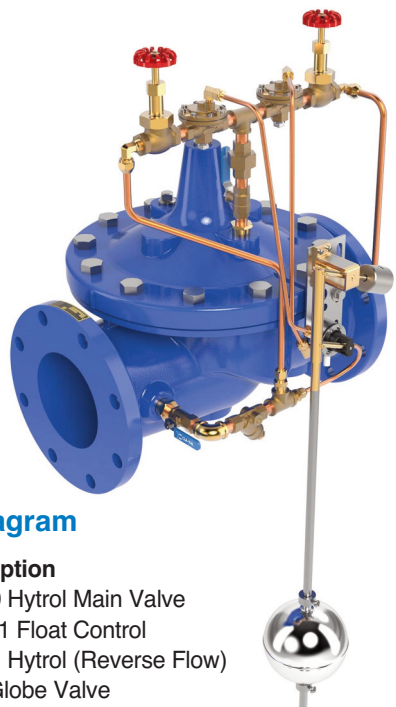




MODEL 624-02 Float Valve



- 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 624-02 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.

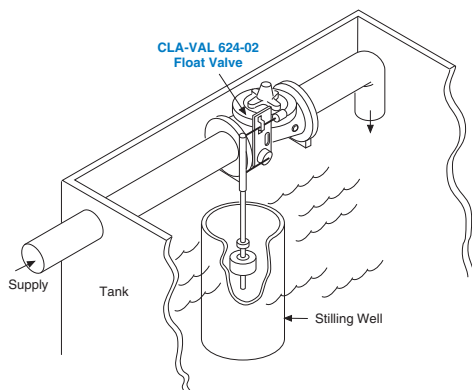
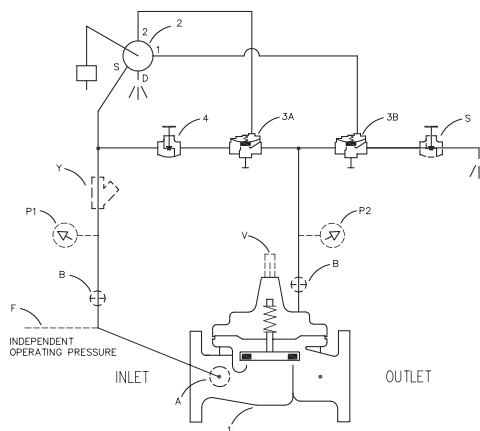
This is a hydraulically operated, diaphragm valve with the pilot control and float mechanism mounted on the cover of the main valve. The float positions the pilot control to close the valve when the float contacts the upper stop. The high and low liquid levels are adjusted by positioning the stop collars 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	100-20 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 624-02 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 624-02 (Uses 100-20 Hytrol Main Valve)

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

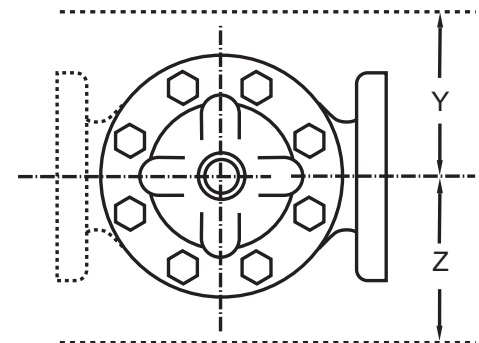
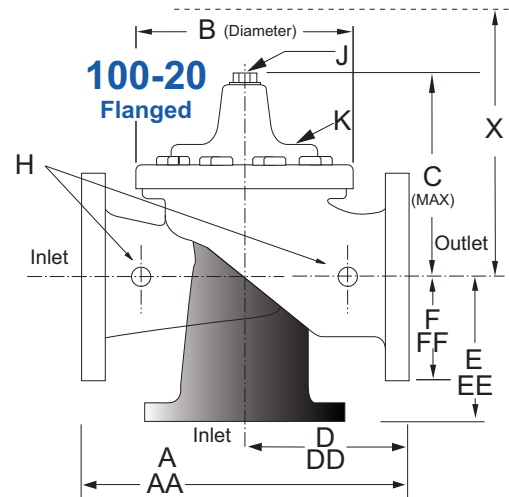
Note: * ANSI standards are for flange dimensions only.
 Flanged valves are available faced but not drilled.
 ‡ End Details machined to ANSI B2.1 specifications.
Valves for higher pressure are available; consult factory for details

Materials

Component	Standard Material Combinations		
Body & Cover	Ductile Iron	Cast Steel	Bronze
Available Sizes	10" - 48" 250 - 1200mm	10" - 16" 250 - 400mm	10" - 16" 250 - 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.

Dimensions (in inches)

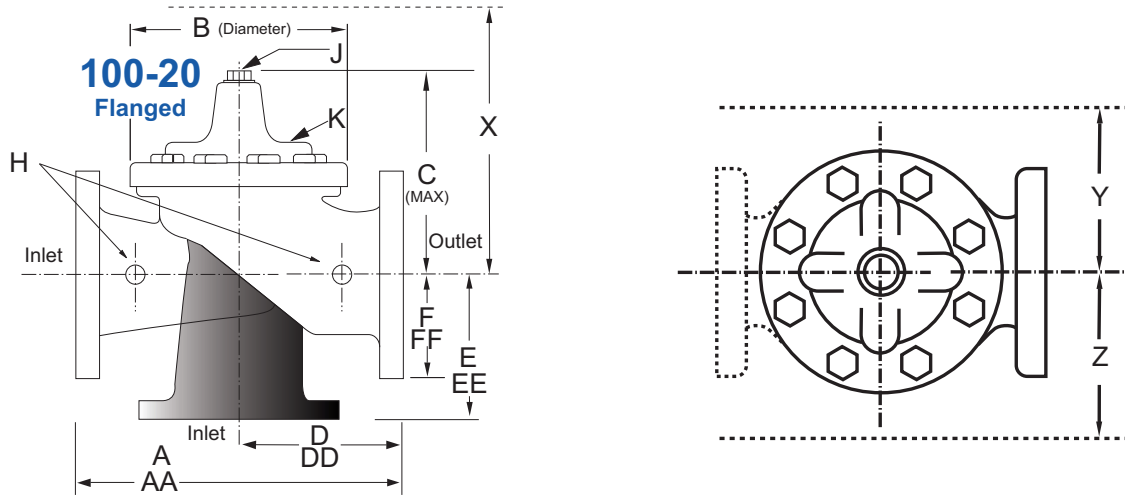


Model 624-02 Dimensions (in inches)

Valve Size (Inches)	10	12	14	16	18	20	24	30	36	48
A 150 ANSI	26.00	30.00	34.25	35.00	42.12	48.00	48.00	63.25	65.00	88.0
AA 300 ANSI	27.38	31.50	35.75	36.62	43.63	49.62	49.75	63.75	67.00	90.62
B Diameter	20.00	23.62	27.47	28.00	35.44	35.44	35.44	53.19	56.00	66.00
C Maximum	17.88	21.00	20.88	25.75	25.00	31.50	31.50	43.94	54.75	59.00
D 150 ANSI	CF*	17.00	CF*	CF*	CF*	CF*	21.06	—	—	—
DD 300 ANSI	CF*	17.75	CF*	CF*	CF*	CF*	CF*	—	—	—
E 150 ANSI	CF*	13.75	CF*	CF*	CF*	CF*	15.94	—	—	—
EE 300 ANSI	CF*	14.75	CF*	CF*	CF*	CF*	CF*	—	—	—
F 150 ANSI	8.00	9.50	11.00	11.75	15.88	14.56	17.00	19.88	25.50	34.00
FF 300 ANSI	8.75	10.25	11.50	12.75	15.88	16.06	19.00	22.00	27.50	38.50
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	2.00	2.00	2.00	2.00	2.00	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
Stem Travel	2.30	2.80	3.40	4.50	4.50	4.50	6.50	7.50	7.50	8.50
Approx. Ship Weight (lbs)	625	900	1250	1380	2365	2551	2733	6500	8545	13100

Model 624-02 (Uses 100-20 Hytrol Main Valve)

Dimensions (in mm)



Model 624-02 Dimensions (in mm)

Valve Size (mm)	250	300	350	400	450	500	600	750	900	1200
A 150 ANSI	660	762	870	889	1070	1219	1219	1607	1651	2235
AA 300 ANSI	695	800	908	930	1108	1260	1263	1619	1702	2302
B Diameter	508	600	698	711	900	900	900	1351	1422	1676
C Maximum	454	533	530	654	635	800	800	1116	1391	1499
D 150 ANSI	CF*	432	CF*	CF*	CF*	CF*	535	—	—	—
DD 300 ANSI	CF*	451	CF*	CF*	CF*	CF*	CF*	—	—	—
E 150 ANSI	CF*	349	CF*	CF*	CF*	CF*	405	—	—	—
EE 300 ANSI	CF*	368	CF*	CF*	CF*	CF*	CF*	—	—	—
F 150 ANSI	203	241	279	289	403	370	432	505	648	864
FF 300 ANSI	222	260	292	324	403	408	483	559	699	978
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	2.00	2.00	2.00	2.00	2.00	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
Stem Travel	58	71	86	86	114	114	114	165	191	216
Approx. Ship Weight (kgs)	284	409	568	627	681	1157	1249	2951	3876	5942



Model CF1-C1 Stainless Steel Float

Float Control Overview

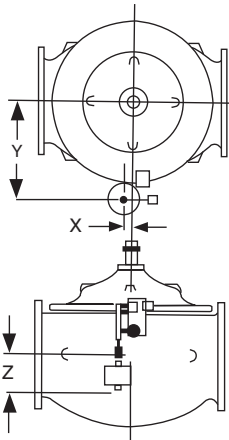
The Cla-Val Model CF1-C1 Float Control is a float-actuated, multi-port pilot control which provides non-modulating, two-position, on-off operation. It is used primarily to operate remotely located Cla-Val valves requiring three-way or four-way pilot valve operation. Designed for used in open tanks, this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

624-02 Valve Selection	100-20 Pattern: Globe (G), Angle (A), End Connections: Flanged (F) Indicate Available Sizes											
	Inches	10	12	14	16	18	20	24	30	36	42	48
	mm	250	300	350	400	450	500	600	750	900	1000	1200
Main Valve 100-20	Pattern	G	G	G	G	G	G	G	G	G	G	G
	End Detail	F	F	F	F	F	F	F	F	F	F	F
Suggested Flow (gpm)	Maximum	4100	6400	9230	9230	16500	16500	16500	28000	33500	33500	33500
Suggested Flow (Liters/Sec)	Maximum	258	403	851	581	1040	1040	1040	1764	2115	2115	2115

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

See the 124-01 Technical Data sheet for smaller sizes

Pilot System Dimensions (in inches)



624-02 Float Valve (Globe)

Size	10"	12"	16"	18"	20"	24"	30"	36"	42"	48"
X	1.25	1.25	1.00	1.00	.25	.25	.25	—	—	—
Y	12.75	14.75	17.00	17.00	21.00	21.00	30.00	—	—	—
Z (Max)*	45.00	43.00	40.25	40.25	36.75	36.75	32.00	—	—	—

*Z(Max) is with standard float rod

GLOBE: 624-02 10" and Larger

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. 624-02
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