



MODEL — 6552-01

Pressure Relief and Surge Anticipator Valve



- All Stainless Steel
- System Saver
- Protects Against Water Hammer Surges
- Opens On Initial Low Pressure Wave
- Closes Slowly To Prevent Subsequent Surges
- Adjustable Over A Wide Range of Settings

The Cla-Val Model 6552-01 Surge Anticipator Valve is indispensable for protecting pumps, pumping equipment and all applicable pipelines from dangerous pressure surges caused by rapid changes of flow velocity within a pipeline.

When pumping systems are started and stopped gradually, harmful surges do not occur. However, should a power failure take place, the abrupt stopping of the pump can cause dangerous surges in the system which could result in severe equipment damage.

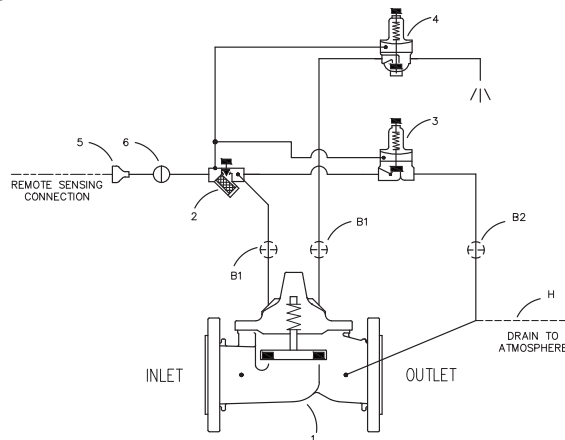
Power failure to a pump will usually result in a down surge in pressure, followed by an up surge in pressure. The surge control valve opens on the initial low pressure wave, diverting the returning high pressure wave from the system. In effect, the valve has anticipated the returning high pressure wave and is open to dissipate the damage causing surge. The valve will then close slowly without generating any further pressure surges.

Schematic Diagram

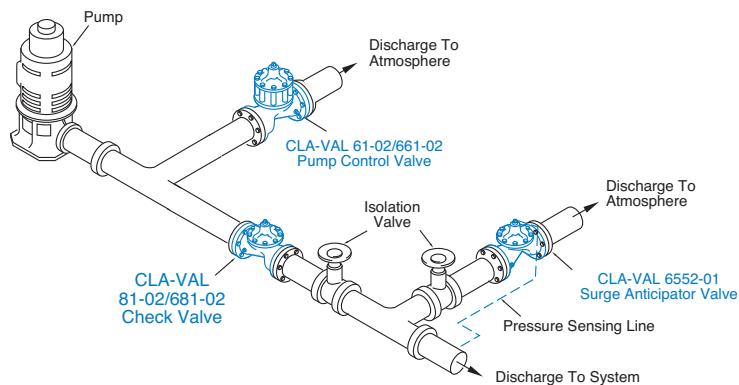
Item	Description
1	100-44 Hytrol Main Valve
2	X42N-2 Strainer & Needle Valve
3	CRL Pressure Relief Control
4	CRA Pressure Reducing Control
5	Bell Reducer
6	CK2 (Isolation Valve)

Optional Features

Item	Description
B	CK2 (Isolation Valve)
H	Drain to Atmosphere



Typical Applications



The 6552-01 discharges to atmosphere from a tee in the pump discharge header. The valve anticipates surges caused by power failure as well as acting as a standard over pressure relief valve.

The required remote pressure sensing line should be $\frac{3}{4}$ " minimum I.D. installed with a 2° slope from the valve to the pipeline to avoid air pockets.

We recommend protecting tubing and valve from freezing temperatures.

Specifications

Model 6552-01

Sizes

Globe (inch):

2", 2½", 3", 4", 6", 8", 10", 12"

Globe (mm):

50, 65, 80, 100, 150, 200, 250, 300

End Detail

Slip-on Two Piece Flange

Dimensions Per ANSI B16.5

Pressure Rating

ANSI Class 150:

Maximum 285 psi

ANSI Class 300:

Maximum 400 psi

Higher Pressure Available

Please Contact Factory

Operating Temperature

Fluids Compatible with Valve Materials

-40° to 180° F (-40° to 82° C)

Materials

Body, Cover, Trim,
Diaphragm Assembly,
Flanges, and Fasteners

316 Series

Stainless Steel

Electropolished

Disc:

Buna-N® Rubber*

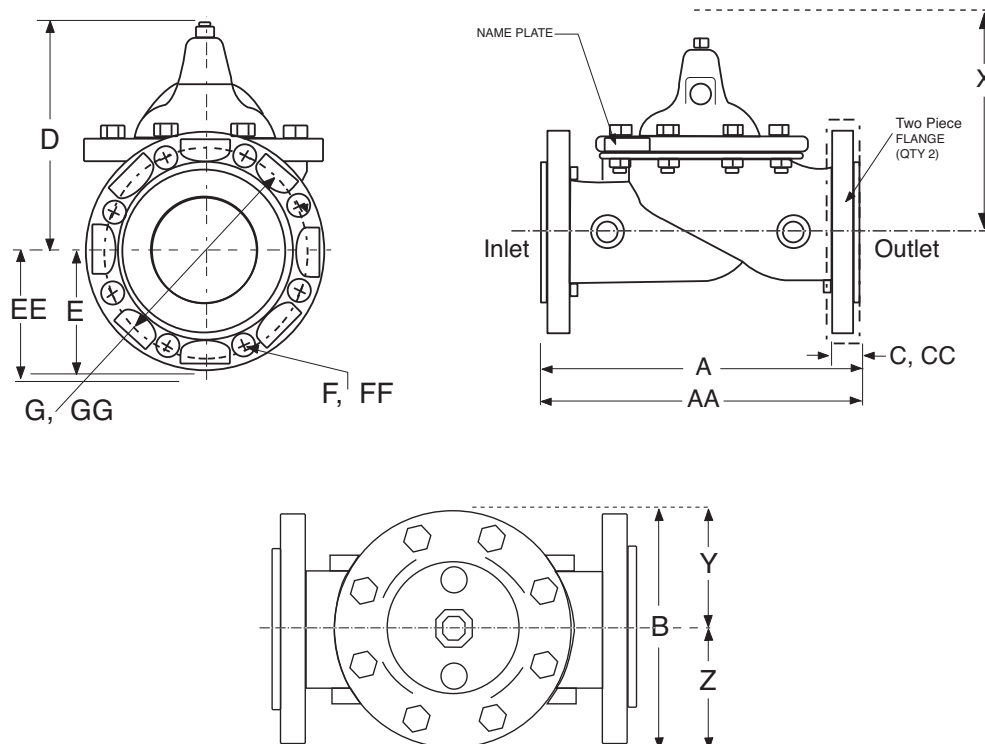
Diaphragm:

Nylon Fabric Reinforced

Synthetic Buna-N® Rubber*

* Contact Factory for Other

Disc or Diaphragm Materials



Model 6552-01 Dimensions (Inches)

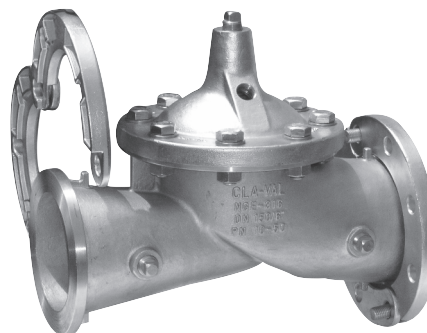
Valve Size (Inches)	2	2½	3	4	6	8	10	12
A 150 ANSI	9.06	11.42	12.20	13.78	18.90	23.62	28.74	33.46
AA 300 ANSI	9.06	11.42	12.20	13.78	18.90	23.62	28.74	33.46
B	5.70	8.06	6.69	9.25	11.61	15.75	20.08	23.62
C	0.89	0.89	0.93	0.93	1.02	1.15	1.15	1.25
CC 300 ANSI	0.96	0.96	1.00	1.00	1.10	1.15	1.46	1.50
D	6.50	7.95	8.20	10.12	13.32	16.39	19.12	20.95
E	3.05	3.54	3.74	4.53	5.61	6.79	7.97	9.55
EE 300 ANSI	3.25	3.75	4.13	5.01	6.30	7.48	8.76	10.24
F	0.71	0.71	0.71	0.71	0.91	0.87	1.02	1.02
FF 300 ANSI	0.71	0.75	0.87	0.87	0.87	1.03	1.16	1.34
G	4.75	5.50	6.00	7.50	9.50	11.75	14.25	17.00
GG 300 ANSI	5.00	5.88	6.62	7.88	10.62	13.00	15.25	17.72
Flange Bolts (150 Class)	4	4	4	8	8	8	12	12
Flange Bolts (300 Class)	8	8	8	8	12	12	16	16
Approx. Wt. (Lbs.)	25	40	40	75	160	290	419	728
Approx. X Pilot System	13.00	14.00	15.00	17.00	29.00	31.00	33.00	36.00
Approx. Y Pilot System	9.00	10.00	11.00	12.00	20.00	22.00	24.00	26.00
Approx. Z Pilot System	9.00	10.00	11.00	12.00	20.00	22.00	24.00	26.00

100-44 Reduced Port Functional Data

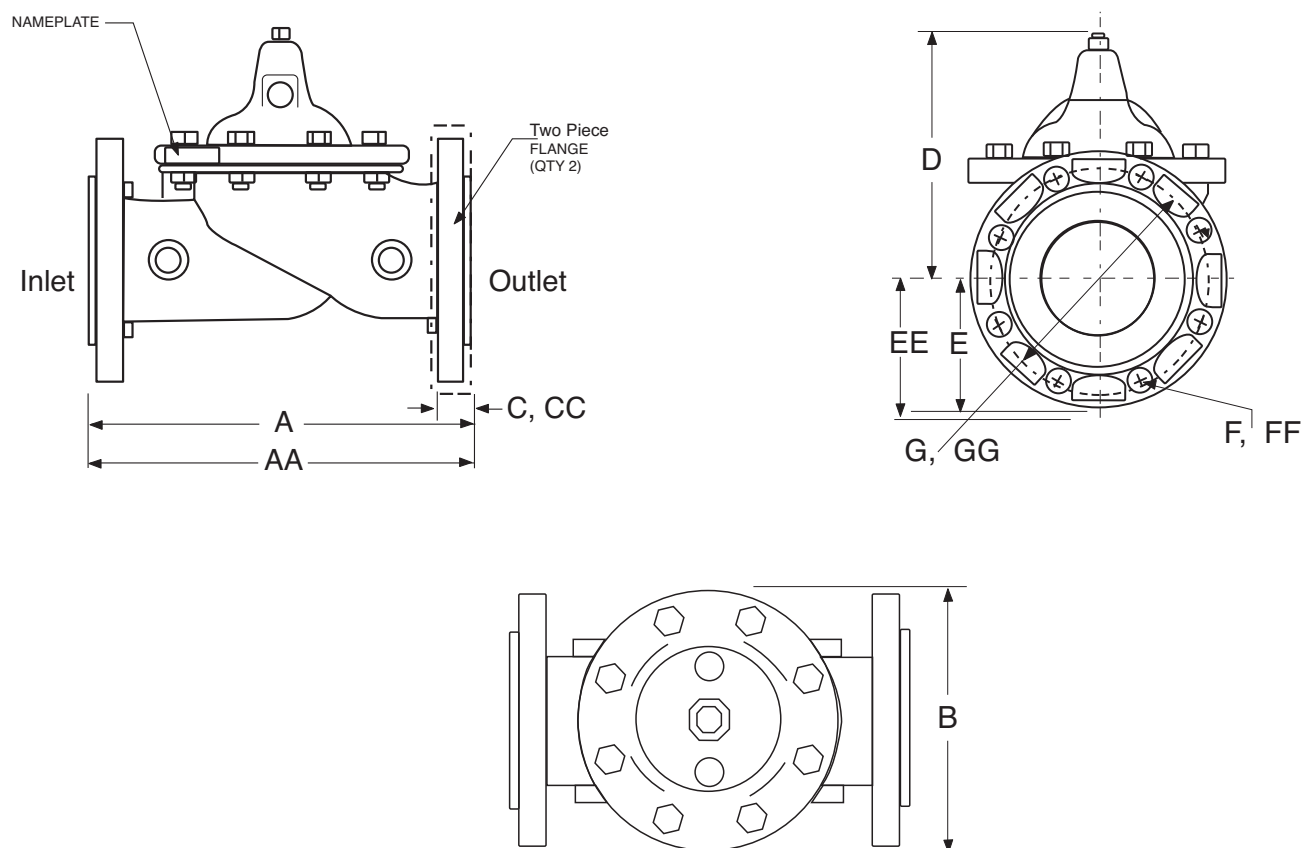
Size (Inches)	Cv (gpm)*	Cv (l/s)**
2	38	9
2½	50	12
3	67	16
4	138	33
6	242	58
8	555	133
10	923	222
12	1492	359

*Cv = gpm flow at 1 psi drop

**Cv = l/s flow at 1 bar drop



Model 6552-01 Dimensions (mm)



Model 6552-01 Dimensions (mm)

Valve Size (mm)	50	65	80	100	150	200	250	300
A 150 ANSI	230	290	310	350	480	600	730	850
AA 300 ANSI	230	290	310	350	480	600	730	850
B	145	205	170	235	295	400	510	600
C	23	23	24	24	26	29	29	32
CC 300 ANSI	24	24	25	25	58	29	37	38
D	165	202	208	257	338	416	486	532
E	78	90	95	115	143	173	202	243
EE 300 ANSI	83	95	105	127	160	190	223	260
F	18	18	18	18	23	22	26	26
FF 300 ANSI	18	19	22	22	22	26	30	34
G	121	140	152	191	241	299	362	432
GG 300 ANSI	127	149	168	200	270	330	387	450
Flange Bolts (150 Class)	102	102	102	203	203	203	305	305
Flange Bolts (300 Class)	203	203	203	203	305	305	406	406
Approx. Wt. (Kgs.)	11	18	18	34	73	132	190	330
Approx. X Pilot System	330	356	381	432	737	787	838	914
Approx. Y Pilot System	229	254	279	305	508	559	610	660
Approx. Z Pilot System	229	254	279	305	508	559	610	660

6552-01 Valve Selection	100-44 Pattern: Globe (G), Angle (A), End Connections: Flanged (F) Indicate Available Sizes								
	Inches	2	2½	3	4	6	8	10	12
	mm	50	65	80	100	150	200	250	300
Main Valve 100-44	Pattern	G	G	G	G	G	G	G	G
	End Detail	F	F	F	F	F	F	F	F
Suggested Flow (gpm)	Maximum	200	300	460	580	1025	2300	4100	6400
	Maximum Surge	420	600	900	990	4000	3970	7050	11000
Suggested Flow (Liters/Sec)	Maximum	12.5	18	32	37	113	145	258	403
	Maximum Surge	26	38	55	62	111	250	444	693

100-44 Series is the reduced internal port size version of the 100-46 Series.

Pilot System Specifications

Temperature Range

Water: to 180°F

Materials

Standard Pilot System Materials

Pilot Control: Stainless Steel Type 303

Trim: Stainless Steel Type 303

Rubber: Buna-N® Synthetic Rubber

Tubing & Fitting: Stainless Steel

Optional Pilot System Materials

Pilot Systems are available with optional 316 Stainless Steel or Monel materials.

When Ordering, Specify

1. Catalog No. 6552-01
2. Valve Size
3. Pilot System Materials
4. End Detail (150/300)
5. Fluid to be Handled
6. Fluid Temperature
7. Inlet Pressure
8. Outlet Pressure
9. Adjustment Range
10. Desired Options



Model CRL
Pressure Relief Control



Model CRA
Pressure Reducing Control



E-6552-01 (R-03/2021)

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