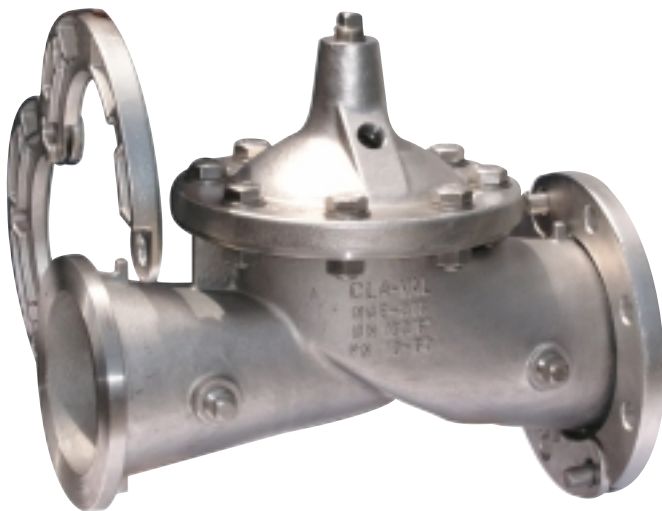




— MODEL — **100-44**

## 316SS Hytrol Valve

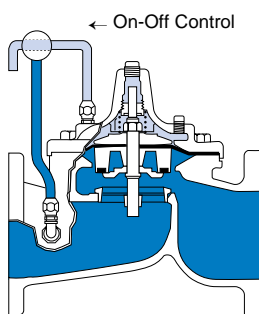
- All 316 Stainless Steel
- Reduced Cavitation Design
- Drip-tight, Positive Sealing Action
- Service Without Removal From Line
- Every Valve Factory Tested
- Three-Year Warranty



The Cla-Val Model 100-44 Hytrol 316SS Valve is a hydraulically operated, diaphragm actuated, globe pattern valve with all 316 Stainless Steel metal parts. Specially designed 316 Stainless Steel removable slip-on flanges provide 150 or 300 ANSI class flange connections that meet ANSI and ISO standards. This valve is ideal for control valve applications where fluid compatibility is often a problem. The standard Electropolish finish on the 316 Stainless Steel parts offers extreme corrosion resistance to many industrial fluids such as seawater, high alkyl or high acid concentrations or other aggressive or corrosive fluids.

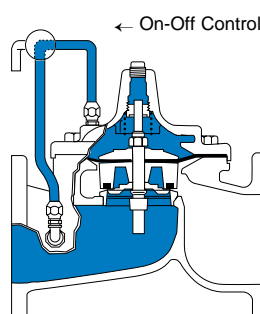
The Model 100-44 Hytrol consists of these major components: body, flanges, diaphragm assembly and cover. The diaphragm assembly is the only moving part and is guided top and bottom by a precision-machined stem. A non-wicking diaphragm of nylon fabric reinforced-synthetic rubber creates the control chamber for the valve. A resilient, synthetic rubber disc forms a drip-tight seal, with the renewable seat, when pressure is applied to the control chamber. The rugged simplicity of design and pack-less construction assure a long life of dependable, trouble-free operation. Smooth flow passages and fully guided diaphragm assembly assure optimum control, when used in piping systems requiring remote control, pressure regulation, solenoid operation, rate of flow control or check valve operation.

### Principle of Operation



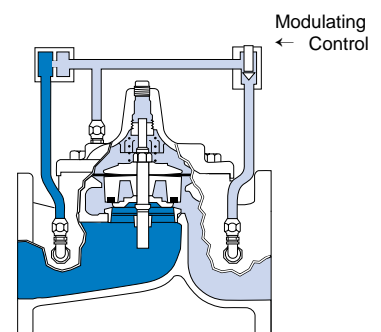
#### Full Open Operation

When pressure in the cover chamber is relieved to a zone of lower pressure, the line pressure at the valve inlet opens the valve, allowing full flow.



#### Tight Closing Operation

When pressure from the valve inlet is applied to the cover chamber, the valve closes drip-tight.



#### Modulating Action

The valve holds any intermediate position when operating pressure is equal above and below the diaphragm. Using a Cla-Val "Modulating" Control will allow the valve to automatically compensate for line pressure changes.



## Specifications

Model 100-44

### Sizes

Globe (inch):  
1 1/2", 2", 2 1/2", 3", 4", 6", 8"

### 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  
-40° to 180° F (-40° to 82° C)

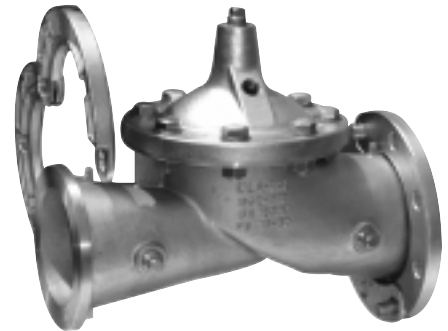
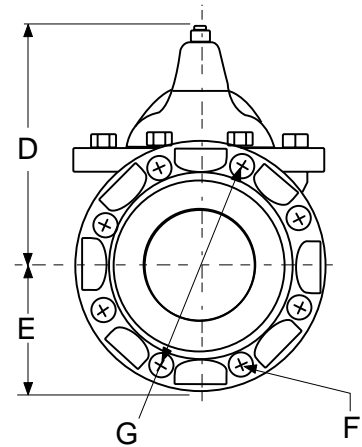
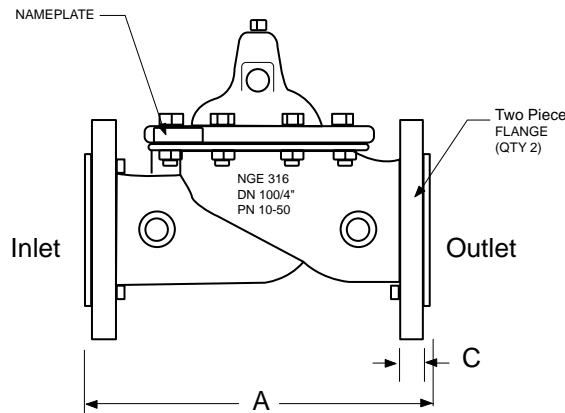
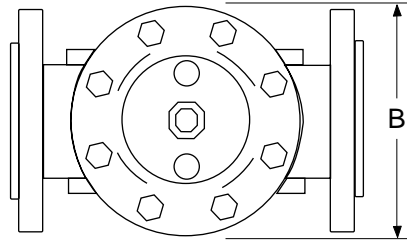
### MATERIALS

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



### Dimensions

Size (in)	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
(mm)	40	50	65	80	100	150	200
A	7.87	9.06	11.42	12.20	13.78	18.90	23.62
B	5.63	6.61	8.06	9.13	11.50	15.75	20.24
C	.83/.75	.83/.75	.83/.75	.87/.79	.87/.79	.98/.91	1.10/1.02
D	5.90	6.50	7.95	8.20	10.12	13.32	16.39
E	2.56	3.05	3.54	3.74	4.53	5.61	6.75
F	.630	.709	.709	.709	.709	.906	.866
G	3.878	4.744	5.492	6.004	7.500	9.449	11.752
Flange Bolts	4	4	4	4	8	8	8
Approx. Ship Wt. Lbs.	25	25	40	40	75	160	290
Approx. Ship Wt. Kgs.	11.4	11.4	19	19	35	73	132

### Functional Data

Size (in)	Cv (gpm)	Cv (l/s)**
1 1/2"	32	7.7
2"	38	9
2 1/2"	50	12
3"	67	16
4"	138	33
6"	242	58
8"	555	133

\* Cv = GPM flow at 1 psi drop

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

### When ordering Please Specify:

1. Catalog No. 100-44
2. Valve Size
3. Fluid Being Handled
4. Fluid Temperature
5. Inlet Pressure Range
6. Outlet Pressure Range
7. Maximum and Minimum Differential Pressure
8. Flow Rate Range

### Represented By:



E-100-44

### CLA-VAL

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Fax: 949-548-5441 \* Web Site: cla-val.com \* E-mail: claval@cla-val.com

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