



— MODEL — 636-01

Solenoid Control Valve



- Fast Acting Solenoid Control
- Reliable, Drip-Tight Shut-Off
- Simple Design, Proven Reliable
- Optional Check Feature
- Easy Installation and Maintenance

The Cla-Val Model 636-01 Solenoid Control Valve is an on-off control valve that either opens or closes upon receiving an electrical signal to the solenoid pilot control. This valve consists of a Hytrol main valve and a three-way solenoid valve that alternately applies pressure to or relieves pressure from the diaphragm chamber of the main valve. It is furnished either normally open (de-energized solenoid to open) or normally closed (energized solenoid to open).

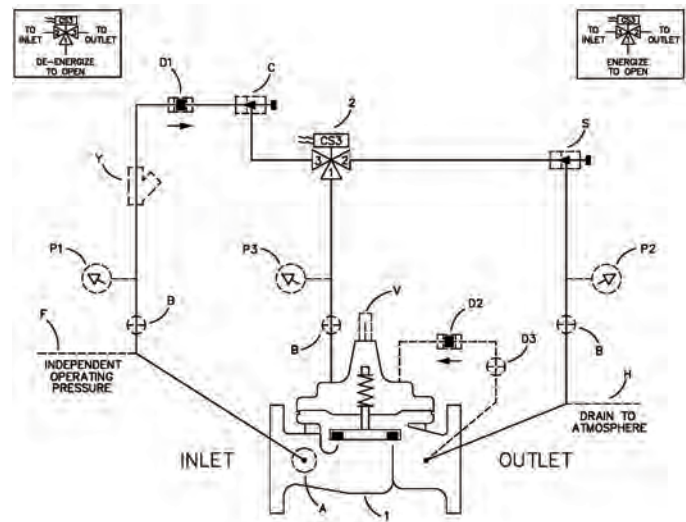
If the check feature option is added and a pressure reversal occurs, the downstream pressure is admitted into the main valve cover chamber and the valve closes to prevent return flow.

Schematic Diagram

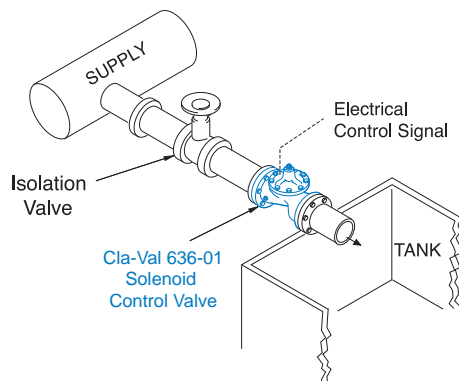
Item	Description
1	100-20 Hytrol Main Valve
2	CS3 Solenoid Control

Optional Features

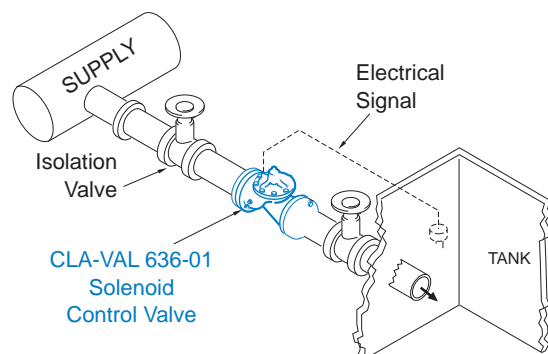
Item	Description
A	X46A Flow Clean Strainer
B	CK2 Isolation Valve
C	CNA Closing Speed Control
D	Check Valves with Isolation Valve
P	X141 Pressure Gauge
S	CNA Needle Valve (Opening)
V	X101 Valve Position Indicator
Y	X43 "Y" Strainer



Typical Applications



Industrial uses for the solenoid control valve are many and include accurate control of process water for batching, mixing, washing, blending or other on-off type uses.



Liquid level control can be provided by using a float switch or electrode probe which sends an electrical signal to open or close the valve as needed.

Model 636-01 (Uses Hytrol Main Valve Model 100-20)

Pressure Ratings (Recommended Maximum Pressure - psi)

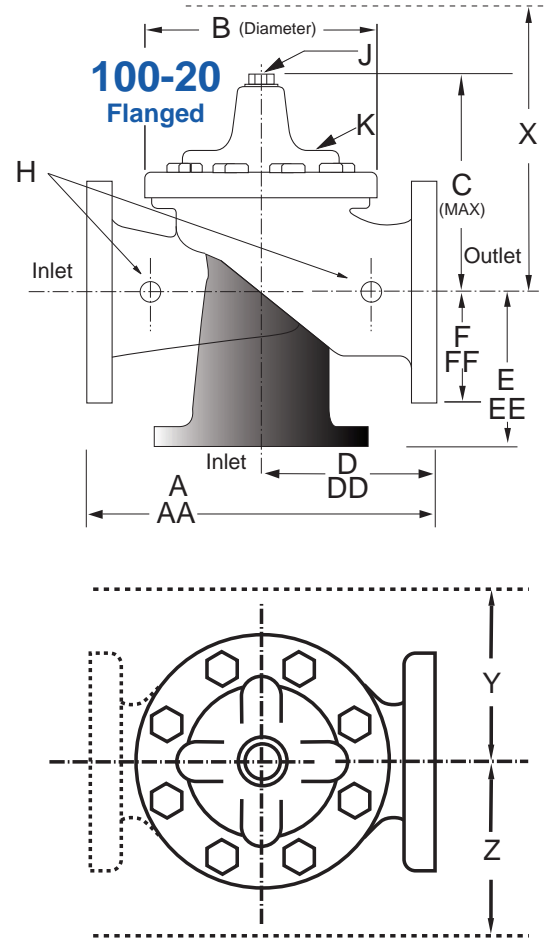
Valve Body & Cover		Pressure Class		
		Flanged		
Grade	Material	ANSI Standards*	150 Class	300 Class
ASTM A536	Ductile Iron	B16.42	250	400
ASTM A216-WCB	Cast Steel	B16.5	285	400
UNS 87850	Bronze	B16.24	225	400

Note: * ANSI standards are for flange dimensions only.
Flanged valves are available faced but not drilled.
Valves for higher pressure are available; consult factory for details

Materials

Component	Standard Material Combinations		
Body & Cover	Ductile Iron	Cast Steel	Bronze
Available Sizes	3" - 6" 80 - 150mm	3" - 6" 80 - 150mm	3" - 6" 80 - 150mm
Disc Retainer & Diaphragm Washer	Cast Iron	Cast Steel	Bronze
Trim: Disc Guide, Seat & Cover Bearing	Bronze is Standard Stainless Steel is Optional		
Disc	Buna-N® Rubber		
Diaphragm	Nylon Reinforced Buna-N® Rubber		
Stem, Nut & Spring	Stainless Steel		

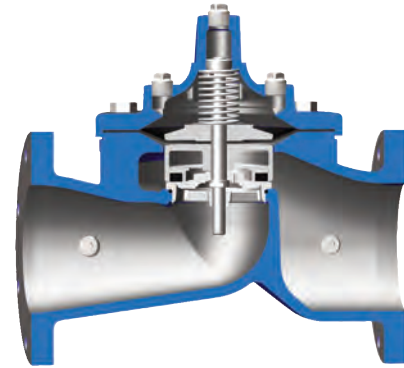
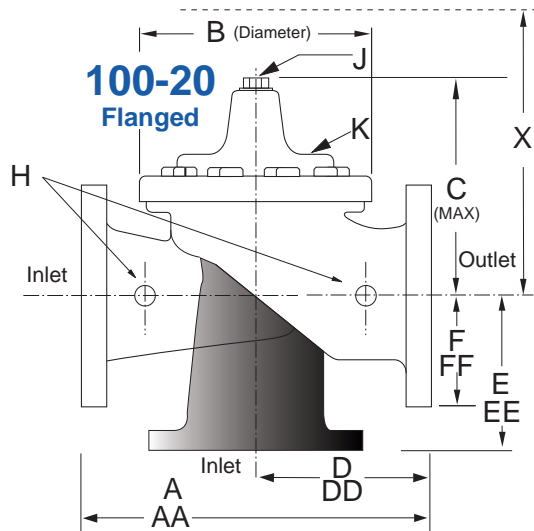
For material options not listed, consult factory.
Cla-Val manufactures valves in more than 50 different alloys.



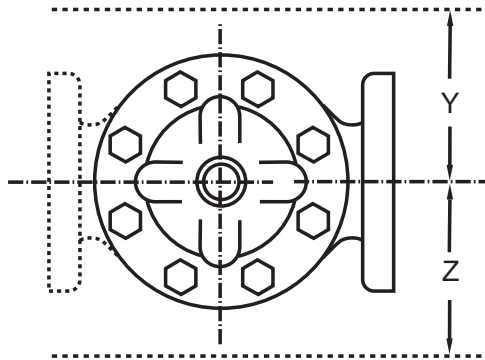
Model 636-01 Dimensions (inches)

Valve Size (Inches)	3	4	6
A 150 ANSI	10.25	13.88	17.75
AA 300 ANSI	11.00	14.50	18.62
B Diameter	6.62	9.12	11.50
C Maximum	7.00	8.62	11.62
D 150 ANSI	—	6.94	8.88
DD 300 ANSI	—	7.25	9.38
E 150 ANSI	—	5.50	6.75
EE 300 ANSI	—	5.81	7.25
F 150 ANSI	3.75	4.50	5.50
FF 300 ANSI	4.12	5.00	6.25
H NPT Body Tapping	0.375	0.50	0.75
J NPT Cover Center Plug	0.50	0.50	0.75
K NPT Cover Tapping	0.375	0.50	0.75
Stem Travel	0.60	0.80	1.10
Approx. Ship Weight (lbs)	45	85	195
Approx. X Pilot System	13	15	27
Approx. Y Pilot System	10	11	18
Approx. Z Pilot System	10	11	18

Model 636-01 Metric Dimensions (Uses 100-20 Hytrol Main Valve)



Model 100-20 Reduced Port Hytrol Main Valve



Model 636-01 Dimensions (mm)

Valve Size (mm)	80	100	150
A 150 ANSI	260	353	451
AA 300 ANSI	279	368	473
B Diameter	168	232	292
C Maximum	178	219	295
D 150 ANSI	—	176	226
DD 300 ANSI	—	184	238
E 150 ANSI	—	140	171
EE 300 ANSI	—	148	184
F 150 ANSI	95	114	140
FF 300 ANSI	105	127	159
H NPT Body Tapping	0.375	0.50	0.75
J NPT Cover Center Plug	0.50	0.50	0.75
K NPT Cover Tapping	0.375	0.50	0.75
Stem Travel	15	20	28
Approx. Ship Weight (kgs)	20	39	89
Approx. X Pilot System	331	381	686
Approx. Y Pilot System	254	280	458
Approx. Z Pilot System	254	280	458

636-01 Valve Selection	100-20 Pattern: Globe (G), Angle (A), End Connections: Flanged (F) Indicate Available Sizes			
	Inches	3	4	6
	mm	80	100	150
Main Valve 100-20	Pattern	G	G, A	G, A
	End Detail	F	F	F
Suggested Flow (gpm)	Maximum	260	580	1025
Suggested Flow (Liters/Sec)	Maximum	16	37	65

100-20 Series is the reduced internal port size version of the 100-01 Series.

Pilot System Specifications

Temperature Range

Water: to 180°F

Fluids

Air, water, light oils

Solenoid Control

Body:

Brass ASTM B283

Rubber Parts:

Buna-N® Rubber Synthetic Rubber

Enclosure:

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

NEMA Type 6,6P,7,9 Watertight Explosion Proof available.

Voltages:

110, 220 -50Hz AC

24, 120, 240, 480 - 60Hz AC

6, 12, 24, 120, 240 - DC

Others available at additional 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 additional cost.

*Supplied unless otherwise specified

Note: Flowing Pressure Differential: 5 psi minimum

When Ordering, Specify

1. Catalog No. 636-01
2. Valve Size
3. Pattern - Globe or Angle
4. Pressure Class
5. Threaded or Flanged
6. Materials Desired
7. Energized or de-energized to open Main Valve
8. Solenoid Enclosure, Voltage & Hertz, Coil Insulation, and Max. Operating Pressure Differential
9. Desired Options
10. When Vertically Installed

Valve Options

X141 Pressure Gauge



X101AR Valve Position Indicator with Air Release



X101 Valve Position Indicator



X144 e-FlowMeter



X43H Strainer



Stainless Steel Pilot