

Mustang Series Basic Valves

LEAD FREE*

M6518 / M61518

Reduced Port Ductile Iron Dual Chamber Basic Valve with Mechanical Check Feature

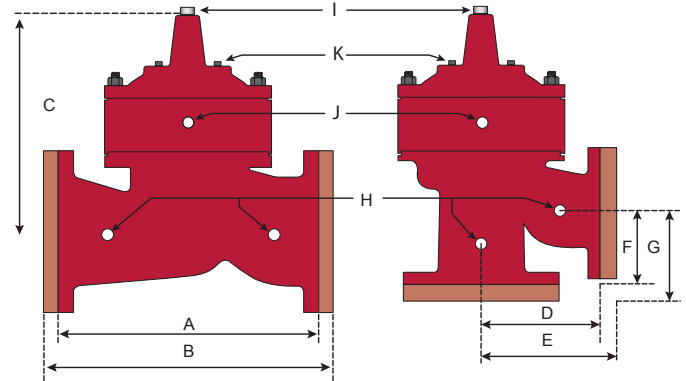
The Watts ACV Models M6518 and M16518 are reduced port, dual chamber basic valves that incorporate a two-piece telescoping disc and diaphragm assembly. This assembly is the only moving part within the valve, allowing it to open or close as commanded by the pilot control system. The lower portion of this two-piece assembly is a mechanical check feature, which acts independent of diaphragm position or pilot control system, and provides immediate check action when flow ceases.

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.

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.

M6518 (Globe)

M61518 (Angle)



Model M6518: Globe Pattern Dual Chamber Basic Valve with Mechanical Check Feature

Model M61518: Angle Pattern Dual Chamber Basic Valve with Mechanical Check Feature

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								lbs.	kgs.
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	in.	in.		
3	10 1/4	260	11	279	9 1/16	230									3/8	1/2	1/2	31	14
4	13 3/4	352	14 1/2	368	11 1/8	302	6 15/16	176	7 1/4	184	5 1/2	140	5 13/16	148	1/2	1/2	1/2	50	23
6	17 3/4	451	18 3/8	473	15 1/4	387	8 7/8	225	9 3/8	238	6 3/4	171	7 1/4	184	3/4	3/4	3/4	130	59
8	21 3/8	543	22 3/8	568	20 1/8	511	10 11/16	271	11 3/16	289	7 1/4	184	7 3/4	197	3/4	3/4	3/4	210	95
10	26	660	27 3/8	695	23 3/16	598									1	1	1	363	165
12	30	762	31 1/2	800	27	684									1	1	1	528	240
16	35	889			34 1/4	870									1	1 1/4	1	826	375
18	48	1219			40	1016									1	2	1	1365	620
20	48	1219			40	1016									1	2	1	1390	630
24	48	1219			40	1016									1	2	1	1485	674

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 (optional)
Viton (optional)

Stem, Nut & Spring: Stainless Steel

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

Epoxy Coating**: 225°F (107°C) Maximum

** Valves can be provided without internal epoxy coating consult factory

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.

*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.

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.



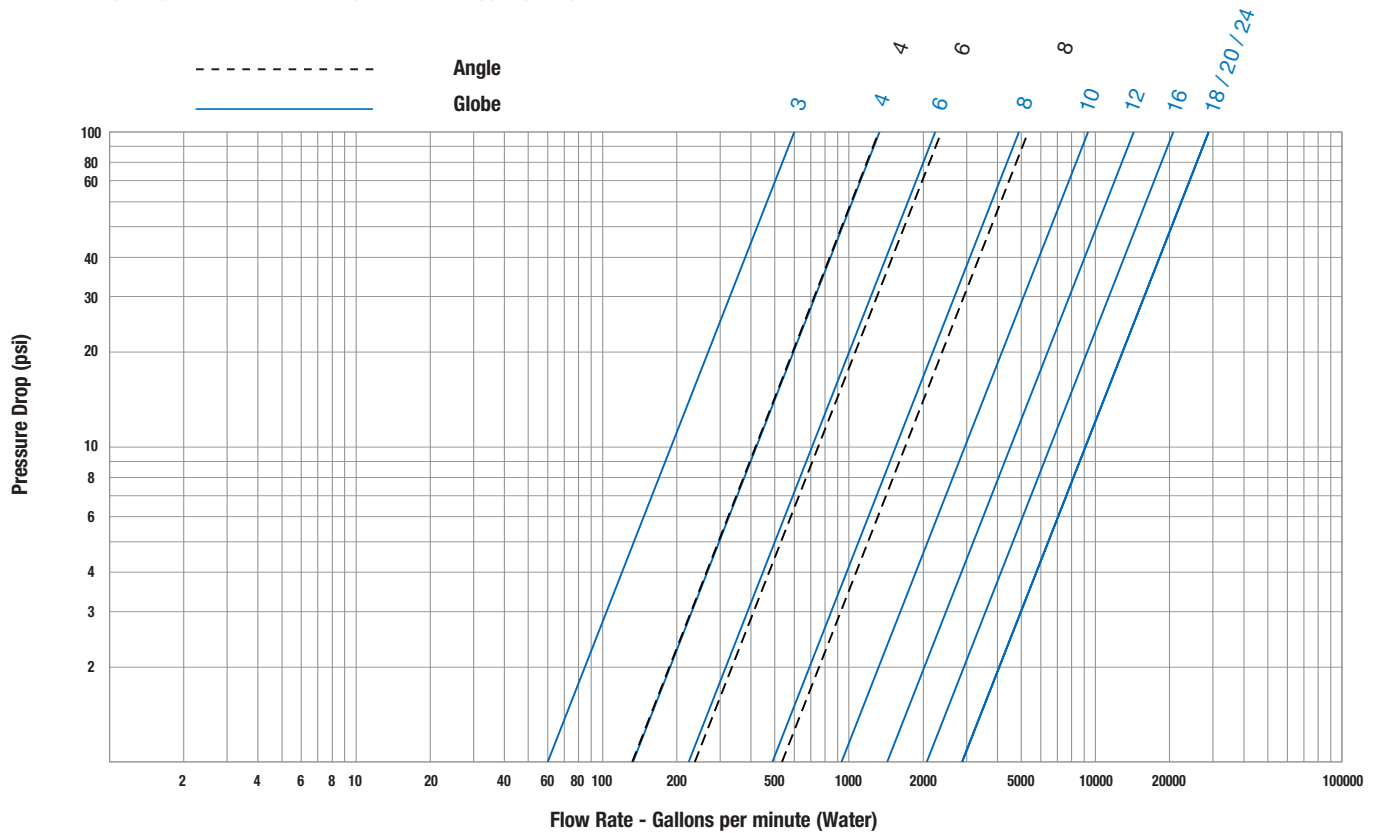
M6518 / M61518 — Reduced Port Ductile Iron Dual Chamber Basic Valve with Mechanical Check Feature

Flow Data - ACV M6518 (Globe) / M61518 (Angle)

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	489	932	1428	2067	2881	2881	2881
Factor GPM (Angle)		132	237	534						

- Maximum continuous flow based on velocity of 20 ft. per second.
- Maximum intermittent flow based on velocity of 25 ft. per seco
- 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):

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



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

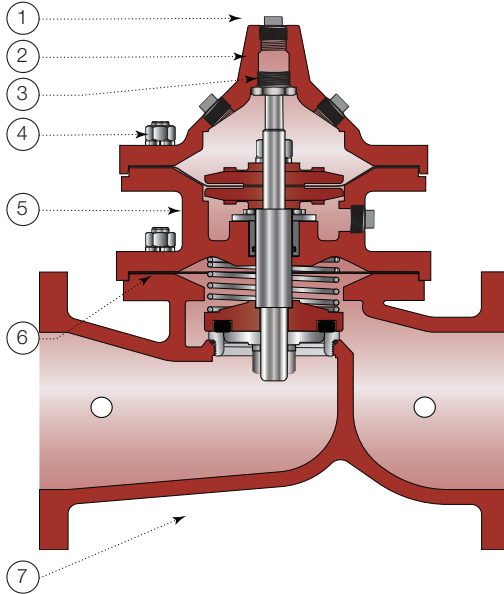
Valve Travel

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

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M6518

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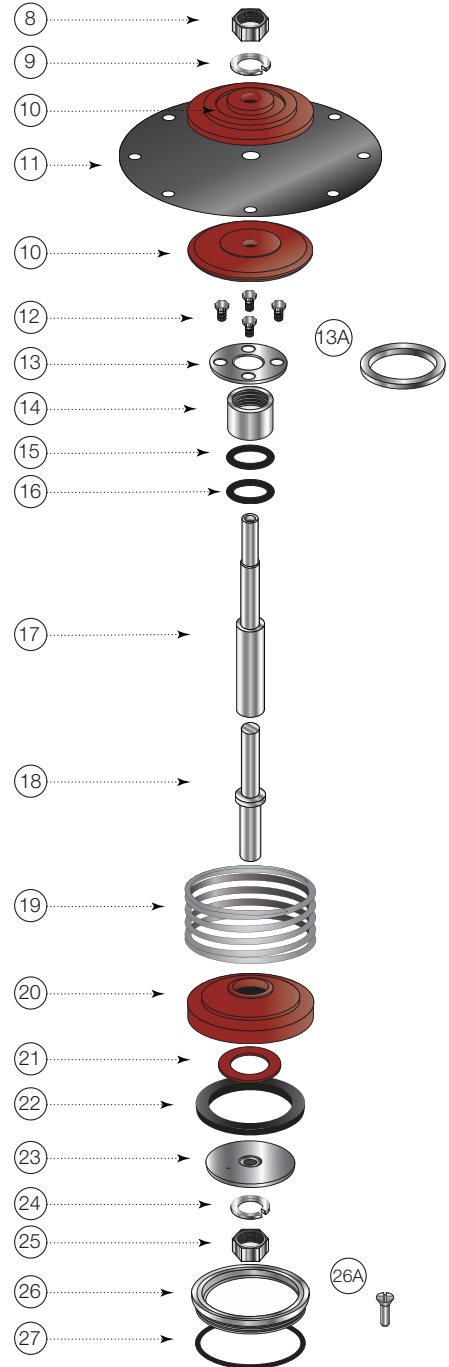


ITEM	DESCRIPTION	MATERIAL
1	Pipe Plug	Lead Free Brass
2	Cover	ASTM A536 65-45-12 Epoxy Coated Ductile Iron
3	Cover Bearing	ASTM A276 304 Stainless Steel
4	Stud with Cover Nut & Washer	ASTM A570 Gr.33 Zinc Plated Steel
5	Upper Body	ASTM A536 65-45-12 Epoxy Coated Ductile Iron
6	Gasket Seal	Buna-N (Nitrile)
7	Body	ASTM A536 65-45-12 Epoxy Coated Ductile Iron
8	Stem Nut	ASTM A276 304 Stainless Steel
9	Lock Washer	ASTM A276 302 Stainless Steel
10	Diaphragm Washer	ASTM A536 65-45-12 Epoxy Coated Ductile Iron
11	Diaphragm*	Buna-N (Nitrile)
12	Inner Bearing Bolts** (4" and Smaller)	ASTM A276 304 Stainless Steel
13	Inner Bearing Retainer** (4" and Smaller)	ASTM A276 302 Stainless Steel
13A	Bearing Retaining Ring** (6" and Larger)	ASTM A276 302 Stainless Steel
14	Inner Bearing	ASTM A276 304 Stainless Steel
15	O-ring*	Buna-N (Nitrile)
16	O-ring*	Buna-N (Nitrile)
17	Upper Stem	ASTM A276 304 Stainless Steel
18	Lower Stem	ASTM A276 304 Stainless Steel
19	Spring	ASTM A276 302 Stainless Steel
20	Disc Retainer	ASTM A536 65-45-12 Epoxy Coated Ductile Iron
21	Spacer Washer*	NY300 Fiber
22	Disc*	Buna-N (Nitrile)
23	Disc Guide	ASTM A743 CF8M (316) Stainless Steel
24	Lock Washer	ASTM A276 304 Stainless Steel
25	Stem Nut	ASTM A276 304 Stainless Steel
26	Seat Ring***	ASTM A743 CF8M (316) Stainless Steel
26A	Seat Screw*** (10" and Larger)	ASTM A276 304 Stainless Steel
27	Seat Gasket *	Buna-N (Nitrile)

* Contained in Main Valve Repair Kit

**6 inch and larger valves do not require Bearing Bolts

***8 inch and smaller valves, Seat Ring is threaded



A Watts Water Technologies Company

USA: Tel: (713) 943-0688 • Fax: (713) 944-9445 • Watts.com

Canada: Tel: (905) 332-4090 • Fax: (905) 332-7068 • Watts.ca

Latin America: Tel: (52) 81-1001-8600 • Fax: (52) 81-8000-7091 • Watts.com