LEAD FREE*

Full Port Stainless Steel Single Chamber Basic Valve

This Ames ACV is a full port, single chamber basic valve incorporates a one-piece disc and diaphragm assembly. This assembly is the only moving part within the valve allowing it to open, close, or modulate as commanded by the pilot control system.

The Stainless Steel design offers superior corrosion resistance. The large fabricated valves provide a lightweight alternative to ductile iron. Stainless Steel construction reduces corrosion, reducing diaphragm wear and the frequency and labor costs associated with traditional maintenance repairs.

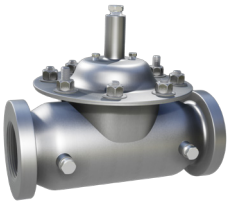
Ames ACV Main Valves are Lead Free. The Ames ACV piloting system contains Lead Free* components, ensuring all of our configurations are Lead Free compliant.

Globe Pattern Single Chamber Basic Valve (905GS)

Angle Pattern Single Chamber Basic Valve (905AS)

Flanged Globe

Flanged Angle



Threaded Globe

Threaded Angle

Standard Materials

Body, Cover & Flanges:	1¼" - 4" Cast CF8M (316 Stainless Steel) 4" - 24" Fabricated 304L Stainless Steel 316L Stainless Steel (optional)
Trim:	316L 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 (27.5 bar)

Threaded = 400psi (27.5 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.

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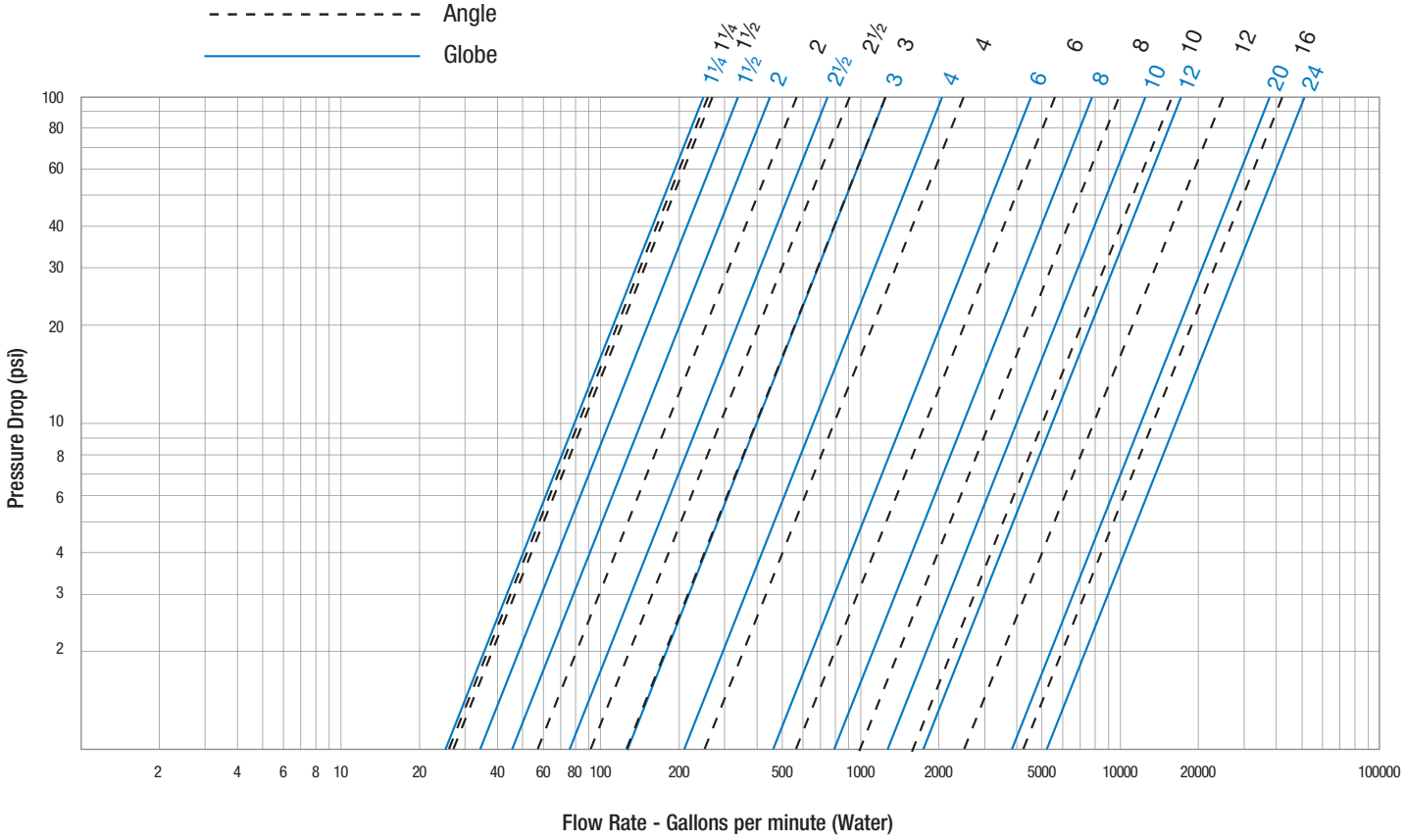
Flow Data

	Valve Size - Inches	1¼	1½	2	2½	3	4	6	8	10	12	16	20	24
Suggested	Maximum Continuous Flow Rate Gpm (Water)	95	130	210	300	485	800	1850	3100	5000	7000	11100	17322	25071
Suggested	Maximum Intermittent Flow Rate Gpm (Water)	119	161	265	390	590	1000	2300	4000	6250	8900	14100	21652	31339
Suggested	Minimum Flow Rate Gpm (Water)	3	5	6	9	15	16	17	25	55	70	400	500	650
C_v	CV Factor GPM (Globe)	26	27	49	75	112	161	342	591	1060	1404	2581	3900	5100
C_v	CV Factor GPM (Angle)	26	27	57	91	125	177	561	860	1590	1645	4200		

- 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):

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

- 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 - Inches	1¼	1½	2	2½	3	4	6	8	10	12	16	20	24
fl.oz.	4	4	4	10	10	22	70						
U.S. Gal								1¼	2½	4	9½	18	31

Valve Travel

Valve Size - Inches	1¼	1½	2	2½	3	6	8	10	12	16	20	24
Travel - Inches	⅜	⅜	½	⅝	¾	1½	2	2½	4	4	5	6

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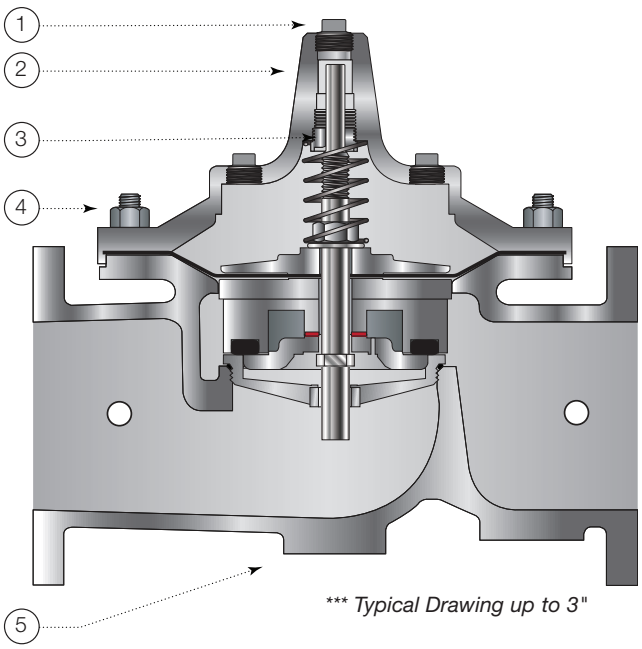
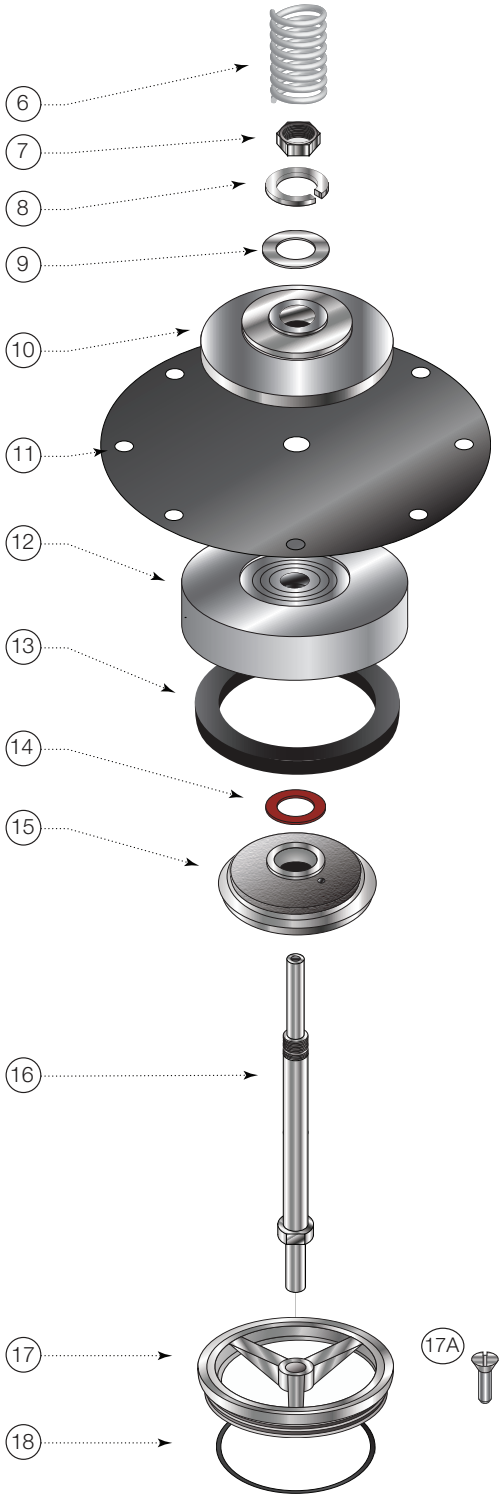


*** Typical Drawing up to 3"*

ITEM	DESCRIPTION	MATERIAL
1	Pipe Plug	Stainless Steel S30400
2	Cover	Cast ASTM A351 CF8M (316) Stainless Steel (4" and Smaller)
		Fabricated S304L (4" and Larger)
3	Cover Bearing	ASTM A276 304 Stainless Steel
4	Stud with Cover Nut and Washer	S31600 (B8M)
5	Body	Cast ASTM A351 CF8M (316) Stainless Steel (4" and Smaller)
		Fabricated S304L (4" and Larger)
6	Spring	ASTM A276 302 Stainless Steel
7	Stem Nut	ASTM A276 304 Stainless Steel
8	Lock Washer	ASTM A276 304 Stainless Steel
9	Stem Washer	ASTM A276 304 Stainless Steel
10	Diaphragm Washer	ASTM A743 CF8M (316) Stainless Steel
11	Diaphragm*	Buna-N (Nitrile)
12	Disc Retainer	ASTM A743 CF8M (316) Stainless Steel
13	Seat Disc*	Buna-N (Nitrile)
14	Spacer Washer* x5	NY300 Fiber*
15	Disc Guide	ASTM A743 CF8M (316) Stainless Steel
16	Shaft	ASTM A276 304 Stainless Steel
17	Seat Ring**	ASTM A743 CF8M (316) Stainless Steel
17A	Seat Screw** (8" and Larger)	ASTM A276 304 Stainless Steel
18	Seat Gasket*	Buna-N (Nitrile)

** Contained in Main Valve Repair Kit*
***Note: 6 inch and smaller valves, Seat Ring is threaded*
**** Consult Factory for 4" and Larger Drawings*



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.

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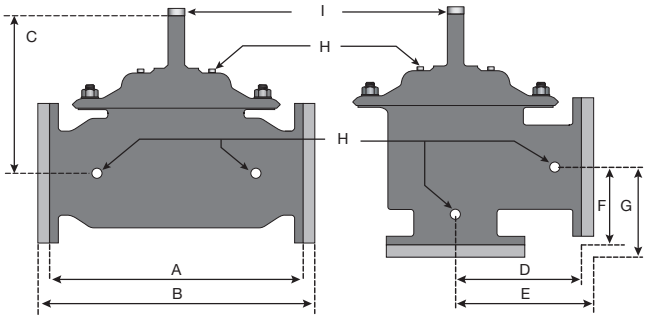
Dimensions



Valve Size	Globe Thread		Globe 150#		Globe 300#		Cover To Center		Angle Thread		Angle 150#		Angle 300#		Angle Thread		Angle 150#		Angle 300#		Port Size NPT	Port Size NPT	Shipping Weights*	
	A		B		C		D		E		F		G		H		I		J		K	L		
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*in.*	*lbs.*	*kgs.*
1¼	7¼	184					5½	140	3¼	83					1⅞	48					⅜	¼	20	9
1½	7¼	184	8½	216			5½	140	3¼	83	4	102			1⅞	48	4	102			⅜	¼	25	11
2	9⅜	238	9⅜	238			6½	165	4¾	102	4¾	121			3¼	83	3¼	83			⅜	½	40	18
2½	11	279	11	279			7½	191	5½	140	5½	140			4	102	4	102			½	½	65	29
3	12½	318	12	305			8¼	210	6¼	159	6	152			4½	114	4	102			½	½	95	43
4			15	381	15⅝	397	10⅝	270			7½	191	7⅞	200			5	127	5 5/16	135	½	¾	77	35
6			20	508	21	533	13⅜	340			10	254	10½	267			6	152	6½	165	½	¾	168	76
8			25⅜	645	26⅜	670	16	406			12¾	324	13¼	337			8	203	8½	216	1	1	225	102
10			29¾	756	31⅛	791	17⅛	435			14⅞	378	15 9/16	395			8⅝	219	9 5/16	237	1	1¼	376	171
12			34	864	35½	902	20⅞	530			17	432	17 ¾	451			13¾	349	14½	368	1	1¼	450	204
16			41⅜	1051	43½	1105	25	635			20 13/16	529	21⅝	549			15 11/16	398	16½	419	1	1½	850	386
20			52	1321	53⅝	1362	37⅛	943													1	1½	4390	1993
24			61½	1562	63¼	1607	42⅜	1076													1	1½	5840	2651

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USA: Control Valves T: (713) 943-0688 • F: (713) 944-9445 • AmesFireWater.com
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