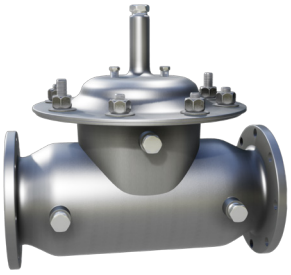
LEAD FREE*

Reduced Port Stainless Steel Dual Chamber Basic Valve

This Ames ACV is a reduced port, dual chamber basic valve that incorporates a one-piece disc and diaphragm assembly. This assembly is the only moving part within the valve, allowing it to open or close as commanded by the pilot control system. When pressure is applied to the upper diaphragm chamber and released from the lower diaphragm chamber, the valve travels to a closed position. When pressure is applied to the lower diaphragm chamber and released from the upper diaphragm chamber the valve travels to a full open position. When pressure is balanced between the upper and lower diaphragm chambers, the valve will hold an intermediate position until commanded to modulate open or closed by the pilot control system.

The Stainless Steel design offers superior corrosion resistance, as well as a lightweight alternative to conventional heavy iron valves. Stainless Steel construction reduces corrosion, reducing diaphragm wear and the frequency and labor costs associated with traditional maintenance repairs.

Ames ACV Main Valves are Lead Free. The Ames ACV piloting system contains Lead Free* components, ensuring all of our configurations are Lead Free compliant.



Flanged Globe

Flanged Angle

Globe Pattern Dual Chamber Basic Valve (600GS)

Angle Pattern Dual Chamber Basic Valve (600AS)

Standard Materials

Body, Cover & Flanges:	304L Stainless Steel (standard) 316L Stainless Steel (optional)
Trim:	316 Stainless Steel
Elastomers:	Buna-N (standard) EPDM (optional) Viton® (optional)
Nut & Spring, Stem:	Stainless Steel
Anti-Scale (Optional):	Xylan Coated Stem and Seat

NSF Certified to NSF/ANSI 61-G

***The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.**

Viton® is a registered trademark of DuPont Dow Elastomers.

Operating Pressure

150# Flanged = 250psi (17.2 bar)

300# Flanged = 400psi (27.6 bar)

Operating Temperature

Buna-N: 160°F (71°C) Maximum

EPDM: 300°F (140°C) Maximum

Viton®: 250°F (121°C) Maximum

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

AMES FIRE & WATERWORKS

A WATTS Brand

Reduced Port Stainless Steel Dual Chamber Basic Valve

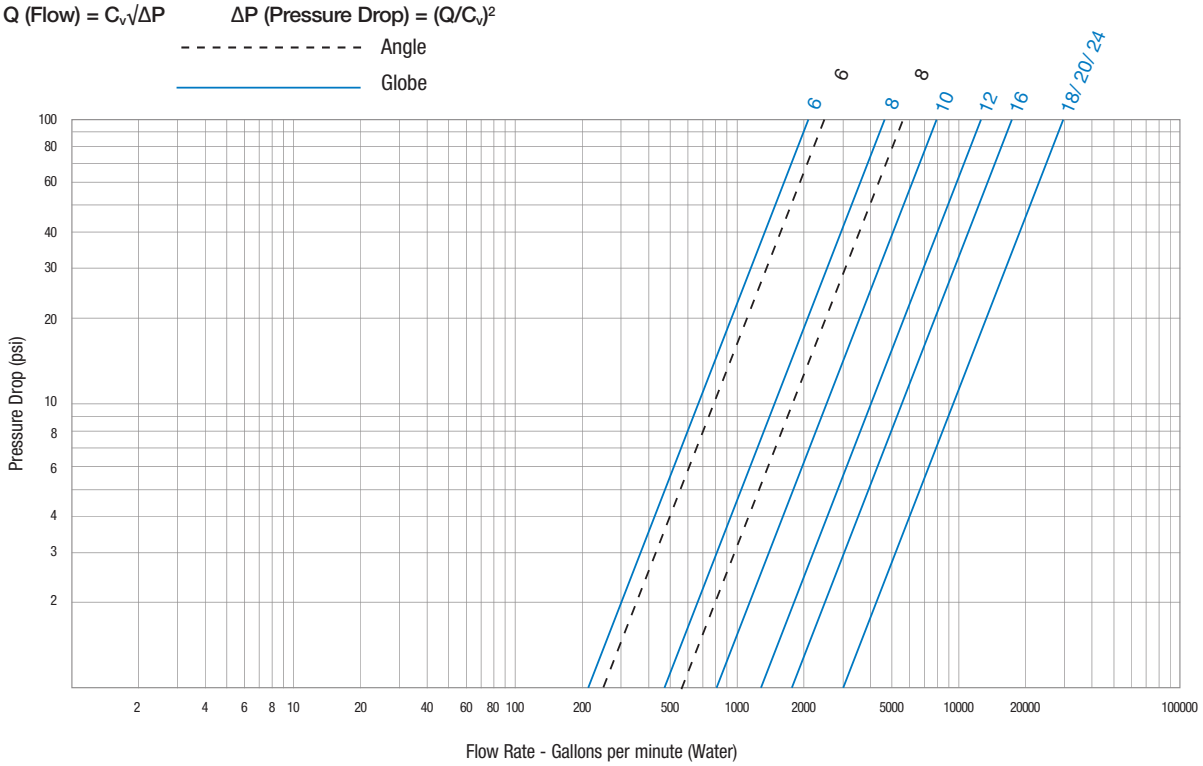
Flow Data

	Valve Size - Inches	6	8	10	12	16	18	20	24
Suggested	Maximum Continuous Flow Rate Gpm (Water)	800	1850	3100	5000	7000	11100	11100	11100
	Maximum Intermittent Flow Rate Gpm (Water)	1000	2300	4000	6250	8900	14100	14100	14100
	Minimum Flow Rate Gpm (Water)	16	17	25	55	70	400	400	400
Cv	Factor GPM (Globe)	224	376	932	1043	2067	2881	2881	2881
	Factor GPM (Angle)	237	534						

- Maximum continuous flow based on velocity of 20 ft. per second.
- Maximum intermittent flow based on velocity of 25 ft. per second.
- Minimum flow rates based on a 20-40 psi pressure drop.
- The C_v Factor of a value is the flow rate in US GPM at 60°F that will cause a 1psi drop in pressure.
- C_v factor can be used in the following equations to determine Flow (Q) and Pressure Drop (ΔP):

Q (Flow) = $C_v\sqrt{\Delta P}$ **ΔP (Pressure Drop) = $(Q/C_v)^2$**

- The C_v factors stated are based upon a fully open valve.
- Many factors should be considered in sizing control valves including inlet pressure, outlet pressure and flow rates.
- For sizing questions including cavitation analysis consult Watts with system details.



Valve Cover Chamber Capacity

Valve Size (in)	6	8	10	12	16	18	20	24
fl.oz.	22	70						
U.S. Gal			1¼	2½	4	9½	9½	9½

Valve Travel

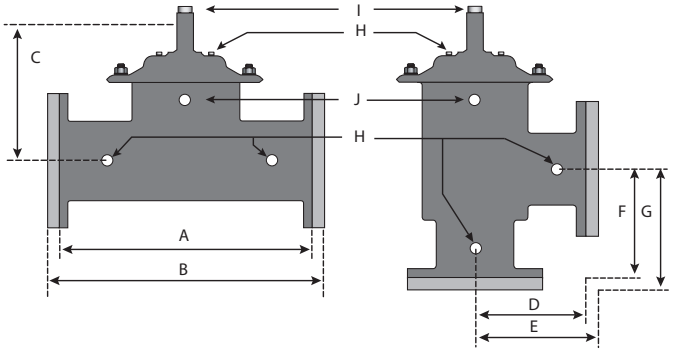
Valve Size (in)	6	8	10	12	16	18	20	24
(in)	1	1½	2	2½	3	4	4	4

NOTICE

Installation: If unit is installed in any orientation other than horizontal (cover up) OR extreme space constraints exist, consult customer service prior to or at the time of order.

Reduced Port Stainless Steel Dual Chamber Basic Valve

Dimensions



Valve Size	Globe 150#		Globe 300#		Cover To Center		Angle 150#		Angle 300#		Angle 150#		Angle 300#		Port Size NPT	Port Size NPT	Port Size NPT	Shipping Weights*	
	A		B		C		D		E		F		G		H	I	J		
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*in.*	*in.*	*lbs.*	*kgs.*
6	17¾	451	18⅝	473	15¼	387	8⅞	225	9⅜	238	6¾	171	7¼	184	½	¾	½	130	59
8	21⅜	543	22⅜	568	20⅛	511	10 11/16	271	11 3/16	284	7¼	184	7¾	197	½	¾	½	210	95
10	26	660	27⅜	695	23 11/16	602									1	1	½	363	165
12	30	762	31½	800	26¼	667									1	1¼	½	528	240
16	35	889	36⅝	930	34⅛	867									1	1½	1	826	375
18	48	1219	49⅝	1260	41	1041									1	1½	1	1365	619
20	48	1219	49⅝	1260	41	1041									1	1½	1	1390	630
24	48	1219	49¾	1264	41	1041									1	1½	1	1485	674

AMES FIRE & WATERWORKS

A WATTS Brand

USA: Backflow T: (978) 689-6066 • F: (978) 794-1848 • AmesFireWater.com
USA: Control Valves T: (713) 943-0688 • F: (713) 944-9445 • AmesFireWater.com
Canada: T: (905) 332-4090 • F: (905) 332-7068 • AmesFireWater.ca
Latin America: T: (52) 81-1001-8600 • AmesFireWater.com