CV10S & CV15S CONTROL VALVE

Beaumont Manufacturing and Distribution Company

The CV10S/CV15S are compact, cage-guided valves also known as dump valves. They are ideally suited for a wide range of applications such as pressure control, level control and flow control. Typical installations include separators, scrubbers, wellheads and other production equipment. The CV10S is a close coupled design and the CV15S is an open yoke design.

The CV10S/CV15S's hammer union makes maintenance easy by allowing the topworks to be removed without taking the valve out of line. This feature reduces the amount of time needed to inspect and replace the valve trim.

The CV10S/CV15S are available in a variety of material options and different trim sizes. A NACE option is also available for sour service.



CV10S



CV15S

SPECIFICATIONS

Sizes:
- 1"

Connections:
- Female NPT

Body Type:
- Globe
- Angle

Trim Characteristic:
- Quick Open
- Modified % (Throttling)

Trim Size:
- 0.25"
- 0.375"
- 0.50"
- 0.75"
- 1.00"

Pressure Rating:
- 4000 psi (-50°F to 200°F)
- 3755 psi at 400°F

Temperature Range:
- CV10 (close coupled): -50° F to 200° F (-46° C to 93° C)
- CV15 (open yoke): -50° F to 400° F (-46° C to 204° C)

Shutoff:
- ANSI Class IV

Actuator Sizes:
- No. 35 (35 in^2 area)
- Non-Adjustable

Input Signal Ranges:
- 3-15 psi
- 6-30 psi

MATERIALS

Body:
- LCC

Packing Plug:
- 304 SST

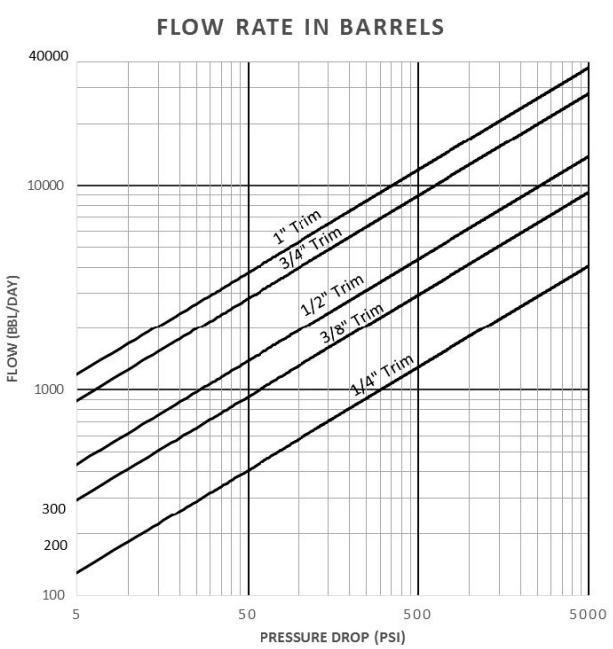
Hammer Nut:
- SST
- A105 Steel
- A350 LF2 (Low Temp Option)

Trim:
- 17-4 Stainless
- Carbide (Optional)

Actuator Housing:
- Carbon Steel

Yoke:
- A395 Ductile Iron

FLOW RATES



CV VALUES

Body Size	Trim Size (in.)	Body Style/Valve Opening (% Travel)												
		Modified percent											Quick Open	
		Globe Body										Angle Body	Globe Body	Angle Body
		10	20	30	40	50	60	70	80	90	100	100	100	100
1 inch	0.25	0.284	0.506	0.657	0.767	0.875	0.989	1.10	1.20	1.320	1.40	1.64	1.68	1.92
	0.375	0.311	0.621	0.942	1.28	1.64	2.07	2.51	2.93	3.35	3.70	4.23	3.82	4.34
	0.50	0.502	1.05	1.59	2.09	2.61	3.14	3.72	4.27	4.96	5.62	6.61	5.70	6.72
	0.75	0.882	1.76	2.76	3.82	4.93	6.17	7.49	8.85	10	11	15.10	11.60	15.20
	1.00	1.01	2.02	3.44	5.07	6.78	8.42	10.3	12.4	14.3	15.4	20.8	15.50	20.9

SHUT OFF PRESSURES

Maximum Shut-Off Pressures for Reverse Acting (Fail Closed) Actuators

Flow Direction	Trim Size (in.)	Signal to No. 35 Actuator			
		3-15 Spring		6-30 Spring	
		3-15 psig	0-20 psig	6-30 psig	0-35 psig
Up	0.25	3800	4000	4000	4000
	0.375	2050	3280	3410	4000
	0.50	1100	1680	1830	2300
	0.75	320	560	690	950
	1.00	110	220	320	490
Down	0.25	4000	4000	4000	4000
	0.375	4000	4000	4000	4000
	0.50	3350	4000	4000	4000
	0.75	1580	2300	2530	3270
	1.00	770	1100	1240	1680

Maximum Shut-Off Pressures for Non-Adjustable Actuators

Flow Direction	Trim Size (in.)	Signal to No. 35 Actuator[1]	
		Reverse Acting	Direct Acting[1]
Up	0.25	4000	4000
	0.375	2700	4000
	0.50	1800	2880
	0.75	600	1000
	1.00	120	500
Down	0.25	4000	4000
	0.375	4000	4000
	0.50	2500	2600
	0.75	1250	750
	1.00	720	400

1. Controller supply must have at least 5 psi beyond the signal pressure required.
2. 25 psi minimum supply required.

Maximum Shut-Off Pressures for Reverse Acting (Fail Open) Actuators

Flow Direction	Trim Size (in.)	Signal to No. 35 Actuator[1]	
		3-15 Spring	6-30 spring
Up	0.25	4000	4000
	0.375	2700	4000
	0.50	1370	2880
	0.75	410	1080
	1.00	140	520
Down	0.25	4000	4000
	0.375	4000	4000
	0.50	3800	4000
	0.75	1750	1940
	1.00	860	940

1. Controller supply must have at least 5 psi beyond the signal pressure required.

WEIGHTS

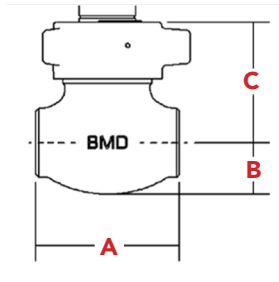
END CONNECTION	Valve Weights with No. 35 Actuator			
	1" Globe		1" Angle	
	lbs	kg	lbs	kg
NPT	24	10.8	24	10.8

END CONNECTION	Valve Weights with Non-Adjustable Actuator			
	1" Globe		1" Angle	
	lbs	kg	lbs	kg
NPT	23	10.4	22	9.9

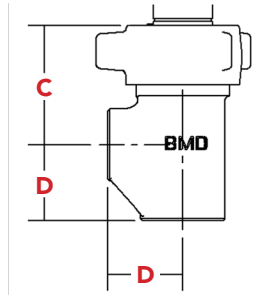
DIMENSIONS

END CONNECTION	Body Dimension (in.)				
	1" Globe Body			1"Angle Body	
	A	B	C	C	D
NPT	4.44	1.59	3.70	3.51	2.22

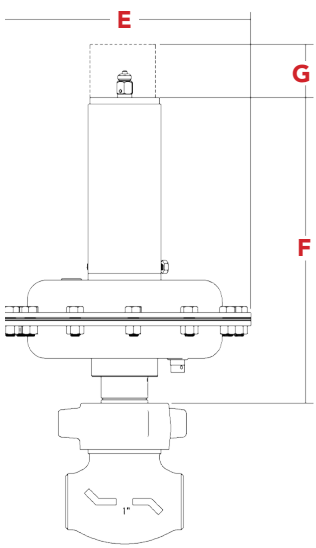
1" GLOBE



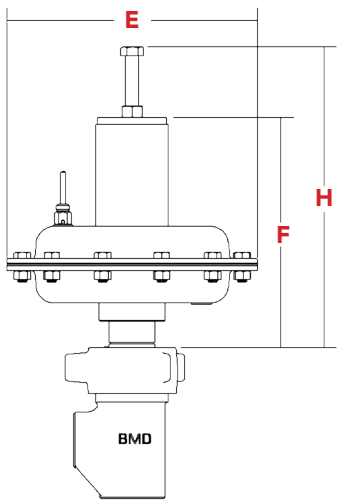
1" ANGLE



CV10S

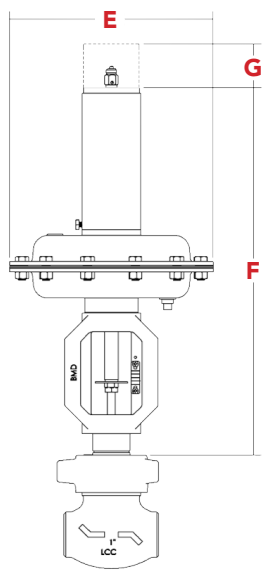


DIRECT

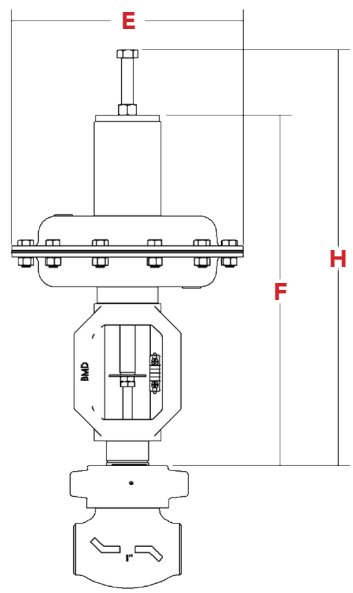


REVERSE

CV15S



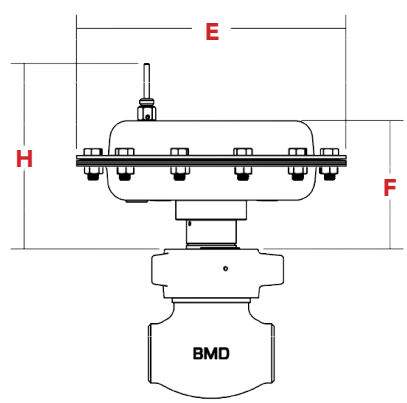
DIRECT



REVERSE

ACTUATOR SIZE	SPRING	CV10/CV15 Actuator Dimensions (in.)								
		Direct				Reverse				
		E	F (CV10)	F (CV15)	G	E	F (CV10)	F (CV15)	H (CV10)	H (CV15)
No. 35	3-15 Spring	9.50	11.51	17.14	5.50	9.50	8.76	14.39	10.91	16.54
No. 35	6-30 Spring	9.50	13.13	18.76	7.00	9.50	10.63	16.26	11.91	17.54
Non-Adjustable	--	9.50	4.55	10.18	-	9.50	4.55	10.18	7.30	12.90

NON-ADJUSTABLE REVERSE



HOW TO ORDER

EXAMPLE MODEL NO. ***CV10S-1N50R33-CB-2Q***

CV10 Series Dump Valve, 1" Globe Body, Threaded Ends, No. 35 Reverse Act, 3-15 Spring, Carbon Steel with Buna Seals, 0.25" Quick Open SST Trim

CV10S - 1 N 50 R 3 3 - C B - 2 Q

SERIES

STYLE
CV10S - Close Coupled
CV15S- Open Yoke

BODY SIZE
1 - 1" Globe
2 - 1" Angle

CONNECTION
N - NPT (female)

CLASS
50 - NPT (4000 psi)

ACTUATOR
D - Direct (Fail Open)
R - Reverse (Fail Close)

ACTUATOR SIZE
3 - #35 (9")

SPRING
3- 3-15 psi
6 -6-30 psi
0 - Non-adjustable

MATERIALS
C - Carbon Steel
L - Low Temp Carbon Steel
N - Carbon Steel NACE

SEALS
B - Buna
V - Viton®
L - Low Temp Buna

TRIM SIZE
2 - 0.25"
3 - 0.375" (3/8")
4 - 0.50"
6 - 0.75"
8 - 1.00"

TRIM TYPE
Q - Quick Open Stainless
R - Quick Open Tungsten Carbide
T - Throttling Stainless
U -Throttling Tungsten Carbid

Repair Kits Available

BEAUMONTMANUFACTURING.COM

PHONE: 409.225.5863
850 FANNIN STREET, BEAUMONT, TEXAS 77701

11/2026

Beaumont Manufacturing and Distribution Company