

S Series Basic Valves

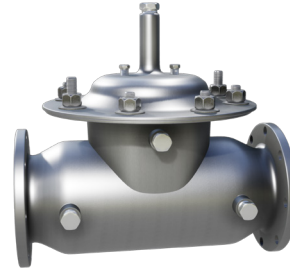
LEAD FREE*

Reduced Port Stainless Steel Dual Chamber Basic Valve

This Watts 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.

Watts ACV Main Valves are Lead Free. The Watts 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 (S6500)

Angle Pattern Dual Chamber Basic Valve (S61500)

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



Certified to
NSF/ANSI 61-G

Anti-Scale (Optional): Xylan Coated Stem and Seat

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

***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.

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.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

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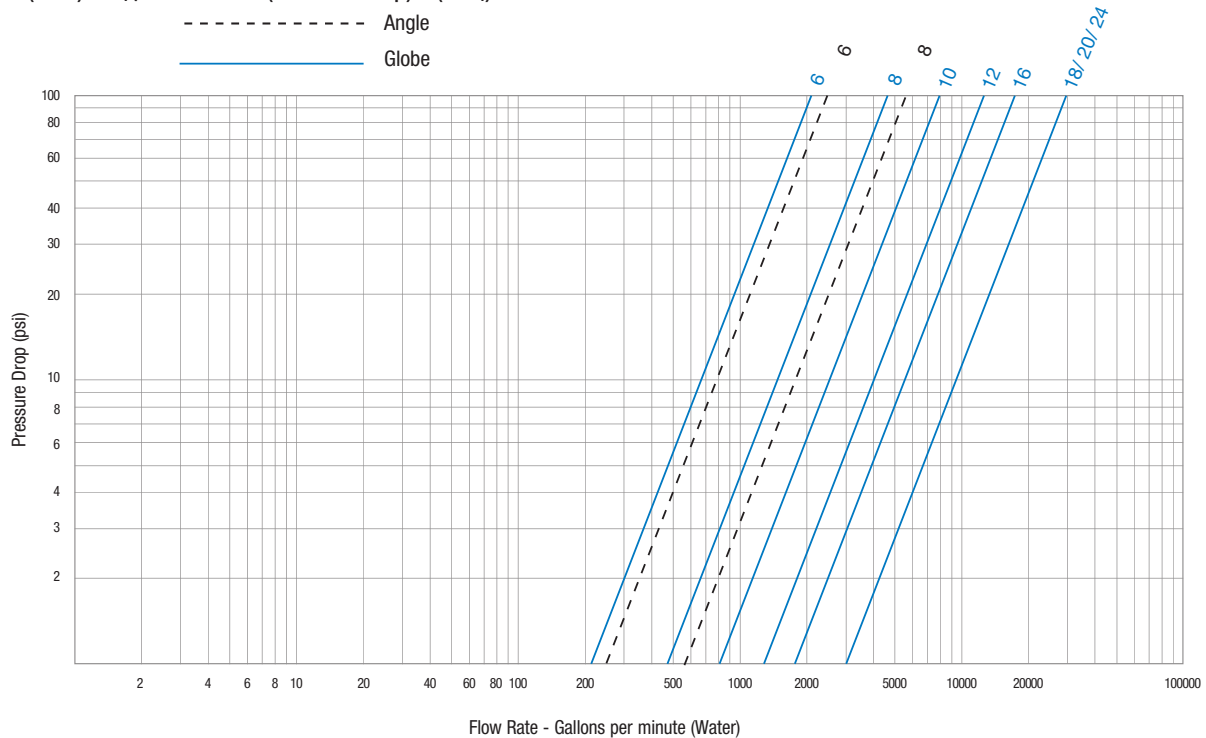
Flow Data

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
C _v	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 valve 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):

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

----- Angle
 _____ Globe



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

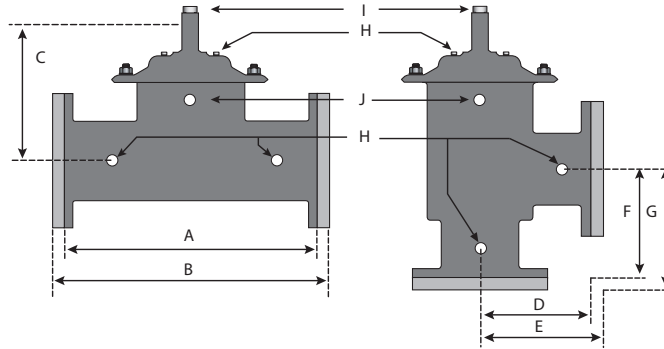
Valve Size (in)	6	8	10	12	16	18	20	24
(in)	1	1½	2	2½	3	4	4	4

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									
<i>in.</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>in.</i>	<i>in.</i>	<i>lbs.</i>	<i>kgs.</i>
6	17 ³ / ₄	451	18 ⁵ / ₈	473	15 ¹ / ₄	387	8 ⁷ / ₈	225	9 ³ / ₈	238	6 ³ / ₄	171	7 ¹ / ₄	184	1/2	3/4	1/2	130	59
8	21 ³ / ₈	543	22 ³ / ₈	568	20 ¹ / ₈	511	10 ¹¹ / ₁₆	271	11 ³ / ₁₆	284	7 ¹ / ₄	184	7 ³ / ₄	197	1/2	3/4	1/2	210	95
10	26	660	27 ³ / ₈	695	23 ¹¹ / ₁₆	602									1	1	1/2	363	165
12	30	762	31 ¹ / ₂	800	26 ¹ / ₄	667									1	1 ¹ / ₄	1/2	528	240
16	35	889	36 ³ / ₈	930	34 ¹ / ₈	867									1	1 ¹ / ₂	1	826	375
18	48	1219	49 ⁵ / ₈	1260	41	1041									1	1 ¹ / ₂	1	1365	619
20	48	1219	49 ⁵ / ₈	1260	41	1041									1	1 ¹ / ₂	1	1390	630
24	48	1219	49 ³ / ₄	1264	41	1041									1	1 ¹ / ₂	1	1485	674



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