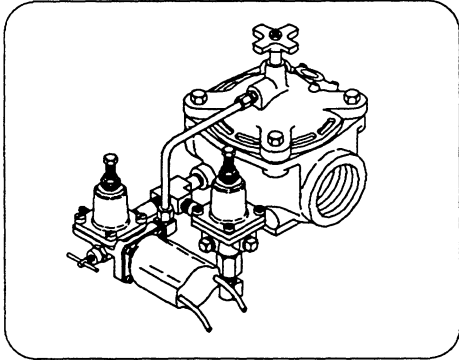


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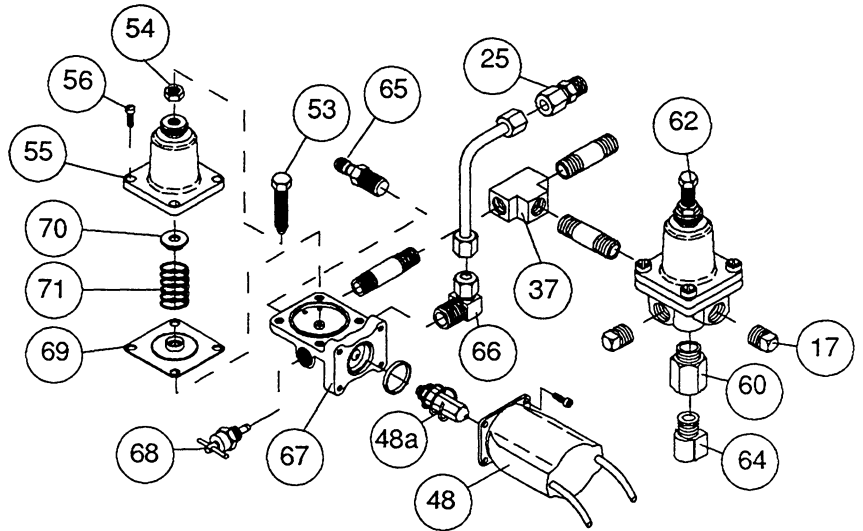
VALVE MODEL #2250 SOLENOID, PRESSURE REDUCING, AND SURGE ANTICIPATION VALVE

February, 1992



MODEL # 2250

For these valves use a basic 4170
and these parts.....



INSTALLATION AND MAINTENANCE

1. Valves are shipped with manual flow adjustment stem closed; stem must be opened before installing. Inlet pipe plug installed for straight pattern installation; for angle installation, re-install plug.
2. Flow direction must be as indicated on nameplate.
3. Valve must have minimum inlet pressure of 2 PSI (5 feet). If lower inlet pressure is required, consult factory.
4. Hook up solenoid to proper voltage. Connections must be solid and waterproof.
5. To adjust downstream pressure adjust screw (part #53) on regulator. To increase pressure turn adjustment screw clockwise. To decrease pressure turn adjustment screw counter clockwise.
6. To adjust surge sensing regulator, part #62, adjust screw. Set pressure 10 PSI higher than regulating pressure in step #5.
7. Valve can be installed in any position.
8. Valve can be repaired without removing valve body from system.
9. No normal maintenance is required.

TROUBLE SHOOTING

PROBLEM	PROBABLE CAUSE	CORRECTION
1. Valve fails to open.	Installed backwards.	Check flow arrow.
	Lack of operating pressure.	Make sure inlet is 2 PSI minimum.
	Manual flow adjustment stem fully closed.	Open stem.
	External obstruction in line, such as closed gate valve, etc.	Check other system elements.
	Valve will not operate electrically.	Check power on, connection, solenoid actuation.
	Internal foreign matter.	Remove cover, clean valve thoroughly.
	Internal metering pin left out.	Add metering pin.
2. Valve fails to close.	If after long satisfactory service, check diaphragm assy. wear.	Eliminate other causes then replace assy.
	Ruptured diaphragm.	Replace diaphragm.
	Internal foreign matter.	Remove cover, clean valve thoroughly.
3. Valve closes too slowly.	Manual by-pass left open.	Close manual by-pass.
	Residual electricity on solenoid.	Check controller.
	Lack of pressure differential across valve.	Partially close flow adjustment stem until valve closes at desired rate.

MODEL 2250

The Griswold Model 2250 valve consists of (1) a main valve, (2) a pressure regulating pilot, (3) a surge anticipation pilot, (4) a solenoid control pilot, (5) a manual on-off pilot, and (6) a Schrader valve to allow for downstream pressure measurement.

The 2250 valve is a normally closed valve. With its manual on-off pilot in closed position and its solenoid de-energized, the valve remains shut. Energizing the solenoid or opening the manual on-off pilot valve causes the valve to open.

The valve supplies a constant downstream pressure with fluctuating or excessive upstream pressure. Desired downstream pressure may be set anywhere from 5 to 125 PSI. When downstream pressure attempts to raise above a pre-set limit, caused by abrupt closure of downstream valves, the surge anticipation pilot relieves the excess pressure to atmosphere.

A flow stem on the valve is provided for emergency shut off and for reducing closing time of the valve in low flow applications.

REQUIRED TOOLS TO SET THE VALVE:

1. Crescent or 1/2" open, box or socket wrench.
2. 0-150 psi gauge equipped with quick-connect fitting for attachment to tire type (Schrader) valve.

TO SET THE VALVE:

1. Remove the cap from the Schrader valve.
2. Attach the gauge kit to the Schrader valve.
3. Turn the flow stem (cross handle) on the main valve all the way "out" (counter-clockwise).
4. Open the 2250 valve by turning its manual on-off pilot handle counter-clockwise. If no flow occurs, open the highest flowing valve downstream of the 2250. If no flow occurs again, check for closed valves upstream of the 2250 valve.
5. With water flowing through the valve, turn the adjusting screw on the regulating pilot until desired downstream pressure is observed on the gauge. Turning the adjusting screw "in" (clockwise) increases pressure, "out" (counter-clockwise) decreases pressure.

NOTE: If turning the adjusting screw clockwise does not increase downstream pressure, upstream pressure may be too low. Check upstream pressure under flowing (not static) condition.

6. Shut off flow by closing the valve downstream of the 2250. Leave the 2250 in the open position.
7. Slowly turn the adjusting screw on the surge anticipation pilot counter-clockwise until water drips from the opening underneath the surge pilot. Now turn the adjusting screw clockwise 4 turns.

NOTE: Ideally, the surge pilot should be set 15-20 PSI higher than the regulated pressure. Setting the surge pilot control pressure too close to the regulated pressure could cause excessive discharge to atmosphere. To verify the surge pressure setting, open and close a valve downstream. The gauge reading under no flow (static) condition is the surge pilot setting.

8. Turn off the 2250 valve by shutting off its manual on-off pilot valve. If the valve takes too long to close, turn the flow stem (the cross handle) on the main valve clockwise 3 turns.
9. Open the valve by energizing its solenoid. De-energize the solenoid after one minute. The valve should begin to close. If too slow, turn the cross handle clockwise 2 or 3 more turns.
10. Disconnect the gauge kit; replace the Schrader cap. The valve is now set for normal operation.

