country. Among the unique products produced by this company are power valves that are designed for saturated and superheated steam lines. This product was produced for the first time in the country in 2014 in the Mobarake steel complex and at a pressure of 70 bar. It has been used successfully. Eshteal Arak Industrial Engineering Company has been modernizing its production lines since 2003 and is currently equipped with more than 98 machines, 61 of which are CNC lathes and milling centers (referred to at the end), stepped into the field of producing products with modern sophisticated technology. It should be mentioned that this company has succeeded in obtaining the knowledge-based badge on burners and valves during two consecutive periods, and in order to enhance the brand and satisfy customers, the necessary standards such as ISIRI 7595, ISIRI 7594, ISO 3834, ISO 9001:2015 and implemented 5S



This valve are designed to meet all industrial applications up to F orifice. open rapidly with an overpressure of max. 10 % to the full design lift. Threaded connections (DN 15 /DN 15) male and female. The material of the body is stainless steel. the type of sealing is Metal on Metal

Safety Relief Valves ½ "



ESHTEAL ARAK

INDUSTRIAL ENGINEERING CO.
Manufacturer of burners, valves
and precision tools for steam boilers

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Safety Relief Valve

Type SFC 37

- Conventional design
- Long design

Description

- Compact Performance Safety Valves offer ultimate protection against unallowable overpressures in all applications for steam, gases and liquids where smaller capacities are required
- Open rapidly with an overpressure of max. 10 % to the full design lift
- Have a maximum blow down of minus 10 % for steam/gas service and Minus 20 % for liquid service
- Are designed to meet all industrial applications up to F orifice
- Compact Performance Safety Valves are designed, marked, produced according to EN ISO 4126-1

Applications

- Air/gas compressors and pumps
- Technical gases and CO₂ plants
- Cylinder filling stations
- Chemical equipment and piping
- Pressure vessels and piping systems containing gas, air, liquid or steam
- LPG / LNG terminals, carriers etc.
- Cryogenic systems and oxygen applications
- Thermal relief
- High pressure extraction plants

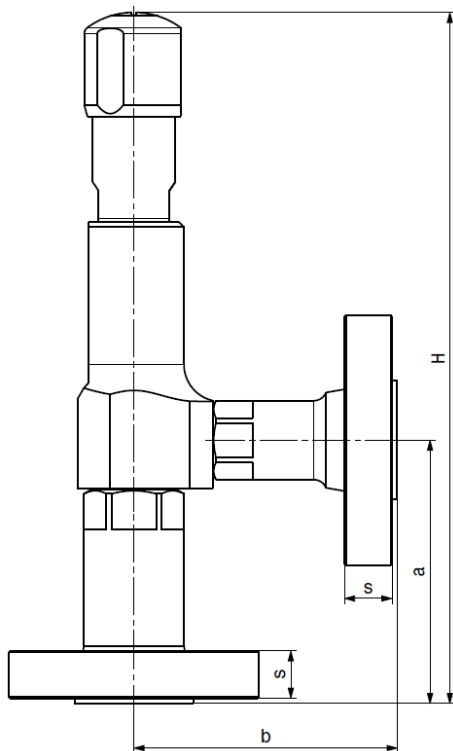


Conventional design
Cap E4

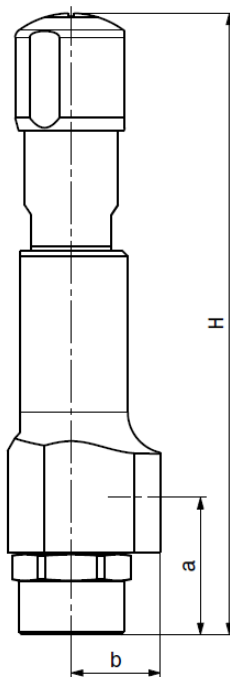
Dimensions and pipe connections

▪ Threaded connections

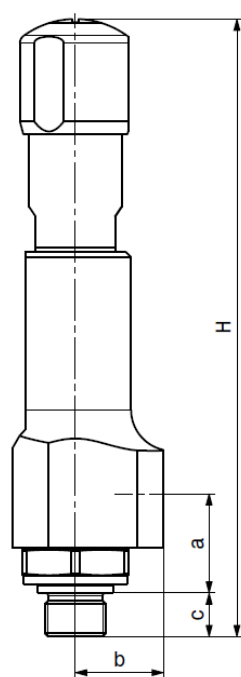
Inlet and Outlet thread		Valve model	
		Conventional design	Long design
Orifice diameter		10 mm	
Orifice area		78.5 mm ²	
Inlet thread type		DIN ISO 228-1 G 1/2"	
Outlet thread type		DIN ISO 228-1 G 1/2"	
Inlet and Outlet thread female			
Center to face	Inlet a	46 mm	
	Outlet b	30 mm	
Height (Cap E4)	H max.	209 mm	230 mm
Inlet thread male and Outlet thread female			
Center to face	Inlet a	34 mm	
	Outlet b	30 mm	
Height (Cap E4)	H max.	212 mm	231 mm
Length of screw end	C	15 mm	



Flanged connection – Cap E4



Female thread – Cap E4



male thread - Cap E4

▪ Flanged connections

Inlet and Outlet flange		Valve model	
		Conventional design	Long design
Orifice diameter		10 mm	
Orifice area		78.5 mm ²	
Inlet and Outlet flange (DIN EN 1092-1 / Flange rating class PN 40)			
Inlet and Outlet flange Size		DN 15	
Center to face	Inlet a	100 mm	
	Outlet b	100 mm	
Height (Cap E4)	H max.	263 mm	284 mm
Flange thickness	S	18 mm	
Inlet and Outlet flange (ASME B16.5 / Flange rating class 150)			
Inlet and Outlet flange Size		NPS 1/2"	
Center to face	Inlet a	100 mm	
	Outlet b	100 mm	
Height (Cap E4)	H max.	263 mm	284 mm
Flange thickness	S	14 mm	
Inlet and Outlet flange (ASME B16.5 / Flange rating class ≥ 300)			
Inlet and Outlet flange Size		NPS 1/2"	
Center to face	Inlet a	103 mm	
	Outlet b	100 mm	
Height (Cap E4)	H max.	266 mm	287 mm
Flange thickness	S	18 mm	

Pressure/temperature rating (Metric units)

Valve model		Conventional design	Long design
Inlet Body	Pressure rating	PN 320	
Outlet body	Pressure rating	PN 160	
Minimum set pressure	p (bar g) S/G/L	0.1	68
Maximum set pressure	p (bar g) S/G/L	68	180
Temperature (acc. to DIN EN)	min (°C)	-270	
	max (°C)	+280	

Coefficient of discharge K_{dr} (EN ISO 4126-1)

S/G	0.50
L	0.35

Capacities

• Saturated steam

Capacities for saturated steam according to EN ISO 4126-1, based on set pressure 10 % over pressure. Capacities at 1 bar (14.5 psig) and below are based on 0.1 bar (1.45 psig) Overpressure.

Saturated steam (EN ISO 4126-1)

Set pressure (bar)	0.1	0.2	0.5	1	2	3	4	5	10	20	30	50	68
Capacities (kg/h)	12	17	29	43	70	94	118	141	255	483	712	1181	1620

• Air

Capacities for air according to EN ISO 4126-1, based on set pressure plus 10 % Over pressure at 0 °C and 1013 mbar. Capacities at 1 bar (14.5 psig) and below are based on 0.1 bar (1.45 psig) overpressure.

Air (EN ISO 4126-1)

Set pressure (bar)	0.1	0.2	0.5	1	2	3	4	5	10	20	30	50	68
Capacities (m ³ /h)	14	19	34	51	84	115	145	174	321	615	909	1498	2027

• Water

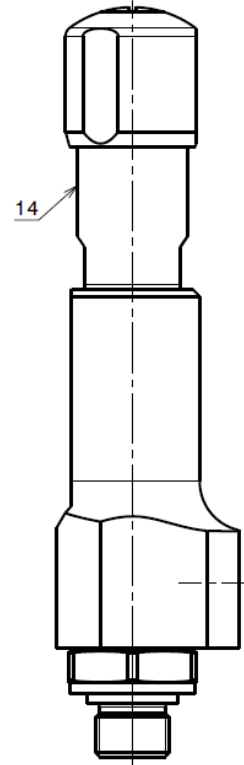
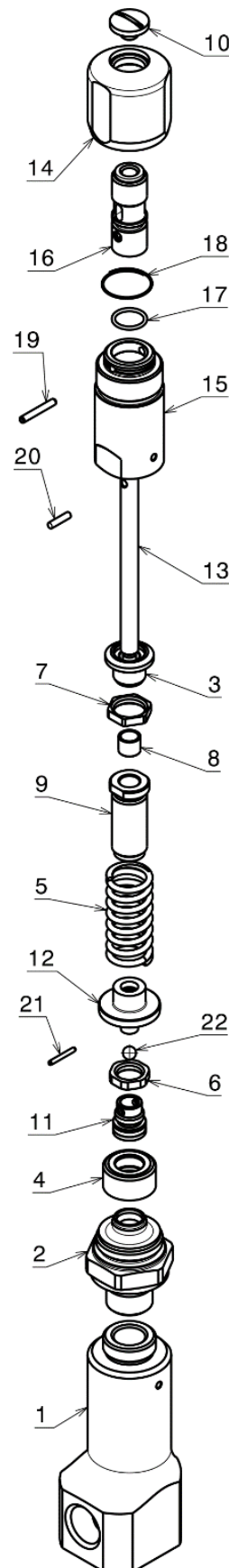
Capacities for water according to EN ISO 4126-1, based on set pressure plus 10 % overpressure at 20 °C (68 °F). Capacities at 1 bar (14.5 psig) and below are based on 0.1 bar (1.45 psig) overpressure.

Water (EN ISO 4126-1)

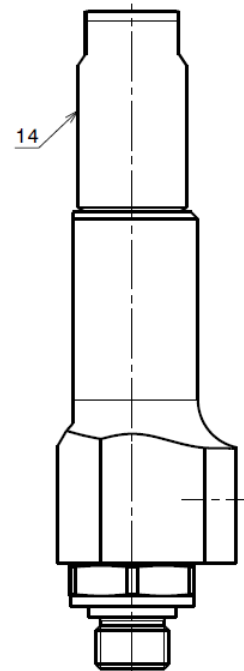
Set pressure (bar)	0.1	0.2	0.5	1	2	3	4	5	10	20	50	68
Capacities (10 ³ kg/h)	0.63	0.77	1.08	1.5	2.1	2.5	2.9	3.3	4.6	6.6	10.4	12.1

Material

Item	Part Name	Material
1	Outlet Body - Threaded connection - Flanged connection	Stainless Steel
2	Inlet Body - Threaded connection - Flanged connection	Stainless Steel
3	Spring Plate	Stainless Steel
4	Cone	Stainless Steel
5	Spring	Stainless Steel
6	Disc Nut	Stainless Steel
7	Lock Nut	Stainless Steel
8	Bush	PTFE
9	Adjusting Screw	Stainless Steel
10	Stop Unit	Stainless Steel
11	Disc	Stainless Steel
12	Spring Plate	Stainless Steel
13	Spindle	Stainless Steel
14	Cap E2 Cap E4	Stainless Steel
15	Lever Cover	Stainless Steel
16	Spindle Cap	Stainless Steel
17	O-Ring	Viton
18	Retaining Clip	Stainless Steel
19	Spring Pin	Stainless Steel
20	Pin	Stainless Steel
21	Spring Pin	Stainless Steel
22	Ball	Stainless Steel



male thread - Cap E4



male thread - Cap E2