Ductile Iron Series Basic Valves

LEAD FREE*

605GD / 605AD

Reduced Port Ductile Iron Single Chamber Basic Valve

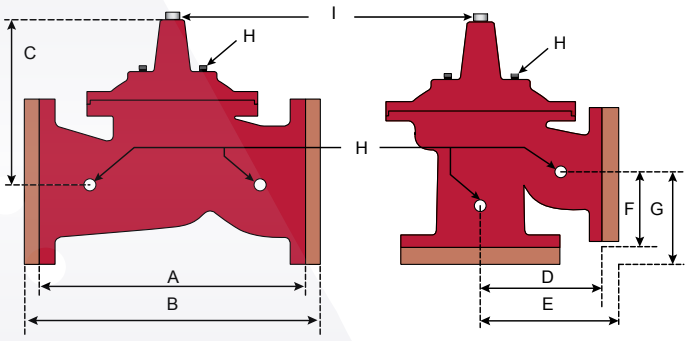
The Ames ACV Models 605GD and 605AD are reduced port, single chamber basic valves that incorporate a one-piece disc and diaphragm assembly. This assembly is the only moving part within the valve, allowing it to open, close, or modulate as commanded by the pilot control system. The reduced port design offers improved low-flow perform

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.

Model 605GD: Globe Pattern Single Chamber Basic Valve

Model 605AD: Angle Pattern Single Chamber Basic Valve

605GD (Globe) 605AD (Angle)



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	11	279	6⅝	169									⅜	½	21	10
4	13⅞	352	14½	368	8½	214	6 15/16	176	7¼	184	5½	140	5 13/16	148	½	½	39	18
6	17¾	451	18⅝	473	11½	288	8⅞	225	9⅜	238	6¾	171	7¼	184	¾	¾	89	40
8	21⅜	543	22⅜	568	14½	369	10 11/16	271	11 3/16	284	7¼	184	7¾	197	¾	¾	150	68
10	26	660	27⅜	695	17⅝	448									1	1	283	128
12	30	762	31½	800	20⅝	523									1	1	408	185
16	35	889			25¾	654									1	1¼	626	234
18	48	1219			31	787									1	2	1145	519
20	48	1219			31	787									1	2	1170	531
24	48	1219			31	787									1	2	1265	574

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.

AMES FIRE & WATERWORKS

605GD / 605AD— Reduced Port Ductile Iron Single Chamber Basic Valve

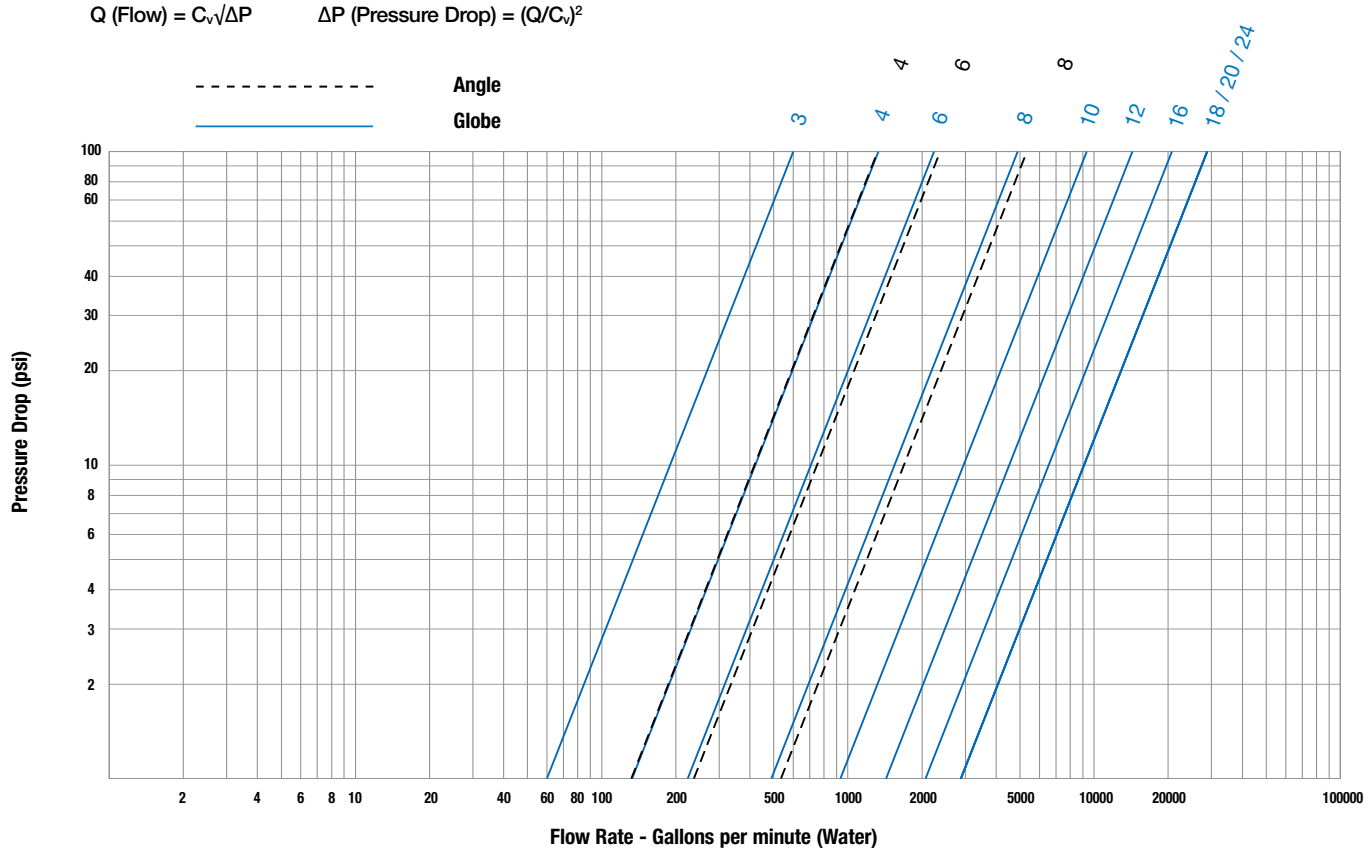
Flow Data - ACV 605GD (Globe) / 605AD (Angle)

	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
Suggested	Maximum Intermittent Flow Rate Gpm (Water)	265	590	1000	2300	4000	6250	8900	14100	14100	14100
Suggested	Minimum Flow Rate Gpm (Water)	6	15	16	17	25	55	70	400	400	400
Cv	Factor GPM (Globe)	60	133	224	489	932	1428	2067	2881	2881	2881
Cv	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 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

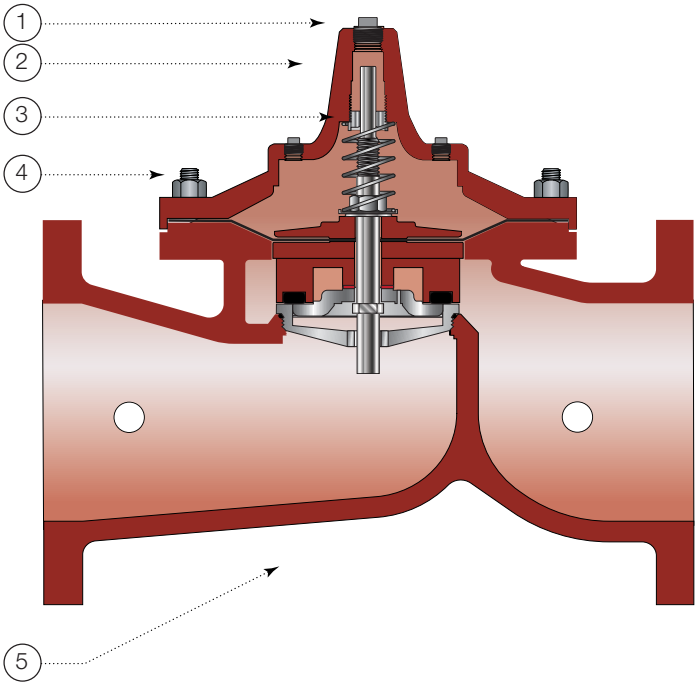
Valve Travel

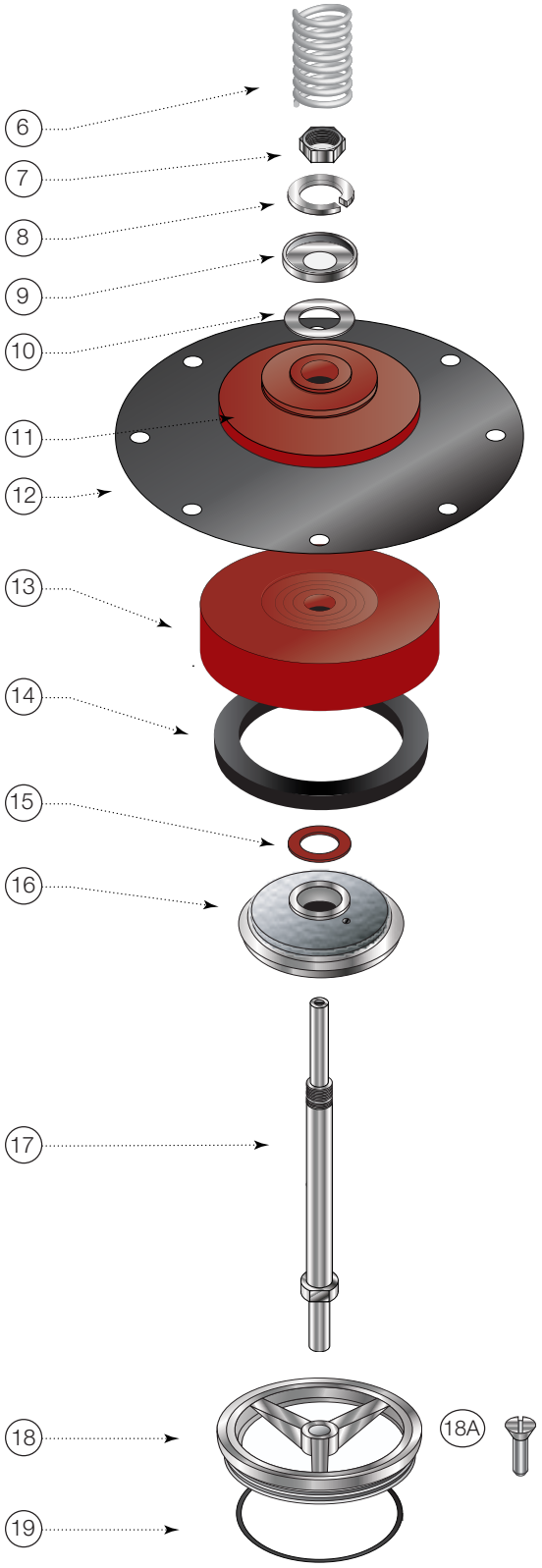
Valve Size (in)	3	4	6	8	10	12	16	18	20	24
(in)	½	¾	1	1½	2	2½	3	4	4	4

LEAD FREE*

605GD

Reduced Port Ductile Iron Single Chamber Basic Valve





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 and Washer	ASTM A570 Gr.33 Zinc Plated Steel
5	Body	ASTM A536 65-45-12 Epoxy Coated Ductile Iron
6	Spring	ASTM A276 302 Stainless Steel
7	Stem Nut	ASTM A276 304 Stainless Steel
8	Lock Washer	ASTM A276 304 Stainless Steel
9	Spring Washer	ASTM A276 304 Stainless Steel
10	Stem Washer	ASTM A276 304 Stainless Steel
11	Diaphragm Washer	ASTM A536 65-45-12 Epoxy Coated Ductile Iron
12	Diaphragm*	Buna-N (Nitrile)
13	Disc Retainer	ASTM A536 65-45-12 Epoxy Coated Ductile Iron
14	Seat Disc*	Buna-N (Nitrile)
15	Spacer Washer* x5	NY300 Fiber*
16	Disc Guide	ASTM A743 CF8M (316) Stainless Steel
17	Shaft	ASTM A276 304 Stainless Steel
18	Seat Ring**	ASTM A743 CF8M (316) Stainless Steel
18A	Seat Screw** (10" and Larger)	ASTM A276 304 Stainless Steel
19	Seat Gasket*	Buna-N (Nitrile)

** Contained in Main Valve Repair Kit*
***Note: 8 inch and Smaller Valves, Seat Ring is threaded*

AMES
FIRE & WATERWORKS

A Watts Water Technologies Company

USA: Backflow Tel: (978) 689-6066 • Fax: (978) 975-8350 • AmesFireWater.com
USA: Control Valves Tel: (713) 943-0688 • Fax: (713) 944-9445 • AmesFireWater.com
Canada: Tel: (905) 332-4090 • Fax: (905) 332-7068 • AmesFireWater.ca
Latin America: Tel: (52) 81-1001-8600 • Fax: (52) 81-8000-7091 • AmesFireWater.com