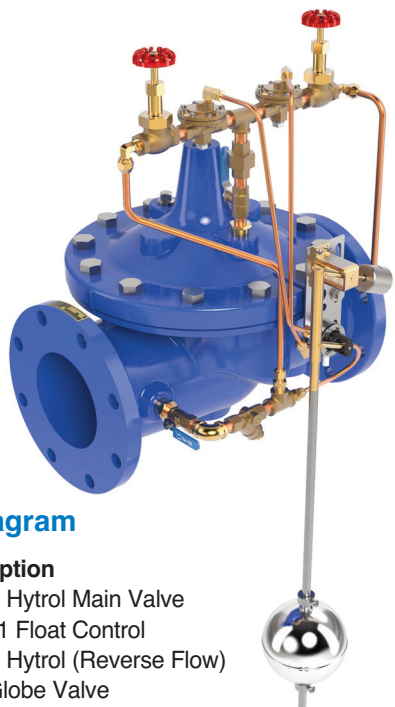




MODEL 124-02 Float Valve



- Accurate and Repeatable Level Control
- On-Off Non-Modulating Action
- Fully Adjustable High and Low Level Settings
- Simple Design, Proven Reliable
- Easy Installation and Maintenance

The Cla-Val Model 124-02 Float Valve is a non-modulating valve that accurately controls the liquid level in tanks. This valve is designed to open fully when the liquid level reaches a preset low point, and close drip-tight when the level reaches a preset high point.

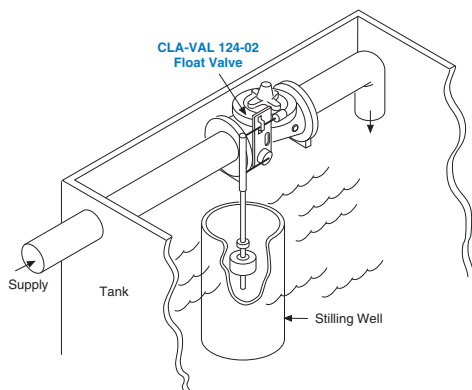
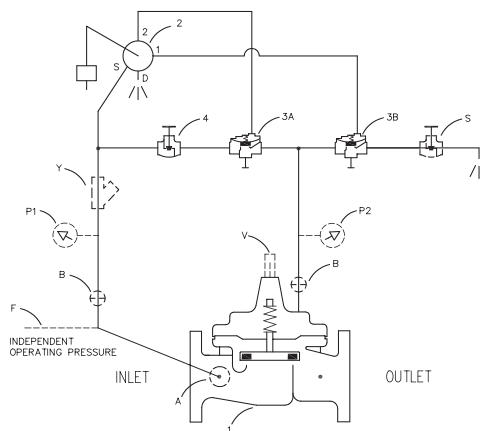
This is a hydraulically operated, diaphragm valve with the pilot control and float mechanism mounted on the cover of the main valve. The float positions the pilot control to close the valve when the float contacts the upper stop. The high and low liquid levels are adjusted by positioning the stop collars on the float rod. The difference between high and low levels can be adjusted to as little as an inch, or to as much as eighteen inches. Level settings can be as much as eleven and one-half feet below the valve. The float mechanism may be located remotely from the main valve. See the technical data sheet on Model CF1-C1 Float Control for additional information.

Schematic Diagram

Item	Description
1	100-01 Hytrol Main Valve
2	CF1-C1 Float Control
3	100-01 Hytrol (Reverse Flow)
4	CGB Globe Valve

Optional Features

Item	Description
A	X46A Flow Clean Strainer
B	CK2 Isolation Valve
F	Independent Operating Pressure
P	X141 Pressure Gauge
S	CGB Globe Valve
V	X101 Valve Position Indicator
Y	X43 "Y" Strainer



Typical Applications

The Model 124-02 Float Valve is commonly mounted above the high water level in a tank. Globe pattern valves are supplied standard with the float control mounted on the right side of the cover as illustrated, with a horizontal discharge. Angle valves are configured to discharge downward.

Note: We recommend protecting tubing and valve from freezing temperatures.

Installation

A stilling well (8" minimum diameter) must be provided around the float. When the valve is mounted on top of the tank roof, a 2" clearance hole should be provided for side movement of the float rod where the rod goes through the top of the tank.

An independent source of air or water may be used to operate the valve (option F). The pressure from this independent source must at all times be equal to or greater than pressure at the valve inlet.

If minimum flowing line pressure is less than 10 psi, consult Cla-Val for full details.

If the float control is remotely mounted from the main valve, the control may be installed at any elevation above the valve, provided the flowing line pressure in psi is equal to or greater than the vertical distance in feet between the valve and the float control. See the data sheet on Model CF1-C1 for additional information.

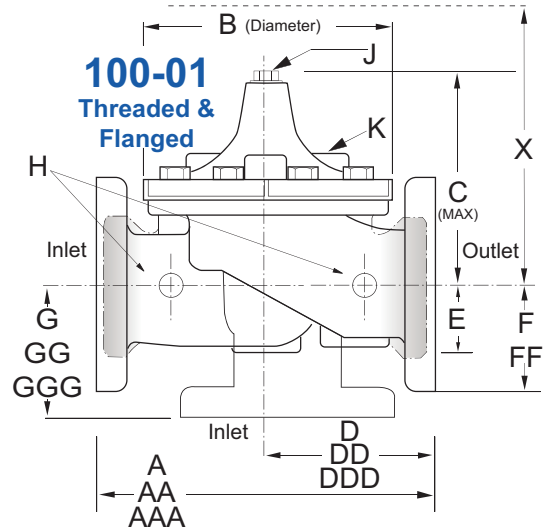
Model 124-02 (Uses 100-01 Hytrol Main Valve)

Dimensions
(in inches)

Pressure Ratings (Recommended Maximum Pressure - psi)

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

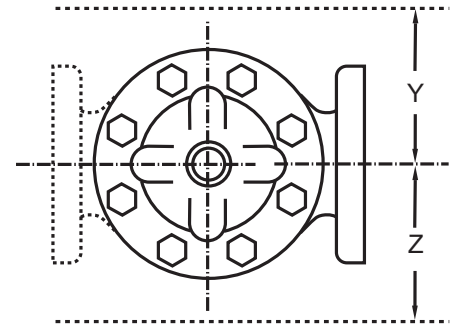
Note: * ANSI standards are for flange dimensions only.
 Flanged valves are available faced but not drilled.
 ‡ End Details machined to ANSI B2.1 specifications.
Valves for higher pressure are available; consult factory for details



Materials

Component	Standard Material Combinations		
Body & Cover	Ductile Iron	Cast Steel	Bronze
Available Sizes	8" - 36" 200 - 900mm	8" - 16" 200 - 400mm	8" - 16" 200 - 400mm
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.

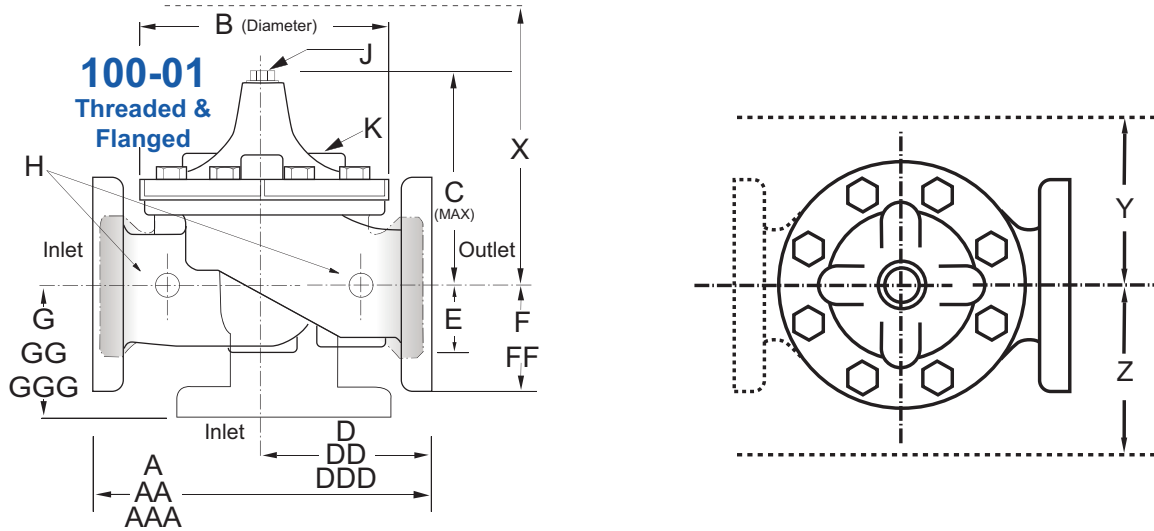


Model 124-02 Dimensions (in inches)

Valve Size (Inches)	8	10	12	14	16	18	20	24	30	36
A Threaded	—	—	—	—	—	—	—	—	—	—
AA 150 ANSI	25.38	29.75	34.00	39.00	41.38	46.00	52.00	61.50	63.00	72.75
AAA 300 ANSI	26.38	31.12	35.50	40.50	43.50	47.64	53.62	63.24	64.50	74.75
B Diameter	20.00	23.62	28.00	32.75	35.50	41.50	45.00	53.16	56.00	66.00
C Maximum	16.00	17.12	20.88	24.19	25.00	39.06	41.90	43.93	54.60	59.00
D Threaded	—	—	—	—	—	—	—	—	—	—
DD 150 ANSI	12.69	14.88	17.00	19.50	20.81	—	—	30.75	—	—
DDD 300 ANSI	13.25	15.56	17.75	20.25	21.62	—	—	31.62	—	—
E	5.31	9.25	10.75	12.62	15.50	12.95	15.00	17.75	21.31	24.56
F 150 ANSI	6.75	8.00	9.50	10.50	11.75	15.00	16.50	19.25	22.50	28.50
FF 300 ANSI	7.50	8.75	10.25	11.50	12.75	15.00	16.50	19.25	24.00	30.00
G Threaded	—	—	—	—	—	—	—	—	—	—
GG 150 ANSI	8.00	8.62	13.75	14.88	15.69	—	—	22.06	—	—
GGG 300 ANSI	8.50	9.31	14.50	15.62	16.50	—	—	22.90	—	—
H NPT Body Tapping	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
J NPT Cover Center Plug	1.00	1.00	1.25	1.50	2.00	1.00	1.00	1.00	2.00	2.00
K NPT Cover Tapping	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Valve Stem Int. Thread UNF	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	3/4-16
Stem Travel	2.30	2.80	3.40	4.00	4.50	5.10	5.63	6.75	7.50	8.50
Approx. Ship Weight (lbs)	500	780	1165	1600	2265	2982	3900	6200	7703	11720

Model 124-02 (Uses 100-01 Hytrol Main Valve)

Dimensions (in mm)



Model 124-02 Dimensions (in mm)

Valve Size (mm)	200	250	300	350	400	450	500	600	750	900
A Threaded	—	—	—	—	—	—	—	—	—	—
AA 150 ANSI	645	756	864	991	1051	1168	1321	1562	1600	1848
AAA 300 ANSI	670	790	902	1029	1105	1210	1326	1606	1638	1899
B Diameter	508	600	711	832	902	1054	1143	1350	1422	1676
C Maximum	406	435	530	614	635	992	1064	1116	1387	1499
D Threaded	—	—	—	—	—	—	—	—	—	—
DD 150 ANSI	322	378	432	495	528	—	—	781	—	—
DDD 300 ANSI	337	395	451	514	549	—	—	803	—	—
E	135	235	273	321	394	329	381	451	541	624
F 150 ANSI	171	203	241	267	298	381	419	489	572	724
FF 300 ANSI	191	222	260	292	324	381	419	489	610	762
G Threaded	—	—	—	—	—	—	—	—	—	—
GG 150 ANSI	203	219	349	378	399	—	—	560	—	—
GGG 300 ANSI	216	236	368	397	419	—	—	582	—	—
H NPT Body Tapping	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
J NPT Cover Center Plug	1.00	1.00	1.25	1.50	2.00	1.00	1.00	1.00	2.00	2.00
K NPT Cover Tapping	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Valve Stem Int. Thread UNF	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	3/4 - 16
Stem Travel	58	71	86	102	114	130	143	171	190	216
Approx. Ship Weight (kgs)	227	354	528	726	1027	1353	1769	2812	3494	5316



Model CF1-C1 Stainless Steel Float

Float Control Overview

The Cla-Val Model CF1-C1 Float Control is a float-actuated, multi-port pilot control which provides non-modulating, two-position, on-off operation. It is used primarily to operate remotely located Cla-Val valves requiring three-way or four-way pilot valve operation. Designed for used in open tanks, this control operates on a minimum level change of approximately one inch.

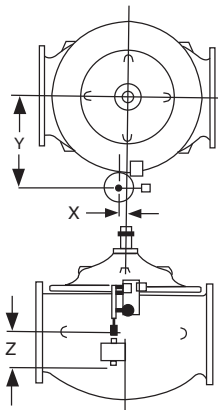
124-02 Valve Selection	100-01 Pattern: Globe (G), Angle (A), End Connections: Threaded (T), Grooved (GR), Flanged (F) Indicate Available Sizes										
	Inches	8	10	12	14	16	18	20	24	30	36
	mm	200	250	300	350	400	450	500	600	750	900
Main Valve 100-01	Pattern	G, A	G, A	G, A	G, A	G, A	G	G	G, A	G	G
	End Detail	F	F	F	F	F	F	F	F	F	F
Suggested Flow (gpm)	Maximum	3100	4900	7000	8400	11000	14000	17000	25000	42000	50000
	Maximum Intermittent	3900	6000	8600	10540	13700	17500	21700	31300	48000	62500
Suggested Flow (Liters/Sec)	Maximum	195	309	442	530	694	883	1073	1577	2650	3150
	Maximum Intermittent	245.7	378	541	664	863	1104	1369	1972	3028	3940

100-01 Series is the full internal port Hytrol.

*Globe Grooved Only

See the 124-01 Technical Data sheet for smaller sizes

Pilot System Dimensions (In Inches)



GLOBE: 8" and Larger

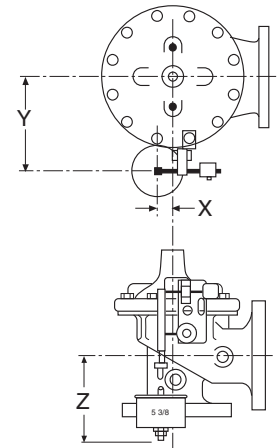
124-02 Float Valve (Globe)

Size	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"
X	1.25	1.25	1.00	.50	.25	1.25	1.25	1.25	—	—
Y	12.75	14.75	17.00	19.50	21.00	30.00	30.00	30.00	—	—
Z (Max)*	48.25	47.00	45.25	44.50	43.25	32.00	32.00	32.00	—	—

124-02 Float Valve (Angle)

Size	8"	10"	12"	14"	16"
X	1.25	1.25	1.00	.50	.25
Y	12.75	14.75	17.00	19.50	21.00
Z (Max)*	48.25	47.00	45.25	44.50	43.25

*Z(Max) is with standard float rod



ANGLE: 8" to 16"

Pilot System Specifications

Pressure Rating

300 psi Max.

Temperature Rating

Water: to 180°F. Max.

Materials

In contact with operating fluid: Brass, Stainless Steel, Monel, with Buna-N® seals
 Float linkage and float rod: Brass and PVC
 Base plate: 316 Stainless Steel
 Float: 304 Stainless Steel

Float

5 3/8" diameter. If maximum temperature exceeds 160°F specify stainless steel float rod.

Float Rod

Standard: Two 12" sections of PVC rod, with 12" extension increments at extra cost.

Optional: 24" stainless steel rod, with 24" extension increments at extra cost. larger counterweight is required if float rod length exceeds 2'.

Adjustment Range

Level Differential:

1" min. to 18" max. with PVC rod.

1" min to 40" max. with stainless steel rod.

Operating Fluids

Clean liquids or gases compatible with specified materials.

When Ordering, Please Specify

1. Catalog No. 124-02
2. Valve Size
3. Pattern - Globe or Angle
4. Pressure Class
5. Threaded or Flanged
6. Float Rod Material and Length
7. Float Ball Material
8. Desired Options
9. When Vertically Installed