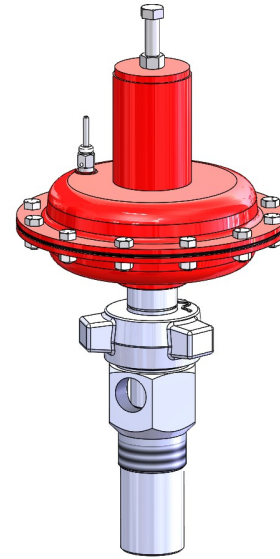


## CV20 Control Valve

The CV20 is a rugged, compact, freezeless dump valve. The body can be installed so that the valve cage and plug are submerged into the process media giving the valve its freezeless characteristic. Typical installations include separators, scrubbers, and other production vessels.

The CV20's hammer union makes maintenance easy by allowing the topworks to be removed without taking the valve out of line. This makes it easy to inspect and replace the valve trim.

Using the same trim set as the CV10 valve, the CV20 offers the versatility of multiple trim sizes and material options. A NACE option is also available for sour service.



## Specifications

### Connections:

1" Female NPT x 1" Female NPT,

2" Male NPT x 1" Female NPT

**Body Type:** Freezeless Angle Body Design

**Trim Characteristic:** Quick Open, Modified Percent (Throttling)

**Trim Size:** 0.25", 0.375" (3/8"), 0.50"

**Pressure Rating:** 1500 psi

**Temperature Range:** -20° F to 200° F (-29° C to 93° C)

**Shutoff:** ANSI Class IV

**Actuator Sizes:** No. 35 (35 in<sup>2</sup> area), No. 70 (70 in<sup>2</sup> area)

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

### Materials:

**Body:** A105 Steel

**Packing Plug:** A105 Steel, Nickel Plated

**Hammer Nut:** A105 Steel

**Trim:** 17/4 Stainless, Carbide (Optional)

**Stem:** 303 Stainless, 316 (Optional)

**Actuator Housing:** Carbon Steel

### Approximate Weight:

**With #35 Actuator:** 25 lbs.

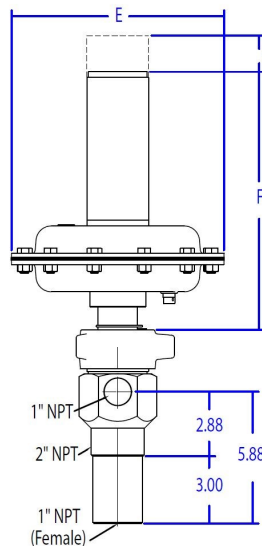
**With #70 Actuator:** 35 lbs.

## Cv Values

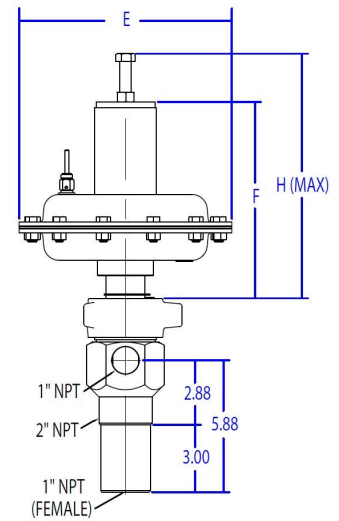
Cv Values at 100% Open		
Trim Size (in.)	Trim Type	
	Quick Open	Throttling
0.25	1.4	1.3
0.375	2.0	1.9
0.50	2.3	2.2

## Dimensions

### Direct Acting



### Reverse Acting



Actuator Assembly Dimensions (in.)						
Actuator Size	Direct Acting			Reverse Acting		
	E	F	G	E	F	H
No. 35, 3-15	9.50	11.51	5.50	9.50	8.76	10.91
No. 35, 6-30	9.50	13.13	7.00	9.50	10.63	11.91
No. 70, 3-15	12.50	13.10	7.00	12.50	10.63	13.24
No. 70, 6-30	12.50	16.42	10.00	12.50	12.38	15.00

# Shut-Off Pressures

## Maximum Shut-Off Pressures For Direct Acting (Fail Open) Actuators

Trim Size (in.)	Flow Direction	Signal to No. 35 Act. <sup>1</sup>		Signal to No. 70 Act. <sup>1</sup>		Flow Direction	Signal to No. 35 Act. <sup>1</sup>		Signal to No. 70 Act. <sup>1</sup>	
		3 -15 Spring	6 -30 Spring	3 -15 Spring	6 -30 Spring		3 -15 Spring	6 -30 Spring	3 -15 Spring	6 -30 Spring
0.25	Up	4000	4000	4000	4000	Down	4000	4000	4000	4000
0.375		2700	4000	4000	4000		4000	4000	4000	4000
0.50		1370	2880	2540	4000		3800	4000	4000	4000

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

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

Trim Size (in.)	Flow Direction	Signal to No. 35 Actuator				Signal to No. 70 Actuator			
		3 - 15 Spring		6 - 30 Spring		3 - 15 Spring		6 - 30 Spring	
		3-15 psig	0-20 psig	6 - 30 psig	0 - 35 psig	3 - 15 psig	0 - 20 psig	6 - 30 psig	0 - 35 psig
0.25	Up	3800	4000	4000	4000	4000	4000	4000	4000
0.375		2050	3280	3410	4000	3210	4000	4000	4000
0.50		1100	1680	1830	2300	1650	3190	4000	4000
0.25	Down	4000	4000	4000	4000	4000	4000	4000	4000
0.375		4000	4000	4000	4000	4000	4000	4000	4000
0.50		3350	4000	4000	4000	4000	4000	4000	4000

## How to Order

Example Model No. **CV20-R33-CB-2Q**

CV20 Series Dump Valve, No. 35 Reverse Act, 3-15 Spring, Carbon Steel with Buna Seals, 0.25" Quick Open SST Trim

<b>Actuator</b> D - Direct                      R - Reverse
<b>Actuator Size</b> 3 - #35 (9")                  7 - #70 (12")
<b>Spring</b> 3 - 3-15 psi                  6 - 6-30 psi
<b>Materials</b> C - Carbon Steel          N - Carbon Steel      T - Stainless Steel
<b>Seals</b> B - Buna                      V - Viton®
<b>Trim Size</b> 2 - 0.25"                  3 - 0.375" (3/8")      4 - 0.50"
<b>Trim Type</b> Q - Quick Open Stainless      T - Throttling Stainless R - Quick Open Tungsten Carbide      U - Throttling Tungsten Carbide

Repair Kits Available

**CV20- R 3 3 - C B - 2 Q**



Phone: 409-225-5863  
Fax: 409-242-1005  
1009 Laurel Street  
Beaumont, Texas 77701