

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

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and precision tools for steam boilers

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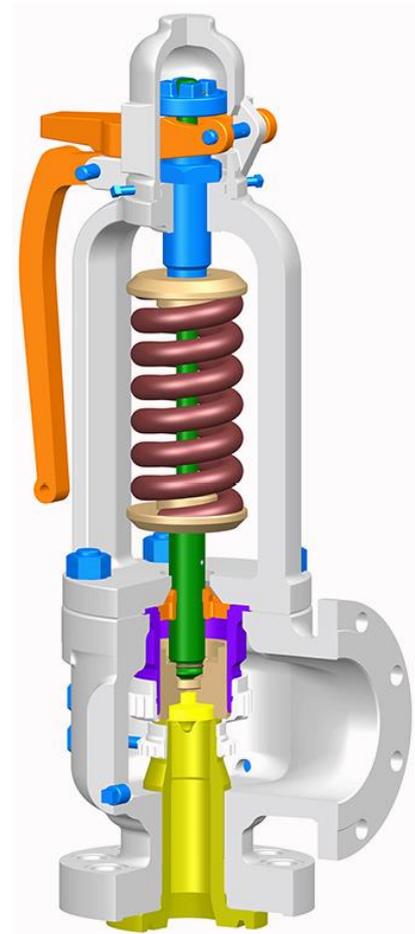
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Steam Safety Valve

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.



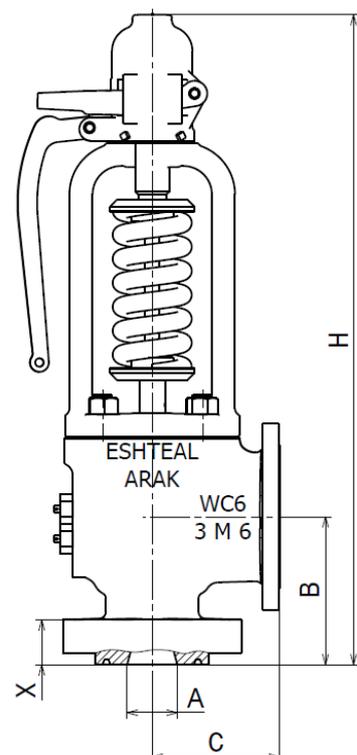
Applications

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

Dimensions and pipe connections

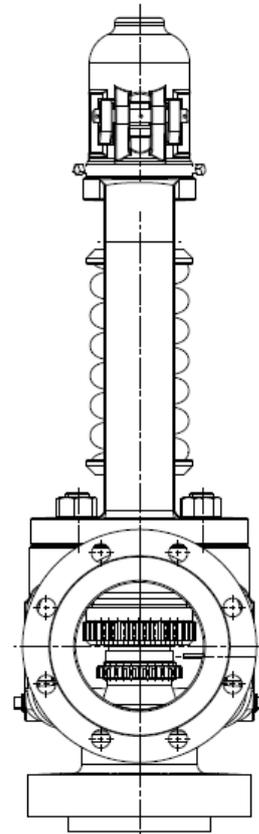
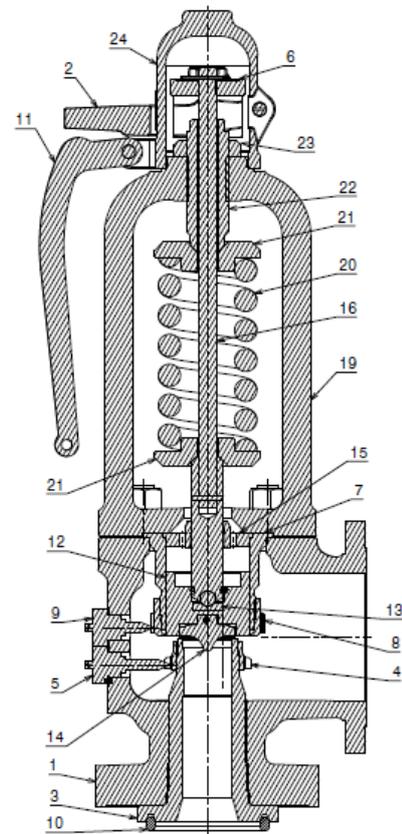
Dimensions (approx.) in mm

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

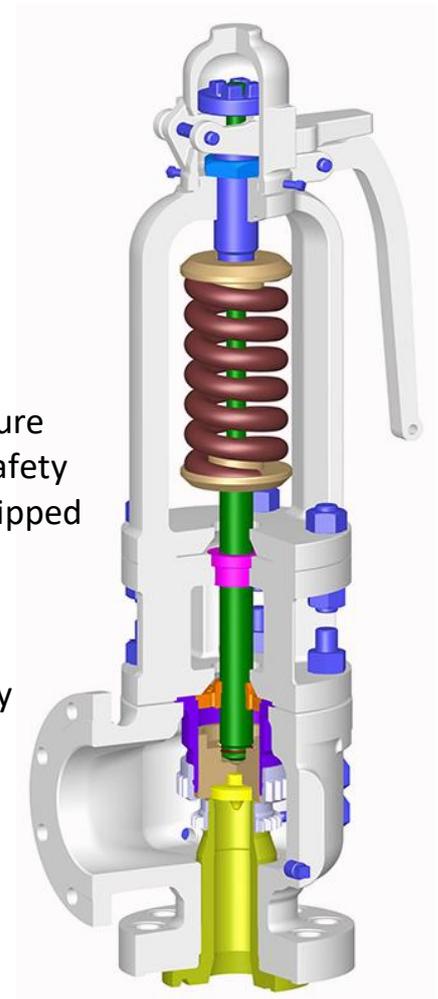


Steam Safety Valve

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.



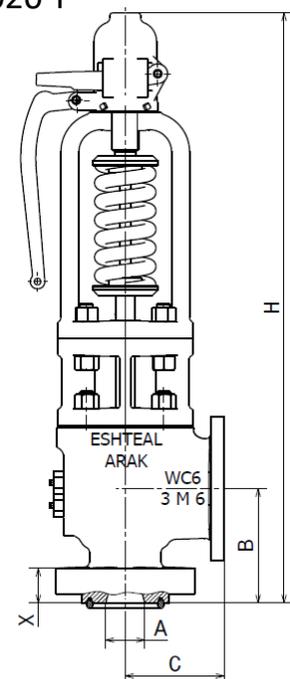
Applications

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

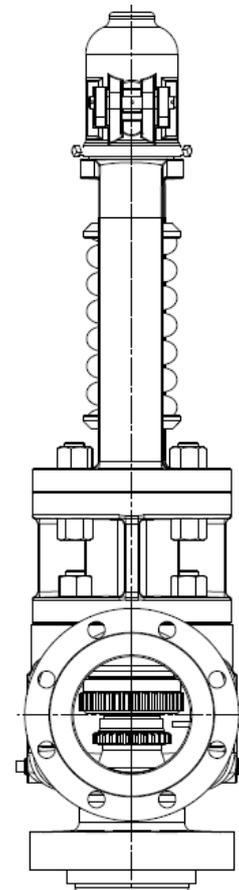
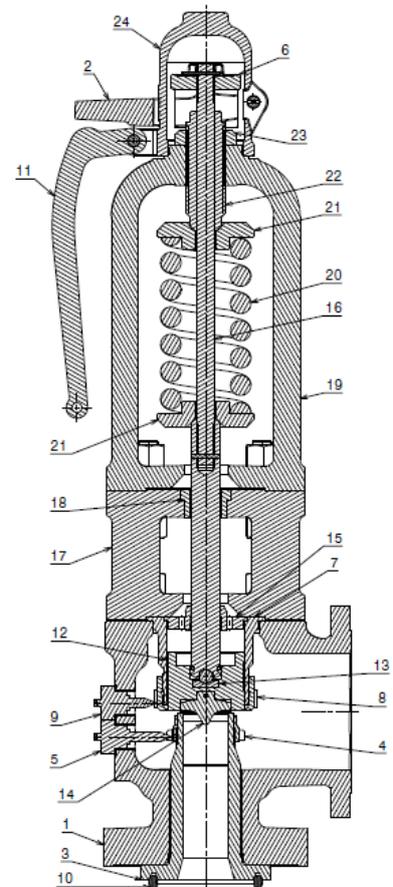
Dimensions (approx.) in mm

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

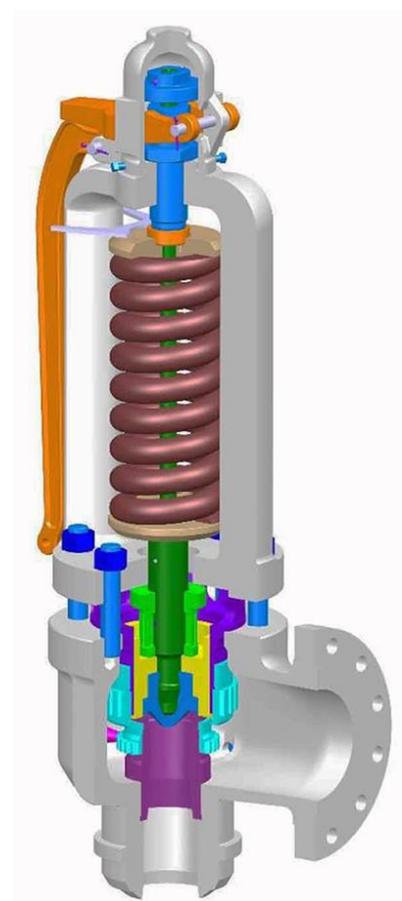


Steam Safety Valve

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



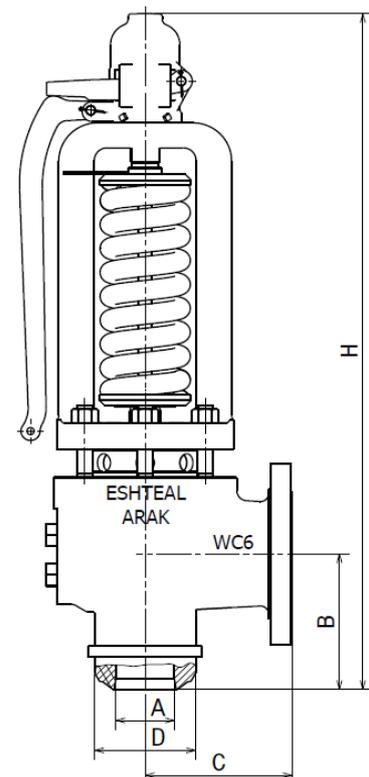
Applications

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

Dimensions and pipe connections

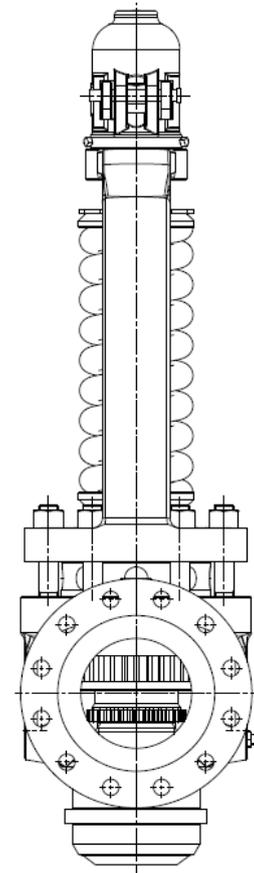
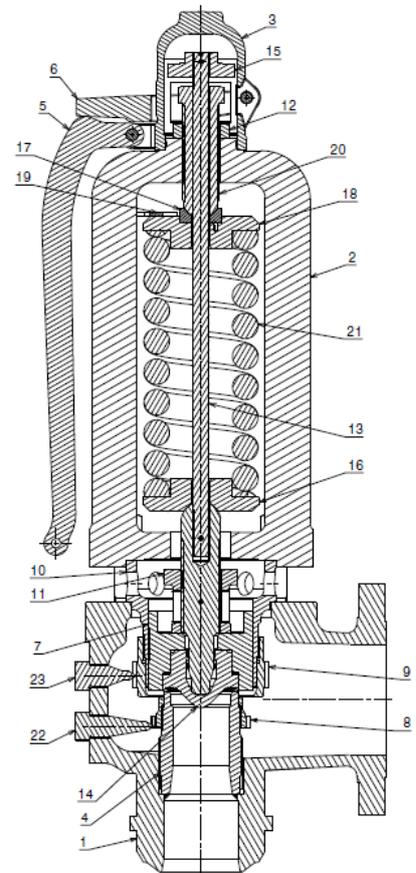
Dimensions (approx.) in mm

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

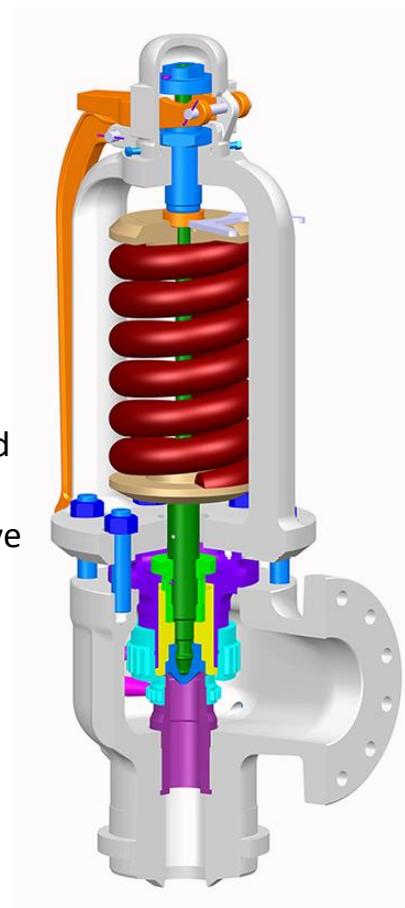


Steam Safety Valve

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



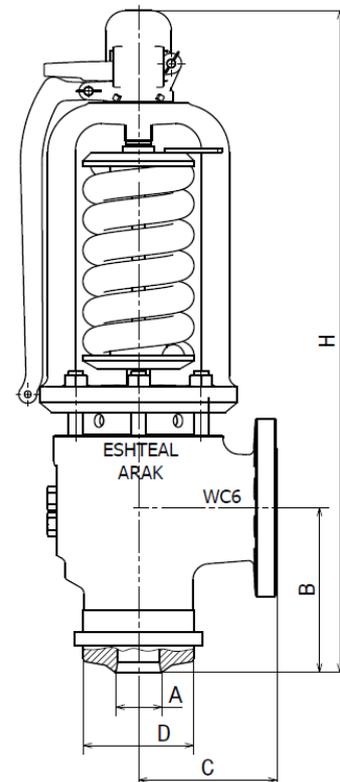
Applications

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

Dimensions and pipe connections

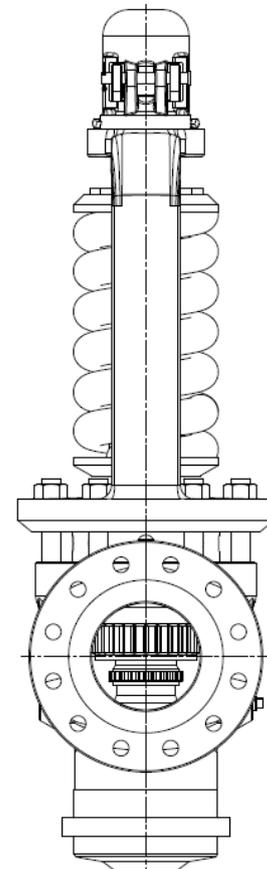
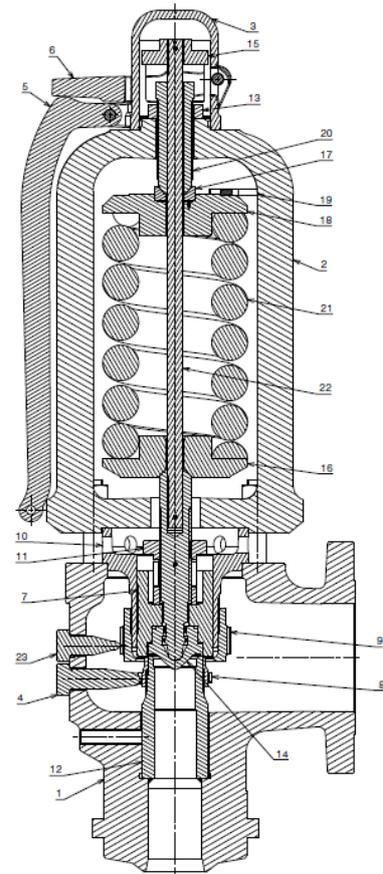
Dimensions (approx.) in mm

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



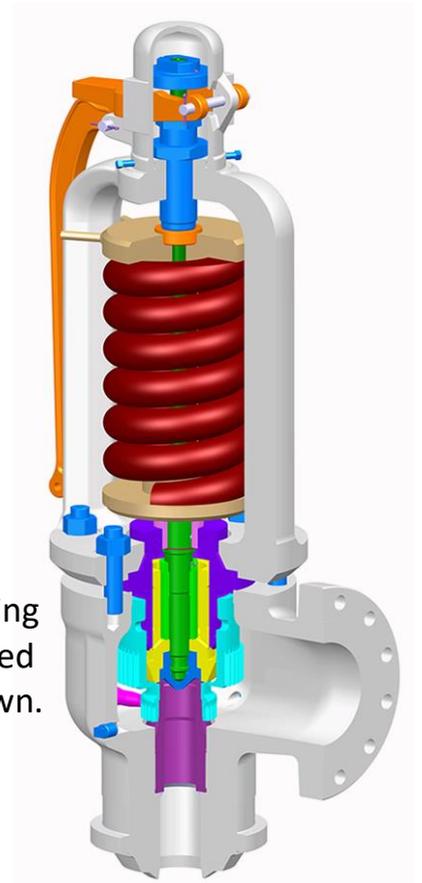
Steam Safety Valve

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.



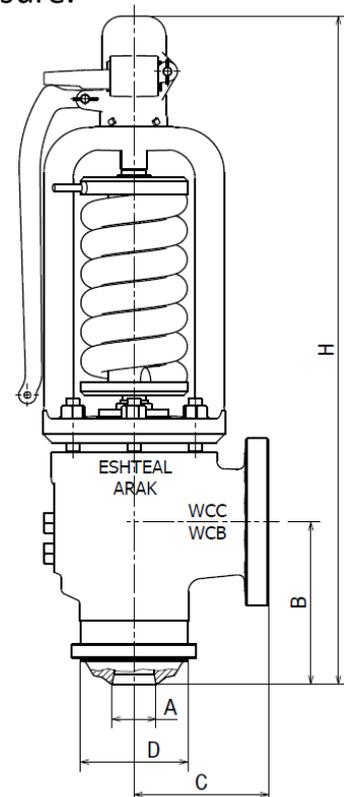
Applications

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

