

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 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

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and precision tools for steam boilers

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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

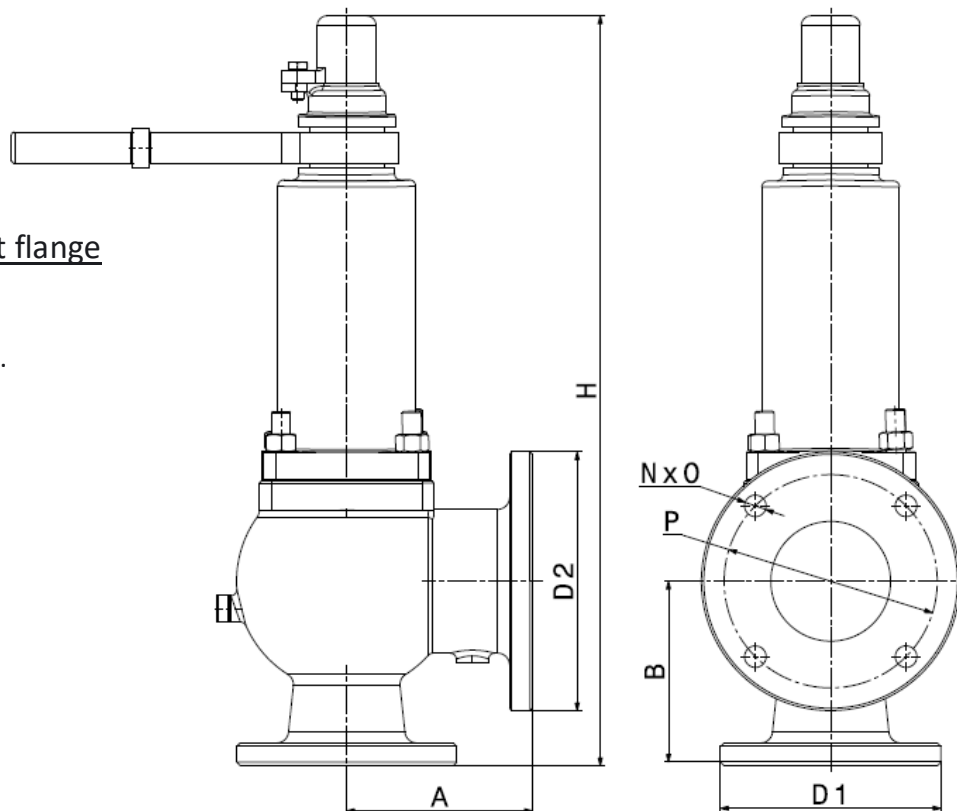
Nominal size	Valve Dimensions and Standard of Flange												
	Inlet Flange (BS10 Table F)					Outlet Flange (BS10 Table A)					A	B	H
	Size	D1	N	O	P	Size	D2	N	O	P			
1 ½"	1 ½" DN40	140	4	18	105	2 ½" DN65	165	4	18	127	135	135	555
2"	2" DN50	165	4	18	127	3" DN80	184	4	18	146	146	145	610
2 ½"	2 ½" DN65	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

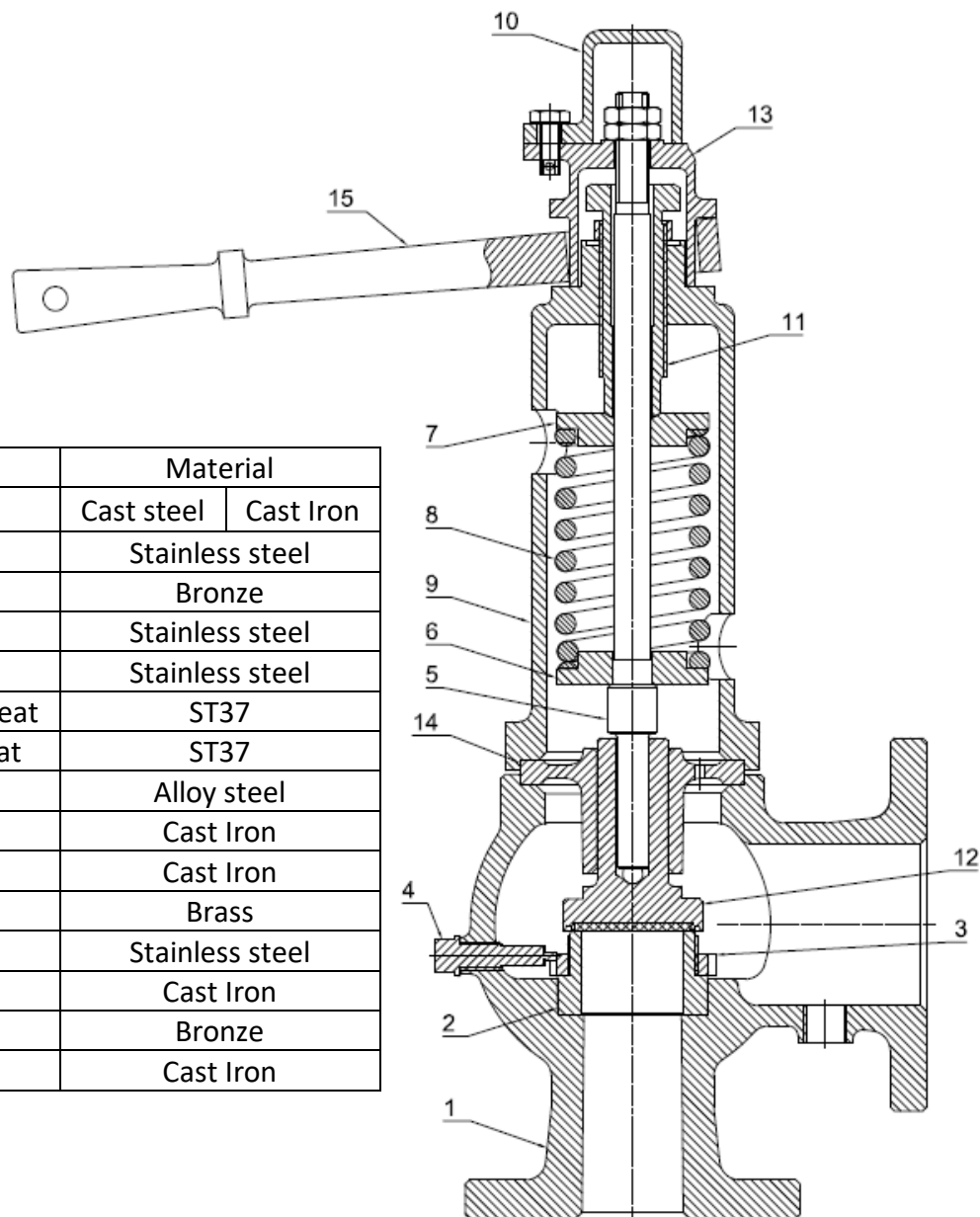
Body material	Maximum set pressure	Temperature
Cast iron	11 bar	Up to 220 °C
Cast steel	20 bar	Up to 224 °C

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