

# EB-45 Pressure Regulating Valve

## DESCRIPTION

The EB-45 Series is a lead-free<sup>1</sup> half-cartridge based pressure reducing and regulating valve with a bronze body. The valve construction is similar to a traditional regulator in that it retains a separate spring chamber and adjusting screw, but offers the simplicity and maintenance benefits of a cartridge based valve. The EB-45 is assembled using modular construction methods and features end connections threaded for both FIP and union in ½" through 2" sizes. A connection for a pressure gauge is also available for ¾" and 1" models.

The EB-45 is intended for use where supply line pressure does not exceed 300 psi (400 psi 1/2", 3/4", and 1"). The EB-45 pressure regulators are supplied by the factory with a standard delivery setting of 45 psi. The outlet pressure can be adjusted from 10-70 psi without changing the spring. This regulator is suited for either cold or hot (to 180°F) water service.



## FEATURES AND BENEFITS

Modular Cartridge Design reduces the number of parts requiring service:  
*Quick and Easy Service/Repair.*

Rugged bronze body:  
*Superior reliability, improved user safety.*

Compact pressure reducing and regulating valves:  
*Designed for small and economic considerations.*

Certified to ASSE Standard 1003 and CSA Standard B356. Listed by IAPMO and ASSE and certified lead free complying with NSF 372:  
*Inspector friendly for peace of mind.*

By-pass mechanism integral with the cartridge:  
*No add-on or small parts, longer life and more reliable performance.*

Every valve is tested for performance prior to shipping:  
*Specify and install with confidence.*

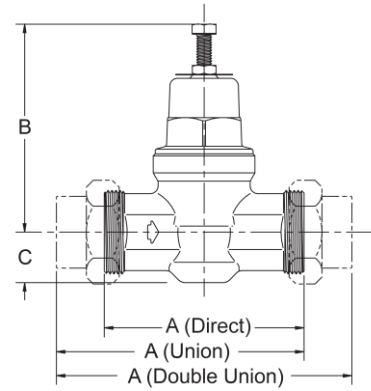
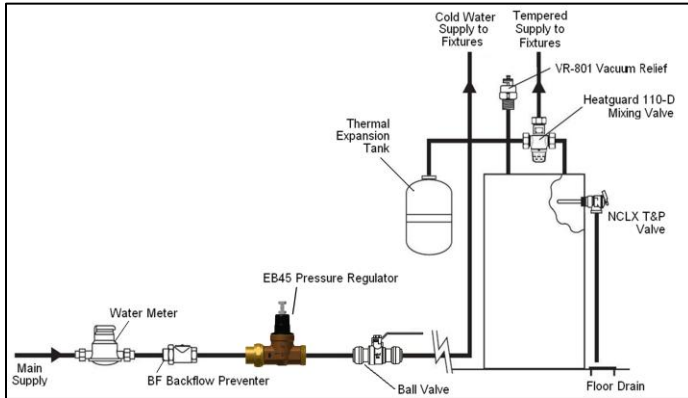
Assembled and tested in the USA:  
*Prepared in our manufacturing plant in Cullman, Alabama.*

## SPECIFICATION

A pressure regulating valve shall be installed to reduce high supplies of incoming water pressure. The valve shall be approved in accordance with ASSE standard 1003, CSA standard B356 and IAPMO UPC. The valve shall have a bronze body, brass and stainless steel internals, an EP diaphragm, stainless steel strainer screen and an inbuilt back-pass check. The valve shall be a **Cash Acme EB-45**.

# EB-45 Pressure Regulating Valve

## TYPICAL INSTALLATION



DIMENSIONS (Inches)

Size	Connection Style	A			B	C
		Direct	Single Union	Double Union		
1/2"	NPT	3.23"	3.99"	4.76"	4.37"	0.75"
	Sweat	-	3.98"	4.73"		
	SharkBite	4.24"	-	5.88"		
3/4"	NPT	3.39"	4.15"	4.92"	4.37"	0.75"
	Sweat	-	4.32"	5.26"		
	CPVC	-	-	5.32"		
	Barb	-	-	5.68"		
	Sharkbite	4.48"	-	7.05"		
1"	NPT	4.17"	5.17"	6.17"	4.35"	1.05"
	Sweat	-	5.30"	6.42"		
	CPVC	-	-	6.48"		
	Barb	-	-	6.97"		
1 1/4"	NPT	4.80"	5.68"	6.55"	7.58"	1.35"
	Sweat	-	5.87"	6.93"		
	SharkBite	9.42"	-	-		0.98"
1 1/2"	NPT	4.80"	5.90"	6.99"	7.58"	1.58"
	Sweat	-	5.99"	7.17"		
2"	NPT	4.80"	5.99"	7.18"	7.58"	1.84"
	Sweat	-	6.24"	7.68"		

## SPECIFICATION DATA

### Performance:

Maximum temperature..... 180°F (water)  
 Maximum inlet pressure..... 400 psi (1/2", 3/4" & 1")  
 300 psi (1 1/4", 1 1/2", & 2")  
 Service..... Water  
 Outlet pressure range..... 10-70 psi

### Materials:

Body..... Lead Free<sup>1</sup> Bronze  
 Spring Chamber:  
 1/2" and 3/4" Models..... Reinforced Engineered Polymer or Iron  
 1" through 2" Models..... Iron  
 Adjusting Spring..... Steel (zinc plated)  
 Diaphragm..... Reinforced EPDM  
 Body Seat:  
 1/2" and 3/4" Models..... Polyphenylene Ether +PS  
 1" through 2" Models..... Polysulfone  
 Seat Disc..... EPDM  
 Piston..... Stainless Steel/Brass  
 Strainer Screen..... Stainless steel  
 O-ring..... EP

## AVAILABLE CONNECTIONS

All EB45 models<sup>2</sup> include both FIP and union connection threading on both ends.

Threaded (NPT) Inlet & Outlet.....	1/2", 3/4", 1", 1 1/4", 1 1/2" & 2"
Threaded (NPT) Union, Threaded (NPT).....	1/2", 3/4", 1", 1 1/4", 1 1/2" & 2"
Sweat Copper Union, Threaded (NPT).....	1/2", 3/4", 1", 1 1/4", 1 1/2" & 2"
Threaded (NPT) Union Inlet & Outlet.....	1/2", 3/4", 1", 1 1/4", 1 1/2" & 2"
Sweat Copper Union Inlet & Outlet.....	1/2", 3/4", 1", 1 1/4", 1 1/2" & 2"
CPVC Union Inlet & Outlet.....	3/4" & 1"
PEX Barb Union Inlet & Outlet.....	3/4" & 1"
Union SharkBite® Inlet & Outlet <sup>3</sup> .....	1/2", 3/4" & 1"
Direct SharkBite® Inlet & Outlet <sup>3</sup> .....	1/2", 3/4", 1" & 1 1/4"
Direct SharkBite® Inlet & Outlet with Slip Feature <sup>3</sup> .....	1/2" & 3/4"

3/4" and 1" models are also available with a pressure gauge

## WATER CAPACITY (gpm)

Pipe Size	P <sub>2</sub> Variation (PSI)	Differential Pressure (P <sub>1</sub> -P <sub>2</sub> ) PSI			
		10	25	50	100+
1/2" & 3/4"	5	1.8	2.3	2.4	2.8
	10	4.8	5.3	6.0	8.9
	15	9.1	10.0	10.9	11.8
1"	20	14.3	15.8	16.5	16.6
	5	1.5	2.0	2.7	6.9
	10	8.7	12.8	13.6	17.5
	15	14.2	20.9	27.3	28.0
1 1/4"	20	17.3	25.7	30.9	42.8
	5	18.5	20.0	25.4	25.7
1 1/2" & 2"	10	43.2	45.5	48.6	50.4
	15	64.8	67.4	69.5	70.5
	20	77.7	80.3	87.8	95.2

<sup>1</sup>For all models, surfaces that are in contact with consumable water contain less than 0.25% lead by weight.

<sup>2</sup>Except for Direct SharkBite models.

<sup>3</sup>For technical information on the EB-45 models with SharkBite connections, please see the EB45-DUSB, EB45-DSB or EB45-SDSB Spec Sheets.

## CERTIFICATIONS

Cash Acme Type EB-45 Pressure Regulators are certified to ASSE 1003 and CSA B356 and are listed by ASSE and IAPMO (cUPC). The EB-45 Pressure Regulator is compliant with NSF 372.