LEAD FREE*

Reduced Port Stainless Steel Single Chamber Basic Valve

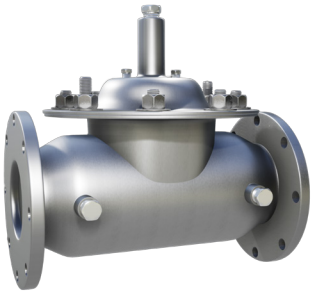
This Watts ACV is a reduced port, single chamber basic valve that incorporates a one-piece disc and diaphragm assembly. This assembly is the only moving part within the valve allowing it to open, close, or modulate as commanded by the pilot control system. The reduced port design offers improved low-flow performance as compared to a full port valve in the same service.

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.

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.

Globe Pattern Single Chamber Basic Valve (S6100)

Angle Pattern Single Chamber Basic Valve (S61100)



Flanged Globe

Flanged Angle

Standard Materials

Body, Cover & Flanges:	3" - 4"	Cast CF8M (316 Stainless Steel)
	6" - 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)

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.

WATTS®

Reduced Port Stainless Steel Single Chamber Basic Valve

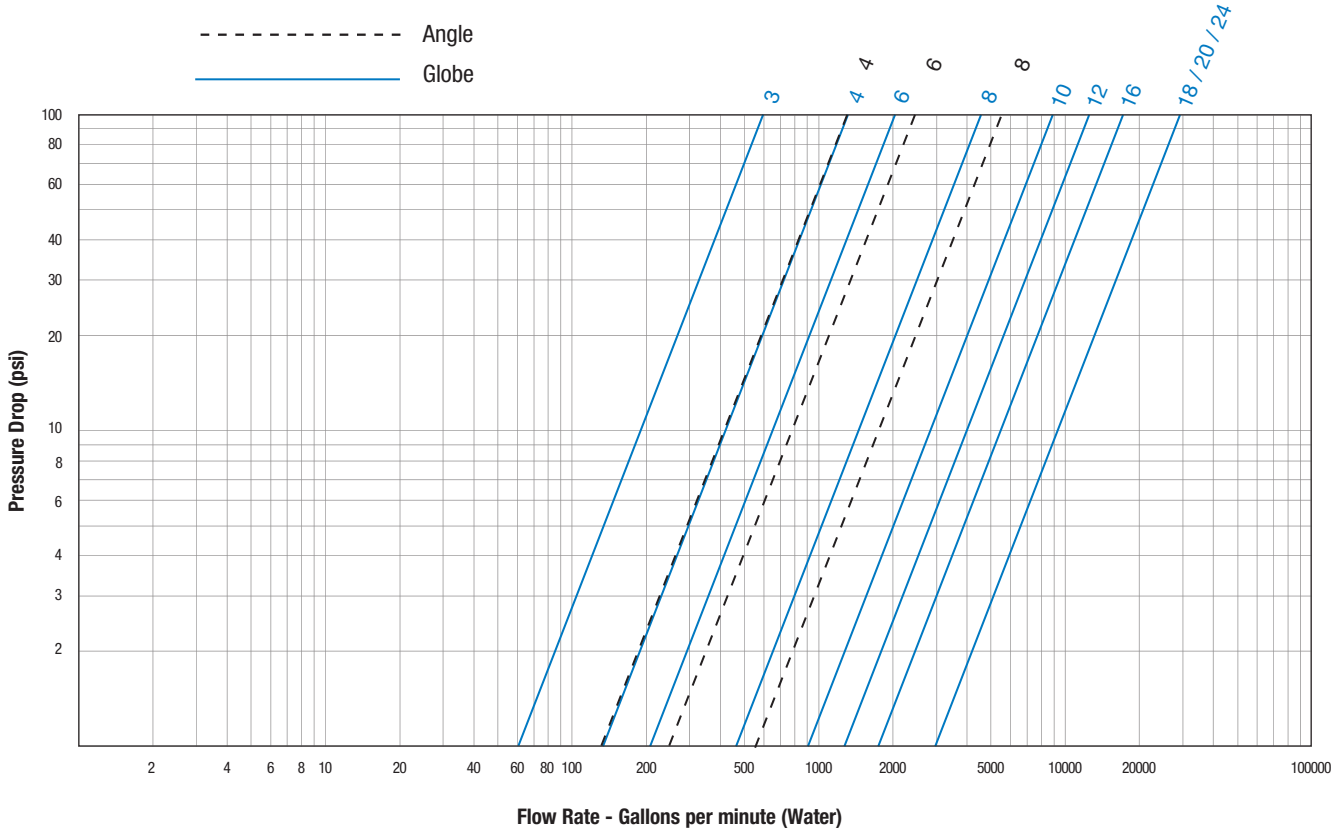
Flow Data

	Valve Size - Inches	3	4	6	8	10	12	16	18	20	24
Suggested	Maximum Continuous Flow Rate Gpm (Water)	210	485	800	1850	3100	5000	7000	11100	11100	11100
	Maximum Intermittent Flow Rate Gpm (Water)	265	590	1000	2300	4000	6250	8900	14100	14100	14100
	Minimum Flow Rate Gpm (Water)	6	15	16	17	25	55	70	400	400	400
C_v	Factor GPM (Globe)	60	133	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

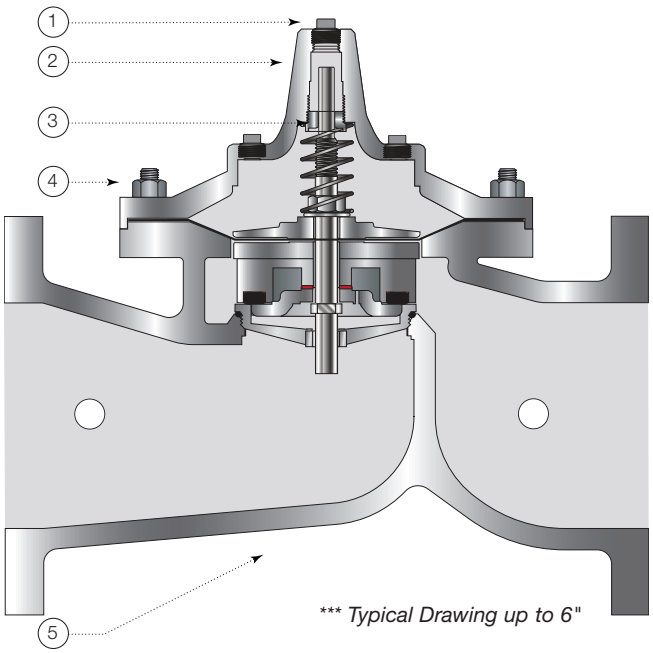
Valve Size (in)	3	4	6	8	10	12	16	18	20	24
fl.oz.	4	10	22	70						
U.S. Gal					1¼	2½	4	9½	9½	9½

Valve Travel

Valve Size (in)	3	4	6	8	10	12	16	18	20	24
(in)	½	¾	1	1½	2	2½	3	4	4	4

Reduced Port Stainless Steel Single Chamber Basic Valve

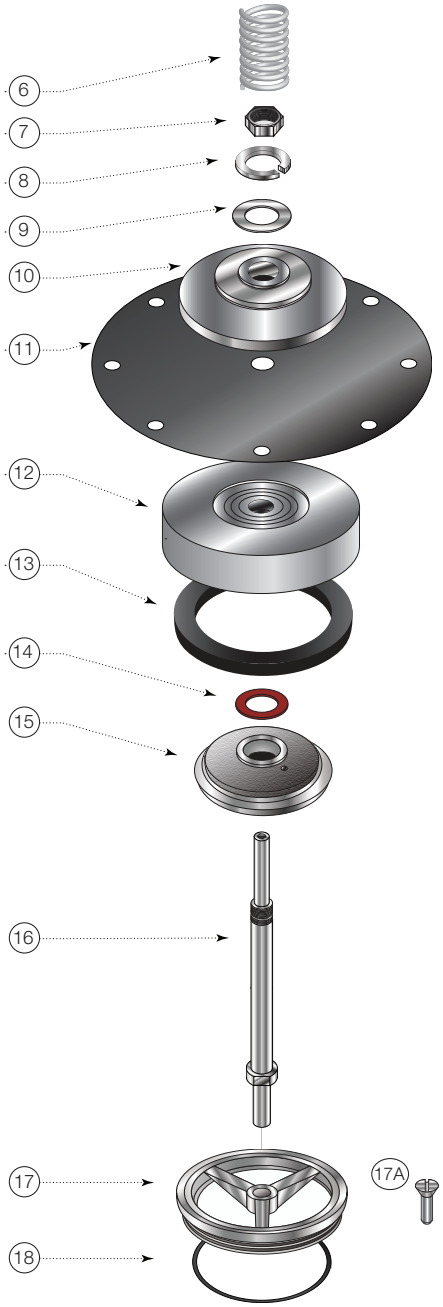
LEAD FREE*



*** Typical Drawing up to 6"

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** (10" and Larger)	ASTM A276 304 Stainless Steel
18	Seat Gasket*	Buna-N (Nitrile)

** Contained in Main Valve Repair Kit*
***Note: 8 inch and smaller valves, Seat Ring is threaded*
**** Consult Factory for 6" and Larger Drawings*

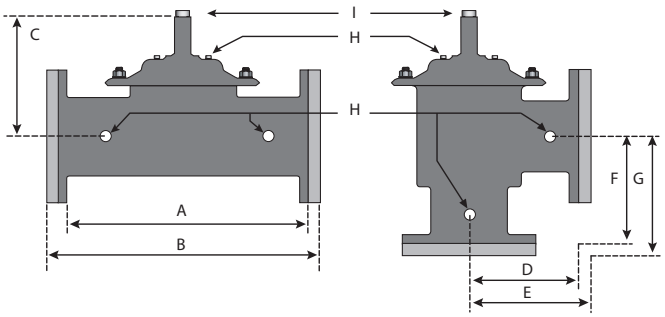


NOTICE

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.

Reduced Port Stainless Steel Single 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	Shipping Weights*	
	A		B		C		D		E		F		G		H	I		
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*in.*	*lbs.*	*kgs.*
3	10¼	260			7	178									⅜	½	21	10
4	13⅞	352			8⅝	219									½	½	39	18
6	17¾	451	18⅝	473	11⅝	295	8⅞	225	9⅜	238	6¾	171	7¼	184	½	¾	77	35
8	21⅜	543	22⅜	568	15	381	10 11⁄16	271	11 3⁄16	284	7¼	184	7¾	197	½	¾	168	76
10	26	660	27⅜	695	17⅞	454									1	1	225	102
12	30	762	31½	800	21	533									1	1¼	376	171
16	35	889	36⅝	930	25¾	654									1	1½	450	204
18	48	1219	49⅝	1260	31	787									1	1½	850	386
20	48	1219	49⅝	1260	31	787									1	1½	860	390
24	48	1219	49¾	1264	31	787									1	1½	870	395

USA: T: (978) 689-6066 • F: (978) 794-1848 • Watts.com
Canada: T: (905) 332-4090 • F: (905) 332-7068 • Watts.ca
Latin America: T: (52) 81-1001-8600 • Watts.com