

ESHTEARAK INDUSTRIAL ENGINEERING CO .

Manufacturer of burners, valves
and precision tools for steam boilers

Valves

| | |
|---|----|
| Pressure Relief Valve | 1 |
| Steam Safety Valve | 4 |
| Dual Spring Safety Valve | 14 |
| Single Spring Safety Valve | 18 |
| Safety Relief Valve | 22 |
| SFV 500 | 27 |
| SFV 600 | 30 |
| Key Operated Boiler Blowdown Valve | 34 |
| Parallel Slide Blowdown Valve (Link Type for small boilers) | 36 |
| Parallel Slide Blowdown Valve | 38 |
| Level Control (Bx & BD) | 40 |
| Sequencing Blowdown Valve | 44 |
| Magnetic Liquid Level Gauge | 46 |
| Glob Stop Valve | 49 |
| Feed Check Valve | 51 |
| Disc Check Valve | 53 |
| Air & Tester Valve | 55 |
| Absolute Liquid Level Gauge | 57 |
| Electronic Products | 59 |
| ETC | 61 |
| ELC | 63 |
| ELE | |

Eshteval 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. Eshteval 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 is a reliable pressure relief valve for industrial applications involving variable back pressure. The design and options provide maximum versatility and premium performance.

This valve is available in the size of 3/4"

Pressure relief Valve



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteval.arak@gmail.com
✉ eshteval.commerce@gmail.com

📷 eshtevalarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Pressure Relief Valve

Type TSV

Description

TSV is a reliable pressure relief valve for industrial applications involving variable back pressure.

The design and options provide maximum versatility and premium performance.

Maximum back pressure in liquid applications is 70 % of set pressure. The maximum back pressure in vapor and gas applications is 50% of set pressure. For liquid thermal relief applications, maximum back pressure is 90 % of set pressure.

Maximum back pressure is 400 psig.



Applications

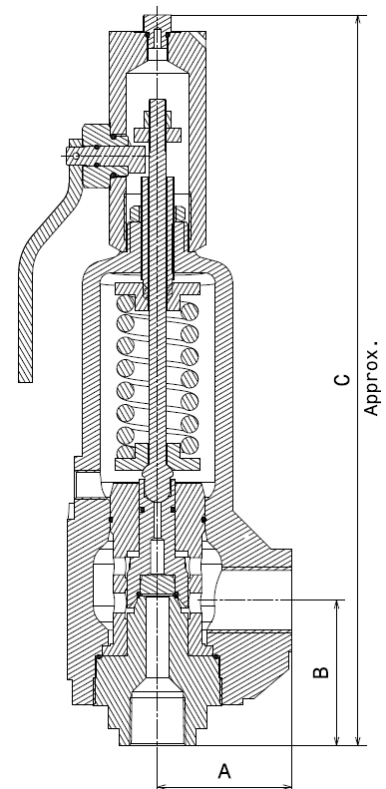
TSV pressure relief valve has a simplified, single trim design with superior application versatility.

This valve provides overpressure protection for low and Medium flow applications in refineries, chemical and petrochemical plants, power plant auxiliary systems, and pulp and paper mills.

Dimensions and pipe connections

Threaded connections

| | | |
|--------------------|---|-----------------------|
| Orifice area | | 70.96 mm ² |
| Inlet thread type | | NPT 3/4" (female) |
| Outlet thread type | | NPT 1" (female) |
| Center to face | A | 62.5 mm |
| | B | 67.8 mm |
| Height | C | 345 mm |



Pressure/temperature rating

| | |
|----------------------|----------|
| Maximum set pressure | 103 barg |
| Maximum Temperature | 204 °C |

Capacities

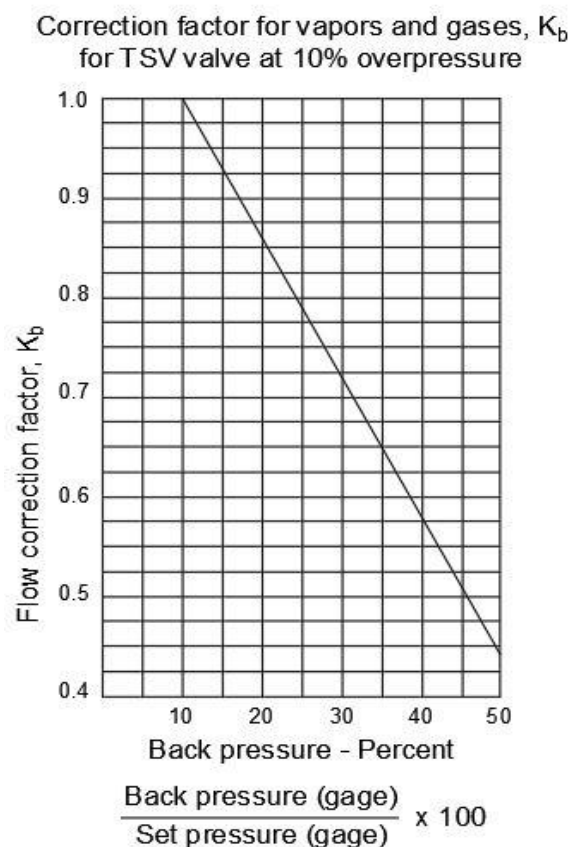
The capacities listed in the following tables are based on discharging to atmospheric pressure.

For applications involving back pressure these capacities must be multiplied by the back pressure correction factor determined from the applicable curve shown on Bottom.

Air Capacities

Capacity in standard cubic meters of air per minute at 16°C and 10% overpressure.

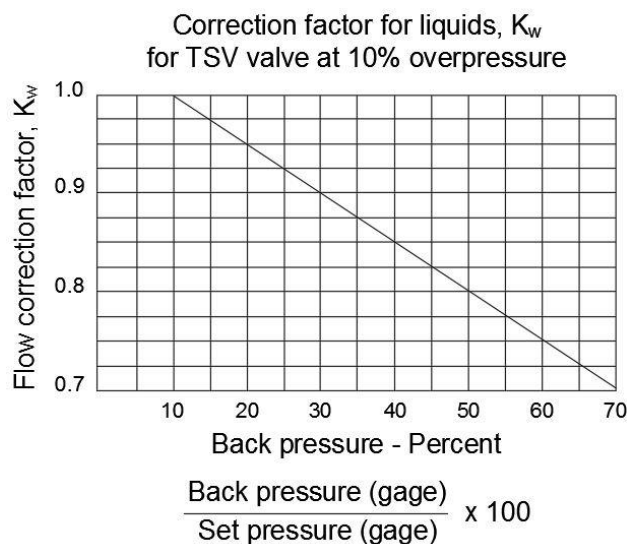
| Set Pressure (barg) | Capacity |
|---------------------|----------|
| 10 | 9.7 |
| 20 | 18.5 |
| 30 | 27.4 |
| 40 | 36.3 |
| 50 | 45.2 |
| 60 | 54.1 |
| 70 | 63 |
| 82 | 73.6 |
| 94 | 84.3 |
| 103 | 92.3 |



Water Capacities

Capacity in liters per minute of water at 21°C and 10% overpressure.

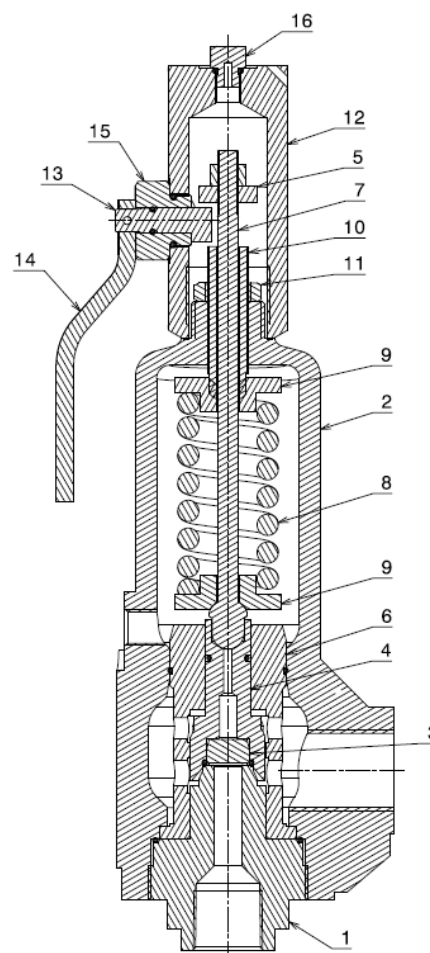
| Diff. Pressure ΔP^* (bar) | Capacity |
|--------------------------------------|----------|
| 10 | 141 |
| 20 | 199 |
| 30 | 244 |
| 40 | 282 |
| 50 | 315 |
| 60 | 345 |
| 70 | 373 |
| 82 | 404 |
| 94 | 432 |
| 103 | 452 |



*Differential Pressure (ΔP) equals inlet pressure (set pressure plus overpressure) at flowing conditions minus back pressure.

Material

| Item | Part name | Material |
|------|----------------|-----------------|
| 1 | Base | Stainless Steel |
| 2 | Cylinder | Cast Steel |
| 3 | Disk Insert | Stainless Steel |
| 4 | Disk Holder | Stainless Steel |
| 5 | Spindle Nut | Steel |
| 6 | Guide | Stainless Steel |
| 7 | Spindle | Stainless Steel |
| 8 | Spring | Stainless Steel |
| 9 | Spring Washer | Stainless Steel |
| 10 | Adjusting Bolt | Stainless Steel |
| 11 | Adjusting Nut | Steel |
| 12 | Cap | Steel |
| 13 | Cam | Stainless Steel |
| 14 | Lever | Steel |
| 15 | Cam Sleeve | Stainless Steel |
| 16 | Cap Plug | Steel |



Eshteval 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. Eshteval 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



These valves are high capacity nozzle type safety valves and they meet the requirements of the ASME Boiler and Pressure Vessel Code, Section I

Steam Safety Valve



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteval.arak@gmail.com
✉ eshteval.commerce@gmail.com

📷 eshtevalarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

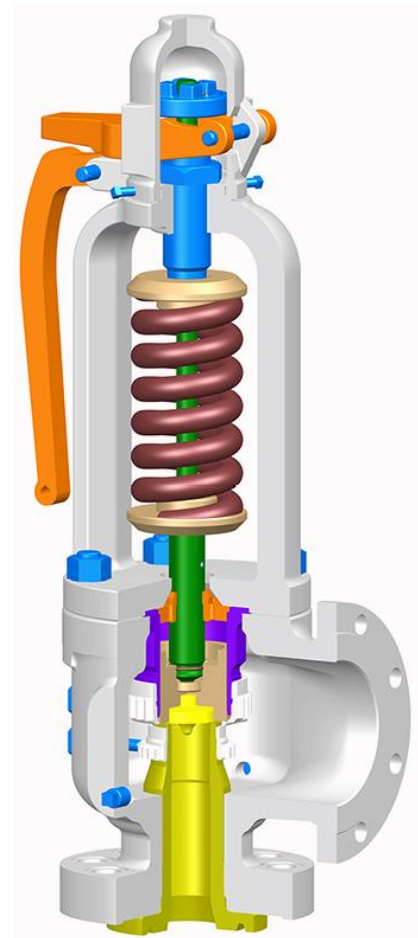
📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Steam Safety Valve

Type HC

Description

Style HC is a high capacity reaction type safety valve. All Style HC welded inlet safety valves are equipped with hydrostatic test plugs and shipped in two parts: valve body and valve superstructure. This makes handling easier for installation welding. Style HC safety valve opens with a sharp pop at the set pressure and remains open, relieving rated capacity at 3% overpressure. As inlet pressure decays below the opening pressure, the safety valve remains open until a pressure about 4% below the set pressure is reached. At that point, the safety valve closes sharply.



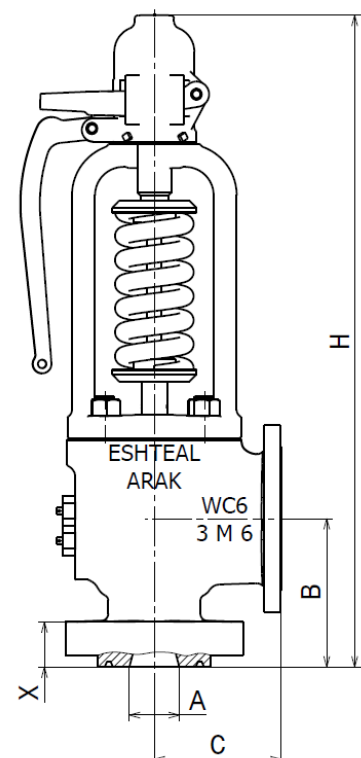
Applications

This valve designed for saturated and superheated steam applications to temperatures of 750°F.

Dimensions and pipe connections

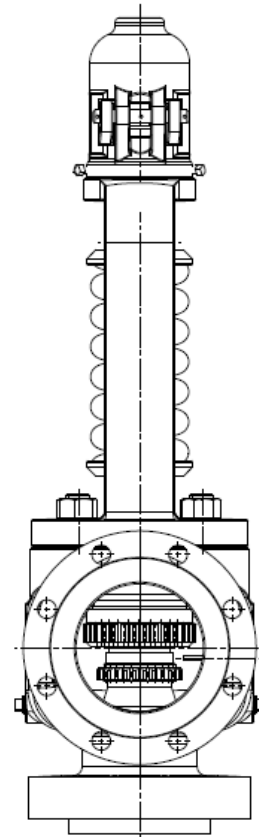
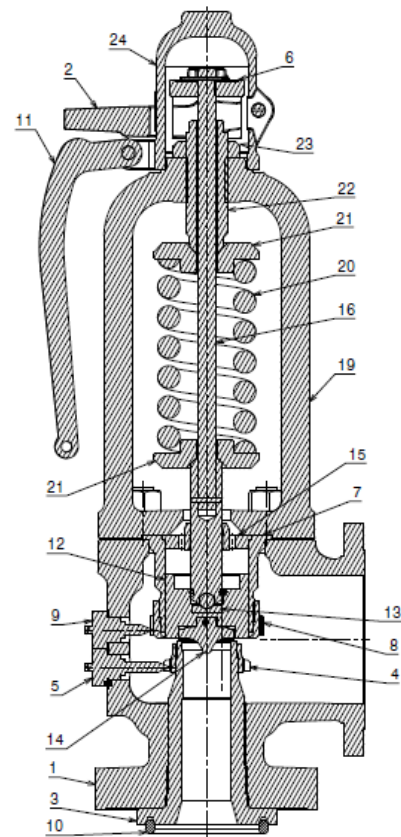
Dimensions (approx.) in mm

| | | | | |
|-----------------------------------|--------------------------|---------------------------|-------------|-----|
| Valve Type | | HC - 57 | | |
| Valve Size (inlet-orifice-outlet) | | 3 M 6 | | |
| Orifice Area (cm ²) | | 23.23 | | |
| Connections | | ANSI Class Flanged Inlet | 3 in - 1500 | |
| | | ANSI Class Flanged Outlet | 6 in - 150 | |
| Dimensions | Used to Find Bolt Length | X | 67.5 | |
| | Inlet I.D. | A | 76.2 | |
| | Center to face of | Inlet | B | 222 |
| | | Outlet | C | 190 |
| Height | H | 975 | | |



Material

| Item | Part Name | Material |
|------|--------------------------|--------------------------|
| 1 | Body | Alloy steel |
| 2 | Forked lever | S.G iron |
| 3 | Nozzle | Stainless steel |
| 4 | Nozzle ring | Stainless steel |
| 5 | Nozzle ring set screw | Stainless steel |
| 6 | Spindle nut | Carbon steel |
| 7 | Guide | Stainless steel |
| 8 | Guide ring | Stainless steel |
| 9 | Guide ring set screw | Stainless steel |
| 10 | Ring | Stainless steel |
| 11 | Hand lever | Carbon steel |
| 12 | Disc holder | Monel |
| 13 | Disc bushing | Stainless steel |
| 14 | Disc insert | Stainless steel/Stellite |
| 15 | Guide aligner | Bronze |
| 16 | Spindle assembly | Stainless steel/Monel |
| 19 | Bonnet | Alloy steel |
| 20 | Spring | Alloy steel |
| 21 | Spring washer | Carbon steel |
| 22 | Adjusting screw | Stainless steel |
| 23 | Adjusting screw lock nut | Carbon steel |
| 24 | Cap | Carbon steel |

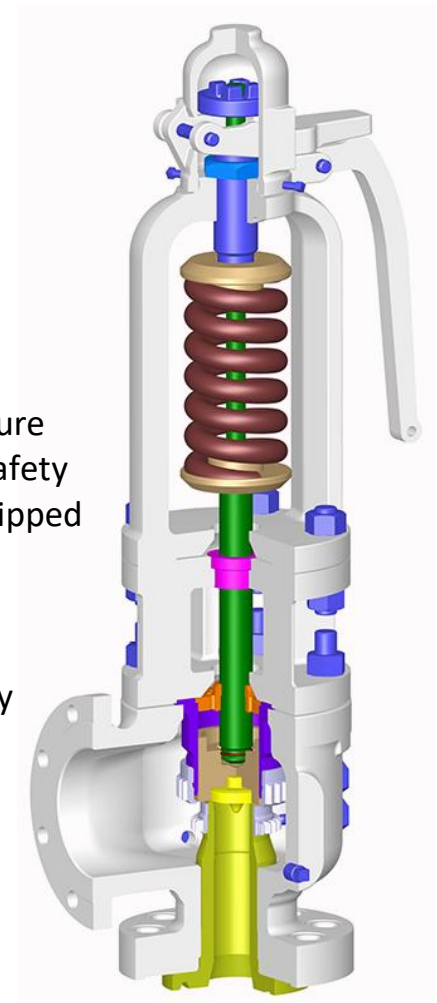


Steam Safety Valve

Type HCA

Description

Style HCA is a high capacity reaction type safety valve. In Style HCA valve, a cooling spool is placed between the body and bonnet to protect the spring from exposure to extreme temperatures. All Style HCA welded inlet safety valves are equipped with hydrostatic test plugs and shipped in two parts: valve body and valve superstructure. This makes handling easier for installation welding. Style HCA safety valve opens with a sharp pop at the set pressure and remains open, relieving rated capacity at 3% overpressure. As inlet pressure decays below the opening pressure, the safety valve remains open until a pressure about 4% below the set pressure is reached. At that point, the safety valve closes sharply.



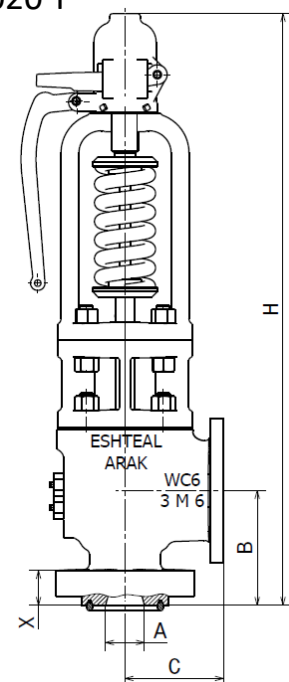
Applications

This valve designed for saturated and superheated steam applications. Style HCA is a high temperature version of the Style HC, with an alloy steel construction suitable to temperatures up to 1020°F

Dimensions and pipe connections

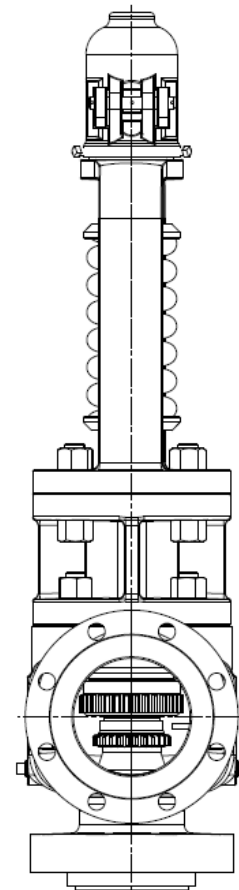
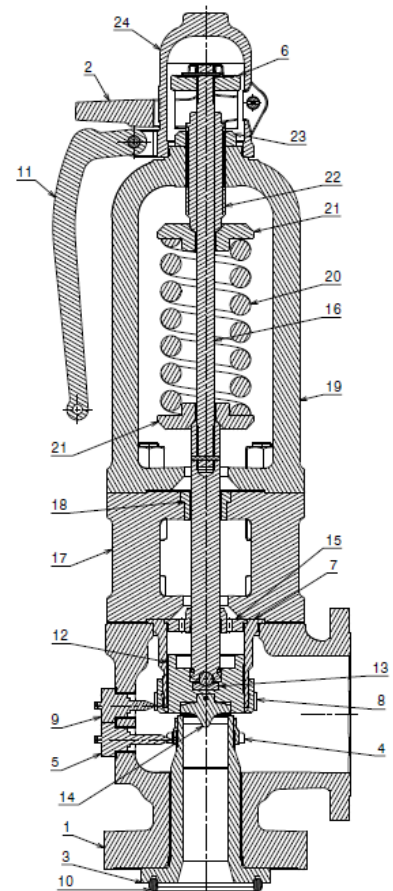
Dimensions (approx.) in mm

| | | | | |
|-----------------------------------|--------------------------|---------------------------|-------------|-----|
| Valve Type | | HCA - 57 | | |
| Valve Size (inlet-orifice-outlet) | | 3 M 6 | | |
| Orifice Area (cm ²) | | 23.23 | | |
| Connections | | ANSI Class Flanged Inlet | 3 in - 1500 | |
| | | ANSI Class Flanged Outlet | 6 in - 150 | |
| Dimensions | Used to Find Bolt Length | X | 67.5 | |
| | Inlet I.D. | A | 76.2 | |
| | Center to face of | Inlet | B | 222 |
| | | Outlet | C | 190 |
| Height | H | 1150 | | |



Material

| Item | Part Name | Material |
|------|--------------------------|---------------------------|
| 1 | Body | Alloy steel |
| 2 | Forked lever | S.G iron |
| 3 | Nozzle | Stainless steel |
| 4 | Nozzle ring | Stainless steel |
| 5 | Nozzle ring set screw | Stainless steel |
| 6 | Spindle nut | Carbon steel |
| 7 | Guide | Stainless steel |
| 8 | Guide ring | Stainless steel |
| 9 | Guide ring set screw | Stainless steel |
| 10 | Ring | Stainless steel |
| 11 | Hand lever | Carbon steel |
| 12 | Disc holder | Monel |
| 13 | Disc bushing | Stainless steel |
| 14 | Disc insert | Stainless steel /Stellite |
| 15 | Guide aligner | Bronze |
| 16 | Spindle assembly | Stainless steel /Monel |
| 17 | Cooling spool | Alloy steel |
| 18 | Cooling spool aligner | Bronze |
| 19 | Bonnet | Alloy steel |
| 20 | Spring | Alloy steel |
| 21 | Spring washer | Carbon steel |
| 22 | Adjusting screw | Stainless steel |
| 23 | Adjusting screw lock nut | Carbon steel |
| 24 | Cap | Carbon steel |

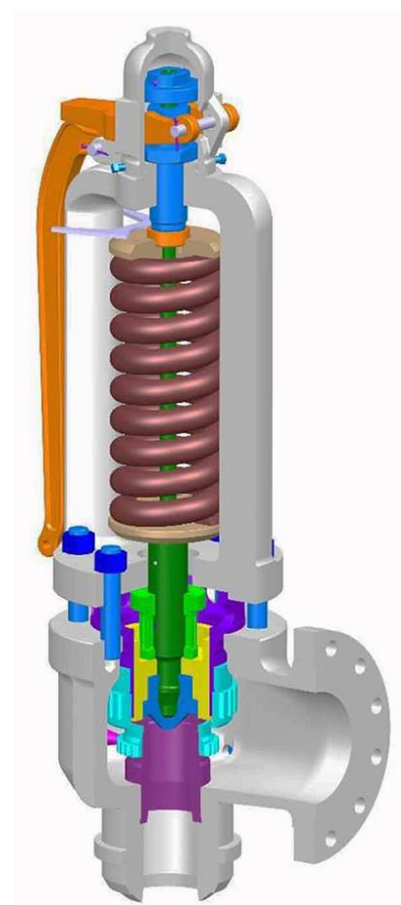


Steam Safety Valve

Type HCI (38 bar)

Description

Style HCI is a high capacity nozzle type safety valve and It meets the requirements of the ASME Boiler and Pressure Vessel Code, Section I, Power Boilers, and Section VIII, Unfired Pressure Vessels The adjustable nozzle and guide rings utilize the reactive and expansive forces of the flowing steam to provide full capacity lift. The open bonnet exposes the spring to atmosphere, minimizing thermal effects welded inlets and flanged outlets are the standard connections



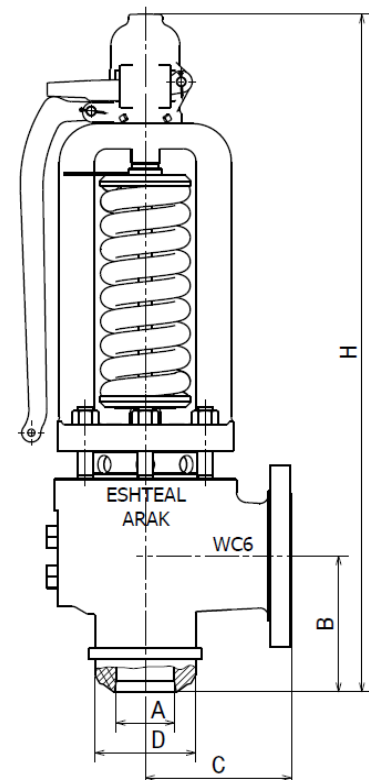
Applications

Style HCI is a safety valve for saturated and superheated steam service.

Dimensions and pipe connections

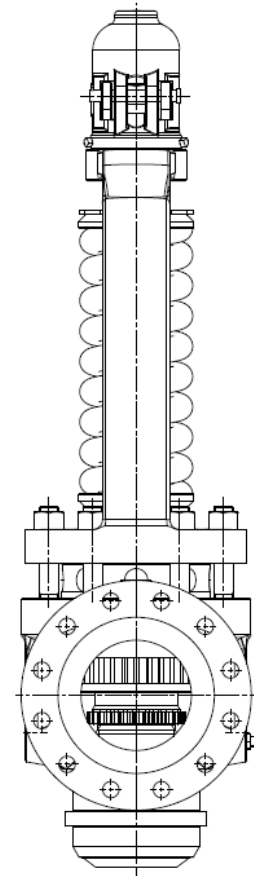
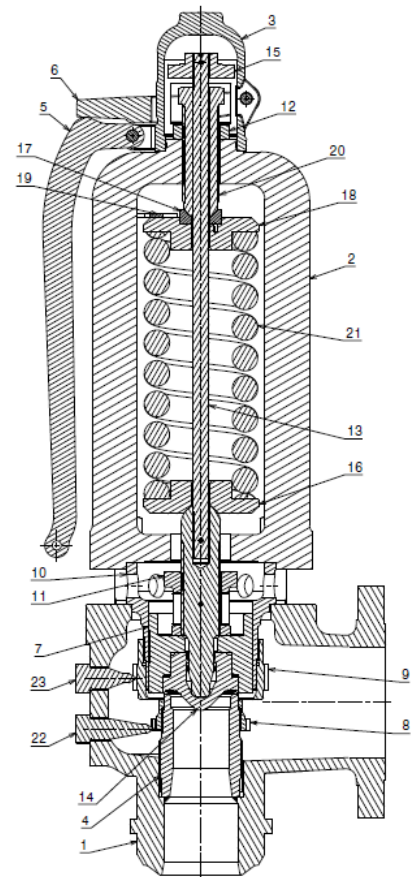
Dimensions (approx.) in mm

| | | | | |
|-----------------------------------|-------------------|---------------------------|------------|-----|
| Valve Type | | HCI - 58W | | |
| Valve Size (inlet-orifice-outlet) | | 4 P2 6 | | |
| Orifice Area (cm ²) | | 45.61 | | |
| Connections (mm) | | Butt Weld Inlet | 101.6 | |
| | | ANSI Class Flanged Outlet | 6 in - 300 | |
| Dimensions | Inlet I.D. | A | 101.6 | |
| | Inlet O.D. | D | 174.6 | |
| | Center to face of | Inlet | B | 238 |
| | | Outlet | C | 254 |
| Height | | H | 1170 | |



Material

| Item | Part Name | Material |
|------|---------------------------|-----------------|
| 1 | Body | Alloy steel |
| 2 | Bonnet | Alloy steel |
| 3 | Cap | Carbon steel |
| 4 | Nozzle | Stainless steel |
| 5 | Hand lever | Carbon steel |
| 6 | Forked lever | Carbon steel |
| 7 | Disc holder | Nickel alloy |
| 8 | Nozzle ring | Stainless steel |
| 9 | Guide ring | Stainless steel |
| 10 | Guide | Nickel alloy |
| 11 | Disc holder retaining nut | Stainless steel |
| 12 | Adjusting screw nut | Stainless steel |
| 13 | Spindle assembly | Stainless steel |
| 14 | Disc insert | Inconel |
| 15 | Spindle nut | Stainless steel |
| 16 | Bottom spring washer | Steel |
| 17 | Bearing adapter | Alloy steel |
| 18 | Top spring washer | Steel |
| 19 | Top spring washer pin | Steel |
| 20 | Adjusting screw | Stainless steel |
| 21 | Spring | Alloy steel |
| 22 | Nozzle Ring Set Screw | Stainless steel |
| 23 | Guide Ring Set Screw | Stainless steel |

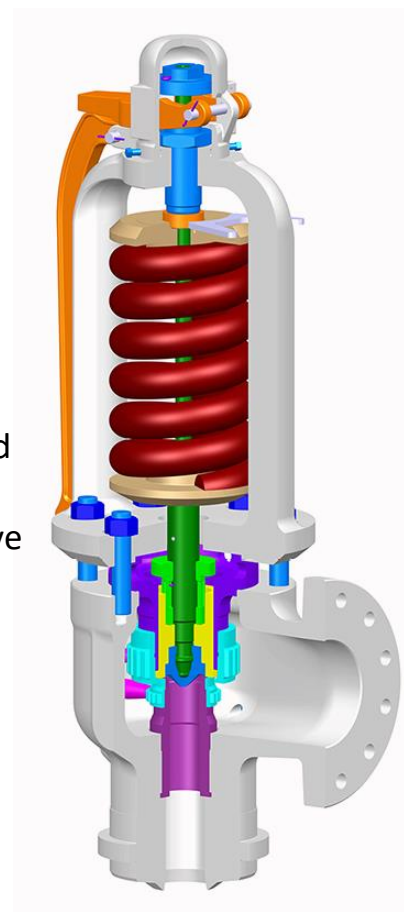


Steam Safety Valve

Type HCI (181.5 bar)

Description

Style HCI is a high capacity nozzle type safety valve and It meets the requirements of the ASME Boiler and Pressure Vessel Code, Section I, Power Boilers, and Section VIII, Unfired Pressure Vessels The adjustable nozzle and guide rings utilize the reactive and expansive forces of the flowing steam to provide full capacity lift. The open bonnet exposes the spring to atmosphere, minimizing thermal effects welded inlets and flanged outlets are the standard connections



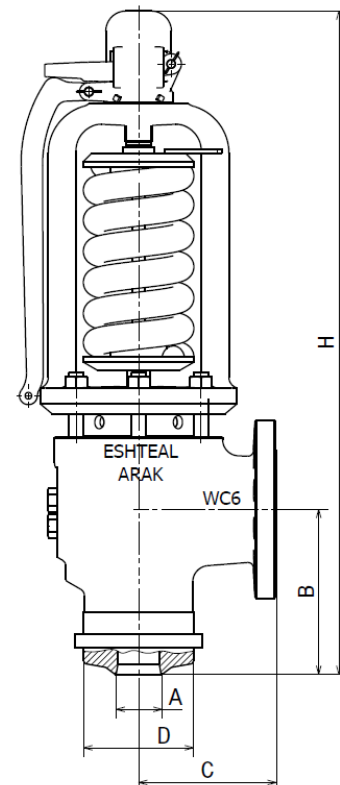
Applications

Style HCI is a safety valve for saturated and superheated steam service.

Dimensions and pipe connections

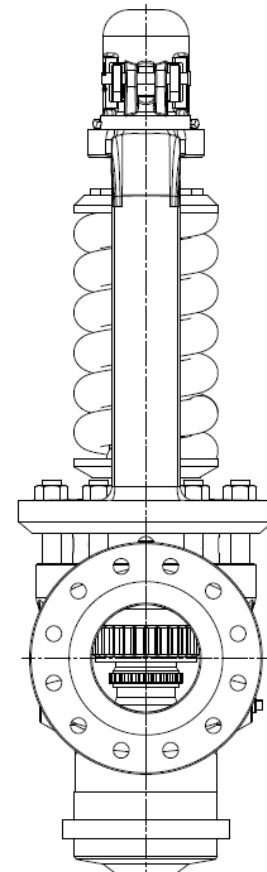
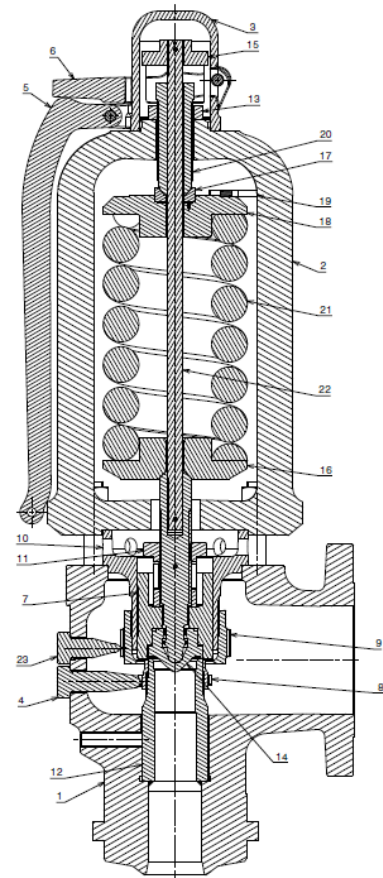
Dimensions (approx.) in mm

| | | | | |
|-----------------------------------|-------------------|---------------------------|------------|-----|
| Valve Type | | HCI - 98W | | |
| Valve Size (inlet-orifice-outlet) | | 3 M2 6 | | |
| Orifice Area (cm ²) | | 25.65 | | |
| Connections (mm) | | Butt Weld Inlet | 76.2 | |
| | | ANSI Class Flanged Outlet | 6 in - 300 | |
| Dimensions | Inlet I.D. | A | 76.2 | |
| | Inlet O.D. | D | 203.2 | |
| | Center to face of | Inlet | B | 305 |
| | | Outlet | C | 254 |
| Height | H | 1240 | | |



Material

| Item | Part Name | Material |
|------|---------------------------|-----------------|
| 1 | Body | Alloy steel |
| 2 | Bonnet | Alloy steel |
| 3 | Cap | Carbon steel |
| 4 | Nozzle Ring Set Screw | Stainless steel |
| 5 | Hand lever | Carbon steel |
| 6 | Forked lever | Carbon steel |
| 7 | Disc holder | Nickel alloy |
| 8 | Nozzle ring | Stainless steel |
| 9 | Guide ring | Stainless steel |
| 10 | Guide | Nickel alloy |
| 11 | Disc holder retaining nut | Stainless steel |
| 12 | Nozzle | Stainless steel |
| 13 | Adjusting screw nut | Stainless steel |
| 14 | Disc insert | Inconel |
| 15 | Spindle nut | Stainless steel |
| 16 | Bottom spring washer | Steel |
| 17 | Bearing adapter | Alloy steel |
| 18 | Top spring washer | Steel |
| 19 | Top spring washer pin | Steel |
| 20 | Adjusting screw | Stainless steel |
| 21 | Spring | Alloy steel |
| 22 | Spindle assembly | Stainless steel |
| 23 | Guide Ring Set Screw | Stainless steel |



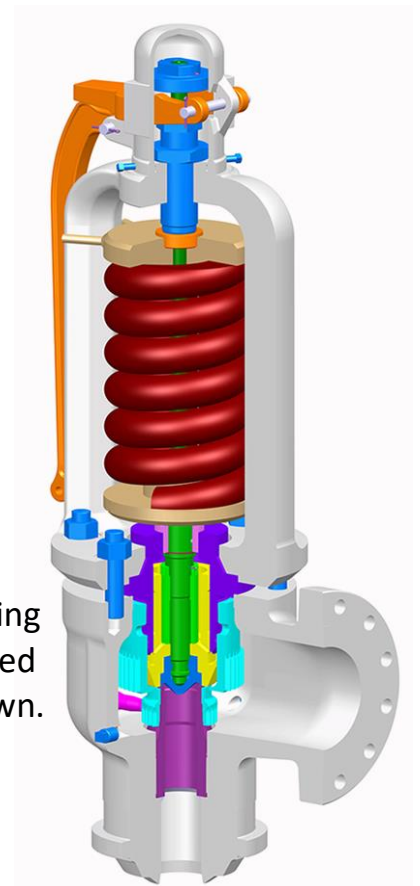
Steam Safety Valve

Type HE

Description

Style HE safety valve is high pressure, high capacity Reaction type valve, It incorporates the unique patented eductor control that permits the valve to attain full capacity lift at a pressure 3% above popping pressure in accordance with the requirements of Section I of the ASME Boiler and Pressure Vessel Code.

HE advanced trim design has the backpressure assist closing feature and patented Eductor Control, eliminating the need for complex adjustment to obtain Code required blowdown.



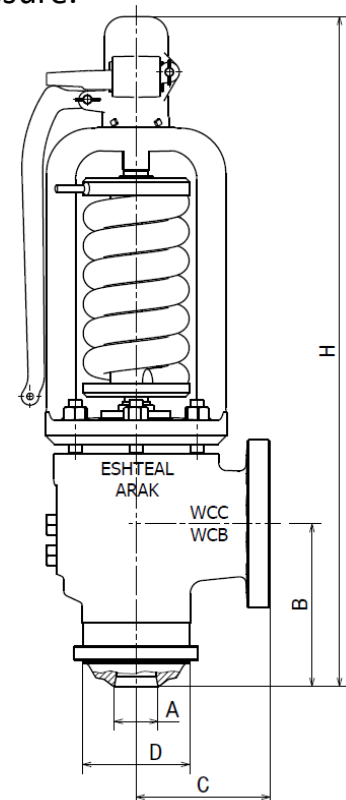
Applications

designed specifically for saturated steam service on boiler drums having design pressures above 2000 psig [138 barg] up to critical pressure.

Dimensions and pipe connections

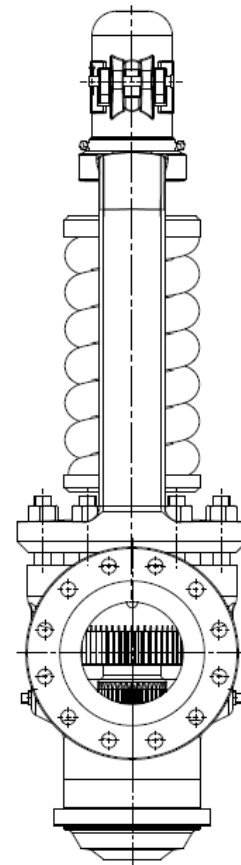
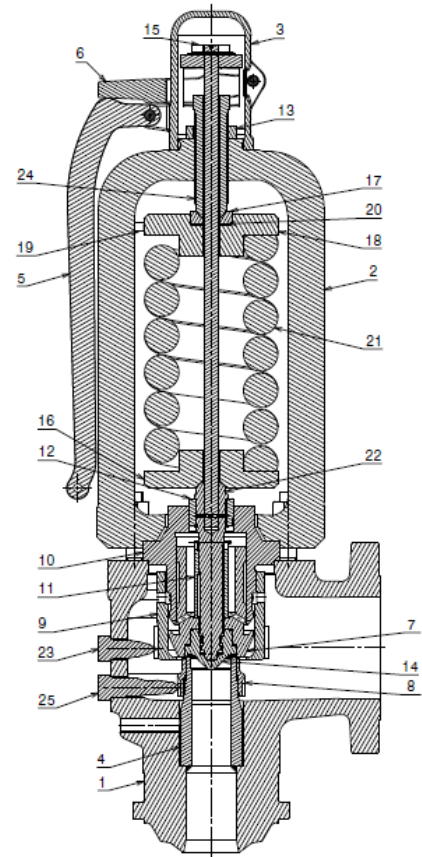
Dimensions (approx.) in mm

| | | | | |
|-----------------------------------|-------------------|---------------------------|------------|-----|
| Valve Type | | HE - 96W | | |
| Valve Size (inlet-orifice-outlet) | | 3 M2 6 | | |
| Orifice Area (cm ²) | | 25.65 | | |
| Connections (mm) | | Butt Weld Inlet | 76.2 | |
| | | ANSI Class Flanged Outlet | 6 in - 300 | |
| Dimensions | Inlet I.D. | A | 76.2 | |
| | Inlet O.D. | D | 203 | |
| | Center to face of | Inlet | B | 305 |
| | | Outlet | C | 254 |
| Height | | H | 1270 | |



Material

| Item | Part Name | Material |
|------|---------------------------|-----------------|
| 1 | Body | Carbon steel |
| 2 | Bonnet | Carbon steel |
| 3 | Cap | Carbon steel |
| 4 | Nozzle | Stainless steel |
| 5 | Hand lever | Carbon steel |
| 6 | Forked lever | Carbon steel |
| 7 | Disc holder | Nickel alloy |
| 8 | Nozzle ring | Stainless steel |
| 9 | Guide ring | Stainless steel |
| 10 | Guide | Nickel alloy |
| 11 | Disc holder retaining nut | Stainless steel |
| 12 | Piston | Nickel alloy |
| 13 | Adjusting screw nut | steel |
| 14 | Disc insert | Inconel |
| 15 | Spindle nut | steel |
| 16 | Bottom spring washer | Steel |
| 17 | Bearing adapter | Alloy steel |
| 18 | Top spring washer | Steel |
| 19 | Top spring washer pin | Steel |
| 20 | Thrust bearing | Steel |
| 21 | Spring | Alloy steel |
| 22 | Spindle assembly | Stainless steel |
| 23 | Guide Ring Set Screw | Stainless steel |
| 24 | Adjusting screw | Stainless steel |
| 25 | Nozzle Ring Set Screw | Stainless steel |



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 safety valve is a type of High Lift and Semi Nozzle valves, which are available in two forms, single spring and double spring, which are suitable for steam, air and water, in these valves. Spring load is taken on the metal-to-metal seating with the PTFE facing functioning only as an efficient seal.

The material of the body is Cast Iron up to the maximum pressure of 11bar and Cast Steel up to the maximum pressure of 22bar

This valve is available in the sizes of 1 ½", 2", 2 ½", 3"

Dual Spring Safety valve



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📱 eshtealarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Dual Spring Safety Valve

Type DSF

Description

This high lift safety valve is our standard recommendation for shell boilers and other plant items. Spring load is taken on the metal-to-metal seating with the PTFE facing functioning only as an efficient seal. Discharge capacities in accordance with BS 6759-1.



Applications

Dual spring safety valve is suitable for steam or Pressure vessels and piping systems containing gas and air.

Dimensions and pipe connections

▪ Cast iron Body Dimensions (approx.) in mm

| Nominal size | Valve Dimensions and Standard of Flange | | | | | | | | | | | | | | |
|--------------|---|-----|---|----|-----|--------------------------------|-----|---|-----|---|----|-----|-----|-----|-----|
| | Inlet Flange (BS10 Table F) | | | | | Outlet Flange (BS10 Table A) | | | | | | | B | C | H |
| | Size | D1 | N | O | P | Size | D2 | Q | U | V | W | P | | | |
| 1 ½" | 2 ½" DN65 | 184 | 8 | 18 | 146 | 4" DN100 | 216 | 2 | M16 | 2 | 18 | 178 | 216 | 174 | 575 |
| 2" | 3" DN80 | 203 | 8 | 18 | 165 | 4" DN100 | 216 | 2 | M16 | 2 | 18 | 178 | 242 | 184 | 645 |
| 2 ½" | 4" DN100 | 229 | 8 | 18 | 190 | 5" DN125 | 254 | 2 | M16 | 2 | 18 | 210 | 264 | 210 | 685 |
| 3" | 5" DN125 | 279 | 8 | 22 | 235 | 6" DN150 | 279 | 2 | M16 | 2 | 18 | 235 | 288 | 224 | 775 |

▪ **Cast steel Body** Dimensions (approx.) in mm

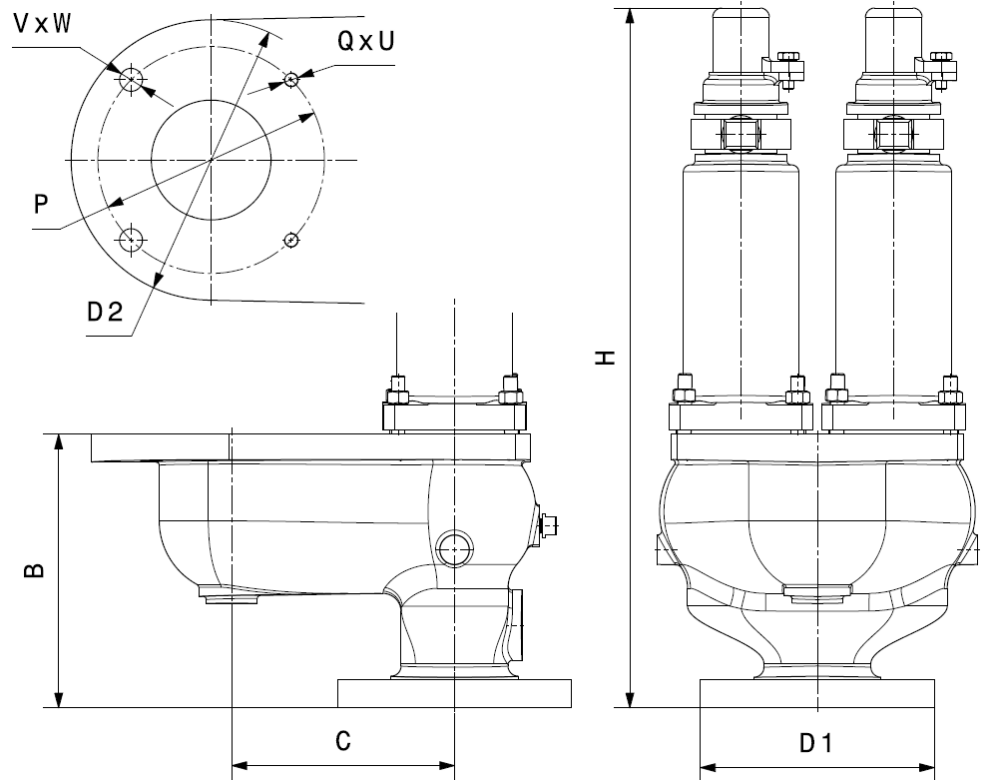
| Nominal size | Valve Dimensions and Standard of Flange | | | | | | | | | | | | | | | |
|--------------|---|--------------|-----|---|----|-----|------------------------------|-----|---|-----|---|----|-----|-----|-----|-----|
| | Inlet Flange (BS10 Table H) | | | | | | Outlet Flange (BS10 Table A) | | | | | | | B | C | H |
| | Raised Face | Size | D1 | N | O | P | Size | D2 | Q | U | V | W | P | | | |
| 1 ½" | 114 x 0.8 | 2 ½" DN65 | 184 | 8 | 22 | 146 | 4" DN100 | 216 | 2 | M16 | 2 | 18 | 178 | 219 | 174 | 575 |
| 2" | 127 x 0.8 | 3" DN80 | 203 | 8 | 22 | 165 | 4" DN100 | 216 | 2 | M16 | 2 | 18 | 178 | 252 | 178 | 645 |
| 2 ½" | 152 x 0.8 | 4" DN100 | 229 | 8 | 22 | 190 | 5" DN125 | 254 | 4 | M16 | 4 | 18 | 210 | 275 | 210 | 685 |
| 3" | 178 x 0.8 | 5" DN125 | 280 | 8 | 22 | 235 | 6" DN150 | 279 | 4 | M16 | 4 | 18 | 235 | 297 | 224 | 775 |

Outlet flange

Q = No. of tapped holes
 U = Thread size
 V = No. of plain holes
 W = Dia. of plain holes
 P = Pitch circle dia.

Inlet flange

N = No. of holes
 O = Dia. of holes
 P = Pitch circle dia.



Pressure/temperature rating

| Body material | Maximum set pressure | Temperature |
|---------------|----------------------|--------------|
| Cast iron | 11 bar | Up to 220 °C |
| Cast steel | 20 bar | Up to 224 °C |

Capacities

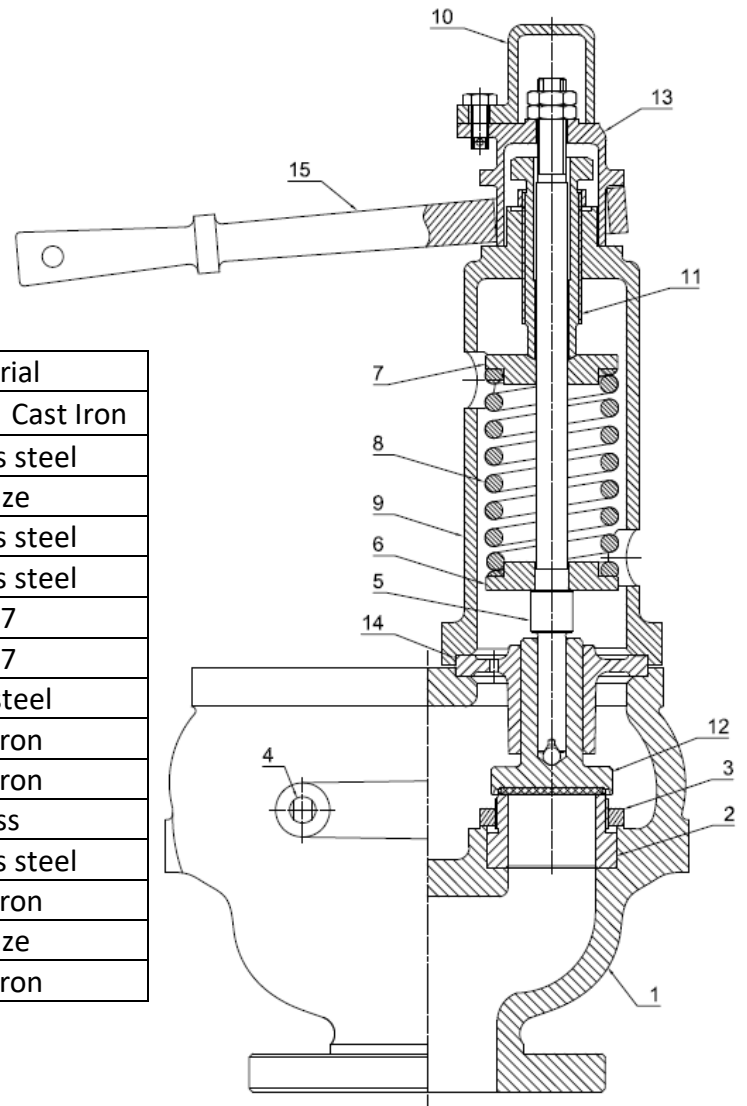
Discharge capacity to BS6759 Part 1 1984.

Coefficient of discharge $K_{dr} = 0.37$ Overpressure 10%.

| Set Pressure (gauge) bar | I Dry saturated steam | | | | II Air at 15°C (60°F) | | | |
|--------------------------------|-----------------------|-------|-------|-------|-----------------------|-------|-------|-------|
| | Capacities (kg/h) | | | | | | | |
| | Nominal size | | | | | | | |
| | 1 ½" | | 2" | | 2 ½" | | 3" | |
| | I | II | I | II | I | II | I | II |
| 1 | 839 | 1025 | 1311 | 1601 | 2216 | 2706 | 3357 | 4100 |
| 2 | 1279 | 1562 | 1998 | 2440 | 3377 | 4124 | 5116 | 6248 |
| 3 | 1719 | 2099 | 2685 | 3279 | 4539 | 5542 | 6875 | 8396 |
| 4 | 2159 | 2637 | 3372 | 4118 | 5700 | 6960 | 8634 | 10544 |
| 5 | 2599 | 3174 | 4059 | 4957 | 6861 | 8378 | 10393 | 12691 |
| 6 | 3039 | 3711 | 4746 | 5795 | 8022 | 9796 | 12152 | 14839 |
| 7 | 3479 | 4248 | 5433 | 6634 | 9183 | 11214 | 13911 | 16987 |
| 8 | 3919 | 4785 | 6120 | 7473 | 10345 | 12632 | 15670 | 19135 |
| 9 | 4359 | 5322 | 6807 | 8312 | 11506 | 14050 | 17429 | 21283 |
| 10 | 4798 | 5860 | 7494 | 9151 | 12667 | 15468 | 19188 | 23431 |
| 11 | 5238 | 6397 | 8181 | 9990 | 13828 | 16886 | 20947 | 25579 |
| 12 | 5678 | 6934 | 8868 | 10829 | 14989 | 18304 | 22706 | 27726 |
| 13 | 6118 | 7471 | 9555 | 11668 | 16151 | 19722 | 24465 | 29874 |
| 14 | 6558 | 8008 | 10242 | 12507 | 17312 | 21140 | 26223 | 32022 |
| 15 | 6998 | 8546 | 10929 | 13345 | 18473 | 22558 | 27982 | 34170 |
| 16 | 7438 | 9803 | 11616 | 14184 | 19634 | 23976 | 29741 | 36318 |
| 17 | 7878 | 9620 | 12303 | 15023 | 20795 | 25394 | 31500 | 38466 |
| 18 | 8318 | 10157 | 12990 | 15862 | 21956 | 26812 | 33259 | 40614 |
| 19 | 8758 | 10694 | 13677 | 16701 | 23118 | 28230 | 35018 | 42761 |
| 20 | 9198 | 11231 | 14364 | 17540 | 24279 | 29647 | 36777 | 44909 |

Material

| Item | Part Name | Material |
|------|--------------------|------------------------|
| 1 | Body | Cast steel Cast Iron |
| 2 | Seat ring | Stainless steel |
| 3 | Seat nut | Bronze |
| 4 | Locking stud | Stainless steel |
| 5 | Stem | Stainless steel |
| 6 | Bottom spring seat | ST37 |
| 7 | Upper spring seat | ST37 |
| 8 | Spring | Alloy steel |
| 9 | Spring cover | Cast Iron |
| 10 | Locking cover | Cast Iron |
| 11 | Adjusting screw | Brass |
| 12 | Disc | Stainless steel |
| 13 | Stem cover | Cast Iron |
| 14 | Disc bushing | Bronze |
| 15 | Wrench | Cast Iron |



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 safety valve is a type of High Lift and Semi Nozzle valves, which are available in two forms, single spring and double spring, which are suitable for steam, air and water, in these valves. Spring load is taken on the metal-to-metal seating with the PTFE facing functioning only as an efficient seal. The material of the body is Cast Iron up to the maximum pressure of 11bar and Cast Steel up to the maximum pressure of 22bar. This valve is available in the sizes of 1 ½", 2", 2 ½", 3"

Single Spring Safety valve



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtealarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Single Spring Safety Valve

Type SSF

Description

This high lift safety valve is our standard recommendation for shell boilers and other plant items. Spring load is taken on the metal-to-metal seating with the PTFE facing functioning only as an efficient seal. Discharge capacities in accordance with BS 6759-1



Applications

Single spring safety valve is suitable for steam or Pressure vessels and piping systems containing gas and air.

Dimensions and pipe connections

▪ **Cast iron Body** Dimensions (approx.) in mm

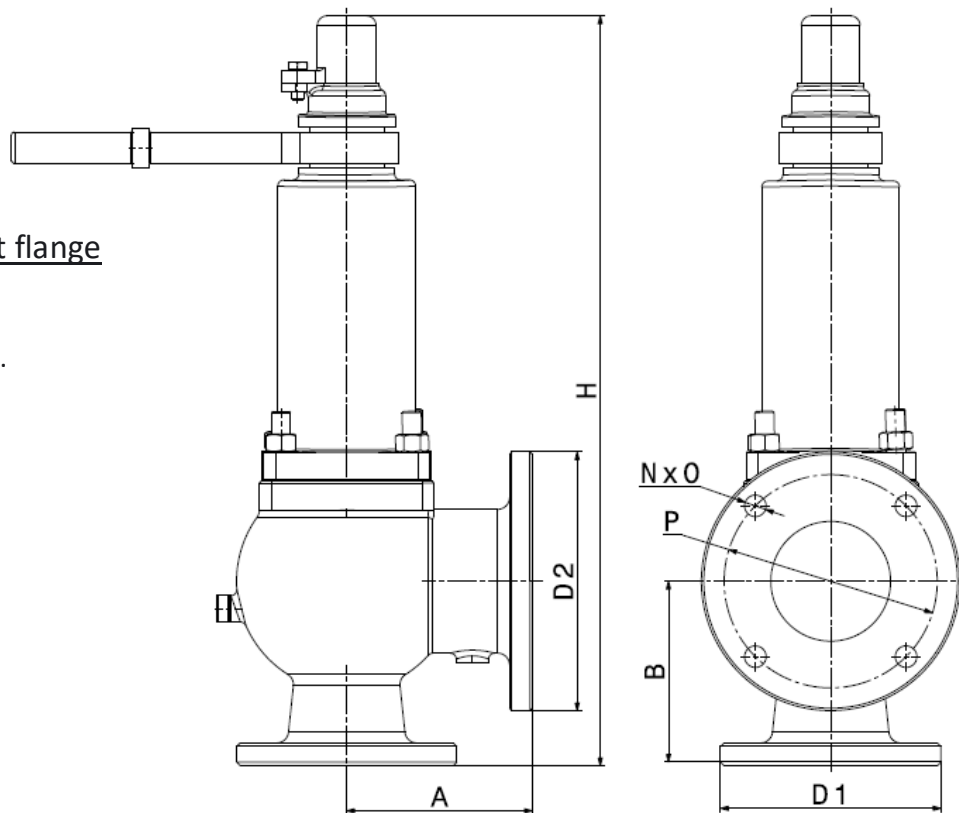
| Nominal size | Valve Dimensions and Standard of Flange | | | | | | | | | | | | |
|--------------|---|-----|---|----|-----|------------------------------|-----|---|----|-----|-----|-----|-----|
| | Inlet Flange (BS10 Table F) | | | | | Outlet Flange (BS10 Table A) | | | | | A | B | H |
| | Size | D1 | N | O | P | Size | D2 | N | O | P | | | |
| 1 ½" | 1 ½" DN40 | 140 | 4 | 18 | 105 | 2 ½" DN65 | 165 | 4 | 18 | 127 | 135 | 135 | 555 |
| 2" | 2" DN50 | 165 | 4 | 18 | 127 | 3" DN80 | 184 | 4 | 18 | 146 | 146 | 145 | 610 |
| 2 ½" | 2 ½" DN65 | 184 | 8 | 18 | 146 | 4" DN100 | 216 | 4 | 18 | 178 | 155 | 154 | 650 |
| 3" | 3" DN80 | 203 | 8 | 18 | 165 | 5" DN125 | 254 | 4 | 18 | 210 | 180 | 180 | 765 |

▪ **Cast steel Body** Dimensions (approx.) in mm

| Nominal size | Valve Dimensions and Standard of Flange | | | | | | | | | | | | | |
|--------------|---|-------------|-----|---|----|-----|--------------------------------|-----|---|----|-----|-----|-----|-----|
| | Inlet Flange (BS10 Table H) | | | | | | Outlet Flange (BS10 Table A) | | | | A | B | H | |
| | Size | Raised Face | D1 | N | O | P | Size | D2 | N | O | | | | P |
| 1 ½" | 1 ½" DN40 | 82 x 0.8 | 140 | 4 | 18 | 105 | 2 ½" DN65 | 165 | 4 | 18 | 127 | 135 | 135 | 555 |
| 2" | 2" DN50 | 102 x 0.8 | 165 | 4 | 18 | 127 | 3" DN80 | 184 | 4 | 18 | 146 | 146 | 150 | 615 |
| | Inlet Flange (BS10 Table H) | | | | | | Outlet Flange (BS10 Table E) | | | | | | | |
| 2 ½" | 2 ½" DN65 | 114 x 0.8 | 184 | 8 | 22 | 146 | 4" DN100 | 216 | 8 | 18 | 178 | 155 | 160 | 656 |
| 3" | 3" DN80 | 127 x 0.8 | 203 | 8 | 22 | 165 | 5" DN125 | 254 | 8 | 18 | 210 | 180 | 180 | 765 |

Inlet and Outlet flange

N = No. of holes
 O = Dia. of holes
 P = Pitch circle dia.



Pressure/temperature rating

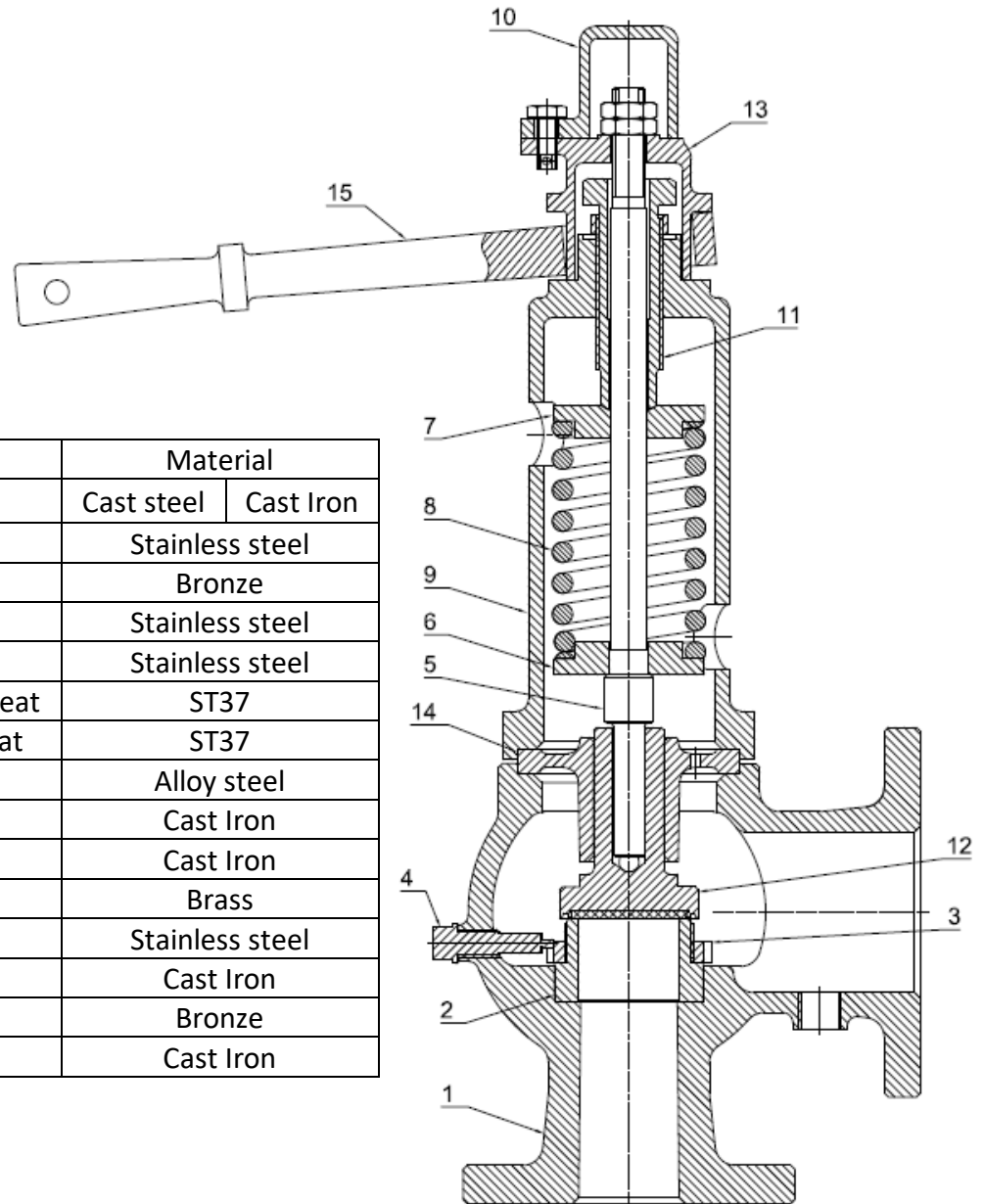
| Body material | Maximum set pressure | Temperature |
|---------------|----------------------|--------------|
| Cast iron | 11 bar | Up to 220 °C |
| Cast steel | 20 bar | Up to 224 °C |

Capacities

Discharge capacity to BS6759 Part 1 1984.

Coefficient of discharge $K_{dr} = 0.37$ Overpressure 10%.

| Set Pressure (gauge) bar | I Dry saturated steam | | | | II Air at 15°C (60°F) | | | |
|--------------------------------|-----------------------|------|------|-------|-----------------------|-------|-------|-------|
| | Capacities (kg/h) | | | | | | | |
| | Nominal size | | | | | | | |
| | 1 ½" | | 2" | | 2 ½" | | 3" | |
| | I | II | I | II | I | II | I | II |
| 1 | 512 | 839 | 789 | 1311 | 1353 | 2216 | 2050 | 3357 |
| 2 | 781 | 1279 | 1203 | 1998 | 2062 | 3377 | 3124 | 5116 |
| 3 | 1049 | 1719 | 1617 | 2685 | 2771 | 4539 | 4198 | 6875 |
| 4 | 1318 | 2159 | 2030 | 3372 | 3480 | 5700 | 5272 | 8634 |
| 5 | 1587 | 2599 | 2444 | 4059 | 4189 | 6861 | 6345 | 10393 |
| 6 | 1855 | 3039 | 2858 | 4746 | 4898 | 8022 | 7419 | 12152 |
| 7 | 2124 | 3479 | 3271 | 5433 | 5607 | 9183 | 8493 | 13911 |
| 8 | 2392 | 3919 | 3685 | 6120 | 6316 | 10345 | 9567 | 15670 |
| 9 | 2661 | 4359 | 4099 | 6807 | 7025 | 11506 | 10641 | 17429 |
| 10 | 2930 | 4798 | 4512 | 7494 | 7734 | 12667 | 11715 | 19188 |
| 11 | 3198 | 5238 | 4926 | 8181 | 8443 | 13828 | 12789 | 20947 |
| 12 | 3467 | 5678 | 5340 | 8868 | 9152 | 14989 | 13863 | 22706 |
| 13 | 3735 | 6118 | 5753 | 9555 | 9861 | 16151 | 14937 | 24465 |
| 14 | 4004 | 6558 | 6167 | 10242 | 10570 | 17312 | 16011 | 26223 |
| 15 | 4273 | 6998 | 6581 | 10929 | 11279 | 18473 | 17085 | 27982 |
| 16 | 4541 | 7438 | 6994 | 11616 | 11988 | 19634 | 18159 | 29741 |
| 17 | 4810 | 7878 | 7408 | 12303 | 12697 | 20795 | 19233 | 31500 |
| 18 | 5078 | 8318 | 7822 | 12990 | 13406 | 21956 | 20307 | 33259 |
| 19 | 5347 | 8758 | 8235 | 13677 | 14115 | 23118 | 21380 | 35018 |
| 20 | 5615 | 9198 | 8649 | 14364 | 14823 | 24279 | 22454 | 36777 |



Material

| Item | Part Name | Material |
|------|--------------------|------------------------|
| 1 | Body | Cast steel Cast Iron |
| 2 | Seat ring | Stainless steel |
| 3 | Seat nut | Bronze |
| 4 | Locking stud | Stainless steel |
| 5 | Stem | Stainless steel |
| 6 | Bottom spring seat | ST37 |
| 7 | Upper spring seat | ST37 |
| 8 | Spring | Alloy steel |
| 9 | Spring cover | Cast Iron |
| 10 | Locking cover | Cast Iron |
| 11 | Adjusting screw | Brass |
| 12 | Disc | Stainless steel |
| 13 | Stem cover | Cast Iron |
| 14 | Disc bushing | Bronze |
| 15 | Wrench | Cast Iron |

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtearak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

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

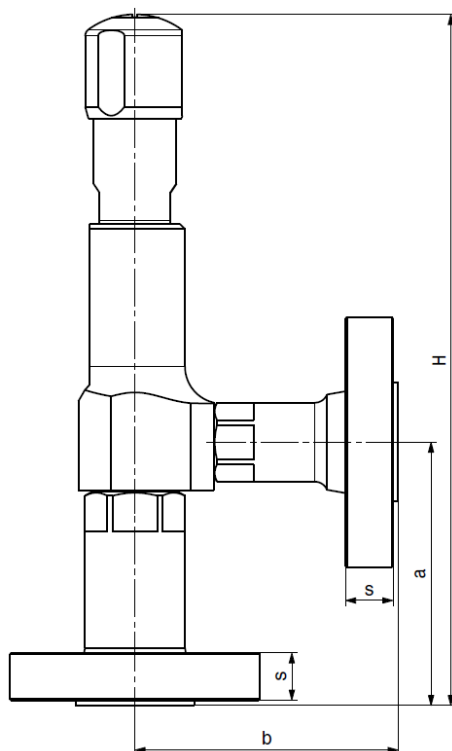


Conventional design
Cap E4

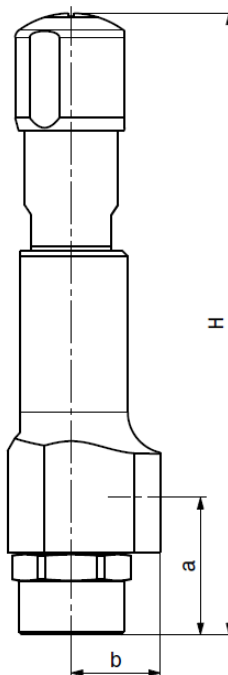
Dimensions and pipe connections

▪ Threaded connections

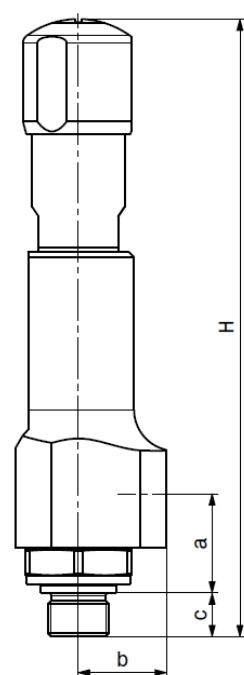
| Inlet and Outlet thread | Valve model | |
|---|----------------------|-------------|
| | Conventional design | Long design |
| Orifice diameter | 10 mm | |
| Orifice area | 78.5 mm ² | |
| Inlet thread type | DIN ISO 228-1 G 1/2" | |
| Outlet thread type | DIN ISO 228-1 G 1/2" | |
| Inlet and Outlet thread female | | |
| Center to face | Inlet a | 46 mm |
| | Outlet b | 30 mm |
| Height (Cap E4) | H max. | 209 mm |
| 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 |
| 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 |
| 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 |
| 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 |
| 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

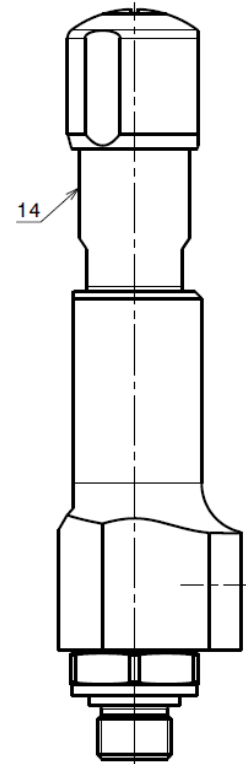
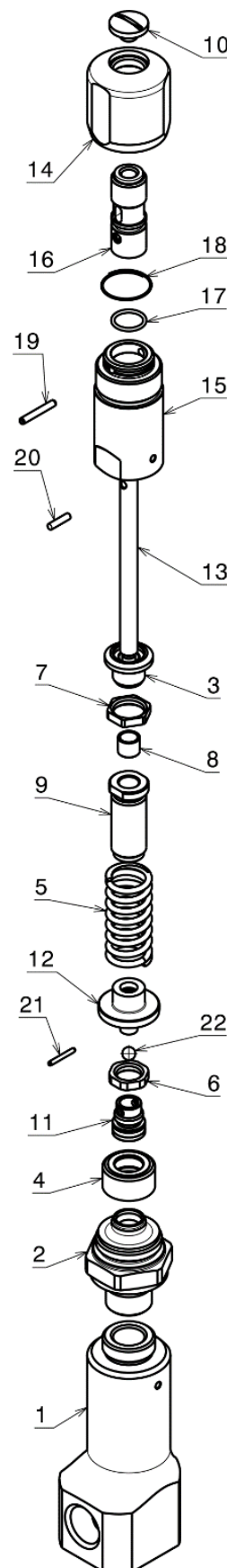
Capacities for water according to EN ISO 4126-1, based on set pressure plus 10 % overpressure at 20 °C (68 °F). Capacities at 1 bar (14.5 psig) and below are based on 0.1 bar (1.45 psig) overpressure.

Water (EN ISO 4126-1)

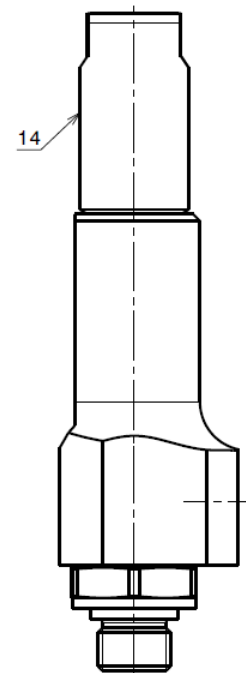
| | | | | | | | | | | | | |
|-----------------------------------|------|------|------|-----|-----|-----|-----|-----|-----|-----|------|------|
| Set pressure (bar) | 0.1 | 0.2 | 0.5 | 1 | 2 | 3 | 4 | 5 | 10 | 20 | 50 | 68 |
| Capacities (10 ³ kg/h) | 0.63 | 0.77 | 1.08 | 1.5 | 2.1 | 2.5 | 2.9 | 3.3 |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

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



The SV500 full lift, full nozzle safety valve is suitable for steam, air, inert industrial gas and non-hazardous liquid service. Valves are available in sizes ranging $\frac{3}{4}$ " , 1" , $1\frac{1}{4}$ " , $1\frac{1}{2}$ " , 2" and have a bronze body with female screwed connections and a stainless steel nozzle

Spring Safety valve
SFV500



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtealarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Spring Safety Valve

Type SFV 500

Description

The SV615 full lift, full nozzle safety valve is suitable for steam, air, inert industrial gas and non-hazardous liquid service. Valves are available in sizes ranging from DN20 to DN50 and have a bronze body with female screwed connections and a stainless-steel nozzle.

This valve has a closed bonnet with either a lifting lever and metal on metal seal.



Applications

The SV615 is suitable for the protection of steam or hot water boilers, generators, vessels, receivers and air compressors, autoclaves, downstream of pressure reducing valves and for general pressure relief applications.

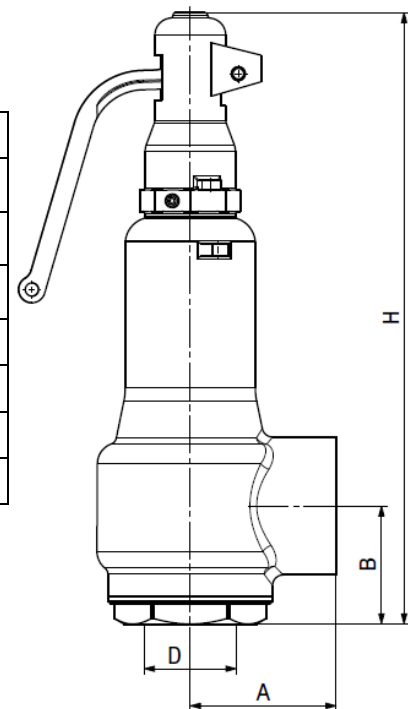
Pressure/temperature limits

| | | | |
|--------------------------------------|--------------|--------------------------------------|-----------|
| body design | | PN25 | |
| Set pressure range | Maximum | $\frac{3}{4}$ " to $1 \frac{1}{4}$ " | 18 bar g |
| | | $1 \frac{1}{2}$ " and 2" | 14 bar g |
| | Minimum | | 1.5 bar g |
| Temperature | Maximum | 230°C | |
| | Minimum | -90°C | |
| Performance data | Overpressure | Steam | 5% |
| | | Gas | 10% |
| | | Liquid | 10% |
| Blowdown limits | Steam, gas | 10% | |
| | Liquids | 20% | |
| Maximum permitted backpressure | | 10% of set pressure | |
| Maximum cold hydraulic test pressure | | 37 bar | |

Dimensions and pipe connections

Dimensions (approx.) in mm

| Valve size | DN20 | DN25 | DN32 | DN40 | DN50 | |
|---------------------------------|----------|------|------|------|------|----|
| Inlet thread female | ¾" | 1" | 1 ¼" | 1 ½" | 2" | |
| Outlet thread female | 1 ¼" | 1 ½" | 2" | 2 ½" | 3" | |
| Orifice area (mm ²) | 314 | 452 | 661 | 1075 | 1662 | |
| Orifice diameter D | 20 | 24 | 29 | 37 | 46 | |
| Center to face | Inlet B | 44 | 48 | 58 | 67 | 80 |
| | Outlet A | 55 | 60 | 70 | 81 | 97 |
| Height H | 231 | 244 | 281 | 368 | 424 | |



- Inlet and Outlet Connections Screwed BSP (BS 21 parallel)

Capacities

● Saturated steam and Air

Capacities for saturated steam and Air according to EN ISO 4126.

| Set pressure (bar g) | I Dry saturated steam Capacities (kg/h) | | | | | | II Air at 15°C (60°F) Capacities (l/s) | | | |
|----------------------|---|-----|-----------|-------|-----------|-------|--|-------|-----------|-------|
| | Valve size in/out | | | | | | | | | |
| | DN20/DN32 | | DN25/DN40 | | DN32/DN50 | | DN40/DN65 | | DN50/DN80 | |
| | I | II | I | II | I | II | I | II | I | II |
| 1.5 | 328 | 115 | 472 | 165 | 690 | 241 | 1122 | 392 | 1734 | 606 |
| 2 | 392 | 138 | 564 | 199 | 824 | 291 | 1341 | 473 | 2073 | 732 |
| 3 | 519 | 186 | 747 | 267 | 1092 | 391 | 1776 | 635 | 2746 | 982 |
| 4 | 645 | 233 | 929 | 335 | 1358 | 490 | 2008 | 797 | 3414 | 1 233 |
| 5 | 771 | 280 | 1109 | 403 | 1622 | 590 | 2638 | 959 | 4079 | 1 483 |
| 6 | 896 | 328 | 1289 | 472 | 1886 | 690 | 3067 | 1 121 | 4741 | 1 734 |
| 7 | 1020 | 375 | 1469 | 540 | 2148 | 789 | 3494 | 1 283 | 5401 | 1 984 |
| 8 | 1145 | 422 | 1648 | 608 | 2410 | 889 | 3920 | 1 446 | 6060 | 2 235 |
| 9 | 1269 | 470 | 1827 | 676 | 2672 | 988 | 4345 | 1 608 | 6717 | 2 485 |
| 10 | 1393 | 517 | 2005 | 744 | 2933 | 1 088 | 4769 | 1 770 | 7374 | 2 736 |
| 11 | 1517 | 564 | 2184 | 812 | 3194 | 1 188 | 5194 | 1 932 | 8030 | 2 986 |
| 12 | 1641 | 612 | 2362 | 880 | 3454 | 1 287 | 5618 | 2 094 | 8685 | 3 237 |
| 13 | 1765 | 659 | 2540 | 948 | 3715 | 1 387 | 6042 | 2 256 | 9340 | 3 487 |
| 14 | 1888 | 706 | 2718 | 1 017 | 3975 | 1 487 | --- | 2 418 | --- | 3 738 |
| 15 | 2012 | --- | 2897 | --- | 4236 | --- | --- | --- | --- | --- |
| 16 | 2136 | 801 | 3075 | 1 153 | 4496 | 1 686 | --- | --- | --- | --- |
| 17 | 2260 | --- | 3253 | --- | 4757 | --- | --- | --- | --- | --- |
| 18 | 2384 | 896 | 3431 | 1 289 | 5018 | 1 885 | --- | --- | --- | --- |

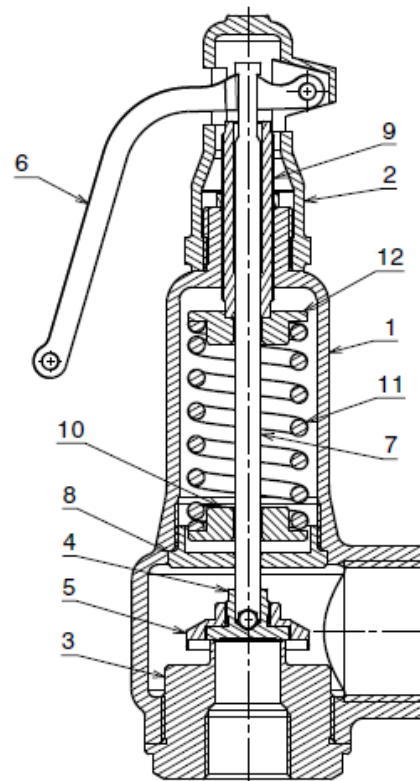
• Water and Hot water

Capacities for water and hot water according to EN ISO 4126.

| Set pressure (bar g) | I Water at 20°C Capacities (kg/h) | | | | II Hot water at or above 100 °C Capacities (Kw) | | | | | |
|----------------------|-----------------------------------|---------|-----------|---------|---|---------|-----------|---------|-----------|---------|
| | Valve size in/out | | | | | | | | | |
| | DN20/DN32 | | DN25/DN40 | | DN32/DN50 | | DN40/DN65 | | DN50/DN80 | |
| | I | II | I | II | I | II | I | II | I | II |
| 1.5 | 10668 | 142.36 | 15356 | 204.92 | 22456 | 299.66 | 36521 | 487.36 | 56463 | 753.47 |
| 2 | 12318 | 171.96 | 17731 | 247.45 | 25930 | 361.86 | 42171 | 588.51 | 65198 | 909.86 |
| 3 | 15086 | 230.99 | 21717 | 332.51 | 31758 | 486.24 | 51649 | 790.81 | 79851 | 1222.62 |
| 4 | 17420 | 290.08 | 25076 | 417.57 | 36671 | 610.63 | 59639 | 993.11 | 92204 | 1535.38 |
| 5 | 19476 | 349.17 | 28036 | 502.63 | 40999 | 735.02 | 66678 | 1195.42 | 103088 | 1848.15 |
| 6 | 21335 | 408.26 | 30712 | 587.69 | 44913 | 859.41 | 73042 | 1397.72 | 112927 | 2160.91 |
| 7 | 23045 | 467.36 | 33173 | 672.75 | 48511 | 983.80 | 78895 | 1600.12 | 121975 | 2473.67 |
| 8 | 24636 | 526.45 | 35463 | 757.81 | 51861 | 1108.18 | 84342 | 1802.32 | 130397 | 2786.43 |
| 9 | 26130 | 585.54 | 37614 | 842.88 | 55006 | 1232.57 | 89458 | 2004.62 | 138307 | 3099.20 |
| 10 | 27544 | 644.63 | 39649 | 927.94 | 57982 | 1356.96 | 94297 | 2206.92 | 145788 | 3411.96 |
| 11 | 28888 | 703.72 | 41584 | 1013.00 | 60812 | 1481.35 | 98900 | 2409.22 | 152904 | 3724.72 |
| 12 | 30172 | 762.81 | 43433 | 1098.06 | 63516 | 1605.74 | 103298 | 2611.52 | 159703 | 4037.49 |
| 13 | 31405 | 821.90 | 45207 | 1183.12 | 66110 | 1730.12 | 107515 | 2813.82 | 166224 | 4350.25 |
| 14 | 32590 | 880.99 | 46913 | 1268.18 | 68605 | 1854.51 | 111574 | 3016.12 | 172499 | 4663.01 |
| 16 | 34840 | 999.17 | 50152 | 1438.30 | 73342 | 2103.29 | --- | --- | --- | --- |
| 18 | 36954 | 1117.36 | 53194 | 1608.42 | 77791 | 2352.06 | --- | --- | --- | --- |

Material

| Item | Part name | Material |
|------|------------------|-----------------|
| 1 | Body | Bronze |
| 2 | Lever housing | Bronze |
| 3 | Nozzle | Stainless steel |
| 4 | Disk | Stainless steel |
| 5 | Skirt | Brass |
| 6 | Lever | SG iron |
| 7 | Stem | Stainless steel |
| 8 | Stem guide | Brass |
| 9 | Adjustment screw | Brass |
| 10 | Spring end plate | Brass |
| 11 | Spring | Alloy steel |
| 12 | Spring end plate | Brass |



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



These valves are Full Lift and Semi Nozzle types, which are suitable for steam, air and water. In these valves, the type of sealing is Metal on Metal. The material of the body is Cast Iron up to the maximum pressure of 12 bar and Ductile Iron up to the maximum pressure of 17.5 bar and Cast Steel up to the maximum pressure of 28 bar.

This valve is available in the size of 1", 1 1/2", 2", 3", 4"

Conventional Safety Valve (SFV 600)



ESHTEAL ARAK

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

☎ 086-34131213-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtealarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Spring Safety Valve

Type SFV 600

Description

The SFV600 is full lift, semi nozzle, spring loaded safety valve. This valve has open bonnet, lifting lever and metal on metal seal. For steam, air and water, calculations are according to EN ISO 4126.



Applications

This safety valve is suitable for:

Steam, Air, vessels and general relief applications.

Ability to built up back pressure max. 10% from set pressure.

Dimensions and pipe connections

▪ Cast iron Body Dimensions (approx.) in mm

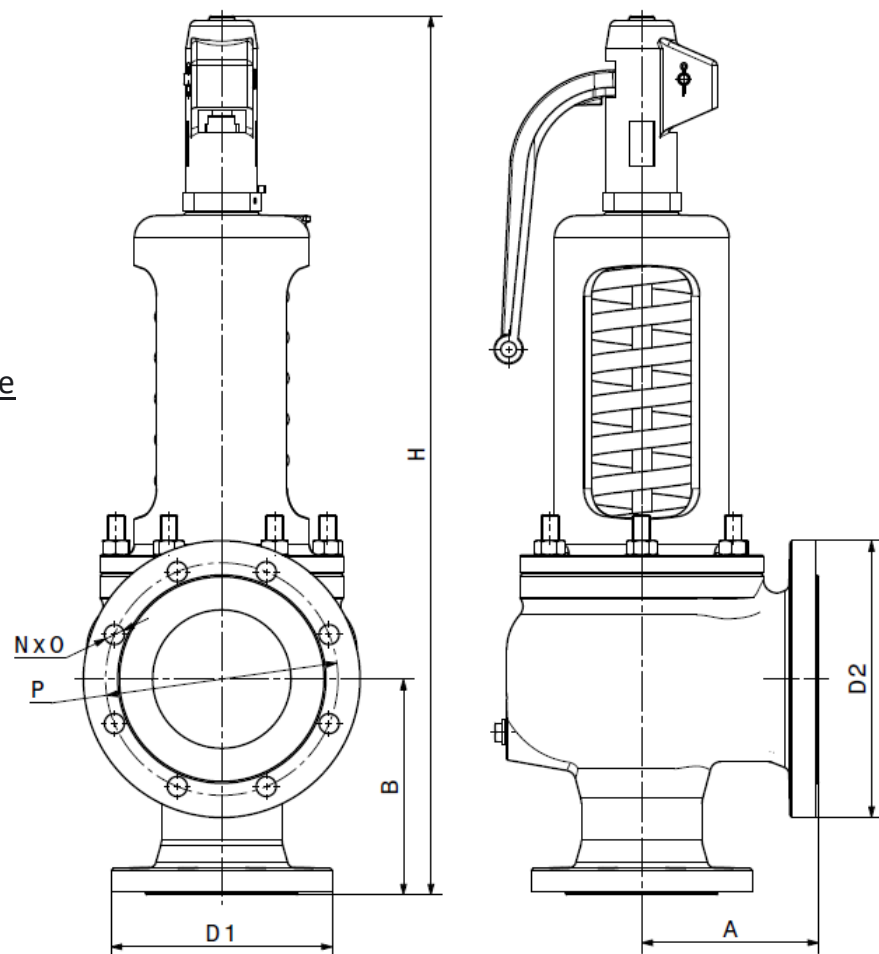
| Nominal size | Valve Dimensions and Standard of Flange | | | | | | | | | | | | | | |
|--------------|---|-------------|-----|---|----|-----|--------------------------------|-------------|-----|---|----|-----|-----|-----|-----|
| | Inlet Flange (BS 4504 PN16) | | | | | | Outlet Flange (BS 4504 PN16) | | | | | | A | B | H |
| | Size | Raised Face | D1 | N | O | P | Size | Raised Face | D2 | N | O | P | | | |
| 1" | 1" DN25 | 68 x 2 | 115 | 4 | 14 | 85 | 1 ½" DN40 | 88 x 3 | 150 | 4 | 18 | 110 | 100 | 105 | 430 |
| 1 ½" | 1 ½" DN40 | 88 x 3 | 150 | 4 | 18 | 110 | 2 ½" DN65 | 122 x 3 | 185 | 4 | 18 | 145 | 115 | 140 | 555 |
| 2" | 2" DN50 | 102 x 3 | 165 | 4 | 18 | 125 | 3" DN80 | 138 x 3 | 200 | 8 | 18 | 160 | 120 | 150 | 610 |
| 2 ½" | 2 ½" DN65 | 122 x 2 | 185 | 4 | 18 | 145 | 4" DN100 | 158 x 3 | 220 | 8 | 18 | 180 | 140 | 170 | 735 |
| 3" | 3" DN80 | 138 x 3 | 200 | 8 | 18 | 160 | 5" DN125 | 188 x 3 | 250 | 8 | 18 | 210 | 160 | 195 | 806 |
| 4" | 4" DN100 | 158 x 2 | 220 | 8 | 18 | 180 | 6" DN150 | 212 x 2 | 285 | 8 | 22 | 240 | 180 | 220 | 930 |

▪ Cast steel Body Dimensions (approx.) in mm

| Nominal size | Valve Dimensions and Standard of Flange | | | | | | | | | | | | | | |
|--------------|---|-------------|-----|---|----|-----|--------------------------------|-------------|-----|---|----|-----|-----|-----|-----|
| | Inlet Flange (BS 4504 PN40) | | | | | | Outlet Flange (BS 4504 PN16) | | | | | | A | B | H |
| | Size | Raised Face | D1 | N | O | P | Size | Raised Face | D2 | N | O | P | | | |
| 1" | 1" DN25 | 68 x 2 | 115 | 4 | 14 | 85 | 1 1/2" DN40 | 88 x 3 | 150 | 4 | 18 | 110 | 100 | 107 | 430 |
| 1 1/2" | 1 1/2" DN40 | 88 x 3 | 150 | 4 | 18 | 110 | 2 1/2" DN65 | 122 x 3 | 185 | 4 | 18 | 145 | 115 | 140 | 555 |
| 2" | 2" DN50 | 102 x 3 | 165 | 4 | 18 | 125 | 3" DN80 | 138 x 3 | 200 | 8 | 18 | 160 | 120 | 150 | 610 |
| 2 1/2" | 2 1/2" DN65 | 122 x 3 | 185 | 8 | 18 | 145 | 4" DN100 | 158 x 3 | 220 | 8 | 18 | 180 | 140 | 170 | 735 |
| 3" | 3" DN80 | 138 x 3 | 200 | 8 | 18 | 160 | 5" DN125 | 188 x 3 | 250 | 8 | 18 | 210 | 160 | 196 | 807 |
| 4" | 4" DN100 | 162 x 2 | 235 | 8 | 22 | 190 | 6" DN150 | 212 x 2 | 285 | 8 | 22 | 240 | 180 | 220 | 930 |

Inlet and Outlet flange

N = No. of holes
O = Dia. Of holes
P = Pitch circle dia.



Capacities

Capacity for saturated steam and air in 10% over pressure

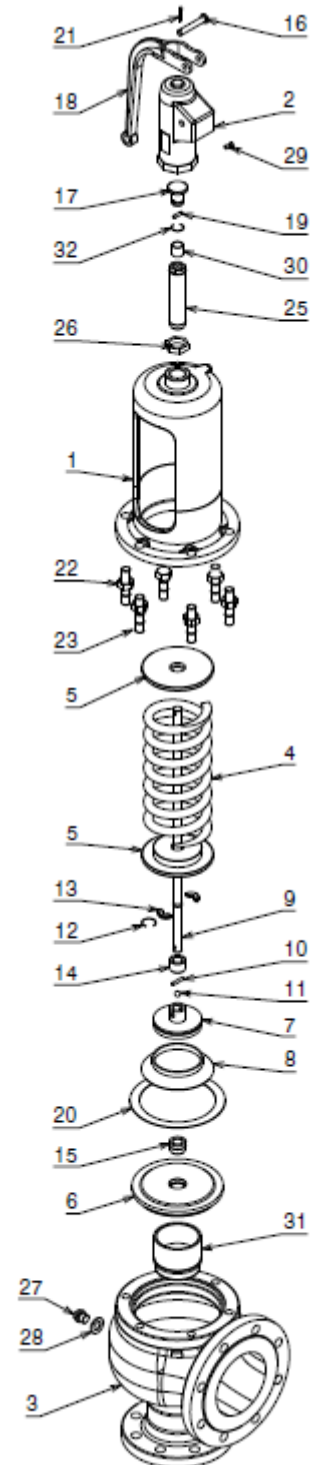
| Set pressure Bar g | I saturated steam Capacities (kg/h) | | | | | | II Air at 0°C and 1.013 bar a Capacities (Nm ³ /h) | | | | | |
|-----------------------|--|------|------|-------|-------|-------|--|-------|-------|-------|-------|-------|
| | DN25 | | DN40 | | DN50 | | DN65 | | DN80 | | DN100 | |
| | I | II | I | II | I | II | I | II | I | II | I | II |
| 2 | 477 | 607 | 1220 | 1550 | 1900 | 2425 | 3220 | 4100 | 4880 | 6210 | 7625 | 9700 |
| 2.5 | 572 | 731 | 1460 | 1870 | 2285 | 2925 | 3865 | 4945 | 5855 | 7490 | 9145 | 11700 |
| 3 | 662 | 850 | 1695 | 2175 | 2645 | 3400 | 4475 | 5750 | 6775 | 8700 | 10600 | 13600 |
| 4 | 837 | 1080 | 2140 | 2770 | 3350 | 4330 | 5650 | 7310 | 8570 | 11080 | 13400 | 17300 |
| 5 | 1000 | 1300 | 2565 | 3330 | 4000 | 5210 | 6770 | 8800 | 10260 | 13340 | 16000 | 20840 |
| 6 | 1165 | 1520 | 2990 | 3900 | 4665 | 6090 | 7890 | 10300 | 11950 | 15600 | 18650 | 24370 |
| 7 | 1330 | 1745 | 3400 | 4465 | 5320 | 6970 | 9000 | 11790 | 13600 | 17860 | 21300 | 27900 |
| 8 | 1495 | 1965 | 3820 | 5030 | 5980 | 7860 | 10100 | 13280 | 15300 | 20100 | 23900 | 31430 |
| 9 | 1660 | 2185 | 4245 | 5590 | 6630 | 8740 | 11200 | 14770 | 16950 | 22370 | 26500 | 34960 |
| 10 | 1820 | 2400 | 4665 | 6150 | 7290 | 9610 | 12300 | 16250 | 18650 | 24600 | 29150 | 38500 |
| 11 | 1985 | 2625 | 5080 | 6720 | 7940 | 10500 | 13400 | 17750 | 20300 | 26900 | 31750 | 42000 |
| 12 | 2150 | 2845 | 5500 | 7290 | 8590 | 11380 | 14500 | 19240 | 22000 | 29150 | 34350 | 45500 |
| 13 | 2310 | 3070 | 5920 | 7850 | 9250 | 12270 | 15600 | 20730 | 23650 | 31400 | 37000 | 49000 |
| 14 | 2475 | 3290 | 6340 | 8400 | 9900 | 13150 | 16700 | 22200 | 25350 | 33650 | 39600 | 52600 |
| 15 | 2640 | 3500 | 6760 | 8980 | 10550 | 14030 | 17800 | 23700 | 27000 | 35900 | 42200 | 56100 |
| 16 | 2800 | 3725 | 7170 | 9540 | 11200 | 14900 | 18950 | 25200 | 28700 | 38200 | 44800 | 59600 |
| 17 | 2965 | 3950 | 7590 | 10100 | 11850 | 15800 | 20050 | 26700 | 30350 | 40400 | 47400 | 63100 |
| 18 | 3130 | 4170 | 8010 | 10670 | 12500 | 16650 | 21150 | 28100 | 32050 | 42700 | 50100 | 66700 |
| 19 | 3295 | 4390 | 8430 | 11240 | 13150 | 17550 | 22250 | 29600 | 33700 | 44900 | 52700 | 70200 |
| 20 | 3460 | 4610 | 8850 | 11800 | 13800 | 18400 | 23350 | 31150 | 35400 | 47200 | 55300 | 73700 |
| 21 | 3620 | 4830 | 9250 | 12370 | 14500 | 19300 | 24500 | 32650 | 37100 | 49400 | 57900 | 77300 |
| 22 | 3790 | 5050 | 9700 | 12930 | 15150 | 20200 | 25600 | 34150 | 38800 | 51700 | 60600 | 80800 |

Pressure/temperature rating

| Body material | Maximum set pressure | Maximum Temperature |
|---------------|----------------------|---------------------|
| Cast iron | 16 bar | Up to 250 °C |
| Cast steel | 22 bar | Up to 400 °C |

Material

| Item | Part name | Material |
|------|-----------------|----------------------------|
| 1 | Bonnet | Cast iron |
| 2 | Cap | Cast iron |
| 3 | Body | Cast steel Cast iron |
| 4 | Spring | Alloy steel |
| 5 | Plug | Stainless steel |
| 6 | Spindle guide | Stainless steel (1" to 2") |
| | | Cast iron (2 ½" to 4") |
| 7 | Disc | Stainless steel |
| 8 | Cone | Stainless steel |
| 9 | Spindle | Stainless steel |
| 10 | Pin | Steel |
| 11 | Ball | Stainless steel |
| 12 | Spindle key | Stainless steel |
| 13 | Bushing | Stainless steel |
| 14 | Washer | Stainless steel |
| 15 | Bushing | Stainless steel |
| 16 | Pin | Alloy steel |
| 17 | Pin | Stainless steel |
| 18 | Lever | Cast iron |
| 19 | Pin | Steel |
| 20 | Gasket | |
| 21 | Cotter pin | Steel |
| 22 | Hexagon nut | Steel |
| 23 | Stud | Steel |
| 24 | Stud | Steel |
| 25 | Adjusting screw | Stainless steel |
| 26 | Lock nut | Stainless steel |
| 27 | Screw | Stainless steel |
| 28 | Washer | Copper |
| 29 | Screw | Steel |
| 30 | Bushing | PTFE |
| 31 | Seal | Stainless steel |



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

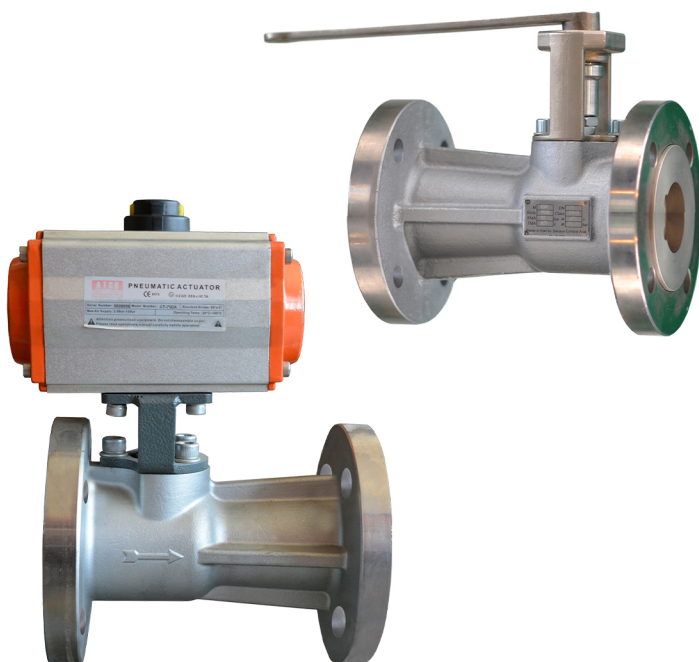


This valve is a carbon steel ball valve with a stainless-steel ball, adaptor and housing, and reinforced PTFE seats designed for boiler blowdown applications.

Cast iron for up to 10 bar rating and Bronze Gunmetal for 20 bar rating

This valve is available in the size of 1", 1 1/4", 1 1/2", 2"

Key Operated Boiler Blowdown valve



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtearak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Key Operated Boiler Blowdown Valve

Type BV 20

Description

The key operated boiler blowdown valve consists of a carbon steel ball valve with reinforced PTFE seats and a key operated mechanism in stainless steel.

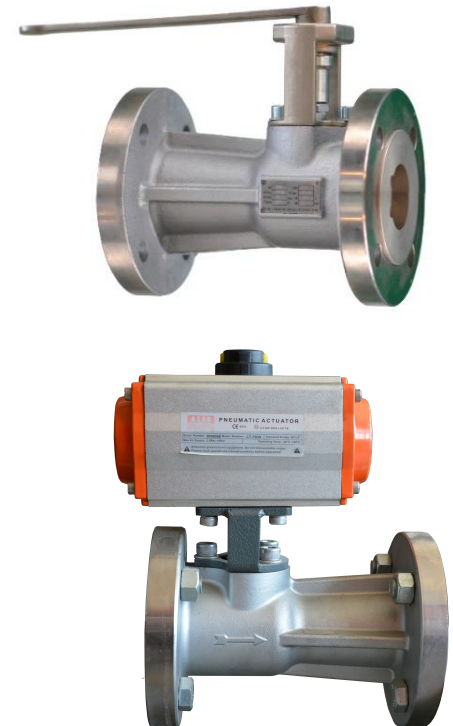
The key cannot be removed when the valve is open, to ensure compliance with boiler regulations.

This valve is available in automatic and manual versions.

Applications

The valve is specifically designed for boiler blowdown applications.

The BV 20 is designed for the removal of suspended/deposited solids and water from the bottom of steam boilers.

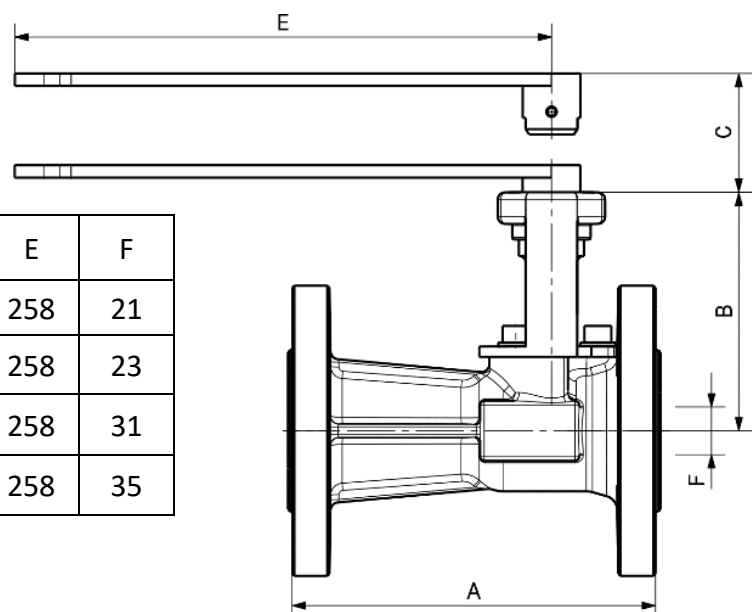


Size and Pipe Connections

Flange standard (BS EN 1092, PN40)

Dimensions (approx.) in mm

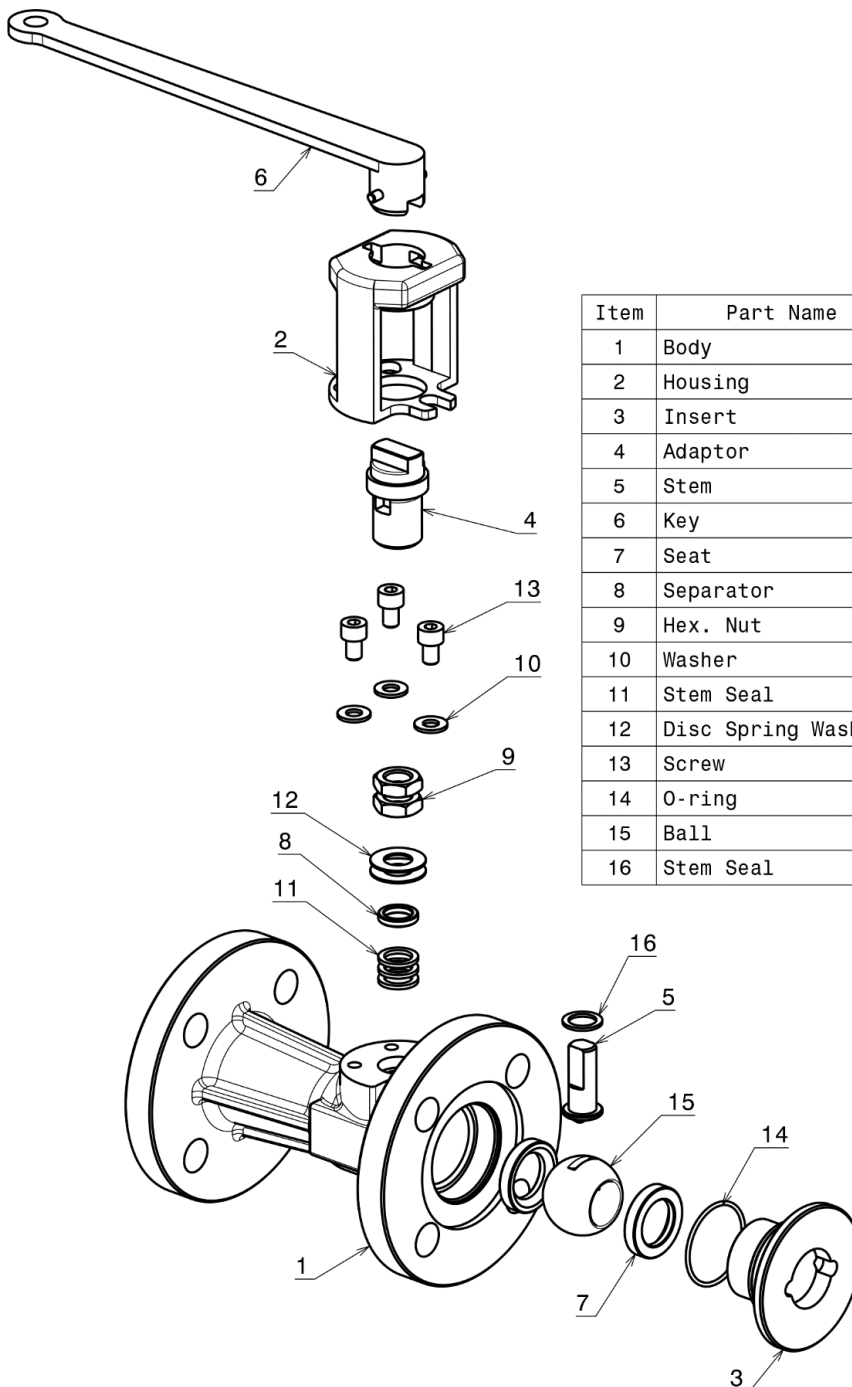
| Size | A | B | C | E | F |
|-----------|-----|-----|----|-----|----|
| 1" DN25 | 165 | 114 | 35 | 258 | 21 |
| 1 ¼" DN32 | 178 | 117 | 35 | 258 | 23 |
| 1 ½" DN40 | 190 | 126 | 35 | 258 | 31 |
| 2" DN50 | 216 | 134 | 35 | 258 | 35 |



Limiting Conditions

| | |
|------------------------------|---------------------------|
| Max. allowable pressure | 17.25 bar g at 208°C |
| Cold hydraulic test pressure | 60 bar g |
| Seat leakage test | 6 bar g (air under water) |

Material



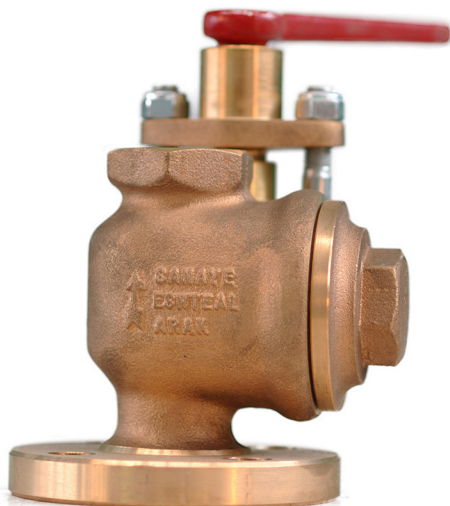
| Item | Part Name | Material | QTY. |
|------|--------------------|-----------------|------|
| 1 | Body | ASTM A216 WCB | 1 |
| 2 | Housing | Stainless Steel | 1 |
| 3 | Insert | Alloy Steel | 1 |
| 4 | Adaptor | Stainless Steel | 1 |
| 5 | Stem | Stainless Steel | 1 |
| 6 | Key | Stainless Steel | 1 |
| 7 | Seat | PTFE | 2 |
| 8 | Separator | Stainless Steel | 1 |
| 9 | Hex. Nut | Steel | 2 |
| 10 | Washer | Steel | 3 |
| 11 | Stem Seal | PTFE | 3 |
| 12 | Disc Spring Washer | Stainless Steel | 2 |
| 13 | Screw | Steel | 3 |
| 14 | O-ring | Viton | 1 |
| 15 | Ball | Stainless Steel | 1 |
| 16 | Stem Seal | PTFE | 1 |

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



These valves are an adaptation parallel slide valve which is designed to ensure ease of operation and tight closure. The material of the body is Bronze up to the maximum pressure of 10bar
This valve is available in the size of 1" , 1 ¼" , 1 ½"

Parallel Slide Blowdown valve
link type for small boilers



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtealarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Parallel Slide Blowdown Valve Link type for small boilers

Type BVA

Description

This valve is an adaptation parallel slide valve which is designed to ensure ease of operation and tight closure. The valve being suitable for flow in either direction. The valve opens with less than a quarter turn of the box-key. A lever type box-key is supplied with each valve.



Applications

In boilers, blowdown valves remove both suspended solids and sludge from the surface and bottom respectively.

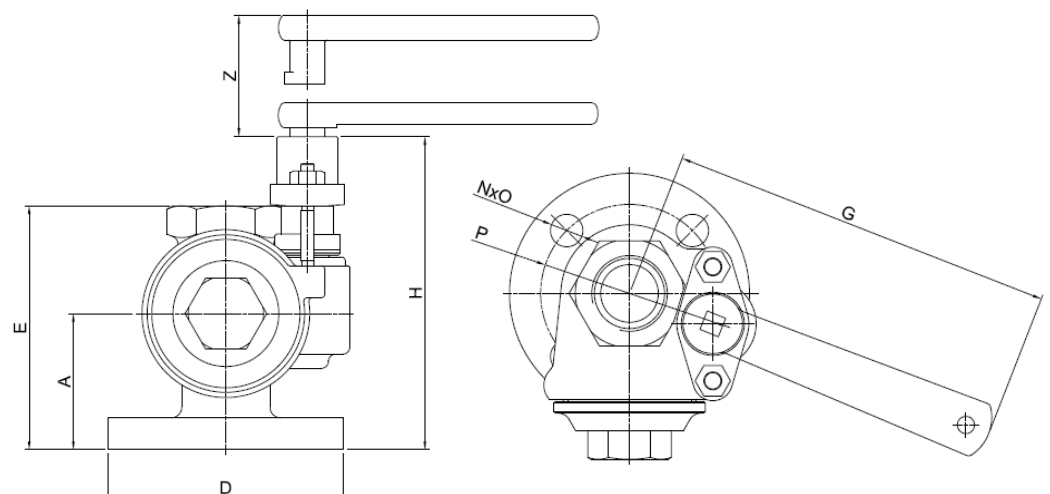
Size and Pipe Connections

Dimensions (approx.) in mm

| Size | Valve Dimensions and Flange Standard | | | | | | | | | | |
|------|--------------------------------------|------------------------|-----|---|----|------|-----|-----|----|------|-------|
| | Connections | | D | N | O | P | G | H | Z | A | E |
| | Inlet Flange (BS 10 Table F) | Outlet Thread (Female) | | | | | | | | | |
| DN25 | 1" | G 1" | 121 | 4 | 18 | 87.5 | 170 | 170 | 30 | 74.5 | 125.5 |
| DN32 | 1 ¼" | G 1 ¼" | 133 | 4 | 18 | 98.5 | 220 | 190 | 35 | 77 | 138 |
| DN40 | 1 ½" | G 1 ½" | 140 | 4 | 18 | 105 | 220 | 190 | 35 | 77 | 138 |

Inlet flange

N = No. of holes
O = Dia. Of holes
P = Pitch circle dia.

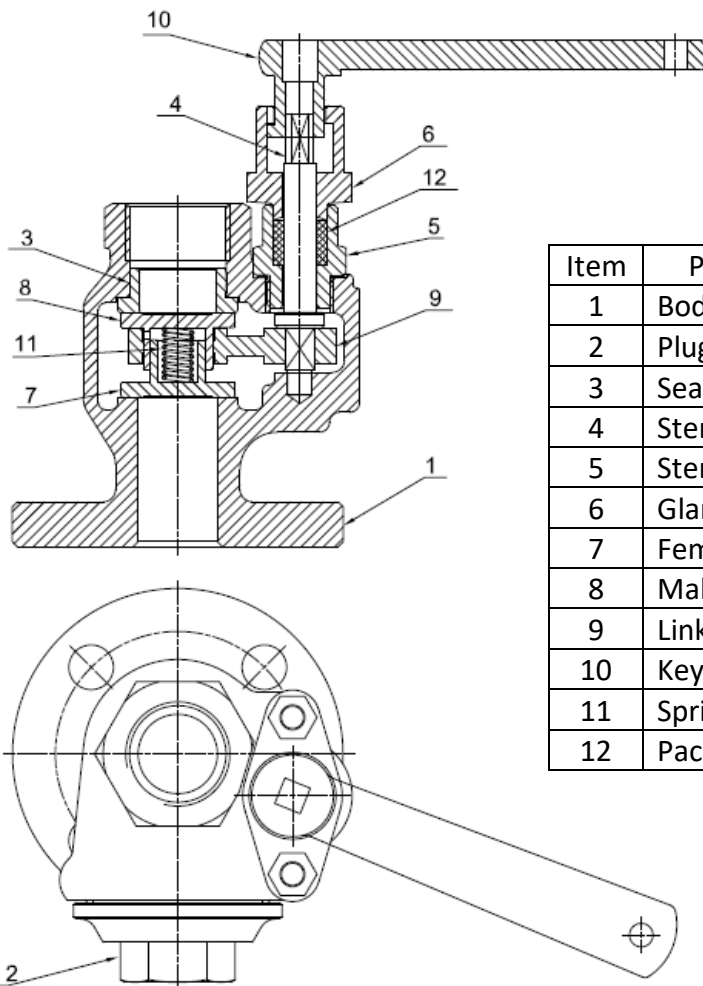


Limiting conditions

Pressure / temperature rating

| | |
|-----------------------------|-----|
| Temperature (°C) | 210 |
| Max. Working pressure (bar) | 12 |

Materials



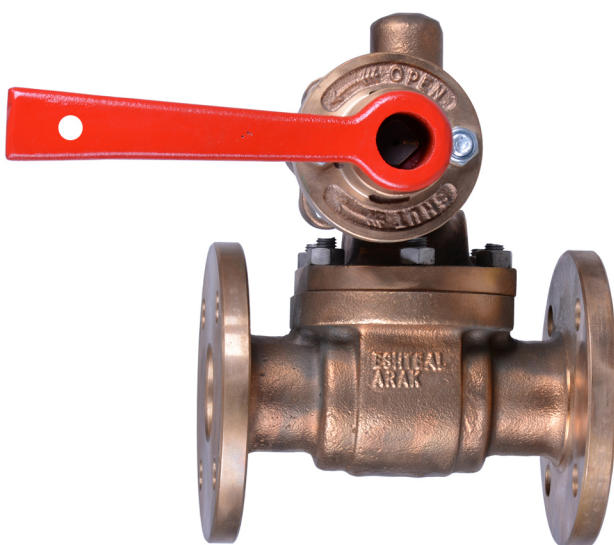
| Item | Part name | Material |
|------|---------------|-----------------|
| 1 | Body | Bronze |
| 2 | Plug | Bronze |
| 3 | Seat | Nickel alloy |
| 4 | Stem | Stainless steel |
| 5 | Stem Bushing | Brass |
| 6 | Gland bushing | Bronze |
| 7 | Female disk | Nickel alloy |
| 8 | Male disk | Nickel alloy |
| 9 | Linkage | Bronze |
| 10 | Key | Cast steel |
| 11 | Spring | Stainless steel |
| 12 | Packing | PTFE |

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 key valve embodies the design advantages of the parallel slide gate valve. Easy operation of the rack and pinion mechanism is by means of a removable box key which requires only half a turn for full operation. LG2 for up to 10 bar rating and Bronze Gunmetal for 21 bar rating
This valve is available in the size of 2".

Parallel Slide Blowdown valve



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtealarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri alley southern Bahar St Taleghani St-Tehran-Iran

Parallel Slide Blowdown Valve

Type BVB

Description

This key valve embodies the design advantages of the parallel slide gate valve.

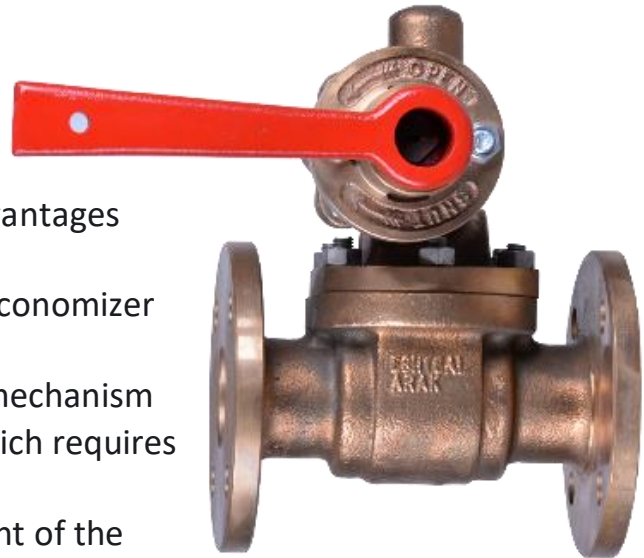
The valve is also recommended as an economizer blowdown valve.

Easy operation of the rack and pinion mechanism is by means of a removable box key which requires only half a turn for full operation.

Positive stops limit the rotary movement of the pinion and prevent straining of the rack/pinion teeth.

A guard is incorporated on the gland to prevent removal of the box key unless the valve is in the closed position.

Joints and gland packings are of exfoliated graphite.



Applications

In boilers, blowdown valves removes both suspended solids and sludge from the surface and bottom respectively.

Limiting conditions

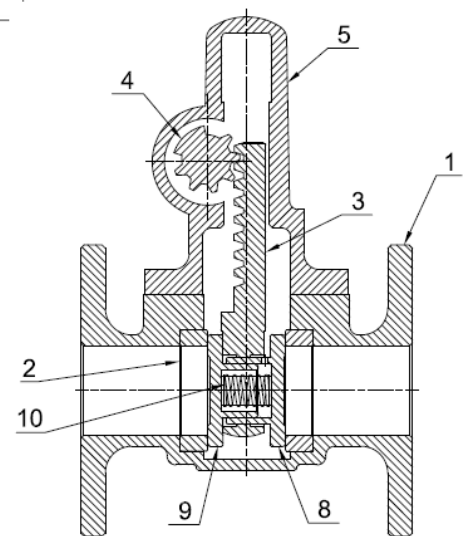
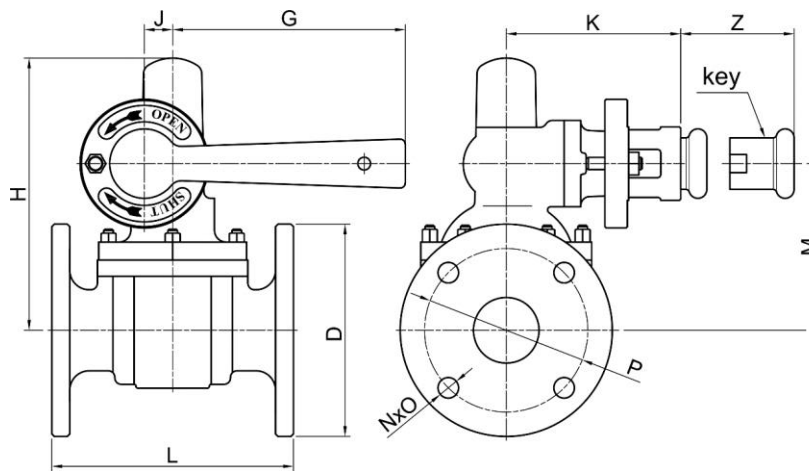
Pressure / temperature rating

| Flange Standard | BS 4504 PN16 | BS 4504 PN40 | BS 10 Table F | BS 10 Table H |
|-----------------------------|-----------------|-----------------|------------------|------------------|
| Temperature (°C) | 240 | 200 | 210 | 200 |
| Max. Working pressure (bar) | 12 | 21 | 12 | 21 |

Size and pipe connections

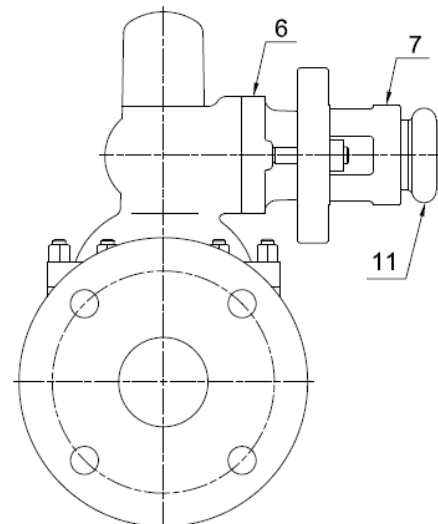
Dimensions (approx.) in mm

| Body material | Size | Flange Standard | D | N | O | P | L | H | M | J | K | G | Z |
|-----------------------|------------|-----------------|-----|---|----|-----|-----|-----|-----|----|-----|-----|----|
| Bronze (150psi) | 2" DN50 | BS 10 Table F | 165 | 4 | 18 | 127 | 208 | 215 | 130 | 22 | 145 | 200 | 60 |
| | | BS 4504 PN 16 | 165 | 4 | 18 | 125 | 208 | 215 | 130 | 22 | 145 | | |
| Gunmetal (300 psi) | 2" DN50 | BS 10 Table H | 165 | 4 | 18 | 127 | 212 | 215 | 130 | 22 | 145 | | |
| | | BS 4505 PN 40 | 165 | 4 | 18 | 125 | 212 | 215 | 130 | 22 | 145 | | |



Materials

| Item | Part name | Material | |
|------|-----------------|-----------------|----------|
| 1 | Body | Bronze | Gunmetal |
| 2 | Seat | Nickel alloy | |
| 3 | Rack | Gunmetal | |
| 4 | Pinion | Gunmetal | |
| 5 | Bonnet | Bronze | Gunmetal |
| 6 | Packing bushing | Bronze | |
| 7 | Gland bushing | Bronze | |
| 8 | Female disk | Nickel alloy | |
| 9 | Male disk | Nickel alloy | |
| 10 | Spring | Stainless steel | |
| 11 | Key | Cast iron | |



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



water level controller is a comprehensive range of magnetically operated water level controls.

Water Level Controller BX



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📱 eshtealarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Water Level Controller

Type BX (Chamber Mounted Models)

Description

BX water level controller is a comprehensive range of magnetically operated water level controls.

They are designed to meet all the requirements for automatic on/off control of boiler feed pump, burner cut-out, high and/or low level alarm or any combination of these.



Cast steel Chamber

Operation

A primary permanent magnet attached to the float rod slides vertically inside a non-magnetic stainless steel center tube and transmits the movements of the float to a secondary magnet in each switch unit.

There are two pairs of contacts which are operated with a snap action and held by repulsion between the secondary magnet and the tertiary magnet of the switch unit assembly.



Cast iron Chamber

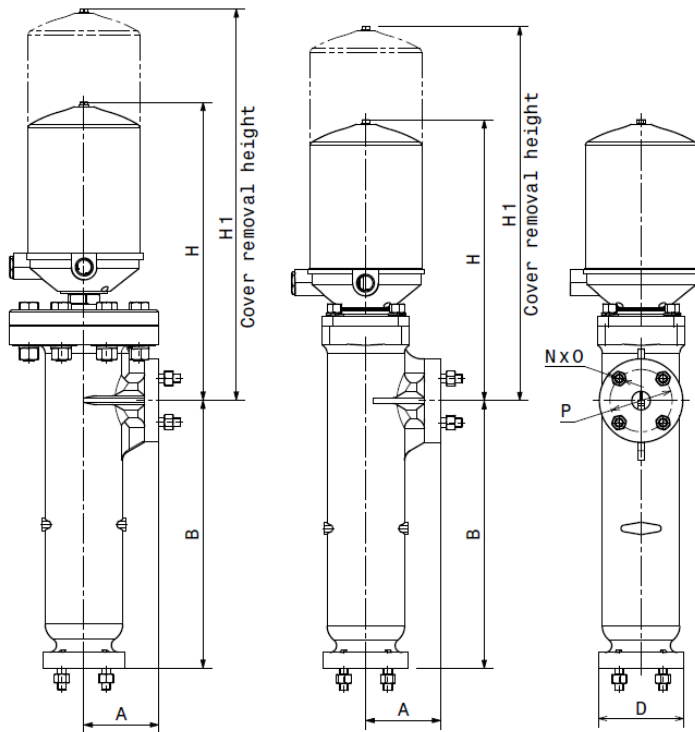
Limiting conditions

Maximum working pressure for the Cast iron material is 10 bar and for the Cast steel material is 20 bar.

Dimensions and pipe connections

Dimensions (approx.) in mm

| Size | Chamber material | Type number | Operating Range (mm) | No. of switches | Dimensions | | | | | | | |
|------------|------------------|-------------|----------------------|-----------------|--|---|-----|----|-----|-----|-----|-----|
| | | | | | Flanged connections (Inlet and outlet) | | | | A | B | H | H1 |
| | | | | | D | N | O | P | | | | |
| 1" DN25 | Cast iron | BX 02/1 | 62 | 1 | BS 4504 (PN16) | | | | 102 | 266 | 295 | 405 |
| | | BX 05/2 | 150 | 2 | 115 | 4 | M12 | 85 | | 366 | 395 | 600 |
| | Cast steel | BX 09/1 | 62 | 1 | BS 4504 (PN40) | | | | 102 | 266 | 315 | 425 |
| | | BX 10/2 | 150 | 2 | 115 | 4 | M12 | 85 | 101 | 366 | 415 | 620 |

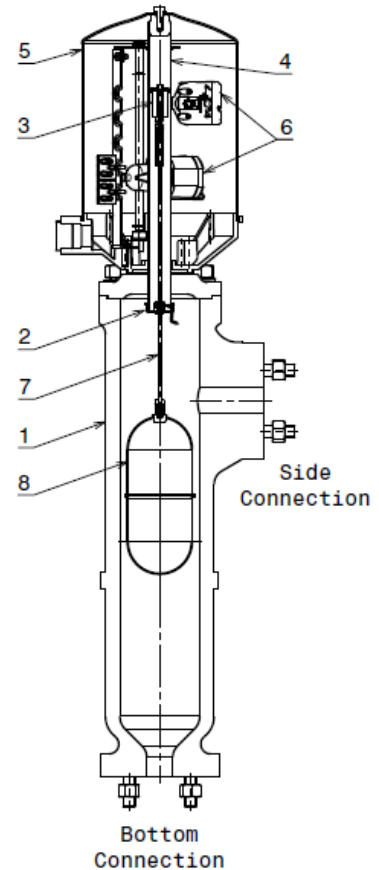


Bottom and Side Connection

N = No. of tapped holes

O = Thread size

P = Pitch circle dia.



Material

| Item | Part name | Material |
|------|--------------|------------------------|
| 1 | Chamber | Cast iron Cast steel |
| 2 | Stop cap | Stainless Steel |
| 3 | Magnet | - |
| 4 | Center tube | Stainless Steel |
| 5 | Switch head | Aluminum |
| 6 | Switch units | Cast ceramic |
| 7 | Float road | Stainless Steel |
| 8 | Float | Stainless Steel |

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



اشتعال اراک
ESHTEAL ARAK
محمد مزگان Since 1980

water level controller is a comprehensive range of magnetically operated water level controls.

Water Level Controller BD



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtealarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Water Level Controller

Type BD (Direct Mounted Models)

Description

BD water level controller is a comprehensive range of magnetically operated water level controls. They are designed to meet all the requirements for automatic on/off control of boiler feed pump, burner cut-out, high and/or low level alarm or any combination of these Direct Mounted Vertical Air Brake Controls employ the same principles of operation and piece parts as the chamber mounted equivalents except that the chamber is exchanged for a large round flange and the tube assembly for mounting the control directly on to the boiler shell connection.



Operation

A primary permanent magnet attached to the float rod slides vertically inside a non-magnetic stainless-steel center tube and transmits the movements of the float to a secondary magnet in each switch unit. There are two pairs of contacts which are operated with a snap action and held by repulsion between the secondary magnet and the tertiary magnet of the switch unit assembly.

Limiting conditions

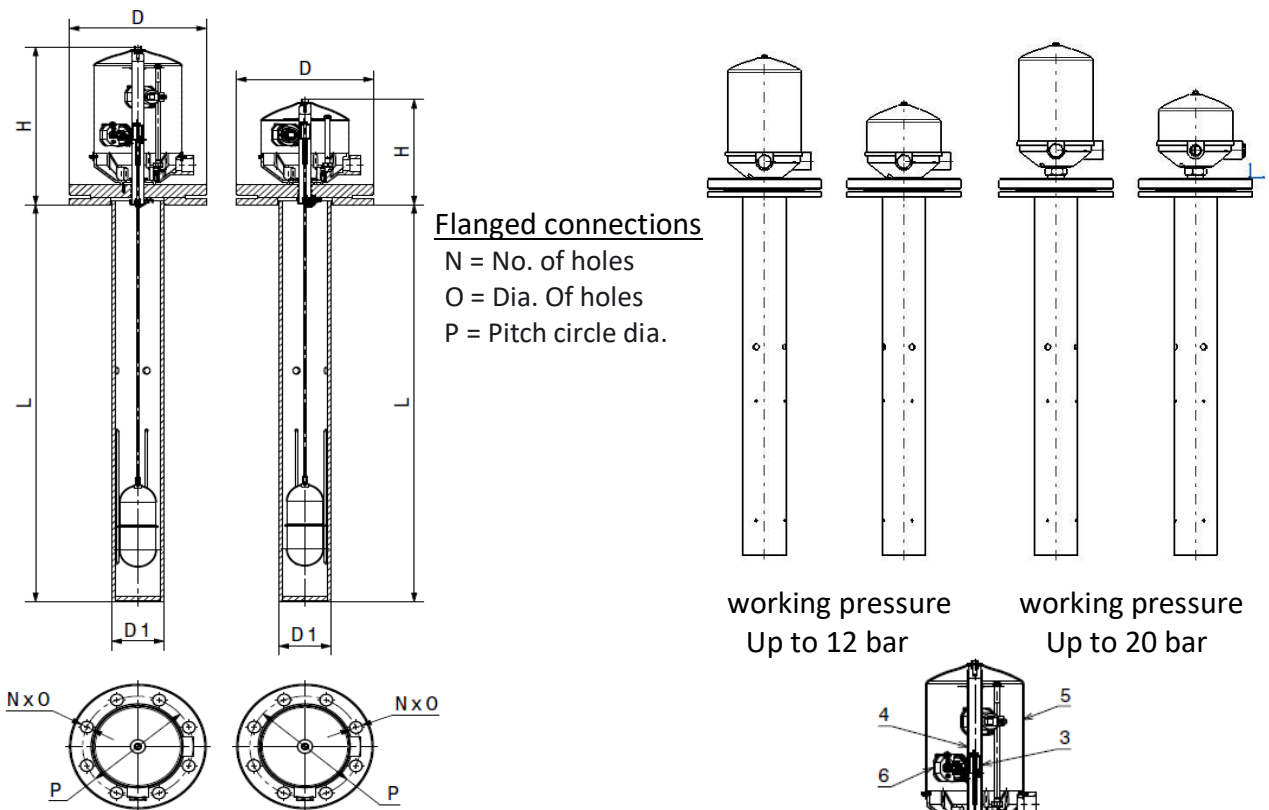
Maximum working pressure is 20 bar.

Dimensions and pipe connections

Dimensions (approx.) in mm

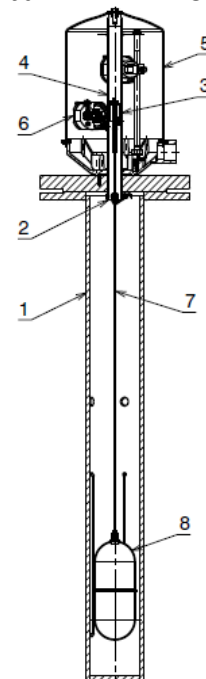
| Type number | Maximum working pressure at saturated steam (bar) | Operating Range (mm) | No. of switches | Dimensions | | | | | | |
|-------------|---|----------------------|-----------------|---------------------------------------|---|----|-----|----|-----|----|
| | | | | Flanged connections BS 4504 (PN40) | | | | L* | H | D1 |
| | | | | D | N | O | P | | | |
| BD 01/1 | 12 | 62 | 1 | 235 | 8 | 22 | 190 | - | 200 | 89 |
| | 20 | | | | | | | | 300 | |
| BD 02/2 | 12 | 150 | 2 | 235 | 8 | 22 | 190 | - | 200 | 89 |
| | 20 | | | | | | | | 300 | |

* The Dimensions Can Be Changed According To The Installation Conditions.



Material

| Item | Part name | Material |
|------|--------------|-----------------|
| 1 | Flange | St 52 |
| 2 | Stop cap | Stainless Steel |
| 3 | Magnet | - |
| 4 | Center tube | Stainless Steel |
| 5 | Switch head | Aluminum |
| 6 | Switch units | Cast ceramic |
| 7 | Float road | Stainless Steel |
| 8 | Float | Stainless Steel |



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



The sequencing valve is designed to function as a combined water isolating valve and a sequencing valve to provide positive purging of the water connection float chamber and steam connection of a boiler control. Blowdown of float chamber and connections is effected separately and in a pre-determined sequence by the operation of the single specially designed handwheel. Cast iron for up to 10 bar rating and Bronze Gunmetal or 20 bar rating

Sequencing Blowdown valve



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtealarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Sequencing blowdown valve

Type SPV

Description

The sequencing valve is designed to function as a combined water isolating valve and a sequencing valve to provide positive purging of the water connection, float chamber and steam connection of a boiler control. Blowdown of float chamber and connections are affected separately and in a pre-determined sequence by the operation of the single specially designed hand wheel.



Function

Steam boiler external level control chamber isolation and purge.

Features

- One valve to provide separate blowdown of:
- Control Chamber
 - Steam Connection
 - Water Connection

Limiting conditions

Maximum working pressure for the Cast iron material is 10 bar and for the Gunmetal material is 20 bar.



Size and pipe connections

Dimensions (approx.) in mm

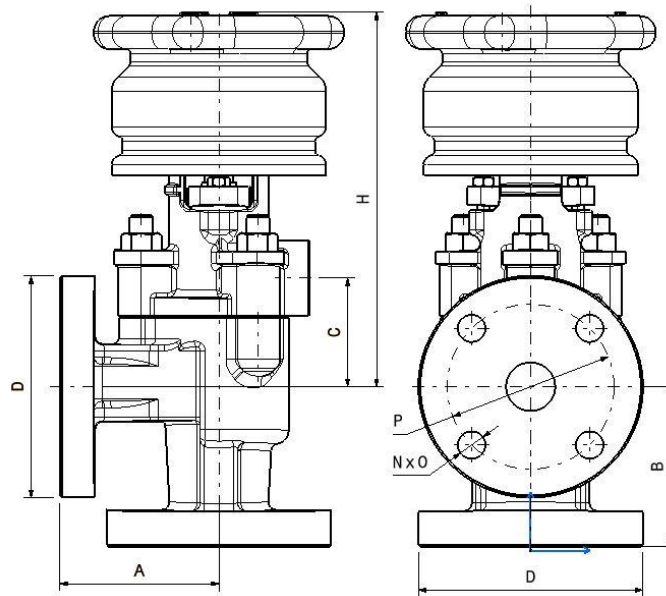
| Size | Body material | Flange connections | D | N | O | P | A | B | H | C |
|------------|---------------|------------------------------------|-----|---|----|----|----|----|-----|----|
| 1" DN25 | Cast iron | BS 4504 PN16 (Inlet and outlet) | 115 | 4 | 14 | 85 | 83 | 83 | 219 | 54 |
| | Gunmetal | BS 4504 PN40 (Inlet and outlet) | 115 | 4 | 14 | 85 | 83 | 83 | 219 | 54 |

Inlet and Outlet flange

N = No. of holes

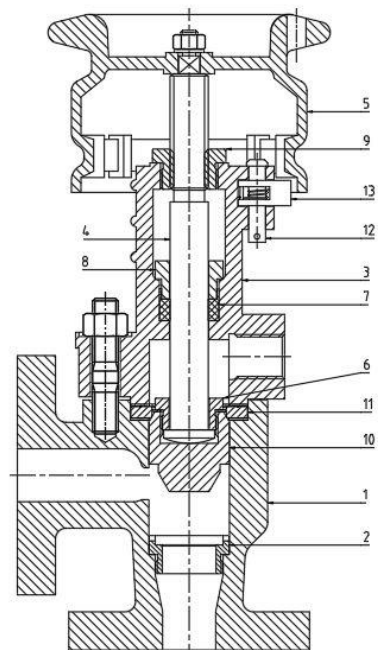
O = Dia. of holes

P = Pitch circle dia.



Material

| Item | Part Name | Material |
|------|----------------------|----------------------|
| 1 | Water Leg | Cast iron Gunmetal |
| 2 | Water Leg valve seat | Stainless steel |
| 3 | Stuffing box | Cast iron Gunmetal |
| 4 | Spindle | Stainless steel |
| 5 | Hand wheel | Aluminum |
| 6 | Retaining nut | Stainless steel |
| 7 | Gland packing | Teflon packing |
| 8 | Gland follower | Stainless steel |
| 9 | ACME THRD nut | Brass |
| 10 | Valve Lid | Nickel alloy |
| 11 | Blow down seat | Nickel alloy |
| 12 | Split pin | Steel |

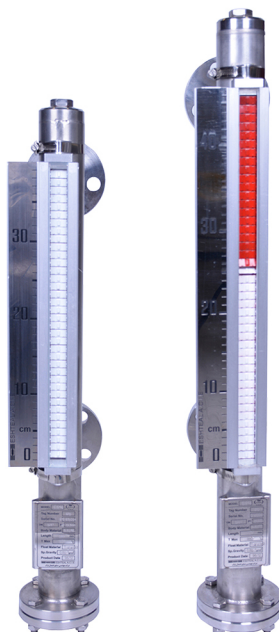


Eshteal Arak Industrial Engineering Company is the only manufacturer of high-capacity rotary cup burners in the country, and these burners are used by all boiler companies in the country. Among the unique products produced by this company are power valves that are designed for saturated and superheated 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



magnetic level gauges are used for continuous display of the filling level. A magnetic float transmits the level to an indicator consisting of magnetic rollers or flaps. Accessories such as magnetic switches can be fitted to the chambers as additional accessories. The body of this surface is made of stainless steel and its floater is made of titanium, which is designed for pressures of 10 bar and 20 bar

Magnetic Liquid Level Gage



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtearak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

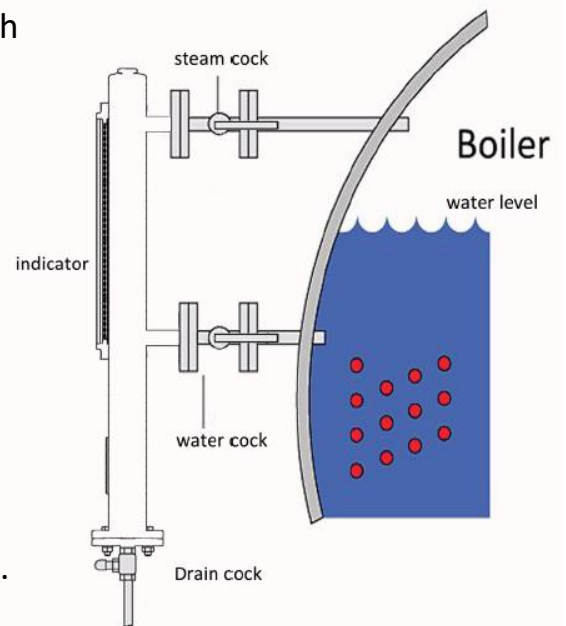
📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Magnetic Liquid Level Gauge

Type MLG with BVL Valve

Description

A communicating bypass chamber is flanged to the side of a vessel, and as the liquid level in the tank rises or falls, a float with a built-in magnetic system inside the chamber rises or falls with it. The chamber is completely sealed so that the only moving part of the apparatus in contact with the liquid is the float itself. On the 'dry side' of the chamber is the magnetic Roller Display, a column of magnetic rollers which are white on one side and red on the other. As the float moves up or down the bunched field of the permanent magnet mounted in its top section 'pulls' the rollers through a rotation of 180°, thus changing their color. As the float rises the rollers are turned from white to red, and as the float falls, they are changed back to white again. This means that at any given time the amount of liquid in the tank is constantly represented by a red column without any external power supply. As options the following devices can be attached to a Magnetic Level Sensors to control the level of the liquid.



Float design according to process parameters S.G., pressure and temperature

Applications

The magnetic level gauge is a suitable tool for monitoring the liquid level in a vessel.

Dimensions and pipe connections

Dimensions (approx.) in mm

| Connection Size | A | B | C | H* | D | N | O | P |
|-----------------|-----|-----|-----|------------|-----|---|----|------|
| 3/4" DN20 | 107 | 100 | 235 | 457 or 380 | 115 | 4 | 19 | 82.6 |
| 1" DN25 | | | | | | | | |

* The Dimensions Can Be Changed According To The Installation Conditions.

– Max. Working pressure 20 bar

Connection

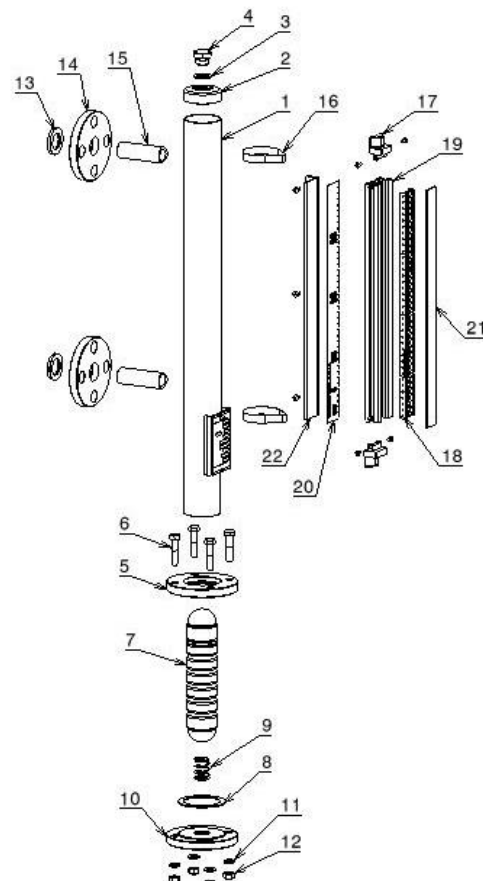
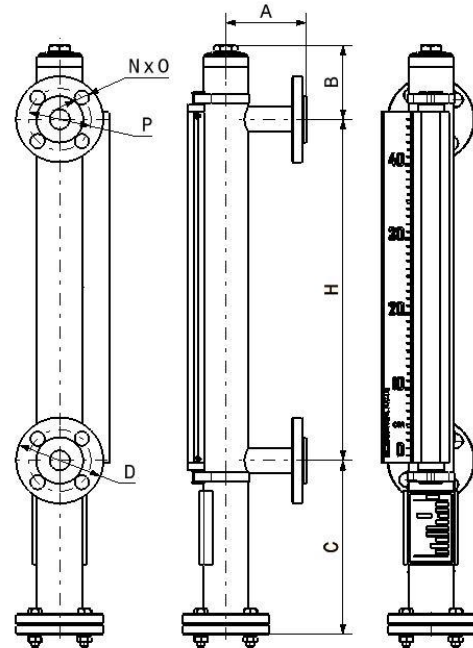
N = No. of holes

O = Dia. of holes

P = Pitch circle dia.

Material

| Item | Part name | Material |
|------|-----------------|------------------|
| 1 | Body | Stainless steel |
| 2 | Bonnet | Stainless steel |
| 3 | Washer | Steel |
| 4 | Screw | Stainless steel |
| 5 | Drain flange 2 | Stainless steel |
| 6 | Screw | Steel |
| 7 | Floater | Stainless steel |
| 8 | Gasket | Compressed fiber |
| 9 | Spring | Stainless steel |
| 10 | Drain flange 1 | Stainless steel |
| 11 | Spring washer | Steel |
| 12 | Nut | Steel |
| 13 | Washer | Stainless steel |
| 14 | Connection | Stainless steel |
| 15 | Pipe | Stainless steel |
| 16 | Clamp band | Stainless steel |
| 17 | Profile support | Aluminum |
| 18 | Flag | Aluminum |
| 19 | Profile 1 | Aluminum |
| 20 | Line gauge | Stainless steel |
| 21 | Glass | Glass |
| 22 | Profile 2 | Aluminum |



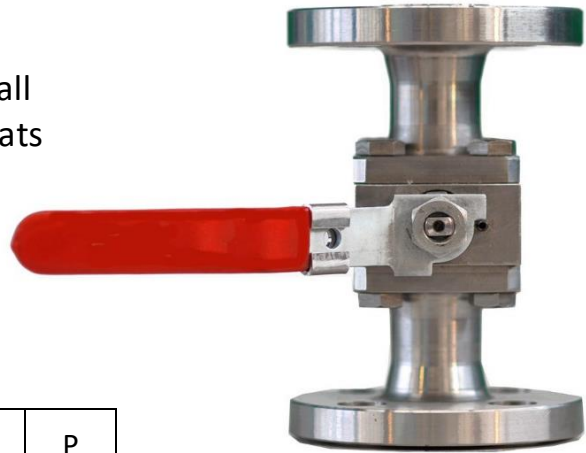
Ball Valve

Type BVL

Construction

Three Pieces Bolted Construction-Solid Ball
Anti-Blow Out Proof Stem Design-Soft Seats

Temperature: Up to +260°C



Dimensions and pipe connections

Dimensions (approx.) in mm

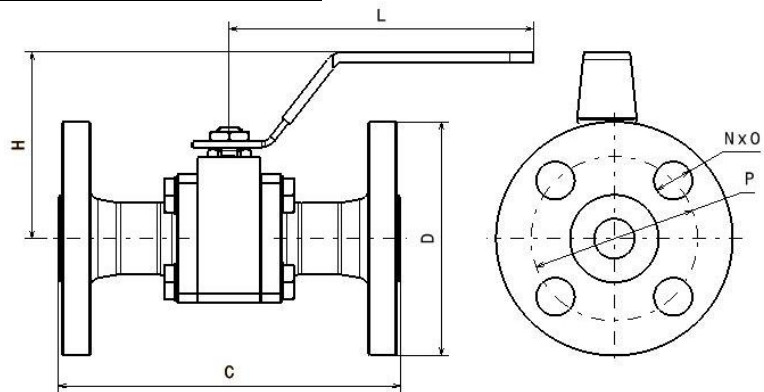
| Size | L | C | H | D | N | O | P |
|-----------|-----|-----|----|-----|---|----|------|
| 3/4" DN20 | 170 | 170 | 90 | 117 | 4 | 19 | 82.6 |

Inlet and Outlet flange

N = No. of holes

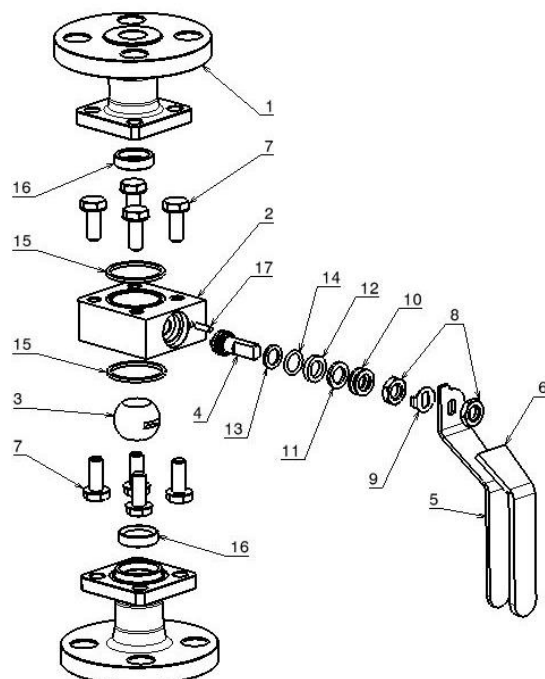
O = Dia. of holes

P = Pitch circle dia.



Material

| Item | Part Name | Material |
|------|---------------|-----------------|
| 1 | Flange | Stainless Steel |
| 2 | Body | Stainless Steel |
| 3 | Ball | Stainless Steel |
| 4 | Spindle | Stainless Steel |
| 5 | Lever | Stainless Steel |
| 6 | Lever Cover | - |
| 7 | Hexagon Screw | - |
| 8 | Hexagon Nut | Stainless Steel |
| 9 | Lock Nut | Stainless Steel |
| 10 | Washer | Stainless Steel |
| 11 | Washer | Stainless Steel |
| 12 | Packing | PTFE |
| 13 | Gasket | PTFE |
| 14 | Gasket | Viton |
| 15 | Packing | PTFE |
| 16 | Seat | PTFE |
| 17 | Pine | Stainless Steel |



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



The valves in this range are ideally suitable for boiler stop valve and also general purpose stop/regulating valve duties. The material of the body is Cast Iron up to the maximum pressure of 13bar and Cast Steel up to the maximum pressure of 21bar.

This valve is available in the sizes of 2 1/2", 3", 4", 14", 10", 8", 7", 5"

Glob Stop valve



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshteararak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Globe stop valve

Type CGV

Description

The combination of simple design, high quality materials and high standard of production results in an easily maintained valve, capable of long and efficient service under high load conditions.

Applications

The valve in this range is ideally suitable for boiler stop valve and also general-purpose stop/regulating valve duties.



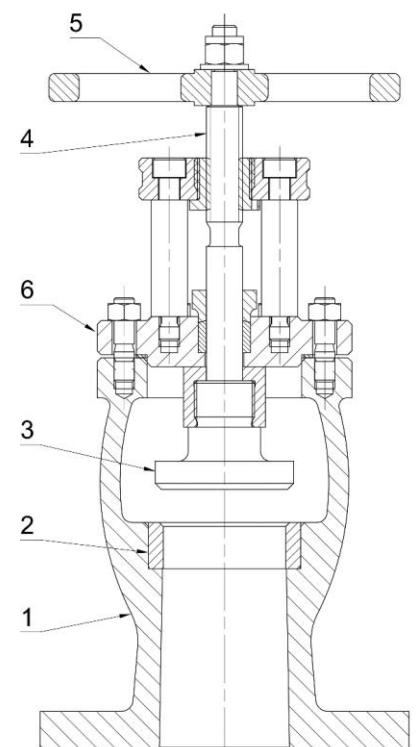
Limiting conditions

Pressure / temperature rating

| Flange Standard | BS 10 Table F | BS 10 Table H |
|-----------------------------|---------------|---------------|
| Temperature (°C) | 210 | 200 |
| Max. Working pressure (bar) | 11 | 20 |

Materials

| Item | Part Name | Material | |
|------|------------|-----------------|-----------|
| 1 | Body | Cast steel | Cast Iron |
| 2 | Seat | Stainless steel | |
| 3 | Disc | Bronze | |
| 4 | Stem | Stainless steel | |
| 5 | Hand wheel | Cast iron | |
| 6 | Bonnet | ST52 | |



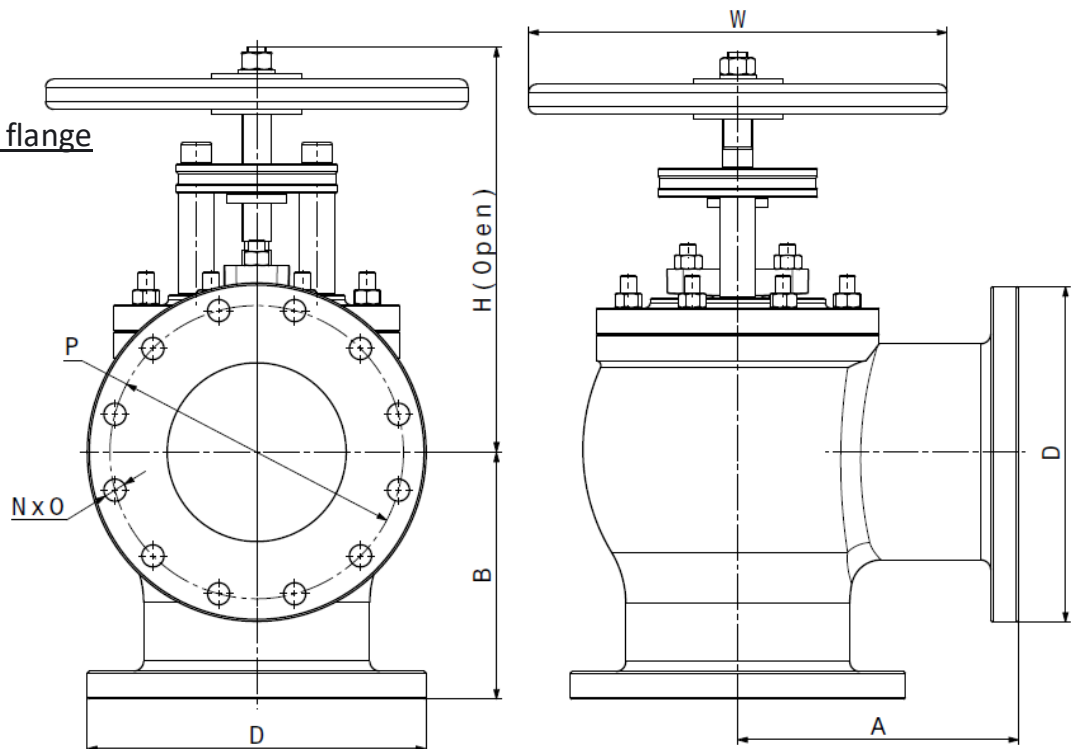
Size and pipe connections

Dimensions (approx.) in mm

| Body material | Dimensions and Standard of Flange | | | | | | | | | |
|---------------|-----------------------------------|-----|----|-----|-----|-----|-----|------|-----|--|
| | BS 10 Table F (Inlet and outlet) | | | | | | | | | |
| | Size | D | N | O | P | A | B | W | H | |
| Cast iron | 2 ½" DN65 | 184 | 8 | 18 | 146 | 148 | 148 | 190 | 300 | |
| | 3" DN80 | 203 | 8 | 18 | 165 | 180 | 156 | 190 | 350 | |
| | 4" DN100 | 229 | 8 | 18 | 191 | 173 | 181 | 215 | 360 | |
| | 5" DN125 | 280 | 8 | 22 | 235 | 203 | 203 | 215 | 465 | |
| | 7" DN175 | 337 | 12 | 22 | 292 | 285 | 267 | 565 | 585 | |
| | 8" DN200 | 368 | 12 | 22 | 324 | 303 | 289 | 565 | 650 | |
| Cast steel | BS 10 Table H (Inlet and outlet) | | | | | | | | | |
| | 2 ½" DN65 | 184 | 8 | 18 | 146 | 148 | 148 | 190 | 300 | |
| | 3" DN80 | 203 | 8 | 18 | 165 | 180 | 156 | 190 | 350 | |
| | 4" DN100 | 229 | 8 | 18 | 191 | 173 | 181 | 215 | 360 | |
| | 5" DN125 | 280 | 8 | 22 | 235 | 203 | 203 | 215 | 465 | |
| | 7" DN175 | 337 | 12 | 22 | 292 | 285 | 267 | 565 | 585 | |
| | 8" DN200 | 368 | 12 | 22 | 324 | 303 | 289 | 565 | 650 | |
| | 10" DN250 | 432 | 12 | 24 | 381 | 360 | 347 | 565 | 715 | |
| 14" DN350 | 552 | 16 | 26 | 495 | 428 | 428 | 565 | 1030 | | |

Inlet and Outlet flange

N = No. of holes
O = Dia. of holes
P = Pitch circle dia.



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

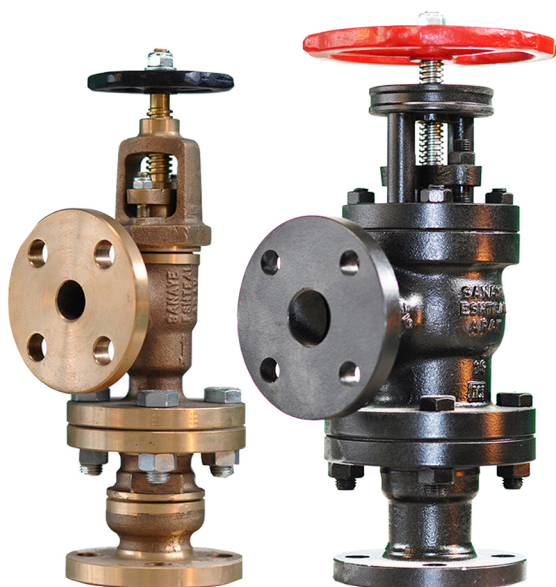


This valve comprises two valves, a stop valve and a check valve. Feed Check Valves are one of the most important components of boiler which control the flow of water from feed pump to the boiler and further prevents the backflow of water from boiler to pump when the boiler pressure is more than the pump pressure or when feed pump stops working.

The material of the body is Cast Iron up to the maximum pressure of 11bar and Cast Steel up to the maximum pressure of 25bar.

This valve is available in the sizes of 1", 1 ½", 2", 3"

Feed Check Valve



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📱 eshtealarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Feed check valve

Type FCV

Description

This unit comprises two valves, a stop valve and a check valve. An important feature of the design is the accessibility of the check valve which can be examined, by removing the inlet straight bottom part.



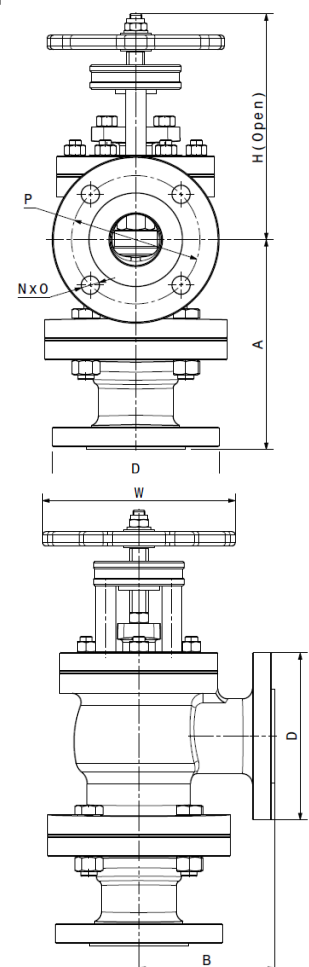
Applications

Feed Check Valve is one of the most important components of boiler which controls the flow of water from feed pump to the boiler and further prevents the backflow of water from boiler to pump when the boiler pressure is more than the pump pressure or when feed pump stops working.

Size and Pipe Connections

Dimensions (approx.) in mm

| Body material | Dimensions and Standard of Flange | | | | | | | | | |
|---------------|-----------------------------------|-----|---|----|------|-----|-----|-----|-----|--|
| | BS 10 Table F (Inlet and outlet) | | | | | | | | | |
| | Size | D | N | O | P | A | B | W | H | |
| Bronze | 1" DN25 | 121 | 4 | 18 | 87.5 | 186 | 82 | 100 | 230 | |
| | 1 1/2" DN40 | 140 | 4 | 18 | 105 | 189 | 128 | 190 | 315 | |
| | 2" DN50 | 165 | 4 | 18 | 127 | 206 | 132 | 190 | 330 | |
| Cast iron | 3" DN80 | 203 | 8 | 18 | 165 | 267 | 154 | 240 | 415 | |
| | BS 10 Table H (Inlet and outlet) | | | | | | | | | |
| | Size | D | N | O | P | A | B | W | H | |
| Cast steel | 1 1/2" DN40 | 140 | 4 | 18 | 105 | 193 | 128 | 190 | 315 | |
| | 2" DN50 | 165 | 4 | 18 | 127 | 212 | 138 | 190 | 330 | |
| | 3" DN80 | 203 | 8 | 18 | 165 | 274 | 160 | 240 | 415 | |



Inlet and Outlet flange

N = No. of holes

O = Dia. of holes

P = Pitch circle dia.

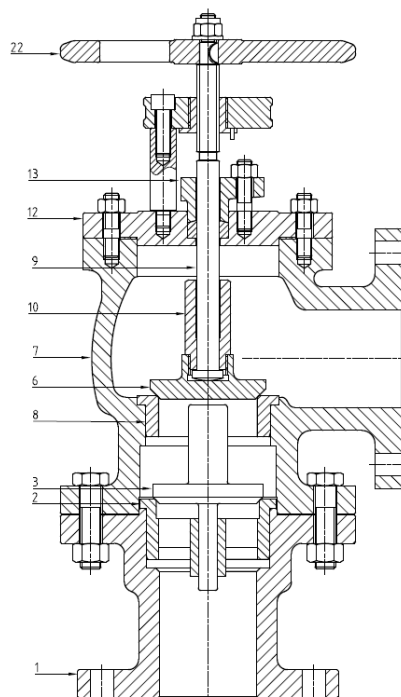
Limiting conditions

Pressure / temperature rating

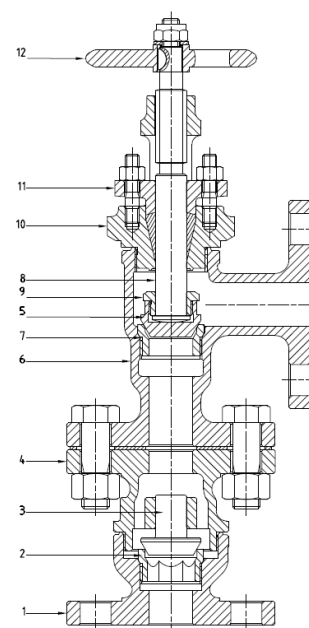
| Body material | Bronze | Cast iron | Cast steel |
|-----------------------------|--------|-----------|------------|
| Temperature (°C) | 220 | 210 | 200 |
| Max. Working pressure (bar) | 10 | 11 | 20 |

Materials

| Item | Part Name | Body material | | |
|------|-----------------------|-----------------|-----------------|-----------------|
| | | Bronze | Cast iron | Cast steel |
| 1 | Check valve body | Bronze | Cast iron | Cast steel |
| 2 | Check valve seat ring | Stainless steel | Nickel alloy | Nickel alloy |
| 3 | Check valve Disc | Stainless steel | Stainless steel | Stainless steel |
| 4 | Check valve bonnet | Bronze | - | - |
| 5 | Feed valve Disc | Stainless steel | Stainless steel | Stainless steel |
| 6 | Feed valve body | Bronze | Cast iron | Cast steel |
| 7 | Feed valve seat ring | Stainless steel | Stainless steel | Stainless steel |
| 8 | Stem | Brass | Stainless steel | Stainless steel |
| 9 | Disc nut | Brass | Brass | Brass |
| 10 | Feed valve bonnet | Bronze | ST 52 | ST 52 |
| 11 | Gland flange | Bronze | Bronze | Bronze |
| 12 | Hand wheel | Cast iron | Cast iron | Cast iron |



Size (DN40, DN50, DN80)



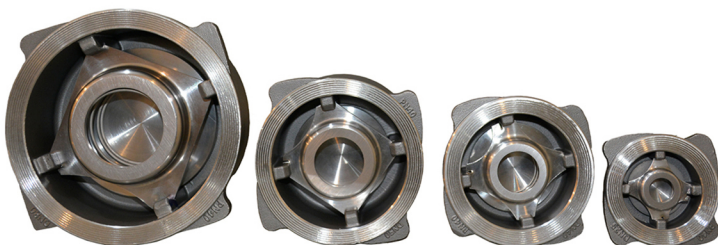
Size (DN25)

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



The EDCV disc check valve is of the wafer pattern designed to be sandwiched between flanges.

Disc Check Valve



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtealarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Disc check valve

Type EDCV

Description

The EDCV disc check valve is of the wafer pattern designed to be sandwiched between flanges. It is suitable for use on a wide range of fluids for applications in process lines, hot water systems, steam and condensate systems etc.

Designed and manufactured in accordance with BS 7438.



Size and Pipe Connections

DN 25, 40, 50, 80

EDCV can be fitted between BS 10 Tables 'E' and 'H';

BS 4504/ (DIN) PN6, 10, 16, 25, 40;

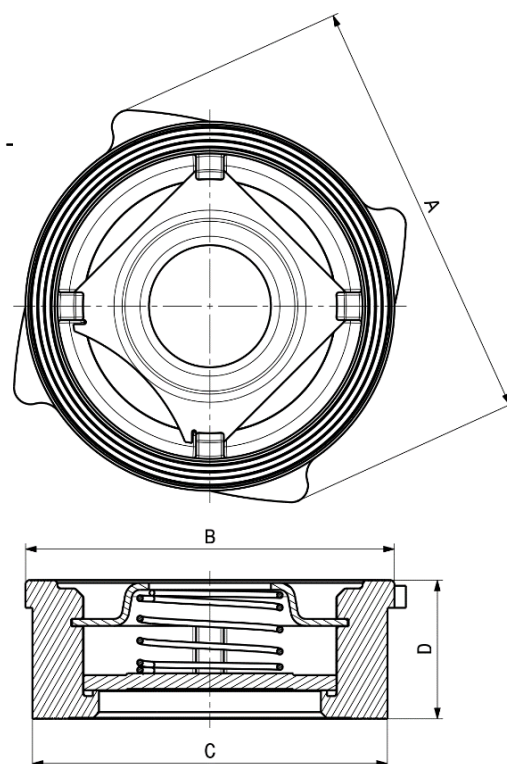
JIS 5, 10, 16, 20 flanges with the following exception: -

DN 40, 50 and 80 – will not fit between JIS 5 flanges

DN 80 – will not fit between BS 10 'E' flanges.

Dimensions (approx.) in mm

| Size | A | B | C | D |
|-----------|------|-----|-----|------|
| 1" DN25 | 80.5 | 63 | 55 | 22 |
| 1 ½" DN40 | 101 | 85 | 79 | 31.5 |
| 2" DN50 | 115 | 95 | 93 | 40 |
| 3" DN80 | 154 | 133 | 128 | 50 |

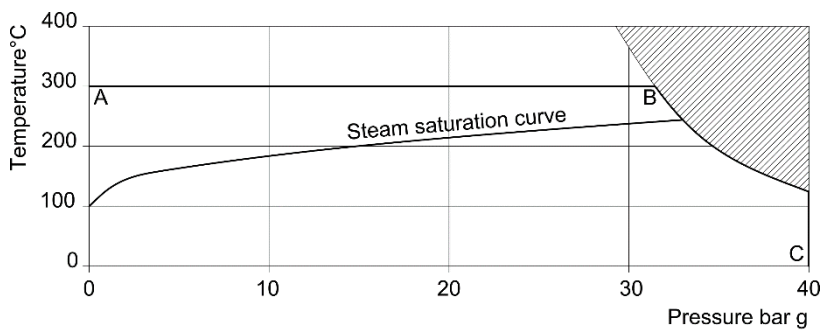



Limiting conditions

| | |
|--------------------------------------|----------|
| Maximum body design conditions | PN40 |
| PMO - Maximum operating pressure | 40 bar g |
| TMO - Maximum operating temperature | 300°C |
| Minimum operating temperature | -50°C |
| Maximum cold hydraulic test pressure | 60 bar g |

Operating range

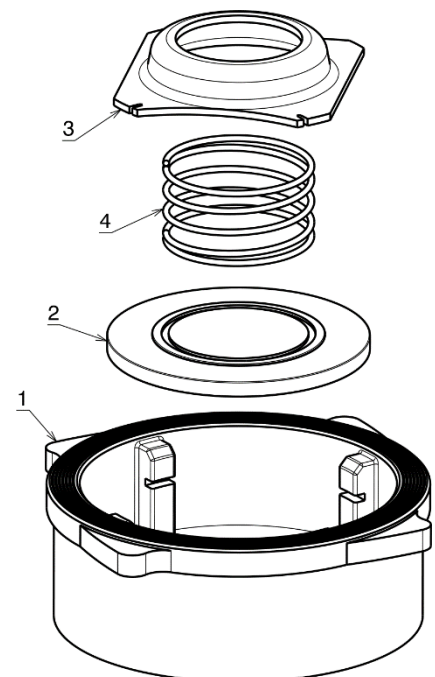
EDCV (A – B – C –)



 This product must not be used in this region.

Materials

| Item | Part Name | Material |
|------|-----------------|-----------------|
| 1 | Body | Stainless steel |
| 2 | Disc | Monel |
| 3 | Spring retainer | Stainless steel |
| 4 | Spring | Stainless steel |



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 can be supplied as a Tester valve with elbow removed and outlet tapped 3/8 Rp* and plugged. This valve can be supplied as an Air valve or Tester valve with inlet screwed male and outlet tapped and plugged

Air & Tester valve



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshteararak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Air & Tester valves

Type SDV

Description

This valve can be supplied as a Tester valve with elbow removed and outlet tapped 3/8" and plugged. It can also be supplied with outlet fitted with adaptor and tailpipe tapped 1/4".



Applications

In the boilers this valve used as the main valve on the way of pressure switch.

Size and Pipe Connections

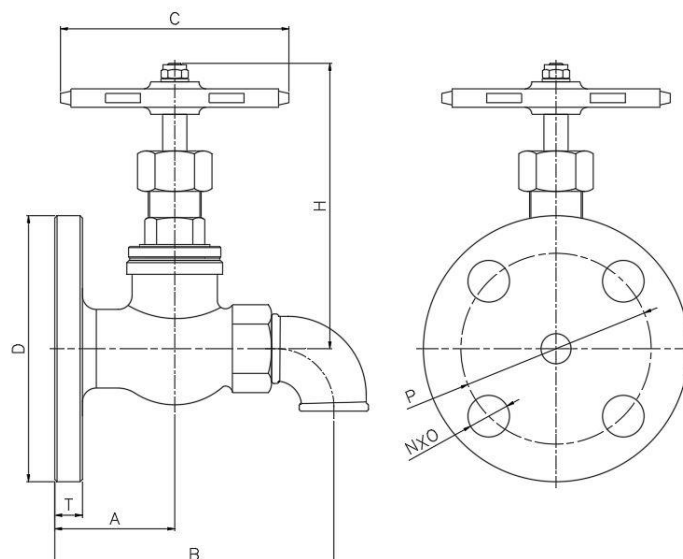
Inlet flange connections: BS 10 Tables F, H

Dimensions (approx.) in mm

| Size | D | Material | T | N | O | P | A | B | C | H |
|------|-----|-----------------|----|---|----|------|----|-----|-----|-----|
| 1/2" | 95 | Bronze 150psi | 12 | 4 | 14 | 65 | 52 | 107 | 100 | 125 |
| | | Gunmetal 300psi | 14 | | | | | | | |
| | 115 | Bronze 150psi | 12 | 4 | 14 | 82.5 | | | | |
| | | Gunmetal 300psi | 14 | | | | | | | |

Inlet and Outlet flange

N = No. of holes
O = Dia. of holes
P = Pitch circle dia.

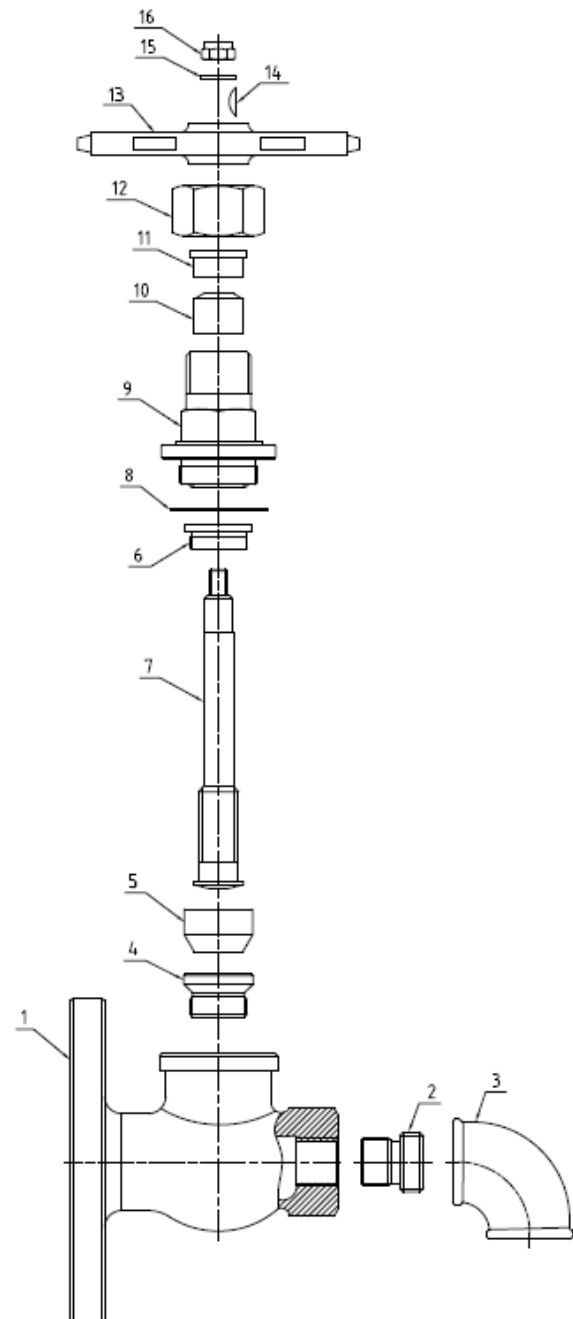


Pressure/temperature rating

| | |
|-----------------------------|-----------------------|
| Temperature (°C) | Saturated Steam temp. |
| Max. Working pressure (bar) | 24 |

Material

| Item | Part name | Material |
|------|------------------|-------------------|
| 1 | Body | Bronze Gunmetal |
| 2 | Connector | Steel |
| 3 | Elbow | Cast iron |
| 4 | Seat ring | Stainless steel |
| 5 | Disc | Stainless steel |
| 6 | Disc Nut | Brass |
| 7 | Stem | Brass |
| 8 | Washer | Copper |
| 9 | Stem bushing | Brass |
| 10 | Packing | PTFE |
| 11 | Packing flange | Brass |
| 12 | Stem bushing nut | Brass |
| 13 | Hand Wheel | Cast iron |
| 14 | Woodruff key | Steel |
| 15 | Washer | Steel |
| 16 | Nut | Steel |

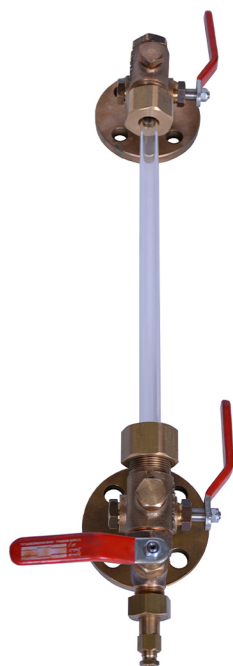


Eshteal Arak Industrial Engineering Company is the only manufacturer of high-capacity rotary cup burners in the country, and these burners are used by all boiler companies in the country. Among the unique products produced by this company are power valves that are designed for saturated and superheated 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



The 'Absolute' liquid level gauge is suitable for use with a variety of liquids on pressure vessels, tanks etc., in many industries. The gauge is automatic in top and bottom arms. In the event of the gauge glass breaking both the vapour and the liquid are automatically shut of by means of a ball in each arm.

Absolute Liquid Level Gauge



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtearak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Absolute Liquid Level Gauge

Type LGV

Description

Absolute Liquid Level Gauge offer an easy and cost-effective Way to indicate liquid levels. They are perfect for low pressure, non-hazardous applications.

The gauge is automatic in top and bottom arms. In the event Of the gauge glass breaking both the vapour and the liquid are automatically shut of by means of a ball in each arm. There is no possibility of trapping false liquid levels, as the use of a large ball valve in the water arm ensures its opening against the head of liquid in the vessel.



Applications

The Absolute liquid level gauge is suitable for use with a variety of liquids on pressure vessels, tanks etc., in many industries.

Limiting conditions

Maximum working pressure for the Bronze material is 12 bar and for the Gunmetal material is 20 bar.

Dimensions and pipe connections

Dimensions (approx.) in mm

| Size | Material (Bottom arm body) | Flanged connections | | | | | | | A | B | E | L |
|------|-------------------------------|---------------------|----|---|----|---|----|------|----|-----|------|-----|
| | | D | R | S | T | N | O | P | | | | |
| 1/2" | Bronze | 95 | 28 | 3 | 12 | 4 | 14 | 66.5 | 83 | 135 | 82.5 | 110 |
| | Bronze | 115 | 28 | 3 | 12 | 4 | 14 | 82.5 | 83 | 135 | 82.5 | 110 |
| 3/4" | Bronze | 115 | 28 | 3 | 12 | 4 | 18 | 82.5 | 83 | 135 | 82.5 | 110 |
| | Gunmetal | 115 | 28 | 3 | 14 | 4 | 18 | 82.5 | 83 | 135 | 82.5 | 110 |

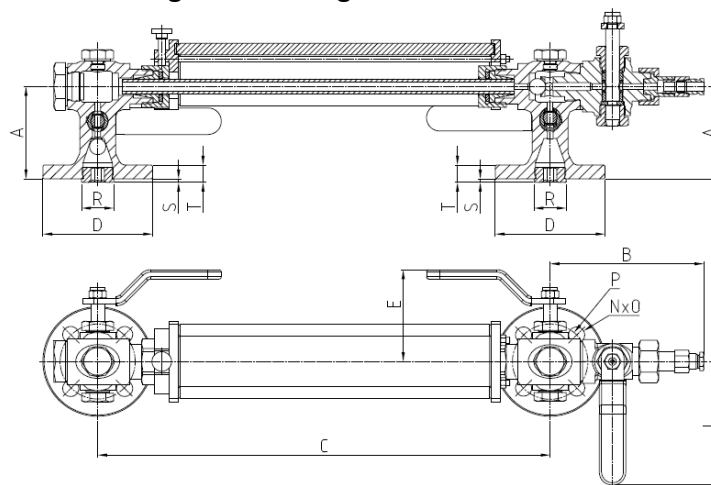
- The Dimension 'C' Can Be Changed According to The Installation Conditions.

Connection

N = No. of holes

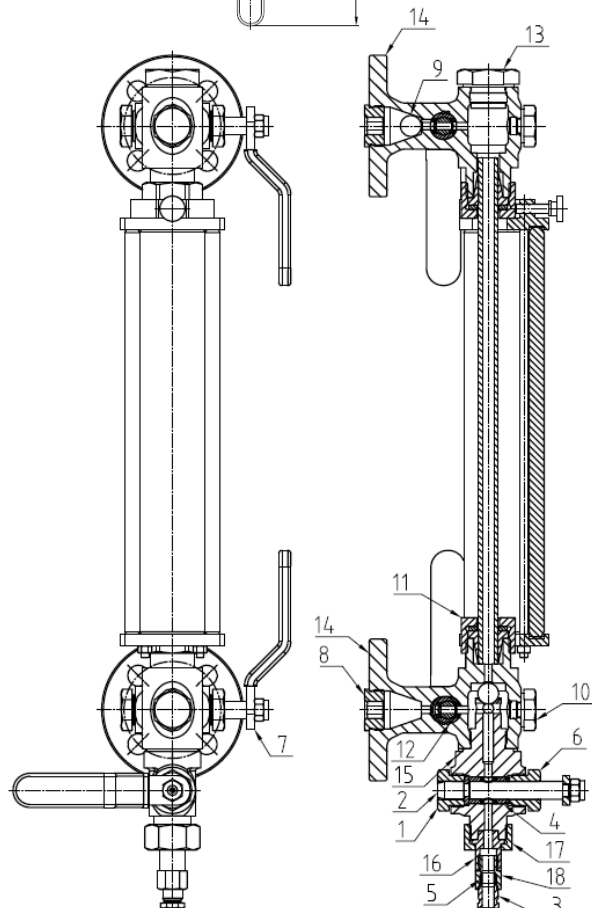
O = Dia. of holes

P = Pitch circle dia.



Material

| Item | Part name | Material |
|------|------------------------|-----------------|
| 1 | Stem positioner nut | Brass |
| 2 | Stem | Stainless steel |
| 3 | Drain pipe fitting nut | Brass |
| 4 | Packing | PTFE |
| 5 | Olvis | Stainless steel |
| 6 | Packing nut | Brass |
| 7 | Handle | Steel |
| 8 | Bottom plug | Brass |
| 9 | Ball | Steel |
| 10 | Top plug | Brass |
| 11 | Gage glass packing nut | Brass |
| 12 | Pin | Stainless steel |
| 13 | End plug | Brass |
| 14 | Bottom arm body | Bronze |
| | | Gunmetal |
| 15 | Try valve body | Bronze |
| 16 | Try valve fitting | Brass |
| 17 | Try valve fitting nut | Brass |
| 18 | Drain pipe nut | Brass |



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



Use conductivity transmitters ETC only for measuring the electrical conductivity in liquids. When used for conductivity limiting or continuous boiler blowdown in steam boilers. The compact-design conductivity transmitter ETC consists of a conductivity electrode and a temperature sensor for detecting the fluid temperature and a conductivity transmitting unit incorporated in the terminal box. The conductivity transmitter ETC works according to the conductometric measuring method using four measuring electrodes. The equipment measures the conductivity of electrically conductive fluids (TDS content) and provides current output (4-20 mA) or relay output as a function of the detected conductivity value.

Service pressure : PN 40, 32 bar at 238°C

Conductivity Transmitter ETC



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtearak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

Conductivity transmitter

Type ETC 19-1

Description

The compact-design conductivity transmitter ETC 19-1 consists of a conductivity electrode, a temperature sensor for detecting the fluid temperature and a conductivity transmitter unit incorporated in the terminal box.

ETC 19-1 works according to the conductometric measuring method using four measuring electrodes. The equipment measures the electrical conductivity of electrically conductive fluids (TDS = Total Dissolved Solids content) and provides a 4-20 mA measuring current as a function of the detected conductivity value.



Applications

The conductivity transmitter ETC 19-1 is mainly used in industrial boiler plants operating with pressures up to PN40 and max. admissible conductivities acc. to TRD/EN of 6000 $\mu\text{S}/\text{cm}$.

Technical data

- **Service pressure**

PN 40, 32 bar at 238°C

- **Mechanical connection**

Screwed G 1" A, ISO 228

- **Materials**

Screw-in body: 1.4571, X6CrNiMoTi17-12-2

Electrode rod insulation: PTFE

Terminal box: 3.2161 G AlSi8Cu3

Spacer discs: PTFE/PEEK

- **Temperature sensor**

Resistance thermometer Pt 1000

Technical data - continued -

- **Electronic circuit board supply voltage**

24 VDC

- **Power consumption**

4.5 W

- **Fuse**

Electronic thermal fuse $T_{\max} = 85\text{ }^{\circ}\text{C}$,

Hysteresis – 2 K.

- **Temperature sensor**

Resistance thermometer Pt 1000

- **Measuring cycle**

1 sec.

- **Indicators and adjusters**

- Two LEDs for status messages
- One 10-pole code switch for setting
- measuring range
- temperature coefficient
- cell constant
- functional test

- **Output**

4 - 20 mA, proportional to conductivity and free relay contacts

- **Max. Admissible ambient temperature**

Max. 70 °C

- **Storage and transport temperature**

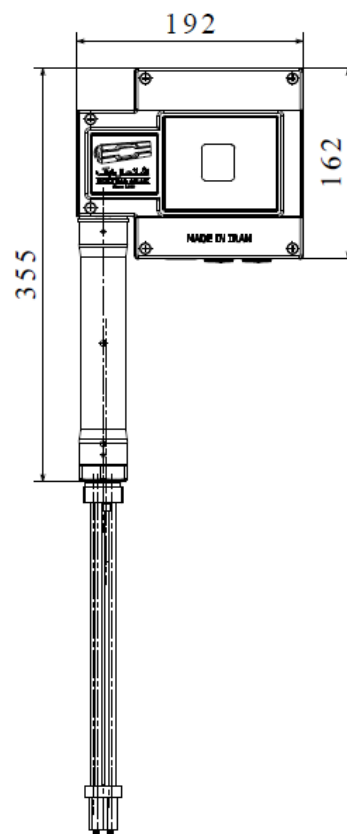
– 40 to + 80 °C

Dimension

Dimensions (approx.) in mm

Approvals: E.P.I.L Co

- Acc. to: IEC 61000-4-2
IEC 61000-4-3
IEC 61000-4-8
IEC 60068-2-78
IEC 60068-2-1
IEC 60068-2-2



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



The level transmitters ELC are used for continuous level monitoring in steam boilers and (pressurized) hot-water installations or in condensate and feed water tanks. The level transmitter can be used in electrically conductive and non-conductive fluids. The level transmitter ELC works according to the capacitance measurement principle and translates the level changes into a level-dependent current signal of 4-20 mA, with the length of the electrode rod determining the measuring range. The level transmitter is installed inside steam boilers, vessels or in an external level pot Service pressure : PN 40, 32 bar at 238°C

Level transmitter ELC



ESHTEAL ARAK

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

☎ 5
09908136277 (sales)
09912709038 (after sales)
🏠 34131217

✉ eshteal.arak@gmail.com
eshteal.commerce@gmail.com

📷 eshtealarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

level transmitter

Type ELC 19-1

Description

The level transmitter works according to the capacitance measurement principle and translates the level changes into a level-dependent current signal of 4-20 mA, with the length of the electrode rod determining the measuring range.

The level transmitter is installed inside steam boilers, vessels or in an external level pot. If the equipment is installed inside the boiler or vessel, a protection tube provided on side ensures correct functioning.



Applications

The level transmitter ELC 19-1 is used for continuous level monitoring in steam boilers and (pressurized) hot-water installations or in condensate and feed water tanks.

Technical data

- **Service pressure**
PN 40, 32 bar at 238°C
- **Mechanical connection**
Screwed G ¾" A, ISO 228
- **Materials**
Screw-in body: 1.4571, X6CrNiMoTi17-12-2
Electrode rod insulation: PTFE
Terminal box: 3.2161 G AlSi8Cu3
- **Electronic circuit board supply voltage**
24 V DC
- **Power consumption**
3 VA at 24 V DC

● **Fuse**

External slow-blow 0.5 A

Internal thermal fuse $T_{max} = 102^{\circ}C$

● **Sensitivity of response**

Range 1: Water $\geq 20 \mu S/cm$

Range 2: Water $\geq 0.5 \mu S/cm$

Range 3: Fuel oil EL, dielectric constant ϵ_r 2, 3

● **Output**

Actual value output 4 – 20 mA, level proportional.

Technical data - continued -

● **Indicators and adjusters**

2 red LEDs for signalling "Level 0 %" within the measuring range.

2 orange LEDs for signalling "Level 100 %" within the measuring range,

6 green LED for signalling "Level between 0 % and 100%" of measuring range.

1 Selector switch for measuring range

2 adjustable resistors for small-percentage adjustment of the measuring range.

2 terminal lugs for voltage measurement.

● **Max. Admissible ambient temperature**

Max. 70 °C

● **Storage and transport temperature**

- 40 to + 80 °C

Dimension

Dimensions (approx.) in mm

Approvals: E.P.I.L Co

Acc. to: IEC 61000-4-2

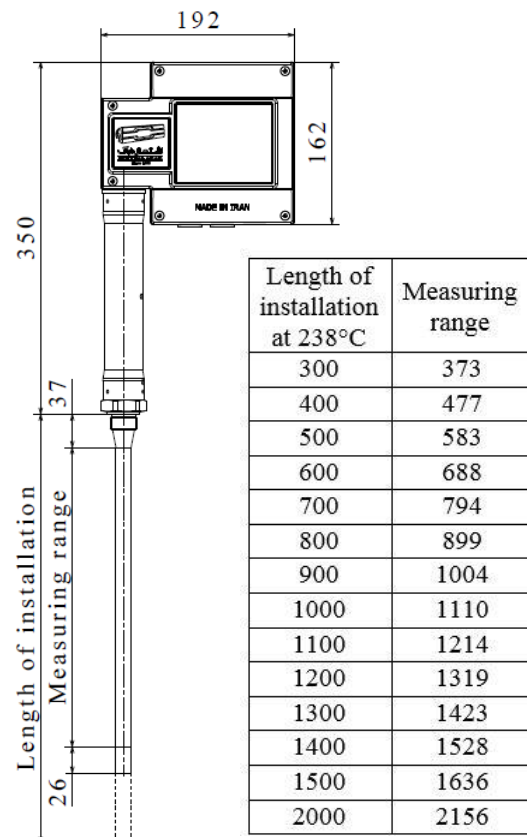
IEC 61000-4-3

IEC 61000-4-8

IEC 60068-2-78

IEC 60068-2-1

IEC 60068-2-2



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



The compact system ELE works according to the conductivity measurement principle. With the ELE a maximum of 4 levels can be signalled in conductive liquids: MAX alarm, MIN a The conductivity measurement method can detect two conditions: electrode rod submerged/exposed or switchpoint reached/not reached. Before installation, the length of the electrode rod must be adapted to the switching levels, e. g. for max./min. alarm, controlling of a valve or pump alarm, pump ON ,pump OFF with one switchpoint each .
Service pressure : 32 bar at 238°C

Level electrode ELE



ESHTEAL ARAK

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

☎ 086-34121313-5

☎ 09908136277 (sales)
☎ 09912709038 (after sales)

☎ 086-34131217

✉ eshteal.arak@gmail.com
✉ eshteal.commerce@gmail.com

📷 eshtealarak

📍 Factory: Hadid St-Haji Abad Industrial Zone 7th km
of Qom Road-Arak-Iran

📍 Head office: 4th floor-No.3 Apartment Asef Vaziri
alley southern Bahar St Taleghani St-Tehran-Iran

level electrode

Type ELE 20-1

Description

The ELE 20-1 is a compact-type system consisting of a level electrode with four tips. For the correct functioning of the equipment the water must have a minimum conductivity of $> 25 \mu\text{S}/\text{cm}$ at 25°C . The lengths of the associated electrode rods determine the switch points for water level control and MIN / MAX water level. The equipment detects whether the electrode tips are exposed or immersed and activates the associated relay output contact accordingly.

Applications

The compact system is used as water level controller, for instance in steam boilers, (pressurized) hot-water installations as well as condensate and feed water collecting tanks.

Technical data

- **Service pressure**

PN 40, 32 bar at 238°C

- **Mechanical connection**

Screwed G 1" A, ISO 228

- **Materials**

Screw-in body: 1.4571, X6CrNiMoTi17-12-2

Sheath 1.4301 X5 CrNi18-10

Screw-in body 1.4571 X6 CrNiMoTi17-12-2

Flange 1.0460 C 22.8

Electrode tips 1.4571 X6 CrNiMoTi17-12-2

Insulation PTFE

Spacer disc PTFE



Technical data - continued -

●Power consumption

5 VA

●Supply voltage

24 VDC

●Fuse

External 500 mA, for 24 V.

Internal thermal fuse $T_{max} = 102\text{ }^{\circ}\text{C}$

●Electrode voltage

10 V_{SS}

●Indicators and adjusters

3 red LEDs for signalling "Level 0 %" within the measuring range.

3 green LEDs for signalling "Normal Range" within the measuring range.

4 orange LEDs for signalling "Level 100 %" within the measuring range.

●Output

4 volt-free change-over contacts, 8 A 250 V AC / 30 V DC

$\text{Cos } \phi = 1$.

●Max. Admissible ambient temperature

Max. 70 °C

●Storage and transport temperature

- 20 to + 80 °C

Dimension

Dimensions (approx.) in mm

Lengths supplied (L) = 500, 1000, 1500

Approvals: E.P.I.L Co

Acc. to: IEC 61000-4-2

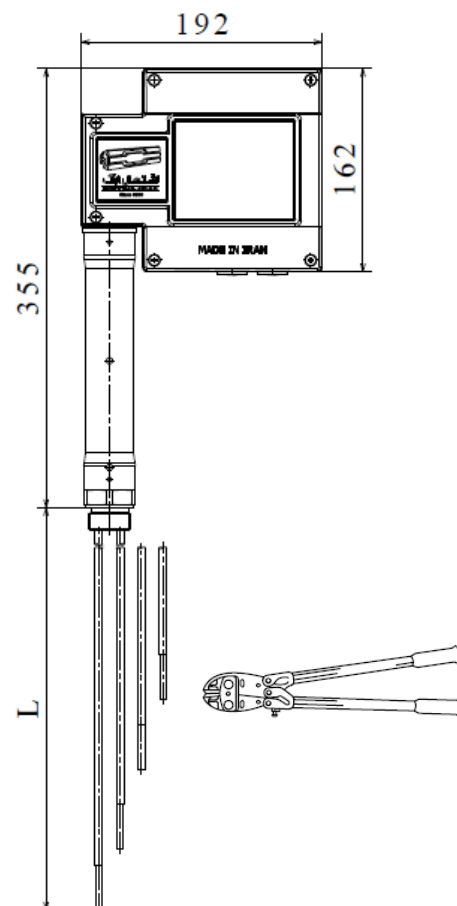
IEC 61000-4-3

IEC 61000-4-8

IEC 60068-2-78

IEC 60068-2-1

IEC 60068-2-2



Head Office : No8-4th floor-No.3Apartment-Asef vaziri alley
Southern Bahar St Taleghani St-Tehran-Iran

Tel :+98 (0) 2177528275

Fax:+98 (0) 2177603272

Factory: Hadid St-Haji Abad Industrial Zone-7th Km of Tehran
Road Arak-Iran

Tel :+98 (0)8634131213-15 +989908136277
+989912709038

Fax:+98 (0) 8634131217

Email: Eshteal.commerce@gmail.com
Eshteal.arak@gmail.com