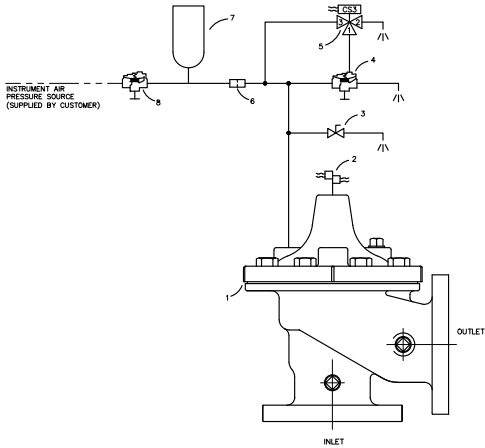




— MODEL — **134-BZ**

# Pneumatically Surge Relief Valve



- **Fast Acting Solenoid Control**
- **Reliable Drip Tight Shut-off**
- **Simple Design, Proven Reliable**
- **Easy Installation & Maintenance**

The Cla-Val Model 134-BZ Pneumatically-Operated Surge Relief Valve is a quick opening relief valve which opens to relieve surges to atmosphere. This valve consists of an angle-pattern, single control chamber Hytrol main valve, a three-way solenoid valve, an auxiliary pilot valve, and a manual control valve. In normal operation, the valve is closed due to pilot control system directing pneumatic pressure to hold Hytrol main valve closed. Customer-supplied surge sensors activate 134-BZ pilot system solenoid for quick valve response to pipeline surges. After solenoid activation pneumatic pressure is quickly vented from Hytrol control chamber and Hytrol opens fully. Manual override to open valve is provided standard. Pneumatic pressure source must have clean, dry air.

## Schematic Diagram

Item	Description
1	2100G Hytrol (Main Valve)
2	Limit Switch Assembly
3	Manual Vent Valve
4	Pilot Valve
5	Solenoid Valve
6	Restriction Assembly
7	Receiver Tank
8	Check Valve

Other main valve configurations and control functions available, consult factory for details.

## Specifications

**SIZES** Globe: 3" - 36" flanged  
Angle: 3" - 36" flanged

**END DETAILS** Ductile Iron 150 ANSI B16.42 flanged  
Cast Steel 150 ANSI B16.5 flanged

### PRESSURE RATINGS

150 class, 250 psi maximum (Ductile Iron)  
150 class, 285 psi maximum (All other materials)  
300 class, 300 psi maximum (All materials)

**TEMPERATURE RANGE** Water: to 180° F. Max

8" and larger Hytrol main valves must be installed with internal stem vertically oriented.

## Functional Data

Valve Size		Inches	1	1¼	1½	2	2½	3	4	6	8	10	12	14	16	18	20	24	30	36
C <sub>v</sub> Factor	Globe Pattern	Gal./Min.(gpm.)	13.3	30	32	54	85	115	200	440	770	1245	1725	2300	3130	3725	5345	7655	10150	14020
	Angle Pattern	Gal./Min.(gpm.)	27	27	29	61	101	139	240	541	990	1575	2500*	3060*	4200*	—	—	—	—	—
Liquid Displaced from Cover Chamber When Valve Opens		U.S. Gal.	.02	.02	.02	.03	.04	.08	.17	.53	1.26	2.51	4.0	6.5	9.6	11	12	29	42	90

## MATERIALS

### Main valve body & cover:

Ductile Iron ASTM A-536  
Cast Steel ASTM A216-WCB

Other materials available, consult factory for recommendations.

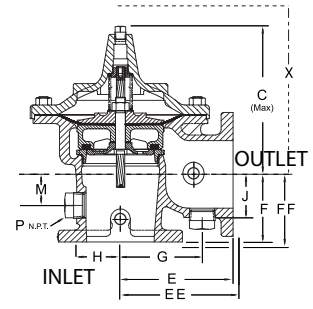
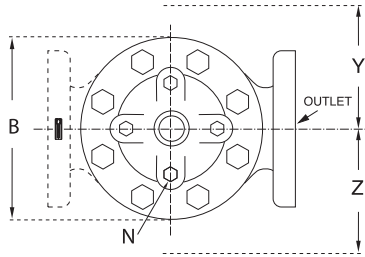
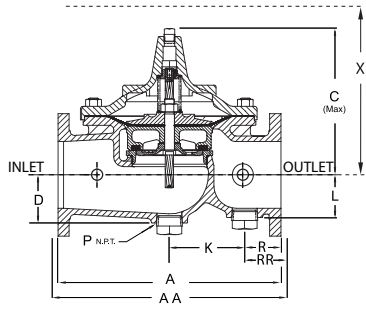
### Main valve trim:

Bronze / Stainless Steel

### Pilot control system:

Cast Bronze ASTM B62





Valve Size (Inches)	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	30	36
A Threaded	7.25	7.25	7.25	9.38	11.00	12.50	—	—	—	—	—	—	—	—	—	—	—	—
AA 150 ANSI	—	—	8.50	9.38	11.00	12.00	15.00	20.00	25.38	29.75	34.00	39.00	41.38	46.00	52.00	61.50	63.00	76.00
AAA 300 ANSI	—	—	9.00	10.00	11.62	13.25	15.62	21.00	26.38	31.12	35.50	40.50	43.50	47.64	53.62	63.24	64.50	76.00
AAAA Grooved End	—	—	8.50	9.00	11.00	12.50	15.00	20.00	25.38	—	—	—	—	—	—	—	—	—
B Dia.	5.62	5.62	5.62	6.62	8.00	9.12	11.50	15.75	20.00	23.62	28.00	32.75	35.50	41.50	45.00	53.16	56.00	66.00
C Max.	5.50	5.50	5.50	6.50	7.56	8.19	10.62	13.38	16.00	17.12	20.88	24.19	25.00	30.06	41.90	43.93	54.60	61.50
CC Max. Grooved End	—	—	4.75	5.75	6.88	7.25	9.31	12.12	14.62	—	—	—	—	—	—	—	—	—
D Threaded	3.25	3.25	3.25	4.75	5.50	6.25	—	—	—	—	—	—	—	—	—	—	—	—
DD 150 ANSI	—	—	4.00	4.75	5.50	6.00	7.50	10.00	12.69	14.88	17.00	19.50	20.81	—	—	30.75	—	—
DDD 300 ANSI	—	—	4.25	5.00	5.88	6.38	7.88	10.50	13.25	15.56	17.75	20.25	21.62	—	—	31.62	—	—
DDDD Grooved End	—	—	—	4.75	—	6.00	7.50	—	—	—	—	—	—	—	—	—	—	—
E	1.12	1.12	1.12	1.50	1.69	2.06	3.19	4.31	5.31	9.25	10.75	12.62	15.50	12.95	15.00	17.75	21.31	24.56
EE Grooved End	—	—	2.00	2.50	2.88	3.12	4.25	6.00	7.56	—	—	—	—	—	—	—	—	—
F 150 ANSI	—	—	2.50	3.00	3.50	3.75	4.50	5.50	6.75	8.00	9.50	10.50	11.75	15.00	16.50	19.25	22.50	25.60
FF 300 ANSI	—	—	3.06	3.25	3.75	4.13	5.00	6.25	7.50	8.75	10.25	11.50	12.75	15.00	16.50	19.25	24.00	25.60
G Threaded	1.88	1.88	1.88	3.25	4.00	4.50	—	—	—	—	—	—	—	—	—	—	—	—
GG 150 ANSI	—	—	4.00	3.25	4.00	4.00	5.00	6.00	8.00	8.62	13.75	14.88	15.69	—	—	22.06	—	—
GGG 300 ANSI	—	—	4.25	3.50	4.31	4.38	5.31	6.50	8.50	9.31	14.50	15.62	16.50	—	—	22.90	—	—
GGGG Grooved End	—	—	—	3.25	—	4.25	5.00	—	—	—	—	—	—	—	—	—	—	—
H NPT Body Tapping	.375	.375	.375	.375	.50	.50	.75	.75	1	1	1	1	1	1	1	1	2	2
J NPT Cover Center Plug	.25	.25	.25	.50	.50	.50	.75	.75	1	1	1.25	1.5	2	1.5	1.5	1.5	2	2
K NPT Cover Tapping	.375	.375	.375	.375	.50	.50	.75	.75	1	1	1	1	1	1	1	1	2	2
Valve Stem Internal Thread UNF	10-32	10-32	10-32	10-32	10-32	1/4-28	1/4-28	3/8-24	3/8-24	3/8-24	3/8-24	3/8-24	3/8-24	1/2-20	3/4-16	3/4-16	3/4-16	3/4-16
Stem Travel	0.4	0.4	0.4	0.6	0.7	0.8	1.1	1.7	2.3	2.8	3.4	4.0	4.5	5.1	5.63	6.75	7.5	8.5
Approx. Ship Wt. Lbs.	15	15	15	35	50	70	140	285	500	780	1165	1600	2265	2982	3900	6200	7703	11720

Note: The top two flange holes on valve size 36 are threaded to 1 1/2"-6 UNC.

## Pilot System Specifications

### Temperature Range

Water: to 180°F

### Fluids

Air, water, light oils

### Rubber Parts

Buna-N® Synthetic Rubber

### Solenoid Control

Body:

Brass ASTM B283

Enclosure:

NEMA Type 1, 2, 3, 3S, 4, 4X general purpose watertight

NEMA Type 6, 6P, 7, 9 watertight and

Explosion Proof available at extra cost

Voltages:

110, 220 -50Hz AC

24, 120, 240, 480 - 60Hz AC

6, 12, 24, 120, 240 - DC

Others available at extra cost

Max. operating pressure differential: 200 psi

Coil:

Insulation molded Class

F

Watts AC

6

AC Volt Amps Inrush

30

AC Volt Amps Holding

16

Watts DC

10.6

Manual operator available at extra cost.

## When Ordering, Please Specify

1. Catalog No. 134-BZ
2. Valve Size
3. Pattern - Globe or Angle
4. Pressure Class
5. Material Desired
6. Solenoid Enclosure, Voltage & Hertz
7. When Vertically Installed



134-BZ (02/2015)

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