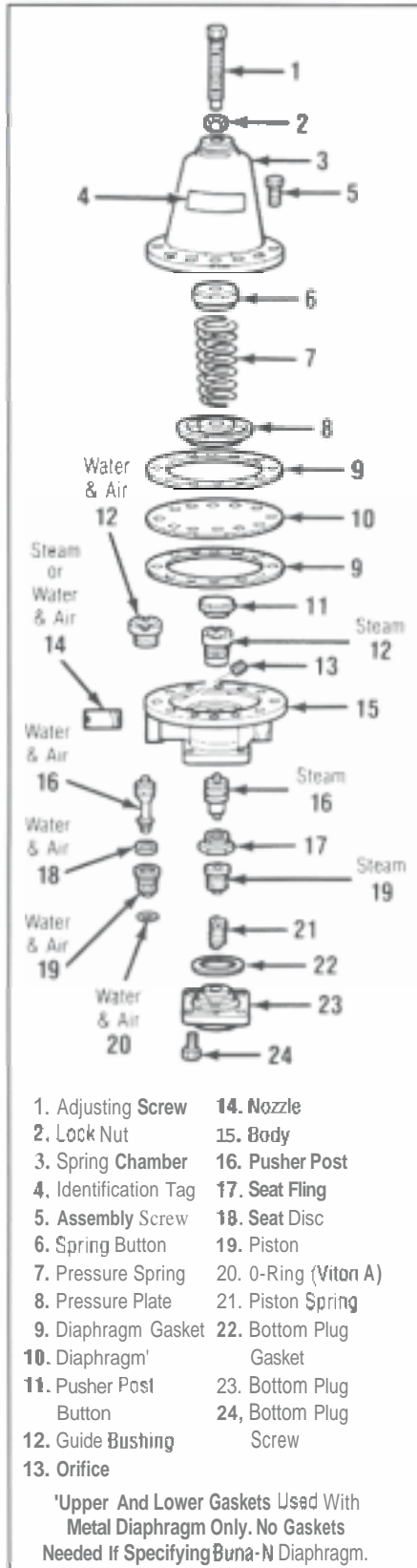




# TECHSPEC



## DESCRIPTION

The Type G-60 high capacity, all purpose pressure reducing and regulating valve automatically reduces a high inlet pressure to a lower delivery pressure and maintains the lower pressure within reasonably close limits.

## SPECIFICATION DATA

**Service:** Air, water, oil, gases, steam  
**Sizes:** 1/4", 3/8", 1/2", 3/4", 1", 1-1/4", and 1-1/2"  
**Connections:** Threaded female inlet and outlet  
**Body:** Iron, bronze, carbon steel, stainless steel  
**Maximum Temperature:** Refer to Bulletin PRV-G60  
**Maximum Initial Pressure:** Refer to Bulletin PRV-G60  
**Outlet Pressure Range:** 0-400 psi  
**Capacity:** Refer to Bulletin PRV-G60 for capacity information.



## Type G-60 PRESSURE REGULATOR

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## GENERAL INSTALLATION INSTRUCTIONS

The Type G-60 regulator should be installed in the horizontal position with the spring chamber upright. For other installation requirements consult the factory. For ease of operation and maintenance, it is suggested that manual shut-off valves be installed upstream and downstream from the valve. Before installing the valve, the piping and valve should be thoroughly flushed out to remove any foreign material. Install the valve with the inlet pipe fitted to the inlet connection identified on the valve body. On valves with threaded connections, use a good pipe joint compound on the male pipe threads and do not over tighten the valve connections. If fitted with flange connections, tighten the bolts evenly in a diagonal pattern to avoid placing undue stress on the valve body and avoid the possibility of cracking a flange.

## OPERATING INSTRUCTIONS

### Adjusting the Delivery Pressure

The regulator's delivery pressure setting is adjusted by turning the adjusting screw (1) at the top of the spring chamber after loosening the adjusting screw lock nut (2). To increase the delivery pressure, turn the adjusting screw clockwise (into the spring chamber). To decrease the delivery pressure, turn the adjusting screw counter-clockwise (out of the spring chamber). Tighten the adjusting screw lock nut after the adjustment has been made.

## MAINTENANCE INSTRUCTIONS

The following procedures are provided for servicing the recommended spare parts for the Type G-60 regulator. Repair parts can easily be installed without removing the regulator from the line.

**CAUTION:** Before attempting to replace any spare parts be sure to shut off all pressure connections to the valve. With the valve closed, however, system pressure could still be locked between the shut-off valve and the inlet and/or outlet sides of the regulator. Before proceeding with any valve service be certain to relieve the pressure from BOTH sides of the regulator.

Refer to the exploded view of the G-60 regulator for parts identification when servicing the valve.

Servicing the **Pressure Spring (7), Diaphragm(s) (10), and Diaphragm Gaskets (9)**

1. G-60 Differential Pressure Control Valves Only: Unscrew the closing cap from the top of the spring chamber (3). Remove and replace the closing cap gasket if necessary. Make certain that the control valve

# INSTALLATION, MAINTENANCE & REPAIR PARTS INFORMATION

ISO 9001 Certified

upstream from the differential supply line is closed, then slowly disconnect the copper supply line from the fitting on the spring chamber.

CAUTION: Some hot condensate or fluid may exit from the tube and/or the spring chamber.

2. Loosen the lock nut (2) 1/4 turn and turn the adjusting screw (1) counter-clockwise until the pressure spring (7) is no longer under tension.

**NOTE:** If the pressure spring is not being changed, then when installing the adjusting screw during reassembly, turn the screw clockwise until the lock nut just touches the spring chamber. When the valve is placed in service the pressure setting should be very close to the original setting.

3. Remove the assembly screws (5) securing the spring chamber (3) to the valve body (15). During reassembly, tighten the screws evenly in an alternate diagonal pattern.
4. Lift the spring chamber (3) from the valve body. Then remove the spring button (6), pressure spring (7), and pressure plate (8).
5. Remove the diaphragm(s) (10). If the diaphragm is of composition rubber, there are no gaskets. If the diaphragms are metal, aramid fibre gaskets (9) are located above and below the laminated diaphragms (6 per set). It is recommended that the gaskets be replaced whenever the metal diaphragms are replaced.
6. Remove the gusher post button (11) from the protruding pusher post (16). During reassembly, be sure the pusher post button is centered properly on the pusher post.
7. Inspect all parts and replace if necessary. Reassemble the parts in reverse order. Then place the valve in service and readjust the delivery pressure as outlined under Operating Instructions.

**Servicing the Pusher Post (16), Seat Ring (17), Piston (19), Piston Spring (21), and Bottom Plug Gasket (22).**

1. Before removing any parts through the bottom of the valve it is necessary to completely disassemble the upper part of the valve. Remove the spring chamber and related parts from the valve body outlined in Steps 1 through 7 above.

2. Remove the cap screws retaining the bottom plug (23) to the valve body. Remove the piston spring (21). Inspect and if necessary replace the bottom plug gasket (22).

3. **Steam regulators:** Remove the piston (19) through the bottom of the valve body. Then remove the pusher post through the top of the valve body (15).

**Water, air, and gas regulators:** Separate the piston (19) and pusher post (16) by using an end wrench on the pusher post and a hex key (Allen) wrench on the piston. Then remove the pusher post through the top of the valve body (15) and the piston through the bottom of the valve body. Examine and if necessary replace the Buna-N seat disc (18), and O-ring (20) on the piston.

4. Remove the seat ring (17) through the bottom of the valve body using a socket wrench to prevent distortion. Then using a screw driver remove the guide bushing (12) through the top of the valve body. If necessary remove the nozzle (14).

5. Inspect all parts for wear or damage and replace if necessary. Use only genuine Cash-Acme replacement parts.

Closely examine the orifice (13) and ensure the passage is clear.

6. Reassemble the valve in reverse order being certain to assemble the lower section first. Carefully tighten all threaded parts, especially the seat ring (17) and guide bushing (12) to prevent distortion. After the lower section of the valve has been completely assembled, test the valve parts for smooth, free movement by pushing down on the pusher post button with the heel of your hand. After placing the valve in service, readjust the delivery pressure as detailed under Operating instructions.

## REPAIR PARTS INFORMATION

G-60 regulators are rugged and built to withstand long periods of service without maintenance. However, a functioning or operating piece of equipment such as an automatic valve does, in time, require attention. Simplicity of construction aids in the ease of maintenance when repairs are needed.

Refer to the exploded view of the G-60 regulator for parts identification.

Recommended Spare Parts:

### For Steam Regulators

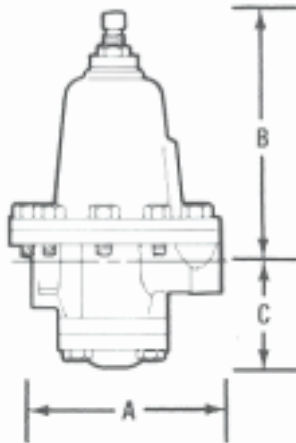
1. Diaphragms (6 per set)
2. Diaphragm gasket
3. Seat ring
4. Piston
5. Piston spring
6. Bottom plug gasket

### For Water, Air and Gas Regulators

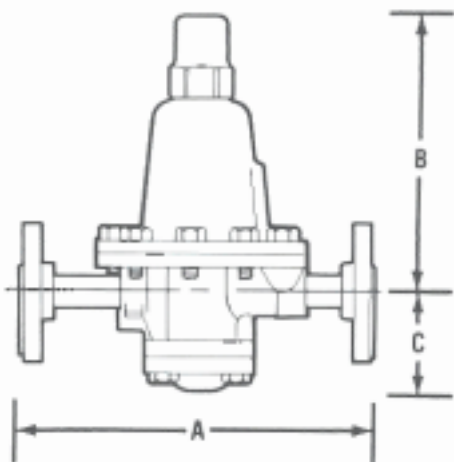
1. Diaphragm
2. Buna-N seat disc
3. Seat ring
4. Piston O-ring
5. Piston spring
6. Bottom plug gasket

## SPECIFICATIONS

Each G-60 pressure regulator is equipped with a pressure spring selected to provide the desired outlet or reduced pressure setting. The range of adjustment or satisfactory 'working range' of individual springs is shown below for each valve size. Every regulator has the "set" pressure and range of adjustment stamped on a tag fastened to the valve. The ranges shown are recommended for best performance.



TYPE G-60 AIR/WATER REGULATOR  
WITH THREADED CONNECTIONS



TYPE G-60 STEAM REGULATOR  
WITH ANSI B16.5 FLANGED CONNECTIONS

### TYPE G-60 SPRING RANGES

SIZE	RANGE OF ADJUSTMENT (In psi)				
	1/4"	1-15	5-40	20-90	30-125
3/8"	1-15	5-40	20-90	30-125	75-250
1/2"	0-7	10-50	30-75	50-120	75-150
3/4"	5-15	10-50	30-75	50-120	75-150
1"	2-10	10-50	30-100	50-130	75-150
1-1/4"	5-15	10-50	30-75	50-120	75-150
1-1/2"	5-15	10-50	30-75	50-120	75-150

### TYPE G-60 WITH THREADED CONNECTIONS

VALVE SIZE	DIMENSIONS			SHIPPING WEIGHT (lbs.)	
	A	B	C	IRON	BRONZE
1/4"	4"	6-5/8"	2-3/16"	9	9
3/8"	4"	6-5/8"	2-3/16"	9	9
1/2"	4-3/4"	7-5/8"	2-5/16"	16	16
3/4"	5-5/8"	10"	2-5/8"	24	24
1"	6-1/2"	10-3/4"	2-7/8"	35	35
1-1/4"	8"	12-3/8"	3-1/2"	62-1/2	62-1/2
1-1/2"	8"	12-3/8"	3-1/2"	62-1/2	62-1/2

### TYPE G-60 WITH ANSI B16.5 FLANGE CONNECTIONS

VALVE SIZE	DIMENSIONS			SHIPPING WEIGHT (lbs.)	
	A	B	C	CARBON STEEL	STAINLESS STEEL
1/2"	10-1/4"	7-11/16"	2-5/16"	24	24
3/4"	11-1/8"	9-15/16"	2-5/8"	36	36
1"	11-7/8"	10-3/4"	2-13/16"	52-1/2	52-1/2
1-1/4"	15"	12-5/16"	3-9/16"	93-3/4	93-3/4
1-1/2"	15-1/8"	12-5/16"	3-9/16"	93-3/4	93-3/4

## HOW TO ORDER

To order repair parts, refer to the exploded view of the Type G-60 to identify the part required. When ordering, please use the part names as provided in the valve assembly exploded view and give the valve serial number as stated on the identification tag attached to the spring chamber. Also state the following:

"Repair Parts for Type 6-60" and provide:

1. Valve size
2. Service (water, steam, air, etc.)
3. Inlet pressure  
Outlet or delivery pressure range and setting

5. Part description
6. Quantity of each part
7. Valve assembly or serial number stated on the metal identification tag under the adjusting screw lock nut.



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