



**Globe Valve**

**Standard Features (Sizes 1/2"– 4")**

- Used for efficient throttling of flow
- Positive shut-off
- Displays excellent flow regulating characteristics throughout the entire lift of the disc
- All sizes rated for full vacuum service
- EPDM seals. Other elastomers optional

**Parts List/Thd-Soc (Sizes 1/2"– 2")**

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC, PP
2	Bonnet	1	PVC, PP
3	Stem	1	PVC, PP
4	Gland	1	PVC, PP
5	Gland Nut	1	PVC, PP
6	Sheet Gasket	1	EPDM, Others
7	Gland Packing	2	EPDM, Others
8	Disc	1	PP
9	Stem Holder	1	PP
13	Ring	1	Stainless Steel 304
14	Hand Wheel	1	PP
15	Nut	1	PVC
16	Washer	1	PVC

**Sample Specification**

All Globe Valves shall be of a thermoplastic construction and have no metal part that comes in contact with media. Sizes 1/2" through 2" shall be of union bonnet design, 2 1/2" through 4" shall be of outside stem and yoke type. PVC shall conform to ASTM D1784 Cell Classification 12454-A and PP conforming to ASTM D4101 Cell Classification PPO210B67272. PVC valves shall be rated to 150 psi at 70 degrees F sizes 1/2" thru 2" 110 psi at 70 degrees F sizes 2-1/2" thru 4". PP rated to 110 psi at 70 degrees F sizes 1/2" thru 4", as manufactured by Asahi/America, Inc.

**Specifications**

**Sizes:** 1/2" – 4"  
**Bodies:** PVC and PP  
**Models:** Flanged ANSI 1/2" – 4"\*  
 Socket PVC 1/2" – 2"  
 PP\*\* 1/2" – 1"  
 Thread PVC 1/2" – 2"  
 PP 1/2" – 1"

**Plug:** PP  
**Seals:** EPDM or FKM

\* 2-1/2" – 4": Outside stem and yoke type  
 \*\* DIN Socket also available

**Parts List/Flanged (Sizes 1/2" – 4")**

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC, PP
2	Bonnet	1	PVC, PP
3	Stem	1	PVC, PP
4	Gland	1	PVC, PP
5	Gland Nut	1	PVC, PP
6	Gland Gasket	1	EPDM, Others
7	Gland Packing	1	EPDM, Others
8	Disc	1	PP
9	Stem Holder	1	PVC, PP
10	Stem with Trapezoid Screw	1	Copper Alloy
11	Bolt, Nut, Washer	8	Stainless Steel 304
12	Stud Bolt, Nut	2	Stainless Steel 304
13	Stem Support	1	PP
14	Hand Wheel	1	PP
15	Nut (A)	1	PVC (1/2" – 2")
		2	Stainless Steel 304
16	Washer	1	PVC (1/2" – 2")
		1	Stainless Steel 304
17	Reinforcing Ring	1	Stainless Steel 304
18	Inserted Nut	1	Copper Alloy
19	Stem Metal Insert	1	Steel
20	Inserted Metal	1	Bronze

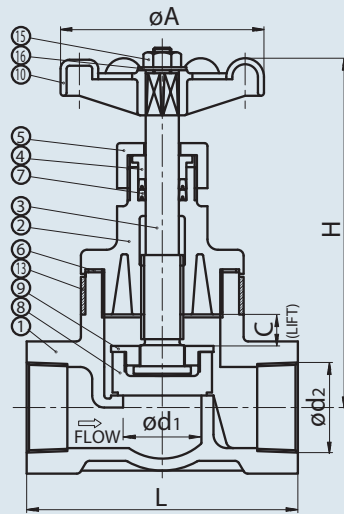
\* PVC nut and washer on sizes 1/2" through 2"

**Pressure vs. Temperature (PSI, WATER, NON-SHOCK)**

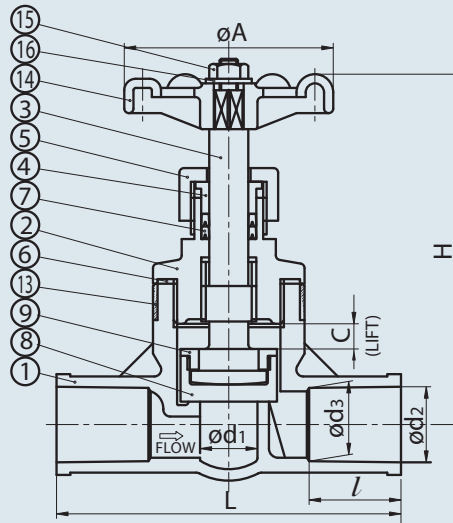
NOMINAL SIZE		PVC			PP		
		30° F	71° F	106° F	-5° F	71° F	121° F
INCHES	mm	70° F	105° F	120° F	70° F	120° F	175° F
1/2 - 1 1/2	15-40	150	150	110	110	95	65
2	50	150	150	95	110	75	45
2 1/2 - 3	65-80	110	110	95	110	60	35
4	100	110	80	65	110	60	35

# Globe Valves

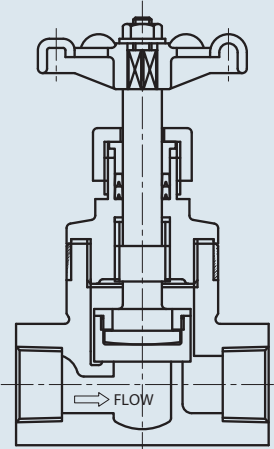
SOCKET AND THREADED END  
1 1/2" — 2"



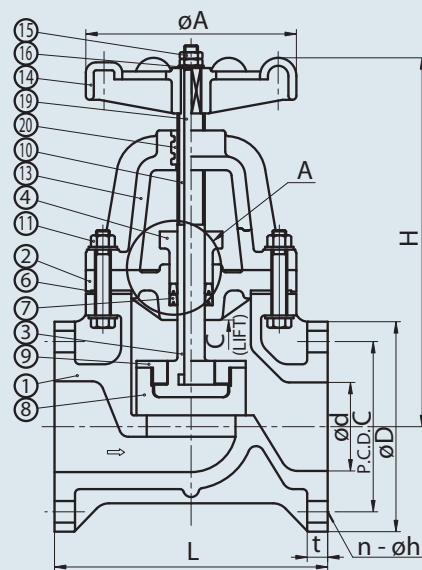
SOCKET END  
1/2" — 1 1/4"



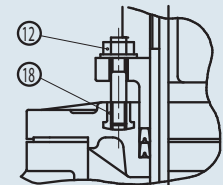
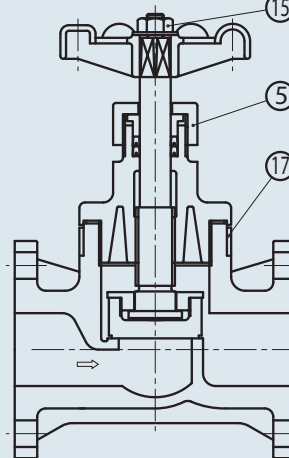
THREADED END  
1/2" — 1 1/4"



FLANGED 2 1/2" — 4"

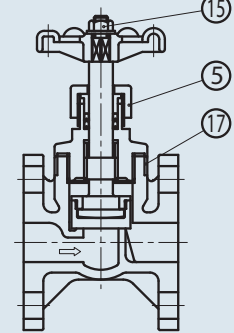


FLANGED  
1 1/2" — 2"



DETAIL OF "A"

FLANGED  
1/2" — 2 1/4"



## Dimensions (INCHES)

NOMINAL SIZE		FLANGED										SOCKET AND THREADED								Cv VALUES		
		WT. (LBS)	d	C	D	L	t	LIFT C	H (open)	n	h	WT. (LBS)	THREADED d2	L	SOCKET d2	L	l	LIFT C	d1		H (open)	A
IN.	mm																					
1/2	15	0.88	0.71	2.38	3.50	3.35	0.47	0.31	5.20	4	0.62	0.66	NPT 1/2	3.35	0.85	4.33	1.18	0.32	0.59	5.20	2.60	4.1
3/4	20	1.10	0.94	2.75	3.88	3.74	0.55	0.31	5.51	4	0.62	1.10	NPT 3/4	3.74	1.06	5.12	1.38	0.32	0.71	5.51	2.60	6.4
1	25	2.20	1.10	3.12	4.25	4.33	0.55	0.43	6.34	4	0.62	1.10	NPT 1	4.33	1.33	5.91	1.58	0.43	0.98	6.34	3.58	9.7
1 1/4	32	2.90	1.46	3.50	4.62	5.31	0.63	0.51	6.57	4	0.62	1.30	NPT 1 1/4	5.32	1.67	5.32	0.98	0.51	1.38	6.58	3.58	18.0
1 1/2	40	4.41	1.61	3.88	5.00	7.48	0.63	0.79	9.06	4	0.62	2.70	NPT 1 1/2	5.51	1.91	5.51	0.98	0.79	1.61	9.06	5.31	22.0
2	50	5.30	2.05	4.75	6.00	7.87	0.63	0.94	9.92	4	0.75	3.50	NPT 2	7.09	2.38	7.09	1.06	0.95	2.05	9.92	5.31	29.0
2 1/2	65	13.25	2.64	5.50	7.00	8.66	0.71	1.38	13.58	4	0.75	-	-	-	-	-	-	-	-	-	7.28	57.0
3	80	15.00	3.07	6.00	7.50	9.45	0.71	1.38	14.13	4	0.75	-	-	-	-	-	-	-	-	-	7.28	78.0
4	100	22.00	3.94	7.50	9.00	11.42	0.71	1.57	16.50	8	0.75	-	-	-	-	-	-	-	-	-	7.28	115.0



## Electric Globe Control Valve

### Specifications

- Sizes:** 1/2" - 4"
- Materials:** PVC, PP, PVDF and PTFE
- Model:** Flanged (ANSI)
- Stem Seal:** PTFE Bellows
- Valve Seal:** FKM, EPDM, PTFE encapsulated FKM
- Flow Char.:** Linear or equal percentage
- Rangeability:** 1: 50 for 1/2" - 3", 1: 30 for 4"
- Temp. Range:** PVC 32- 140° F, PP -5 - 175° F  
PVDF -5 - 265° F, PTFE -5 - 284° F

### Standard Features

- Precise flow control
- Solid thermoplastic valve body provides excellent corrosion resistance
- PTFE bellows stem seal eliminates old style packing glands and minimizes maintenance
- Positive bubble tight shut-off
- Plug and seat can be changed to accommodate a variety of valve coefficients (Cv)
- Plug (trim) can be characterized (linear or equal percentage) per requirements, See below
- No metal to media contact
- Extremely corrosion resistant actuator constructed of glass-filled Polyester (PEG) with SS trim
- 115 VAC/ 1ph supply voltage
- Manual Override

### Options

- Supply Voltage
- 4-20mA Positioner
- 4-20mA Output Transmitter
- Extra (Auxiliary) Limit Switches

### Parts List (Sizes 1/2" - 4")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Electric Actuator	1	Polyester Glass Filled (PEG)
2	Manual Override	1	Polyester Glass Filled (PEG)
4	Actuator Valve Stem	1	316 Stainless Steel
6	Actuator Standoffs	2	316 Stainless Steel
7	Position Indicator	1	316 Stainless Steel
8	Bellows Seal O-Ring	1	EPDM, FKM, PTFE Encapsulated FKM
9	Bellows Housing	1	PVC, PP, PVDF, PTFE
10	Body O-Ring	1	EPDM, FKM, PTFE Encapsulated FKM
11	Bellows	1	PTFE
12	Seat O-Ring	1	EPDM, FKM, PTFE Encapsulated FKM
13	Valve Seat	1	PVC, PP, PVDF, PTFE
14	Valve Plug	1	PVC, PP, PVDF, PTFE
15	Valve Body	1	PVC, PP, PVDF, PTFE

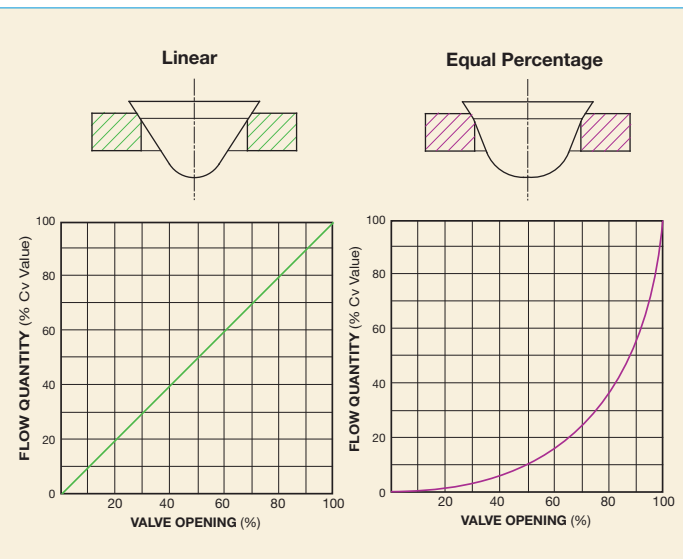
### Sample Specification

All Thermoplastic modulating control valves shall be of the Globe Valve design. Valves shall have interchangeable seat and plugs to accommodate various flow coefficients (Cv) and flow characteristics shall be either linear or equal percentage. Stem seal shall be PTFE and of the bellows design. Electric actuator shall be constructed of glass-filled polyester (PEG) with SS trim. Actuator shall operate with 115 VAC/ 1ph supply voltage and have a visual position indicator. PVC shall conform to ASTM D1784 Cell Classification 12454-A, PP conforming to ASTM D4101 Cell Classification PPO210B67272, and PVDF conforming to ASTM D3222 Cell Classification Type II. and PTFE shall conform to PTFE TFE 1600, as manufactured by AsahiAmerica, Inc.

*ASAHI/AMERICA RECOMMENDS THE USE OF AV GASKETS FOR THIS PRODUCT LINE*

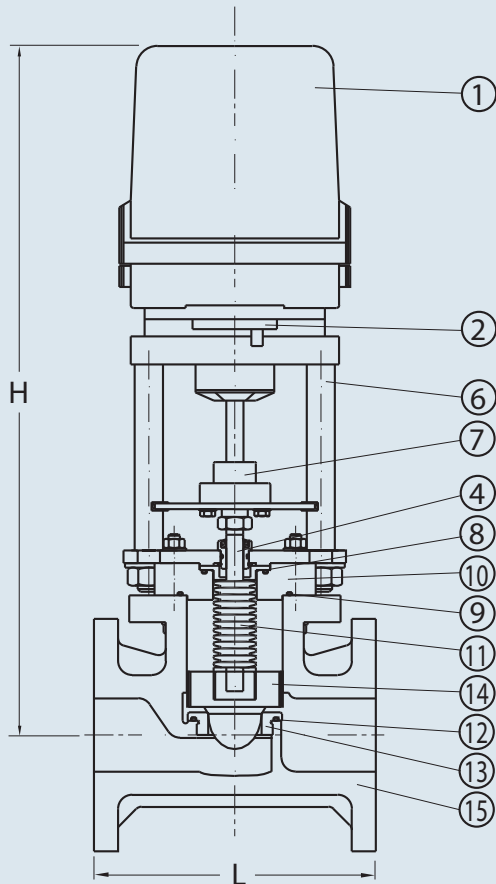
### Caution

- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.

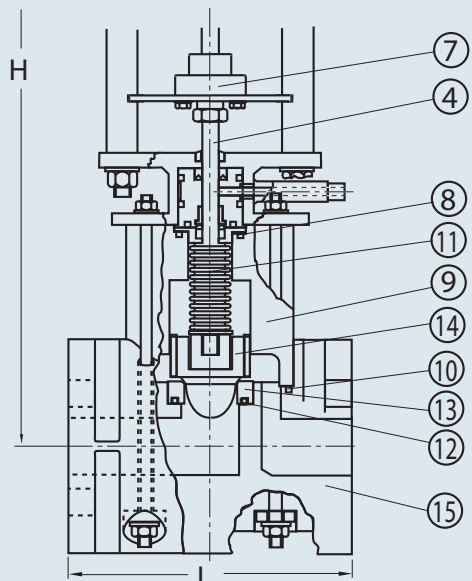


# Globe Control Valves

## PVC/PP



## PVDF/PTFE



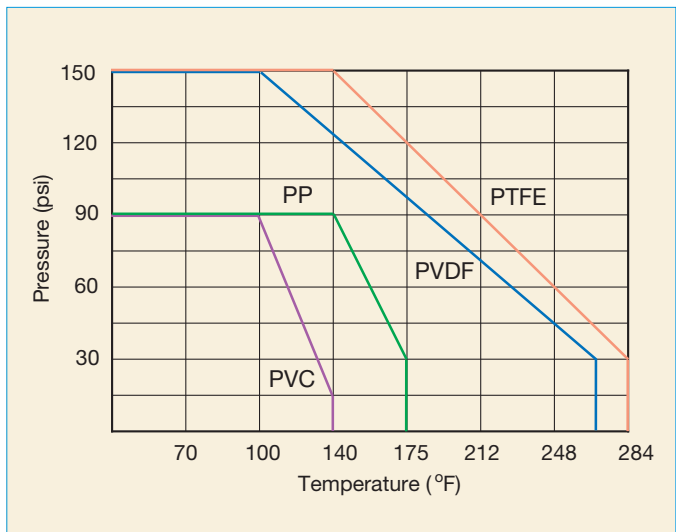
## Dimensions (INCHES)

NOMINAL SIZE		PVC, PP		PVDF, PTFE	
INCHES	mm	L	H	L	H
1/2	15	3.35	18.70	5.12	19.69
3/4	20	3.74	18.70	5.91	19.88
1	25	4.33	18.90	6.30	19.88
1 1/4 *	32	5.31	19.09	7.09	20.08
1 1/2	40	7.48	19.09	7.87	20.28
2	50	7.87	20.47	9.06	20.47
2 1/2	65	8.66	19.09	11.42	21.46
3	80	9.45	20.08	12.20	21.85
4	100	11.42	20.28	13.78	21.81

\* PP Not Available

## Operating Pressure vs. Temperature

(PSI, WATER, NON-SHOCK)



## Troubleshooting

### What if fluid flows even when fully closed?

1. Plug or seat is damaged.
2. Foreign matter caught or formed at plug and seat.

### What if it does not open?

1. No supply voltage
2. No instrument signal
3. Blown fuse in supply voltage line

### What if fluid leaks from body?

1. Bolts for bellows housing are not tight
2. O-ring(s) chemically attacked.



## Specifications

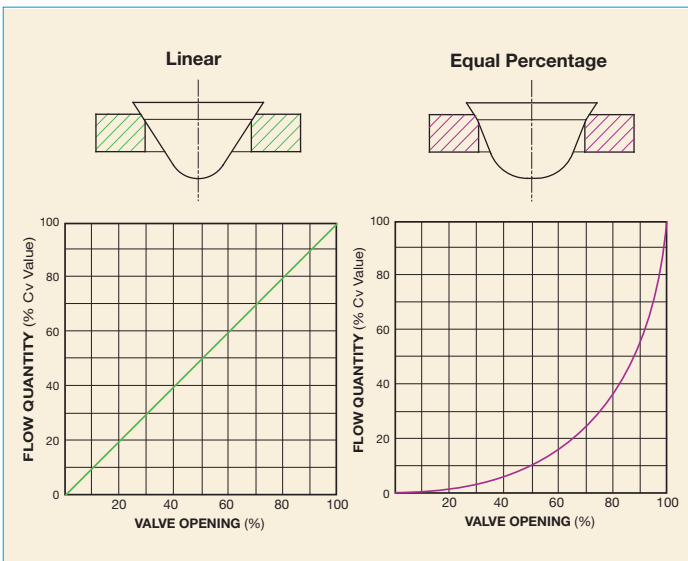
**Sizes:** 1/2" - 4"  
**Materials:** PVC, PP, PVDF and PTFE  
**Model:** Flanged (ANSI)  
**Stem Seal:** PTFE Bellows  
**Valve Seal:** FKM, EPDM, PTFE encapsulated FKM  
**Flow Char.:** Linear or equal percentage  
**Rangeability:** 1: 50 for 1/2" - 3", 1: 30 for 4"  
**Temp. Range:** PVC 32- 140° F, PP -5 - 175° F  
 PVDF -5 - 265° F, PTFE -5 - 284° F

### Standard Features

- Precise flow control
- Solid thermoplastic valve body provides excellent corrosion resistance
- PTFE bellows stem seal eliminates old style packing glands and minimizes maintenance
- Positive bubble tight shut-off
- Plug and seat can be changed to accommodate a variety of valve coefficients (Cv)
- Plug (trim) can be characterized (linear or equal percentage) per requirements, See below
- No metal to media contact
- Extremely corrosion resistant actuator constructed of glass-filled Polyester (PEG) with SS trim
- Maximum required air pressure is 90 psi
- 3-15 psi direct acting for sizes up to 1"

### Options

- 3-15 psi Pneumatic Positioner
- 4-20mA Electro-Pneumatic Positioner
- 4-20mA Output Transmitter
- Extra (Auxiliary) Limit Switches



### Parts List (Sizes 1/2" - 4")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Pneumatic Actuator	1	Polyester Glass Filled (PEG)
2	Actuator Spring	1	Coated Steel
3	Diaphragm	1	BUNA-N (Nitrile)
4	Actuator Valve Stem	1	316 Stainless Steel
5	Air Connection	1	1/4" FNPT
6	Actuator Standoffs	2	316 Stainless Steel
7	Position Indicator	1	Nylon Coated Steel
8	Bellows Seal O-Ring	1	EPDM, FKM, PTFE Encapsulated FKM
9	Bellows Housing	1	PVC, PP, PVDF, PTFE
10	Body O-Ring	1	EPDM, FKM, PTFE Encapsulated FKM
11	Bellows	1	PTFE
12	Seat O-Ring	1	EPDM, FKM, PTFE Encapsulated FKM
13	Valve Seat	1	PVC, PP, PVDF, PTFE
14	Valve Plug	1	PVC, PP, PVDF, PTFE
15	Valve Body	1	PVC, PP, PVDF, PTFE

### Sample Specification

All Thermoplastic modulating control valves shall be of the Globe Valve design. Valves shall have interchangeable seat and plugs to accommodate various flow coefficients (Cv) and flow characteristics shall be either linear or equal percentage. Stem seal shall be PTFE and of the bellows design. Pneumatic actuator shall be constructed of glass-filled polyester (PEG) with SS trim. Actuator shall have 1/4" FNPT air connections and a visual position indicator. PVC shall conform to ASTM D1784 Cell Classification 12454-A, PP conforming to ASTM D4101 Cell Classification PPO210B67272, and PVDF conforming to ASTM D3222 Cell Classification Type II. and PTFE shall conform to PTFE TFE 1600, as manufactured by AsahiAmerica, Inc.

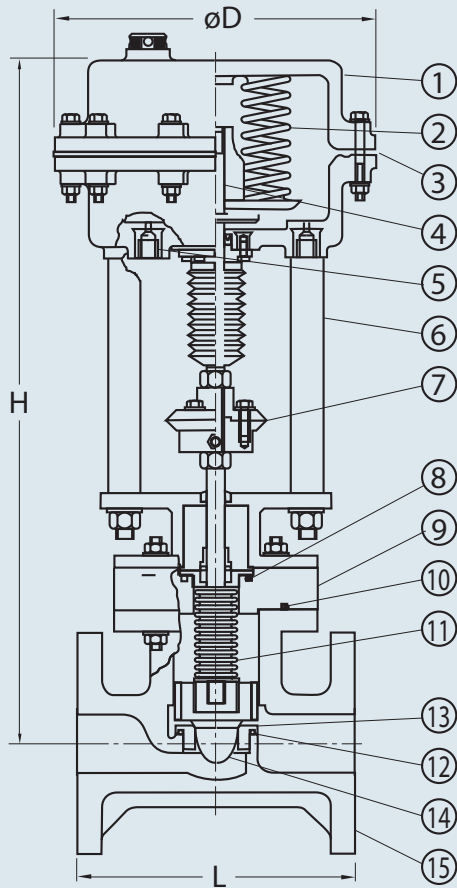
*ASAHI/AMERICA RECOMMENDS THE USE OF AV GASKETS FOR THIS PRODUCT LINE*

### Caution

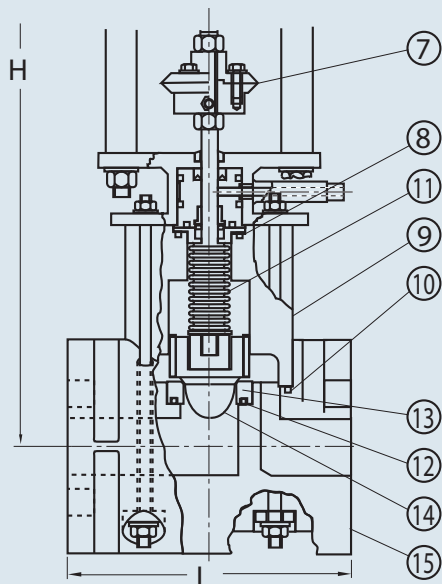
- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.

# Globe Control Valves

## PVC/PP



## PVDF/PTFE



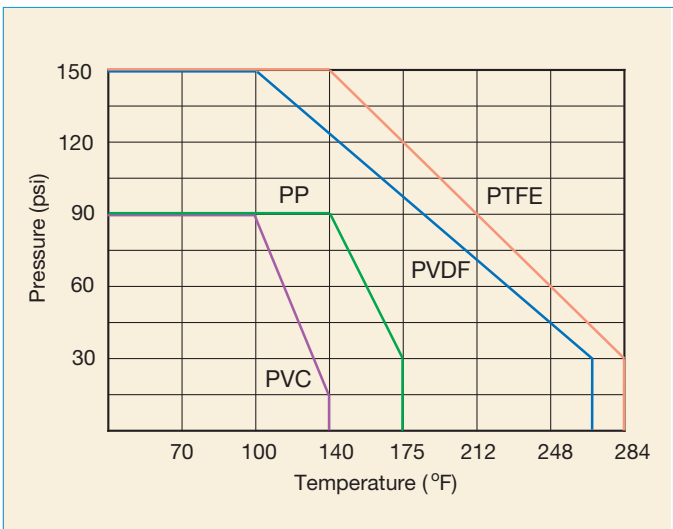
## Dimensions (INCHES)

NOMINAL SIZE		PVC, PP			PVDF, PTFE		
INCHES	mm	L	H	D	L	H	D
1/2	15	3.35	16.54	8.66	5.12	17.71	8.66
3/4	20	3.74	16.54	8.66	5.91	17.91	8.66
1	25	4.33	16.73	8.66	6.30	17.91	8.66
1 1/4 *	32	5.31	16.93	8.66	7.09	18.11	8.66
1 1/2	40	7.48	17.13	8.66	7.87	18.31	8.66
2	50	7.87	18.51	8.66	9.06	18.50	8.66
2 1/2	65	8.66	18.70	8.66	11.42	18.70	8.66
3	80	9.45	20.08	8.66	12.20	19.88	8.66
4	100	11.42	20.28	8.66	13.78	20.37	8.66

\* PP Not Available

## Operating Pressure vs. Temperature

(PSI, WATER, NON-SHOCK)



## Troubleshooting

### What if fluid flows even when fully closed?

1. Plug or seat is damaged. Change plug or seat.
2. Foreign matter caught or formed at plug and seat.
3. Air not completely exhausted.

### What if it does not open?

1. Actuator diaphragm is damaged or worn. Replace.
2. Operating air pressure is low.

### What if fluid leaks from body?

1. Bolts for bellows housing and body are loose. Retighten
2. O-ring(s) chemically attacked.

# Globe Control Valves

## Cv Values for PVC and PP

SEAT DIA.	VALVE SIZE (INCHES)									
	INCHES	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
.106	.23									
.149	.46									
.185	.70									
.236	1.20									
.299	1.75	1.75								
.374	2.60	2.60	2.6							
.404		4.00	4.0	4.0						
.578		6.10	6.1	6.1	6.1					
.748				9.5	9.5	9.5				
.944				10.5	10.5	10.5	10.5			
1.181					16.0	16.0	16.0	16.0		
1.496						25.0	25.0	25.0	25.0	
1.909							40.0	40.0	40.0	
2.047							46.0	46.0	46.0	
2.244								64.0	64.0	
2.696									81.0	
2.897									93.0	

## Cv Values for PVDF and PTFE

SEAT DIA	VALVE SIZE (INCHES)									
	INCHES	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
.106	.23									
.149	.46									
.185	.70									
.236	1.20									
.299	1.75	1.75								
.374	2.60	2.60	2.6							
.404		4.00	4.0	4.0						
.578		6.10	6.1	6.1	6.1					
.748				10.5	10.5	10.5	10.5			
.944					14.0	14.0	14.0	14.0		
1.181					18.0	18.0	18.0	18.0	18.0	
1.496						29.0	29.0	29.0	29.0	29.0
1.909							40.0	40.0	40.0	40.0
2.047								52.0	52.0	52.0
2.244									70.0	70.0
2.696										93.0
2.897										105.0

## REQUIRED DATA FOR CONTROL VALVE SIZING

SERVICE CONDITIONS			
1. Media			Concentration %
2. Temperature:	°F	or	°C Specify
3. Flow Required (gpm):	Max.	Normal	Min.
4. Line Pressure (psi):	Upstream:	Downstream:	(Max. Flow)
5.	Upstream:	Downstream:	(Norm. Flow)
6.	Upstream:	Downstream:	(Min. Flow)

VALVE SPECS			
7. Line Size:			
8. Valve Characteristics:	Equal % or Linear:		Specify
9. Valve Material:			Valve Seals:
10. Cv Value Required:	Max.:	Norm.:	Min.:

ACTUATOR SPECS			
11. Actuator Type:	Electric or Pneumatic		Specify
12. Supply Voltage for Electric:			Specify
13. Electric Control Signal:		mA or volts	
14. Pneumatic Control Signal:		PSI	
15. Position Feedback:			Specify



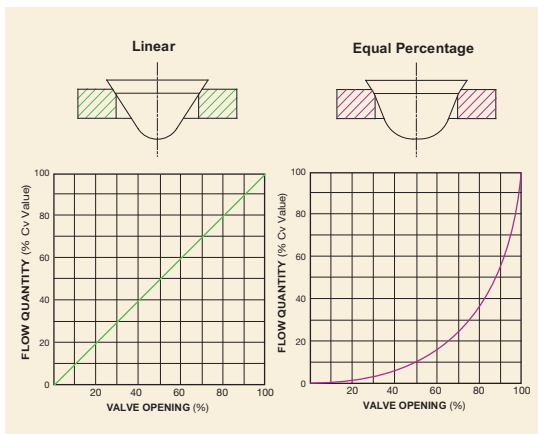
**Compact Globe Control Valve**

### Standard Features

- Low cost control valve
- Precise flow control
- Solid thermoplastic valve body
- PTFE bellows stem seal
- Positive bubble tight shut-off
- Plug and seat can be changed to accommodate a variety of valve coefficients (Cv)
- Plug (trim) can be characterized (linear or equal percentage) per requirements-see below
- No metal to media contact
- Manual Override
- Field selectable cycle time
- Self diagnostic actuator
- Selectable signal of 0-10 VDC or 4-20 mA
- Reverse acting (field selectable)
- 0-10 VDC transmitter
- Corrosion resistant actuator constructed of glass-filled Polybutylene Terephthalate (PBT GF30)
- 115 VAC/ 1ph supply voltage

### Options

- Supply voltages
- Extra (Auxiliary) limit switches



### Specifications

**Sizes:** 1/2" - 2"  
**Materials:** PVC, PP, PVDF and PTFE  
**Model:** Flanged  
**Stem Seals:** PTFE, Bellows  
**Valve Seals:** EPDM, FKM, PTFE  
 encapsulated FKM

### Flow

**Characteristics:** Liner or Equal Percentage  
**Rangeability:** 1:50  
**Temp Range :** PVC 32-140° F, PP -5-175° F  
 PVDF -40-265° F, PTFE -5- 284° F

### Parts List (Sizes 1/2" - 2")

PARTS			
NO.	DESCRIPTION	PCS	MATERIAL
1	Electric Actuator	1	PBT GF30
2	Manual Override	1	PBT GF30
4	Actuator Valve Stem	1	Stainless Steel
7	Position Indicator	1	POM
8	Bellows Seal O-Ring	1	EPDM, FKM, PTFE Encapsulated FKM
9	Bellows Housing	1	PVC,PP,PVDF,PTFE
10	Body O-Ring	1	EPDM,FKM,PTFE Encapsulated FKM
11	Bellows	1	PTFE
12	Seat O-Ring	1	EPDM,FKM,PTFE Encapsulated FKM
13	Valve Seat	1	PVC,PP,PVDF,PTFE
14	Valve Plug	1	PVC,PP,PVDF,PTFE
15	Valve Body	1	PVC,PP,PVDF,PTFE

### Sample Specification

All Thermoplastic modulating control valves shall be of the Globe Valve design. Valves shall have interchangeable seats and plugs to accommodate various flow coefficients (CV), and flow characteristics shall be either linear or equal percentage. Stem seal shall be PTFE and of the bellows design. Self-diagnostic electric actuator shall be constructed of glass-filled Polybutylene Terephthalate (PBT GF30), have a manual override and position indicator. Actuator shall operate with 115 VAC/1ph supply voltage and a throttling positioner that accepts a field selectable signal of 0-10 VDC or 4-20 mA, and transmit a feedback signal of 0-10 VDC. PVC shall conform to ASTM D1784 Cell Classification 12454-A, PP shall conform to ASTM D4101 Cell Classification PPO210B67272, PVDF shall conform to ASTM D3222 Cell Classification Type II, and PTFE shall conform to PTFE TFM 1600, as manufactured by Asahi/America, Inc.

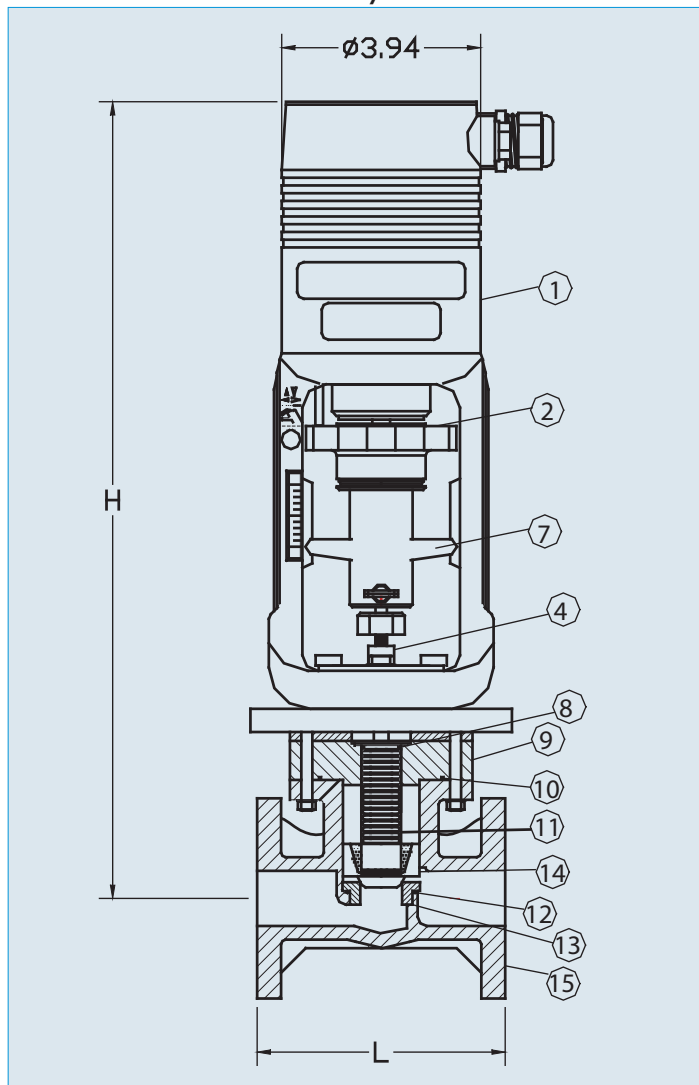
**ASAHI/ AMERICA RECOMMENDS THE USE OF A/V GASKETS FOR THIS PRODUCT LINE**

### Caution

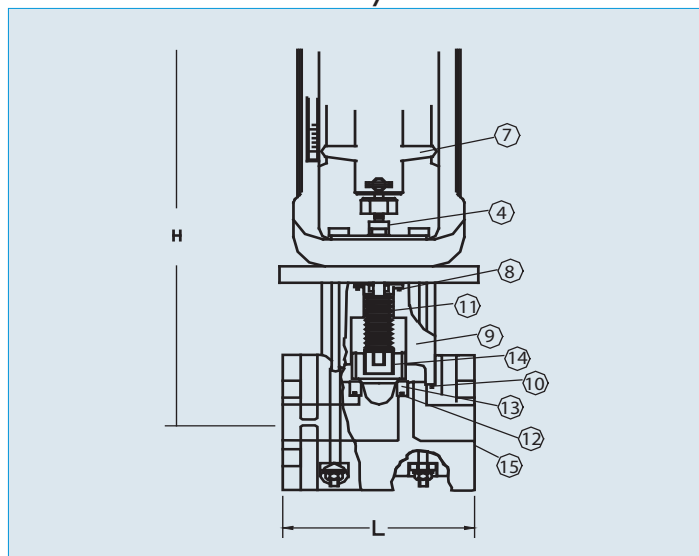
- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.

# Compact Globe Control Valve

## PVC/PP



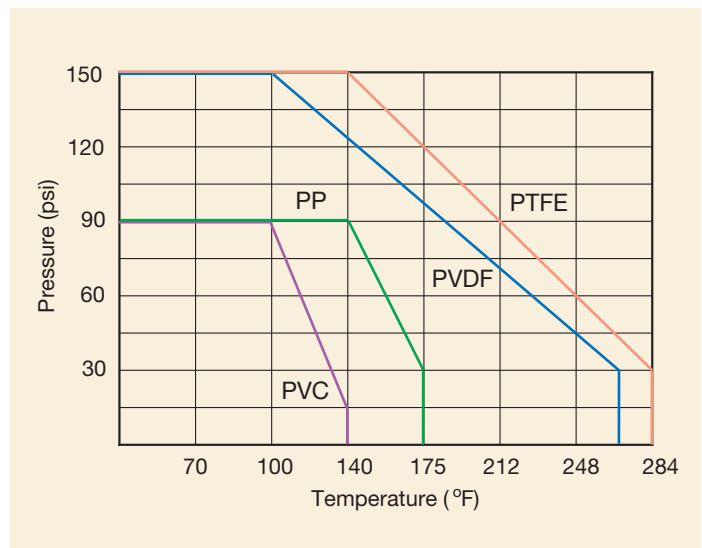
## PVDF/PTFE



## Dimensions (INCHES)

Nominal Size		PVC,PP			PVDF,PTF		
inches	mm	L	H	D	L	H	D
1/2	15	3.35	17.4	3.94	5.12	18.4	3.94
3/4	20	3.74	17.4	3.94	5.91	18.6	3.94
1	25	4.33	17.6	3.94	6.30	18.6	3.94
1 1/4	32	5.31	17.8	3.94	7.09	18.8	3.94
1 1/2	40	7.48	17.8	3.94	7.87	19.0	3.94
2	50	7.87	19.2	3.94	9.06	19.2	3.94

## Pressure vs Temperature



## Troubleshooting

### What if fluid flows even when fully closed?

1. Plug and/or seat damaged.
2. Foreign matter caught or formed at plug and seat.

### What if it does not open?

1. No supply voltage.
2. No instrument signal.
3. Blown fuse in supply voltage line.
4. Actuator is in "Manual" mode

### What if fluid leaks from body?

1. Bolts for bellows housing and body not tight.  
O-Rings chemically attacked