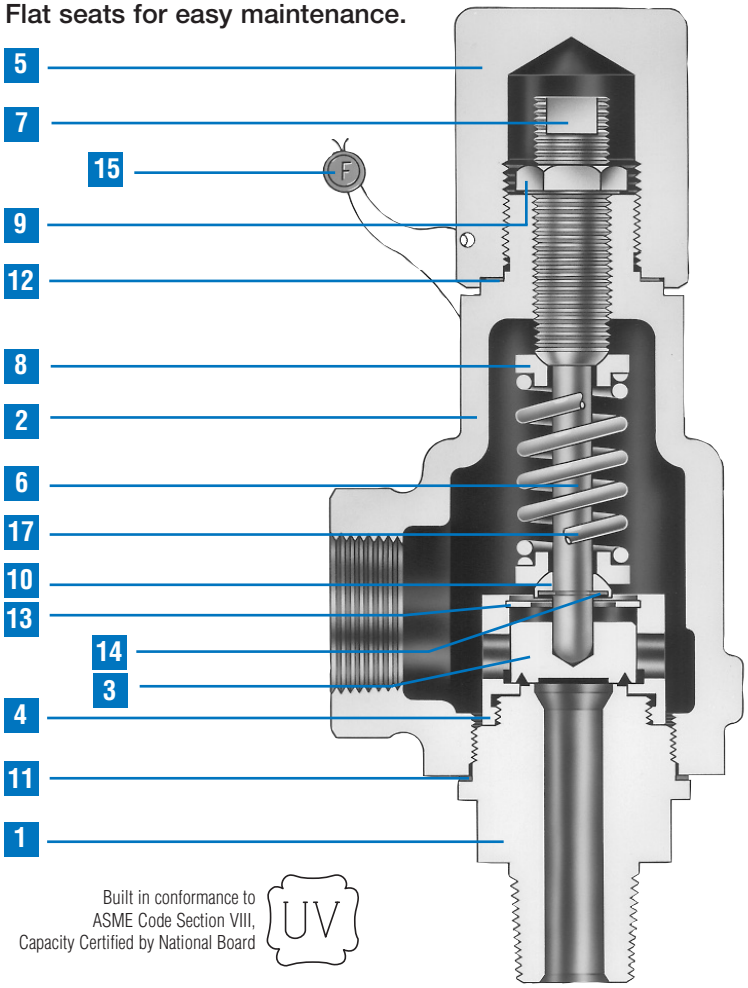
Series 1890

Pressure Relief Valves for Air, Steam, Vapor & Liquid Service

- Built in conformance to ASME Code Section VIII for Air, Steam, and Liquid Service.
- Set pressures to 800 psig.
- Stainless steel body and trim.
- Carbon steel bonnet and cap.
- Flat seats for easy maintenance.



Built in conformance to ASME Code Section VIII, Capacity Certified by National Board

UV

Bill of Materials

Item No.	Part Name		Material 1890 & 1892
1	Body		SA-479 Type 316 St. St.
2	Bonnet		SA-216 Gr. WCB Carbon Steel
3	Disc		316 St. St.
4	Guide		Stainless Steel
5	Cap, Plain Screwed		Carbon Steel
6	Stem		Stainless Steel
7	Spring Adj. Screw		Stainless Steel
8	Spring Button		Stainless Steel
9	Jam Nut		Stainless Steel
10	Stem Shoulder		Stainless Steel
11	Body Gasket		316 St. St.
12	Cap Gasket		316 St. St.
13	Lift Stop Ring		Stainless Steel
14	Retaining Ring-Stem Shoulder		Stainless Steel
15	Wire Seal		Lead
16	Nameplate (not shown)		Stainless Steel
17	Spring	-20F° to +400°F	316 St. St.
		+401°F to +750°F	Chrome Alloy Rust Proofed

Selection Table

(Connections: MNPT x FNPT)

Type Number	Service	Valve Size	Maximum Set Pressure, psig[1]		Maximum Set Pressure, barg[1]		Maximum Back Pressures		Materials	
		Inlet x Outlet	-20°F to +400°F	+401°F to +750°F	-28.9°C to +204°C	+205°C to +399°C	psig @ 100°F	barg @ 37.8°C	Body / Bonnet	Spring
18902-M20	Air, Steam & Vapor	1/2 x 1	800	800	55	55	50	3.45	316 St. St. / Carbon St.	See Bill of Material
18903-M20		3/4 x 1								
1890L2-M20	Liquid	1/2 x 1	800	800	55	55	50	3.45	316 St. St. / Carbon St.	See Bill of Material
1890L3-M20		3/4 x 1								

General Notes:

1. For high temperature range (+401°F to 750°F / +205°C to +399°C) change fourth digit of type number from "0" to "2". Example: 18902-M20 becomes 18922-M20. Spring changes to Chrome Alloy, rust proofed.
2. Type numbers shown designate valves with plain screwed caps. Test lever required for air, steam or hot water service (above 140°F / 60°C). For packed lever change the three digit type number suffix from "-M20" to "-M40". Example: 18902-M20 becomes 18902-M40.

Capacity Tables: ASME PRESSURE VESSEL CODE (UV)

AIR
10% OVERPRESSURE
Capacities in Standard Cubic Feet Per Minute at 60° F

Set Pressure (psig)	Air Capacity
15	51
20	59
30	74
40	92
50	109
60	126
70	144
80	161
90	178
100	195
120	230
140	264
160	299
180	334
200	368
220	403
240	437
260	472
280	506
300	541
320	576
340	610
360	645
380	679
400	714
420	748
440	783
460	817
480	852
500	887
600	1059
700	1232
800	1405

STEAM
10% OVERPRESSURE
Capacities in Lbs. Per Hour at Saturation Temperature

Set Pressure (psig)	Steam Capacity
15	144
20	166
30	210
40	258
50	307
60	356
70	404
80	453
90	501
100	550
120	647
140	744
160	841
180	938
200	1035
220	1132
240	1229
260	1326
280	1424
300	1521
320	1618
340	1715
360	1812
380	1909
400	2006
420	2103
440	2200
460	2297
480	2394
500	2492
600	2977
700	3462
800	3948

WATER
10% OVERPRESSURE
Capacities in U.S. Gallons Per Minute at 70° F (See Note 2)

Set Pressure (psig)	Water Capacity
15	9.3
20	10.6
30	12.7
40	14.6
50	16.3
60	17.9
70	19.4
80	20.7
90	22.0
100	23.1
120	25.4
140	27.4
160	29.3
180	31.1
200	32.7
220	34.3
240	35.9
260	37.3
280	38.8
300	40.1
320	41.4
340	42.7
360	44.0
380	45.2
400	46.3
420	47.5
440	48.6
460	49.7
480	50.8
500	51.8
600	56.8
700	61.3
800	65.5

Notes: 1. Capacities at 30 PSIG and below are based on 3 PSI overpressure. 2. To determine water capacity at 25% overpressure, multiply the capacity at 10% by 1.066.

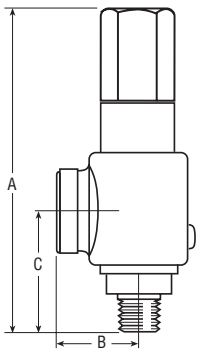
Actual Orifice Areas

Inlet Size	Air, Gas & Steam		Liquids	
	Sq. In.	Sq. mm	Sq. In.	Sq. mm
1/2" or 3/4"	0.110	71	0.110	71

Notes: 1. For sizing purposes, the coefficient of discharge K_d is 0.779 for air, gas, steam and vapor.
2. For liquid service, use the ASME liquid equation with a coefficient of discharge K_d equal to 0.529.

Dimensions & Weights

Type Number		A		B	C	Approx. Weight Lbs/Kgs
		Plain Cap	Packed Lever			
1890	In.	6 11/16	8	1 11/16	2 5/8	3 1/2
	mm	170	203	43	67	1.6



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