



# — 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).

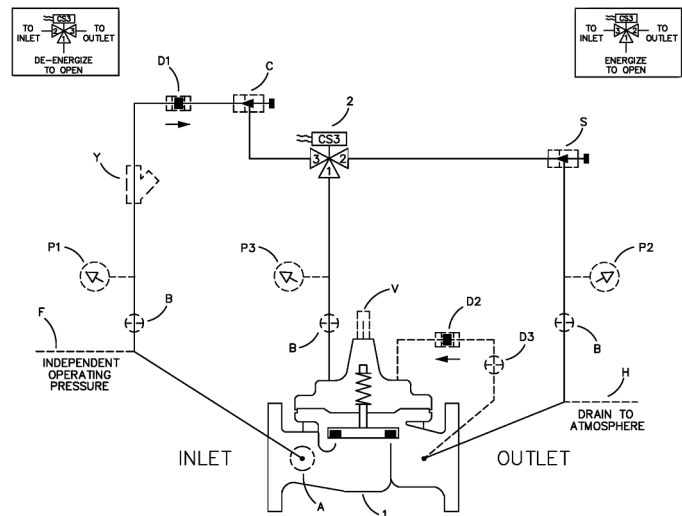
If the check feature option is added and a pressure reversal occurs, the downstream pressure is admitted into the main valve cover chamber and the valve closes to prevent return flow.

### Schematic Diagram

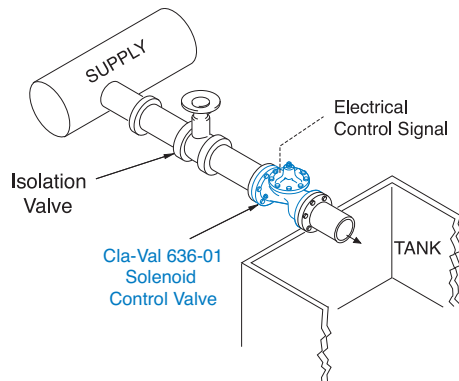
Item	Description
1	100-20 Hytrol Main Valve
2	CS3 Solenoid Control

### Optional Features

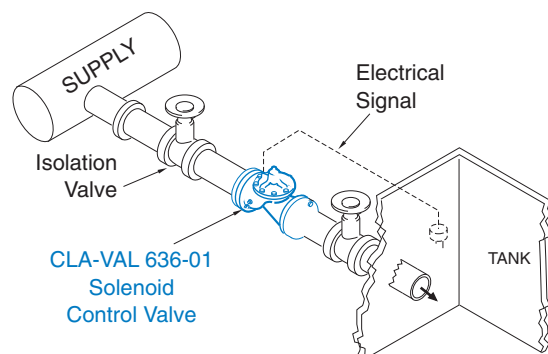
Item	Description
A	X46A Flow Clean Strainer
B	CK2 Isolation Valve
C	CNA Closing Speed Control
D	Check Valves with Isolation Valve
P	X141 Pressure Gauge
S	CNA Needle Valve (Opening)
V	X101 Valve Position Indicator
Y	X43 "Y" Strainer



### 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)

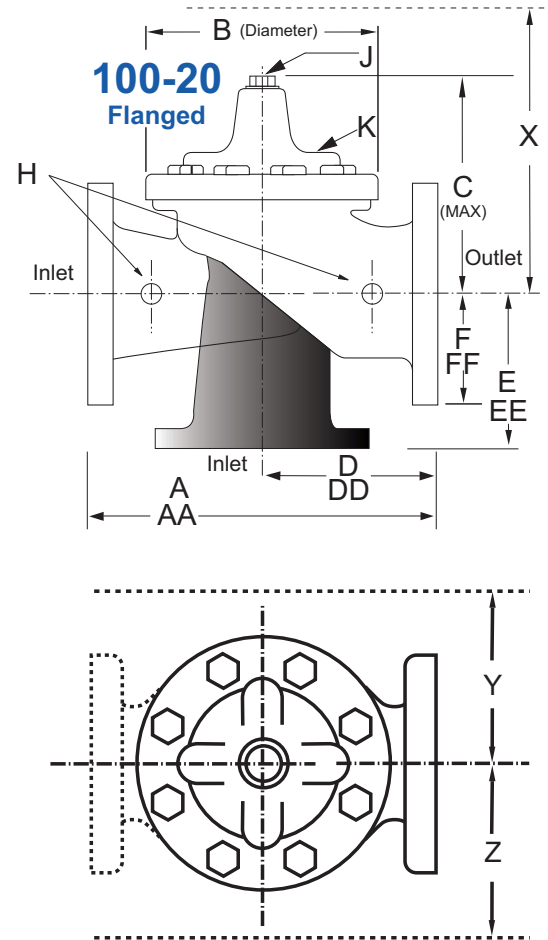
Valve Body & Cover		Pressure Class		
		Flanged		
Grade	Material	ANSI Standards*	150 Class	300 Class
ASTM A536	Ductile Iron	B16.42	250	400
ASTM A216-WCB	Cast Steel	B16.5	285	400
UNS 87850	Bronze	B16.24	225	400

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		

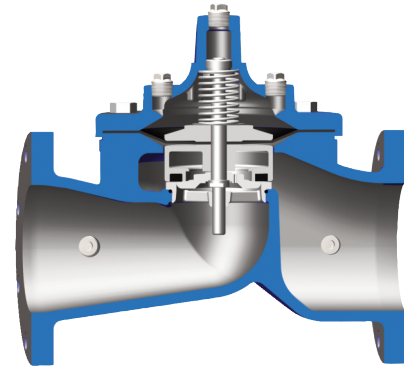
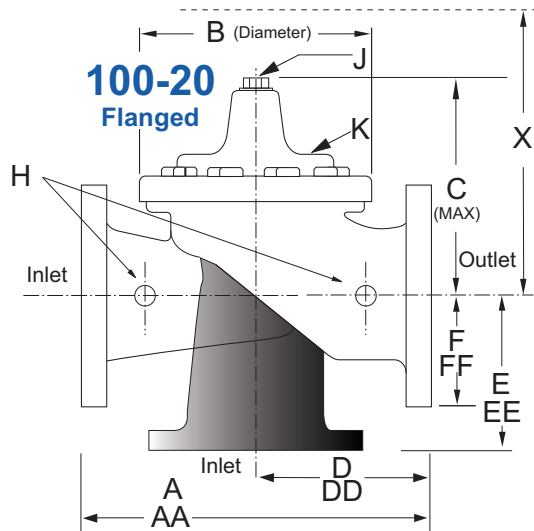
For material options not listed, consult factory.  
Cla-Val manufactures valves in more than 50 different alloys.



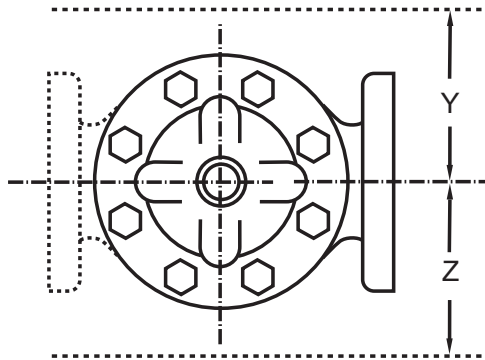
### Model 636-01 Dimensions (inches)

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

<b>636-01</b> <b>Valve Selection</b>	<b>100-20 Pattern:</b> Globe (G), Angle (A), <b>End Connections:</b> 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

