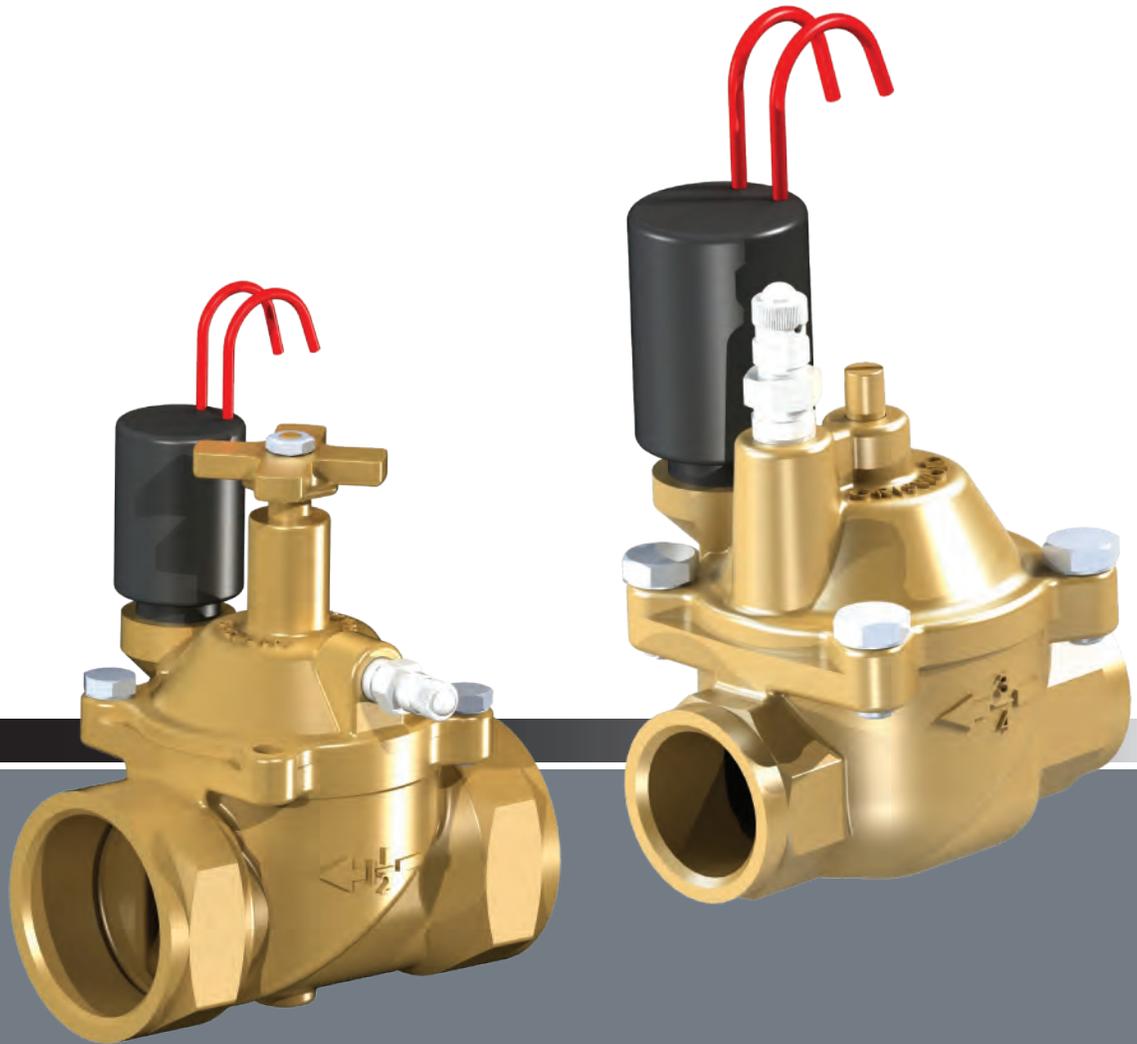


# DW Series

## Reclaimed Water Irrigation Valves



**Ideal For Use With Reclaimed Or “Dirty” Water**

- Self-Cleaning ~ No Filters or Screens to Clean or Replace
- Slow-Closing and Opening ~ No Pipe-Damaging Water Hammer
- Long Lasting Bronze Construction
- Five Year Warranty

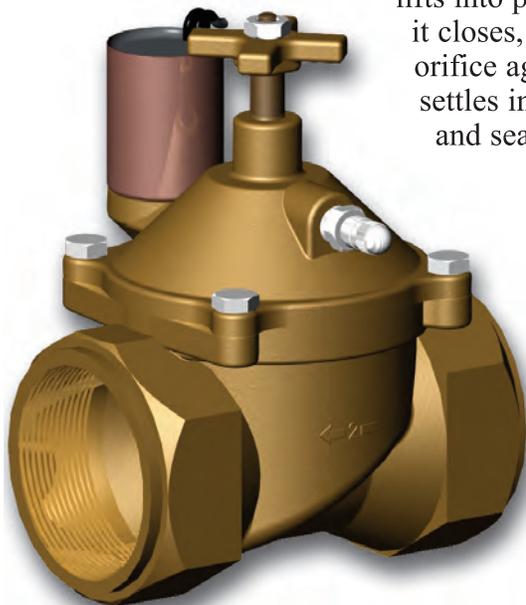
Absolute Control. **Optimized Efficiency.**



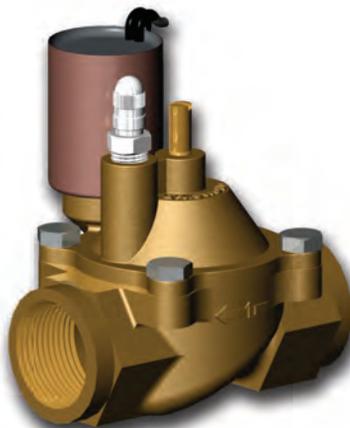
- **Ideal For Use With Reclaimed Or “Dirty” Water**
- **Self-Cleaning ~ No Filters or Screens to Clean or Replace**
- **Slow-Closing and Opening ~ No Pipe-Damaging Water Hammer**
- **Long Lasting Bronze Construction, Five Year Warranty**

Your best choice for maximum irrigation performance is Griswold Controls DW Series valve. The DW Series valve, similar to the more advanced 2000 Series valve, has numerous integrated features.

- *Unique diaphragm* made of a special EPDM material. The unique design of the valve with this material assures long life.
- *Griswold's “slow to open – slow to shut” feature* providing the ultimate in controllability. The possibility of system failures or breaks are minimized by reducing pressure surges or “water hammering”. Slowing the opening and closing force of a valve reduces water hammer and long term wear and fatigue on plastic irrigation pipes, joints, couplings and sprinkler heads.
- *Self cleaning design without filters and screens* in an industrial quality body. Most foreign elements found in reclaimed or pumped water will pass through the valve without any problem and will not accumulate. The pilot orifice is kept clean by the opening and closing action of the valve. When it is opened, for example, the disc assembly simply wipes the orifice clean as it lifts into position. When it closes, it wipes the orifice again as it settles into its seat and seals closed.



**Model DWS**

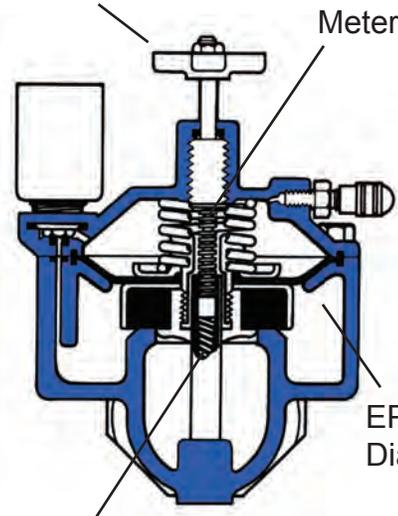


These features make the DW Series ideal for:

- *Residential and Commercial Landscapes*
- *Municipal landscapes and parks*
- *Schools and universities landscapes*
- *Golf courses*
- *Hospitality Industry landscapes*

### Opening and Closing Speed Control Components

Flow Control  
Cross Handle



Metering Pin

EPDM  
Diaphragm

Pilot Orifice



- **Heavy Duty Machined Bronze Construction ~ No Plastic Components Used**
- **Adjustable Downstream Pressure Control**
- **Internal Manual Bleed**
- **Stainless Steel Schraeder Valve for Easy Pressure Gauge Connection**

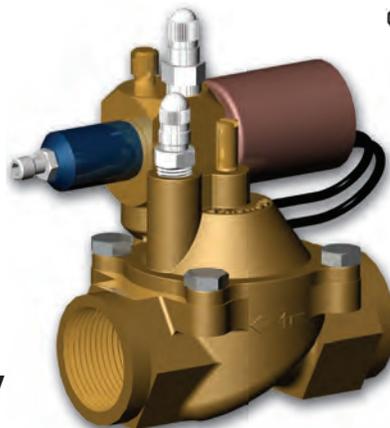
The DW-PRV Pressure Reducing Valve adds downstream pressure regulation as an important feature for optimum irrigation flow control. Steady controlled flow is the key to proper pressure regulation.

• *The Forward-Flowing design* of Griswold Controls valves ensures the maintenance of constant downstream pressure. The DW-PRV provides pressure independent steady water flow, independent of variations or pulsations in the main water supply. The valves can regulate the pressure to any value between 5 and 125 psi with the simple adjustment of a screw. The constant pressure supplied by the upstream water against the bottom of the diaphragm assembly guarantees a smooth regulation of downstream pressure.

- *A schraeder fitting and pressure gauge* give an accurate measure of the pressure setting.



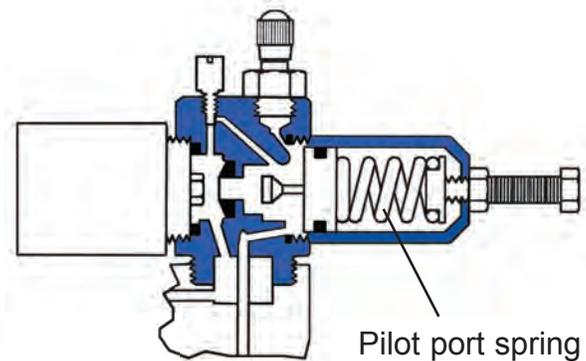
**Model DW-PRV**



The DW-PRV valve maintains the pressure within +/- 5% despite system pressures up to a 200 psi maximum. Regulation is maintained under both manual and remote operations. Pressure in the downstream side of the line is increased or decreased to an accuracy of +/- 5% by simply adjusting the force of the pilot-port spring.

These features make the DW PRV Series ideal for controlling high pressure conditions caused by severe topographical elevation changes

## Pressure regulating control



### Technical Features:

- Operating Pressure - 3 to 200 psi
- Flow Range - 0.01 to 160 gpm
- Manual On-Off Control
- Wide control range for pressure-reducing valves
- British Standard Threads (BSPT) - Optional
- Upstream pressure variations ~ 3 to 200 psi
- Downstream pressure adjustment ~ 5 to 125 psi
- Pressure accuracy ~ plus or minus 5%
- Cross handle for 3/4", 1", 1-1/4" sizes - Optional
- Available valve sizes ~ 3/4", 1", 1.25", 1.5", 2"
- 12 volt latching solenoid - Optional

# Installation Data

Griswold DW Series remote-control valves can be installed below ground level at any convenient location in the irrigation system. To provide easy access for manually operating the valve or adjusting the closing speed (all valves) and downstream pressure (DW-PRV valves), install the valve in a valve box. Valve dimensions are given in Tables A and B.

Multiple valves connected to single clock-controller should be wired in parallel. The valves are designed to operate with a nominal 24 VAC at the valve connection. Table C lists the minimum voltage and current requirements as a function of the upstream water pressure. Table D gives the required wire size

as a function of both distance and the number of valves on the circuit.

Another factor to consider is the pressure loss within the DW-PRV pressure control valves. The optimum size valve may or may not be the same as the pipe size. First estimate the gallons per minute (GPM) that must flow through the valve. Then subtract the desired downstream pressure from the minimum upstream pressure. Pressure loss caused by the pressure regulation function should be less than this figure.

Table E indicates the minimum size valve you can select for a given flow rate.

## A. DIMENSIONS (INCHES):MODEL DWS VALVES

SIZE	MODEL NO.	LENGTH	HEIGHT	WIDTH
3/4"	75 DWS	3.5	4.5	3.0
1"	100 DWS	3.5	4.5	3.0
1-1/4"	125 DWS	3.8	4.5	3.0
1-1/2"	150 DWS	4.5	5.5	4.5
2"	200 DWS	5.5	6.2	4.5

## B. DIMENSIONS (INCHES):MODEL DW-PRV VALVES

SIZE	MODEL NO.	LENGTH	HEIGHT	WIDTH
3/4"	75 DWS-PRV	3.5	4.5	3.0
1"	100 DWS-PRV	3.5	4.5	3.0
1-1/4"	125 DWS-PRV	3.8	4.5	3.0
1-1/2"	150 DWS-PRV	4.5	5.5	4.5
2"	200 DWS-PRV	5.5	6.2	4.5

## C. MINIMUM POWER TO ACTIVATE VALVE

PRESSURE (PSI)	VOLTAGE (60 Hz RMS)	CURRENT (60 Hz RMS)
100	21.0 vac	375 mA
125	22.0 vac	390 mA
150	23.0 vac	405 mA

## D. DISTANCE(FEET) VS. WIRE SIZE (AT 150 PSI)

NO OF VALVES	18 GAUGE WIRES	16 GAUGE WIRES	14 GAUGE WIRES	12 GAUGE WIRES	10 GAUGE WIRES
1	1,500	2,440	3,800	6,000	9,600
2	750	1,220	1,900	3,000	4,800
3	250	407	633	1,000	1,600
4	63	102	158	250	400

## E. PRESSURE LOSS (IN PSI) AT VARIOUS FLOW RATES (MINIMUM FLOW RATE: .01 GPM)

VALVE SIZE	P R E L O S S U R E	FLOW RATE (GPW)												
		1-8	10	15	20	30	40	50	60	80	100	120	140	160
3/4"		2.9	4.7	5.6	7.5	10.8								
1"		2.9	4.4	5.4	7.0	9.2	10.3	13.7						
1 1/4"		2.9	4.1	5.1	6.0	8.1	9.1	12.2	16.3					
1 1/2"		2.3	2.5	2.6	2.8	3.4	3.6	4.4	7.0	11.1	14.2			
2"		2.3	2.3	2.4	2.5	2.5	2.6	2.7	2.9	3.4	5.0	5.7	8.0	11.5

***DWS Series***

## Performance Specifications

Remote control valves shall be brass body, straight pattern, forward flowing and two-way solenoid operated. The internal control port of the valves shall be mechanically self-cleaning and automatically self-purging without the use of screens or filters. The diaphragm assembly shall be guided in all positions. Upon opening, the internal control port shall enlarge in size to purge and gradually reduce in size during closure to prevent water hammer. A manual flow stem to adjust the closing speed and allow for internal flushing shall be provided. A drip-tight resilient seated petcock shall be provide for manual opening without electricity. All valve porting shall be internal without the use of exterior tubing. All valve components shall be corrosion proof, metallic and be serviceable from the top.

***DWS-PRV Series***

## Performance Specifications

Remote control valves shall be brass body, forward flowing, combination pressure regulating and solenoid operated. The internal control port of the valves shall be mechanically self-cleaning and automatically self-purging without the use of screens or filters. The diaphragm assembly shall be guided in all positions. Upon opening, the internal control port shall enlarge in size to purge and gradually reduce in size during closure to prevent water hammer. The pressure regulating pilot shall be adjustable from 5 to 100 psi and be capable of maintain a constant downstream pressure to within 5% of its setting. A pilot bypass valve shall provide for manual operation. When manually opened, the valve shall regulate and maintain constant downstream pressure. All valve porting shall be internal without the use of exterior tubing. All valve components shall be corrosion proof, metallic and be serviceable from the top.