Standard Materials

Body & Cover:	Ductile Iron ASTM A536
Coating:	NSF Listed Fusion Bonded Epoxy Lined and Coated
Trim:	316 Stainless Steel
Elastomers:	Buna-N (standard) EPDM Viton
Stem, Nut & Spring:	Stainless Steel
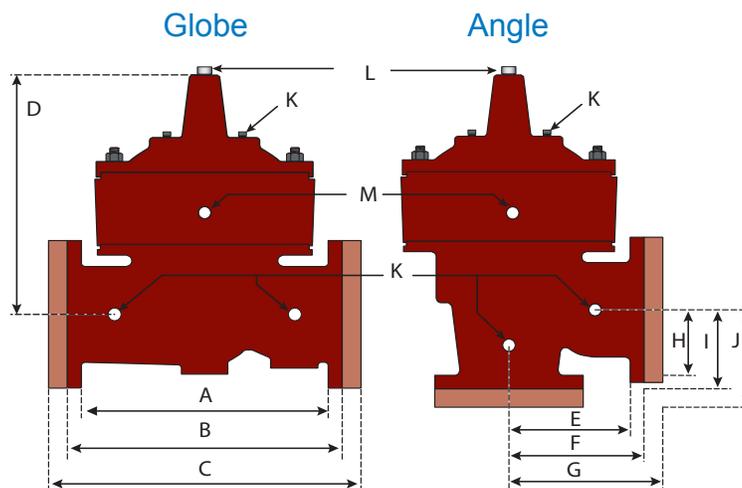
Globe   Angle

Dimensions

VALVE SIZE	A GLOBE THRD.	B GLOBE 150#	C GLOBE 300#	D COVER TO CENTER	E ANGLE THRD.	F ANGLE 150#	G ANGLE 300#	H ANGLE THRD.	I ANGLE 150#	J ANGLE 300#	K PORT SIZE	L PORT SIZE	M PORT SIZE	SHIPPING WEIGHTS*
2	9-3/8	9-3/8	10	8-9/16	4-3/4	4-3/4	5	3-1/4	3-1/4	3-1/2	3/8	1/2	1/4	45
2-1/2	11	11	11-5/8	10-5/16	5-1/2	5-1/2	5-7/8	4	4	4-5/16	1/2	1/2	1/2	70
3	12-1/2	12	13-1/4	11-3/16	6-1/4	6	6-3/8	4-1/2	4	4-3/8	1/2	1/2	1/2	100
4		15	15-5/8	14-1/4		7-1/2	7-7/8		5	5-5/16	3/4	3/4	1/2	200
6		20	21	18-7/16		10	10-1/2		6	6-1/2	3/4	3/4	3/4	340
8		25-3/8	26-3/8	21-13/16		12-3/4	13-1/4		8	8-1/2	1	1	1	665
10		29-3/4	31-1/8	23-3/8		14-7/8	15-9/16		8-5/8	9-5/16	1	1	1	980
12		34	35-1/2	29-5/16		17	17-3/4		13-3/4	14-1/2	1	1-1/4	1	1720
14		39	40-1/2	32-1/8		19-1/2	20-1/4		14-7/8	15-5/8	1	1-1/2	1	2600
16		41-3/8	43-1/2	35		20-13/16	21-5/8		15-11/16	16-1/2	1	2	1	3300

*Estimated in lbs.

Description

The AMES Models 900GD and 900AD are full port, dual chamber basic valves that incorporate 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.

Model 900GD: Globe Pattern Dual Chamber Basic Valve
Model 900AD: Angle Pattern Dual Chamber Basic Valve

Operating Pressure
Threaded = 400 psi / 150 Flanged = 250 psi / 300 Flanged = 400 psi

Operating Temperature
Buna-N: 160°F Maximum
EPDM: 300°F Maximum
Viton: 250°F Maximum

Flow Data - 900GD (Globe) / 900AD (Angle)

Valve Size - Inches	2	2-1/2	3	4	6	8	10	12	14	16
Maximum Continuous Flow Rate Gpm (Water)	210	300	485	800	1850	3100	5000	7000	8500	11100
Maximum Intermittent Flow Rate Gpm (Water)	265	390	590	1000	2300	4000	6250	8900	10800	14100
C_v Factor GPM (Globe)	45	75	100	175	490	770	1200	1750	2125	2890
C_v Factor GPM (Angle)	57	91	125	215	571	990	1530	2525	2885	3575

Estimated

Maximum continuous flow based on velocity of 20 ft. per second.
Maximum intermittent flow based on velocity of 25 ft. per second.
The C_v Factor of a value is the flow rate in US GPM at 60° F that will cause a 1 psi drop in pressure.
The factors stated are based upon a fully open valve.
Cv factor can be used in the following equations to determine Flow (Q) and Pressure Drop (Δ P):

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

Headloss
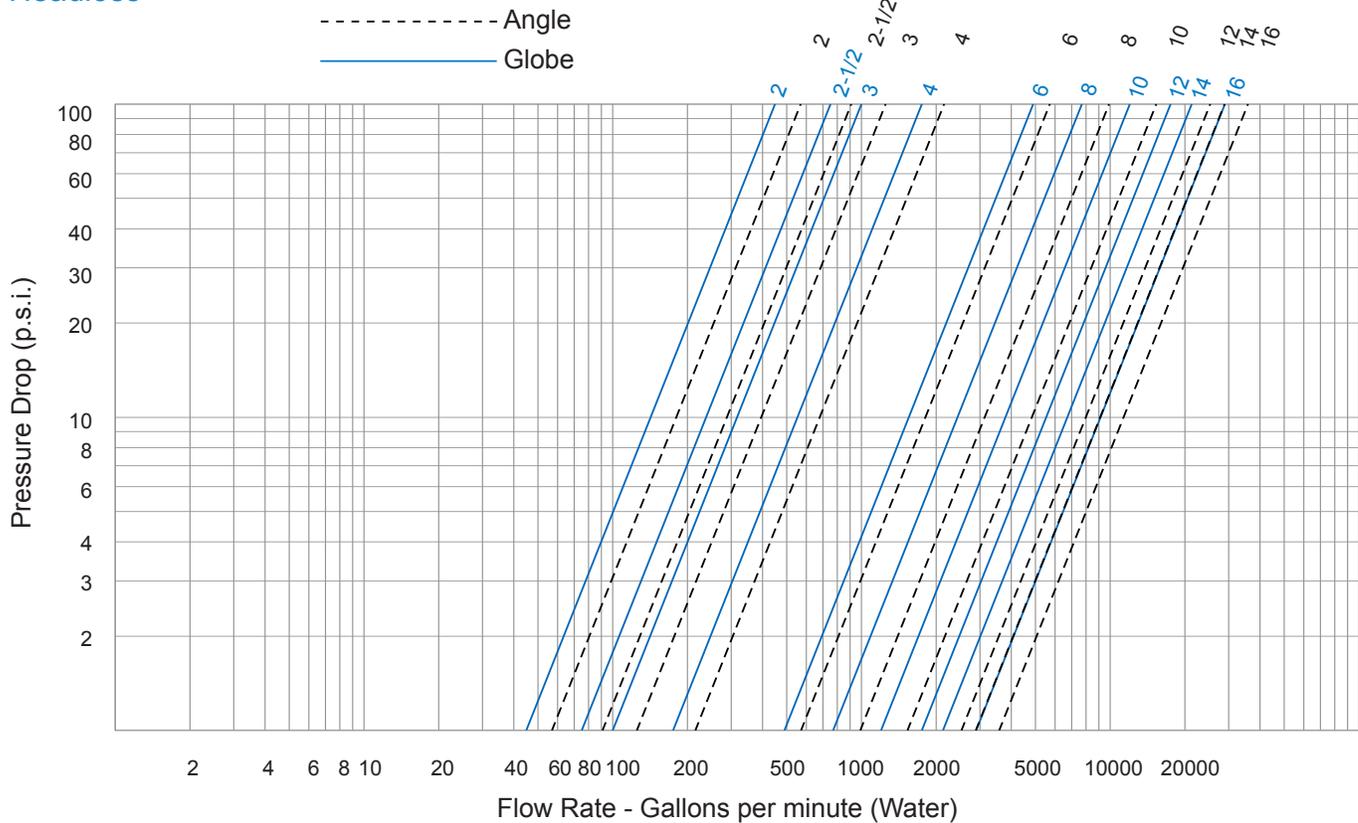
Valve Cover Chamber Capacity

Valve Size (in)	2	2-1/2	3	4	6	8	10	12	14	16
fl.oz.	4	10	10	22	70					
U.S. Gal						1-1/4	2-1/2	4	6-1/2	9-1/2

Valve Travel

Valve Size (in)	2	2-1/2	3	4	6	8	10	12	14	16
Travel (in)	1/2	5/8	3/4	1	1-1/2	2	2-1/2	3	3-1/2	4