

AF-9EN

3

Full bore type	Lift type	Safety valve	Relief valve
Safety relief valve	Lever type	Closed type	Dash-pot structure
Handle type	Stainless	High pressure gas testing products	
Diaphragm	Non-leakage		

■Features

1. Large discharge capacity.
2. Due to lift lever mechanism, a discharge inspection can be manually performed at least 80% of working pressure.

■Specifications

Model		AF-9EN		
Application	Steam, Air, Other non-dangerous fluids			
Nominal size	20A-100A	125A	150A	
Working pressure	0.045-1.6 MPa	0.045-1.25 MPa	0.045-1.0 MPa	
Max. temperature	* According to P/T rating. 250°C			
Material	Body	Cast Iron		
	Spring case	Ductile Cast Iron		
	Valve	Stainless steel		
	Valve seat	Stainless steel		
Connection	Inlet: PN16, Outlet: PN10 EN1092-2			

- Spring replacement does not need any other part replacement but gaskets, however, it requires training by Yoshitake. Only certified person is allowed to replace the spring.
- AF-9EN is not closed type.
- Please contact us for any further information.
- Since it is not a structure required by JIS B 8210, it can not be used for JIS standard boilers and pressure vessels.

■Spring Range

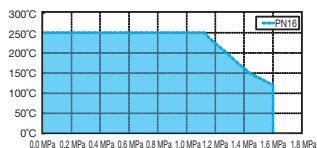
(A)	(B)	(C)	(D)
0.045-0.068	0.066-0.10	0.095-0.14	0.13-0.19
(E)	(F)	(G)	(H)
0.18-0.26	0.25-0.36	0.35-0.50	0.48-0.63
(I)	(J)	(K)	(L)
0.6-0.8	0.75-1.0	0.95-1.25	1.2-1.6

■Dimensions and Weights

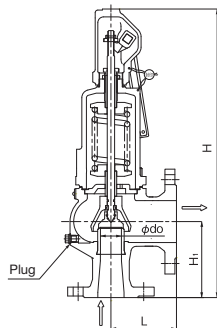
Nominal size	Inlet dia. x Throat dia. x Outlet dia.	Flow area (mm ²)	Lift (mm)	Dimension (mm)			Flange		Weight (kg)
				L	H ₁	H	Inlet	Outlet	
20A	20 x 16 x 32	201	6	85	95	345	20A	32A	7.5
25A	25 x 20 x 40	314	7.5	95	105	395	25A	40A	9
32A	32 x 25 x 50	491	9	100	110	420	32A	50A	13
40A	40 x 32 x 65	804	11.5	115	130	495	40A	65A	19
50A	50 x 40 x 80	1257	14.5	125	145	550	50A	80A	25
65A	65 x 50 x 100	1964	18	140	150	660	65A	100A	37
80A	80 x 63 x 125	3117	23	155	170	710	80A	125A	52
100A	100 x 77 x 150	4657	28	175	180	810	100A	150A	77
125A	125 x 93 x 200	6793	34	215	220	860	125A	200A	90
150A	150 x 110 x 250	9503	40	225	245	990	150A	250A	140



■Pressure and Temperature Rating



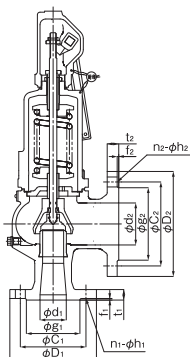
* This chart shows PT rating of PN16 for cast iron flanges according to EN1092-2.



* Structure will be different depends on nominal size.

■ Dimensions (Connection)

Nominal Size	Inlet flange BSEN PN16 RF							Outlet flange BSEN PN10 RF						
	d ₁	D ₁	t ₁	f ₁	g ₁	C ₁	n ₁ -h ₁	d ₂	D ₂	t ₂	f ₂	g ₂	C ₂	n ₂ -h ₂
20A	20	105	16	2	56	75	4-14	32	140	18	3	76	100	4-19
25A	25	115	16	3	65	85	4-14	40	150	18	3	84	110	4-19
32A	32	140	18	3	76	100	4-19	50	165	20	3	99	125	4-19
40A	40	150	18	3	84	110	4-19	65	185	20	3	118	145	4-19
50A	50	165	20	3	99	125	4-19	80	200	22	3	132	160	8-19
65A	65	185	20	3	118	145	4-19	100	220	24	3	156	180	8-19
80A	80	200	22	3	132	160	8-19	125	250	26	3	184	210	8-19
100A	100	220	24	3	156	180	8-19	150	285	26	3	211	240	8-23
125A	125	250	26	3	184	210	8-19	200	340	26	3	266	292	8-23
150A	150	285	26	3	211	240	8-23	250	395	28	3	319	350	12-23


■ Certified Capacity Table for AF-9EN

• For steam (saturation temperature) <EN ISO 4126-1: 2004>

(kg/h)

Nominal Size	Pressure (MPa)												
	0.045	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2
20A	115	164	268	357	446	535	623	711	798	886	974	1,060	1,147
25A	180	256	418	558	697	835	973	1,110	1,247	1,384	1,521	1,657	1,792
32A	282	401	654	872	1,090	1,306	1,521	1,736	1,950	2,165	2,378	2,590	2,802
40A	461	656	1,071	1,428	1,784	2,139	2,491	2,843	3,193	3,545	3,894	4,242	4,588
50A	721	1,026	1,674	2,233	2,790	3,344	3,895	4,445	4,993	5,542	6,089	6,631	7,173
65A	1,127	1,603	2,615	3,489	4,359	5,225	6,086	6,945	7,801	8,659	9,513	10,361	11,208
80A	1,788	2,545	4,150	5,537	6,918	8,292	9,658	11,021	12,381	13,742	15,098	16,444	17,787
100A	2,672	3,802	6,201	8,273	10,336	12,389	14,430	16,467	18,498	20,531	22,558	24,568	26,575
125A	3,897	5,546	9,045	12,067	15,077	18,072	21,049	24,019	26,982	29,948	32,904	35,837	38,764
150A	5,452	7,758	12,654	16,881	21,092	25,282	29,446	33,602	37,746	41,896	46,031	-	-

• For Air (20°C) <EN ISO 4126-1: 2004>

(kg/h)

Nominal Size	Pressure (MPa)															
	0.045	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.4	1.6	
20A	185	258	426	573	720	866	1,013	1,159	1,306	1,452	1,599	1,746	1,892	2,185	2,478	
25A	289	404	666	895	1,124	1,353	1,582	1,811	2,040	2,269	2,498	2,727	2,956	3,414	3,872	
32A	451	631	1,042	1,400	1,758	2,116	2,474	2,832	3,190	3,548	3,906	4,264	4,622	5,338	6,054	
40A	739	1,033	1,706	2,292	2,878	3,464	4,051	4,637	5,223	5,810	6,396	6,982	7,568	8,741	9,913	
50A	1,156	1,615	2,667	3,583	4,500	5,416	6,333	7,250	8,166	9,083	9,999	10,916	11,833	13,666	15,499	
65A	1,806	2,524	4,166	5,598	7,031	8,463	9,895	11,327	12,759	14,191	15,624	17,056	18,488	21,352	24,217	
80A	2,866	4,005	6,612	8,885	11,158	13,431	15,704	17,977	20,250	22,523	24,796	27,069	29,342	33,887	38,433	
100A	4,281	5,984	9,879	13,275	16,671	20,067	23,463	26,859	30,254	33,650	37,046	40,442	43,838	50,630	57,422	
125A	6,245	8,729	14,410	19,364	24,317	29,271	34,224	39,178	44,131	49,085	54,038	58,992	63,945	-	-	
150A	8,737	12,212	20,159	27,089	34,018	40,948	47,878	54,807	61,737	68,666	75,596	-	-	-	-	