

CV90 Control Valve

The CV90 is a rugged, compact, control valve featuring a 1" x 1/2", 1" x 3/4", or 2" x 1" body and field reversible actuator. Typical installations include separators, scrubbers, treaters, and other production vessels.

The CV90 makes maintenance easy by allowing the topworks to be removed without taking the valve out of line. Its hardened trim is available in a variety of sizes.

Specifications

Connection: 1" MNPT x 1/2" FNPT, 1" MNPT x 3/4" FNPT, 2" MNPT" x 1" FNPT

Trim Characteristic: Equal Percent, Linear, Quick Open

Trim Size: 0.125" (1/8), 0.188" (3/16), 0.25", 0.375" (3/8), 0.50"

Stem Travel: 0.50"

Pressure Rating: 4000 psi

Temperature Range: -20° F to 400° F (-29° C to 204° C)

Shutoff: ANSI Class IV

Actuator Size: No. 30 (30 in² area)

Input Signal: 10 psi, 20 psi

Materials:

Body: A105 Steel

Packing Plug: A105 Steel Zinc Plated

Trim:

Standard: 440C Stainless / D2 Tool Steel Seat

Corrosive: 316 Stainless / 304 Stainless Seat

Erosive: Carbide/Carbide Seat

Stem: 304 Stainless

Actuator Housing: Ductile Iron

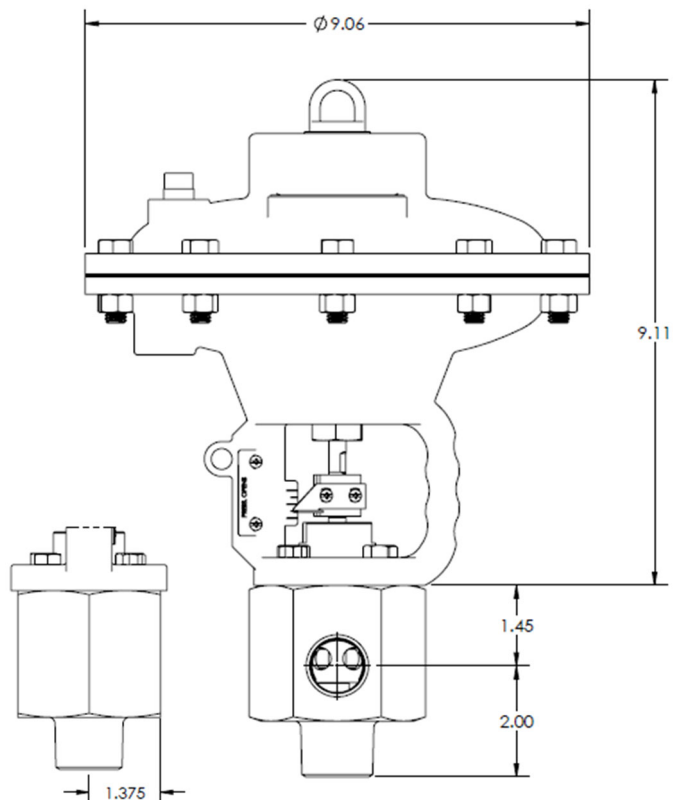
Approximate Weight: 27 lbs.

Cv Values

Cv Values at 100% open		
Trim Type	Trim size	Cv
Linear	0.125	1.1
	0.188	1.5
	0.25	2.17
	0.375	3.2
	0.50	5.7
Equal Percent	0.125	0.34
	0.25	1.99
	0.50	6.49
Quick Open	0.188	0.92
	0.25	1.74
	0.375	3.86
	0.50	5.93



Dimensions



Shut-Off Pressures

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

Trim Size (in.)	Flowing Down				Flowing Down			
	20 psi spring				10 psi spring			
	15 psi	20 psi	25 psi	30 psi	10 psi	15 psi	20 psi	25 psi
0.125	4000	4000	4000	4000	4000	4000	4000	4000
0.188	4000	4000	4000	4000	4000	4000	4000	4000
0.25	4000	4000	4000	4000	4000	4000	4000	4000
0.375	2983	4000	4000	4000	2804	4000	4000	4000
0.5	1549	2656	3763	4000	1456	2563	3671	4000

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

Trim Size (in.)	Flowing Down	
	20 psi spring	10 psi spring
0.125	4000	4000
0.188	4000	4000
0.25	4000	4000
0.375	4000	3425
0.5	4161	1779

How to Order

Example Model No. **CV90-2R1-CB-21L**

CV90 Series Control Valve, 1" MNPT x 3/4" FNPT, Reverse acting, 10 psi spring, Carbon Steel with Buna Seals, 0.125" Trim, Standard Service, with Linear Trim

Body		
1 - 1" MNPT x 1/2" FNPT	2 - 1" MNPT x 3/4" FNPT	3 - 2" MNPT" x 1" FNPT
Actuator		
D - Direct (Fail Open)	R - Reverse (Fail Close)	
Spring		
1 - 10 psi	2 - 20 psi	
Materials		
C - Carbon Steel	N - Carbon Steel NACE	
Seals		
B - Buna	V - Viton®	
Trim Size*		
2 - 0.125"	3 - 0.188"	4 - 0.25"
6 - 0.375"	8 - 0.50"	
Service		
1 - Standard Service	2 - Corrosive Service	3 - Erosive Service
Trim Type		
L - Linear	E - Equal Percent	Q - Quick Open

*See Cv Values Chart for trim size/type combinations

Repair Kits Available

CV90 - 2 R 1- C B - 2 1 L

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