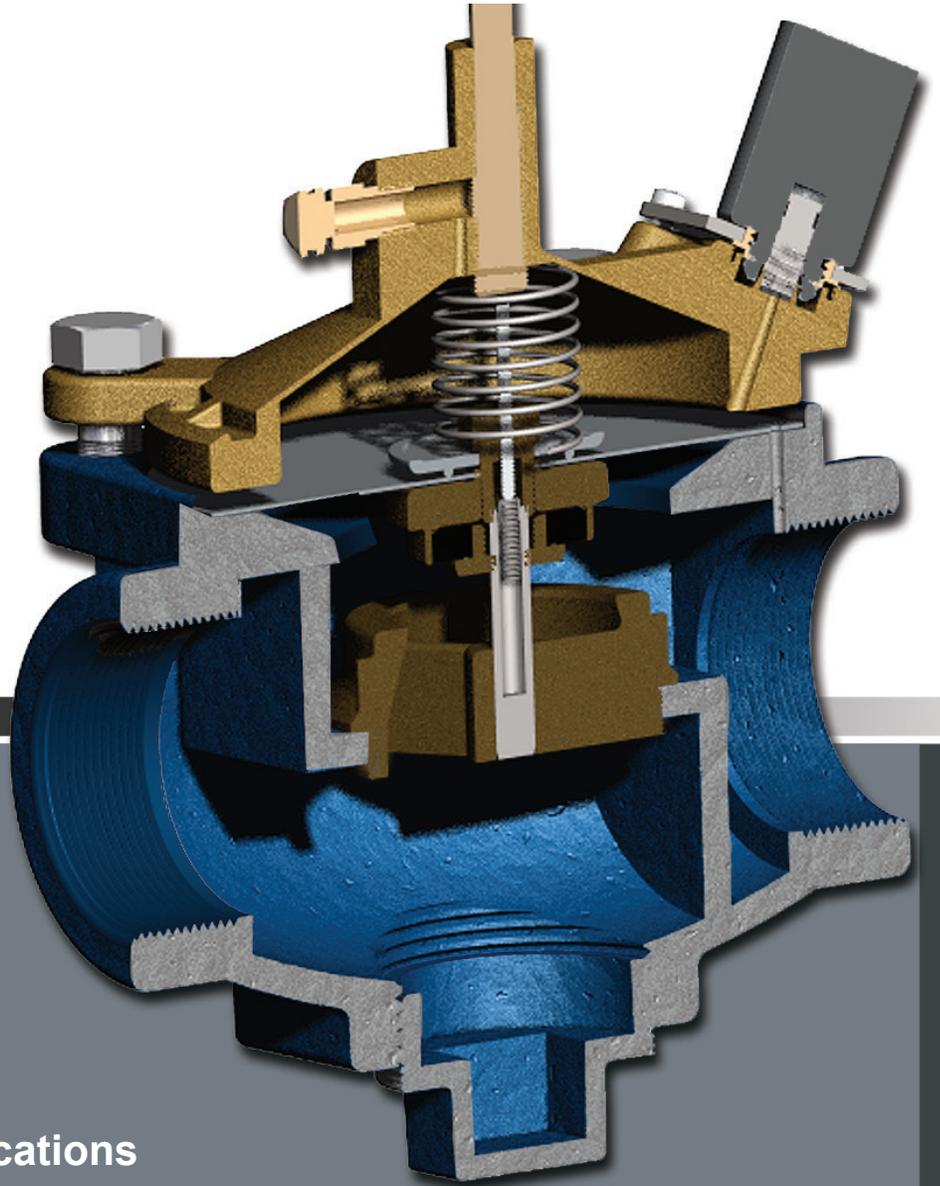


# 2000 Series Heavy-Duty Irrigation Valves



## Recommended Applications

- Golf Courses
- Landscapes
- Parks
- Right-of-ways

Absolute Control. **Optimized Efficiency.**

- **Self-cleaning: No filters or screens to replace**
- **Slow closing and slow opening: Minimizes stress to pipes, pipe joints and sprinkler heads**
- **Heavy-duty cast iron, bronze, stainless steel and copper construction**
- **Five year warranty**

For maximum durability and performance, no other remote control irrigation valve can compare! Griswold Controls' unique design allows the 2000 Series valve line to serve dependably under the most adverse conditions. Designed to resist most water-borne contaminants such as dirt, algae and other organic and inorganic materials, the 2000 Series' self-flushing design allows most foreign materials to harmlessly pass through the valve without impeding its operation.

Numerous control adjustment features are available, a variety of which are standard with each valve model. Depending upon the valve selected, precise pressure and flow control adjustments can be made to the exact requirements of any given watering system. Furthermore, every 2000 Series valve features a "slow-to-open" and "slow-to-close" action characteristic that minimizes stress to pipes, pipe joints, and sprinkler heads.

The regular operation of a water system involves the constant expansion and contraction of all components as varying water pressures and flow rates pass through the system. The 2000 Series valves reduce that stress by its unique way of applying water flow and pressure at a slower rate. No other valve is as versatile or has the potential to save thousands of dollars in future pipe repair and maintenance costs!

Another unique option available is a self-draining feature allowing the valve and water system to be cleared prior to a cold weather freeze. This is useful in cold weather climates where ground freezing can cause serious damage to pipes and sprinkler heads that would otherwise be filled with ice.

Epoxy powder coating is available for all 2000 Series valves. Epoxy coating greatly preserves the cast iron valve body and significantly extends the valve body's life. To order Epoxy coating, simply add the letter "E" suffix to the valve model number and size you are selecting.

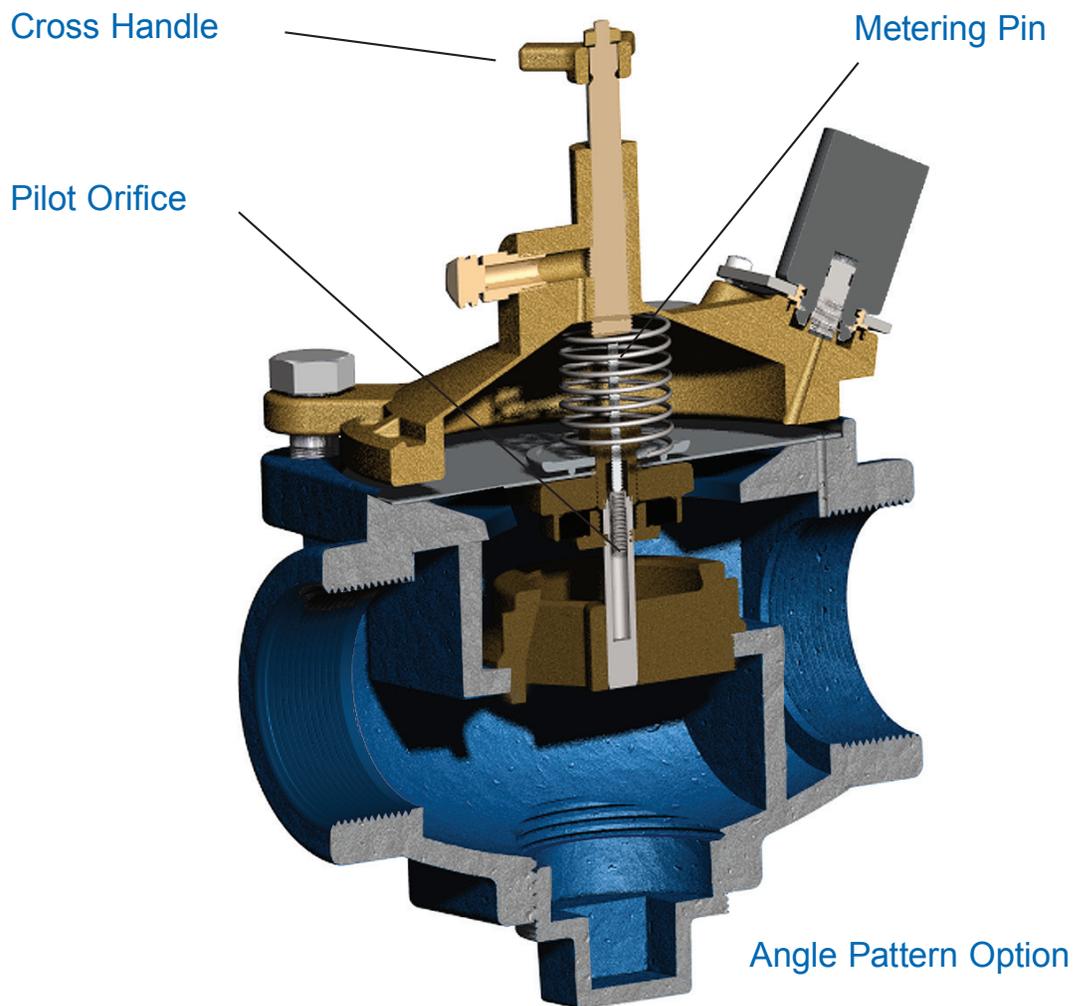
Griswold Controls 2000 Series remote control valves are made of solid cast iron, brass, and copper, and can be installed above or below grade level. They are extremely durable, designed for years of sustained regular use. An optional Epoxy powder coating is available that is highly resistant to corrosive elements, adding even more years of useful life to the valve body.

2000 Series valves are specifically designed to minimize pipe and sprinkler head stress caused by the pressure fluctuations occurring in typical water lines. A unique slow opening and slow closing feature accomplishes this. Depending upon the valve model selected, 2000 Series valves are highly adjustable and can be adapted to control most any water line pressure condition.

Another key advantage to the 2000 series valve is its unique solenoid. Griswold Controls' .07 Amp solenoid requires much less electrical energy to actuate. This is ideal when parallel or multiple valve watering is required or for solar battery applications. In cases when limited water window restrictions are mandated and large areas need to be watered in a short period of time, this allows more valves to be run at the same time. Generally, an irrigation controller that has 1-1/2 Amps of available current for valves can run as many as 12 Griswold Controls' low energy solenoids, while most other manufacturers' valves would be limited to running only about four.

Valve sizes larger than eight inches are also available and include the same features as the smaller sizes described here. Contact your factory representative for more information. Both globe and angle pattern configurations are available.

## Opening and Closing Speed Control Components



- Operating pressure: 3 to 300 psi
- Flow range: 0.01 to 3,000 gpm +
- Manual on-off control
- Combination straight and angle pattern body
- Wide control range for pressure-reducing valves
- Upstream pressure variations: 3 to 300 psi
- Downstream pressure adjustment: 5 to 125 psi
- Pressure accuracy: plus or minus 5%
- Optional Epoxy-fused coating
- Optional British standard pipe threads (BSPT)
- Available valve sizes: 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 6 and 8 inches. Larger sizes are available.

Ask your dealer for more information

## Nominal Dimensions and Flow Rates

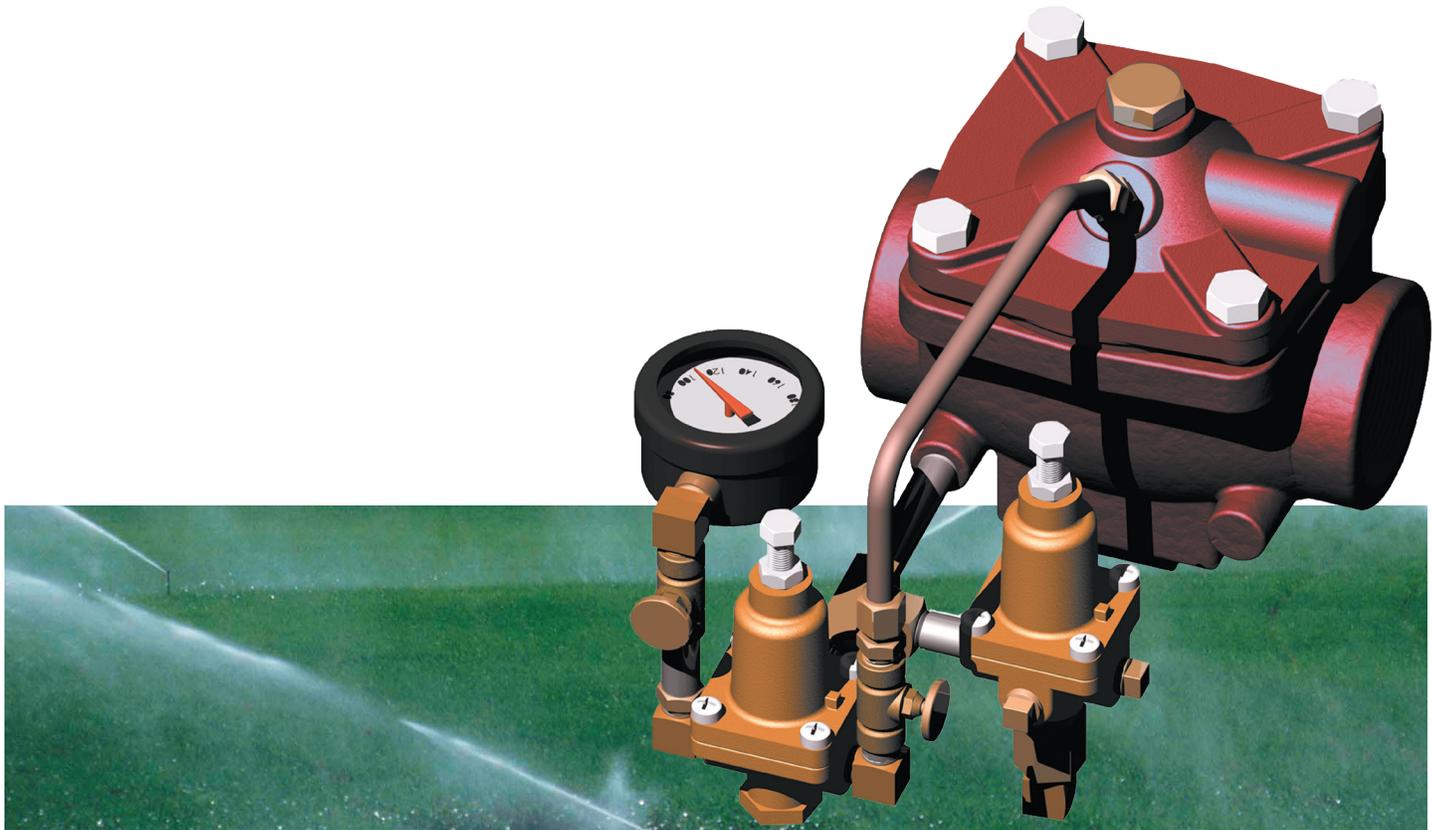
Size	Model Size	Overall Dimensions (in inches)						Flow Range
		Length	Height	Width				
NPT/ BSP	Suffix			2000 and 2030	2160 and 2260	2230	2250, 2265	(GPM)
1	H	4.5	6.8	4.0	4.5	8.0	10.0	0.01–60
1–1/4	J	4.5	6.8	4.0	4.5	8.0	10.0	0.01–70
1–1/2	K	5.5	8.3	4.8	5.5	9.5	10.0	0.01–100
2	L	7.5	9.5	6.0	7.5	10.0	12.0	0.01–200
2–1/2	M	7.5	9.5	6.0	7.5	10.0	12.0	0.01–300
3	N	8.5	10.5	6.0	8.5	10.5	12.5	0.01–400
4	P	15.0	11.1	15.5	15.5	15.5	17.5	200-900
6	Q	20.0	18.9	19.8	19.8	19.8	21.8	400-2100
8	R	25.4	22.8	24.0	24.0	24.0	26.0	700-3400

Number of Valves	18 Gauge Wires	16 Gauge Wires	14 Gauge Wires	12 Gauge Wires	10 Gauge Wires
1	1,500	2,400	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

Distance (in feet) vs. Wire Size:  
Standard Solenoid (used on 2000, 2160, 2260 and 2265 models)

Number of Valves	18 Gauge Wires	16 Gauge Wires	14 Gauge Wires
1	7,000	11,000	17,000
2	3,500	5,500	8,500
3	2,300	3,600	5,500
4	1,750	2,700	4,200
5	1,400	2,200	3,400
6	1,160	1,800	2,800

Distance (in Feet) vs. Wire Size:  
LOW ENERGY Solenoid (used on 2030, 2230 and 2250 models)



Size	Flow Pattern	Flow Rate (GPM)																																			
		10	15	20	25	30	35	40	45	50	55	60	65	70	80	90	100	120	140	160	180	200	225	250	275	300	325	350	375	400							
1"	Straight	1.0	1.24	2.2	3.4	5.0	6.7	8.8	11.1	13.7	16.6	19.7																									
	Angle			1.7	2.7	3.9	5.2	6.8	8.7	10.7	12.9	15.4																									
1-1/4"	Straight			1.5	2.3	3.3	4.5	5.8	7.4	9.1	11.0	13.1	15.3	17.8																							
	Angle			1.3	2.0	2.8	3.9	5.1	6.4	7.9	9.6	11.4	13.3	15.5	Consult with factory in this range																						
1-1/2"	Straight				1.3	1.8	2.4	3.0	3.7	4.5	5.0	5.4	6.3	9.5	12.0	14.8																					
	Angle					1.5	1.9	2.4	3.0	3.6	4.3	5.9	6.8	7.6	9.7	11.9																					
2"	Straight											1.6	1.8	2.4	3.0	3.7	5.3	7.3	9.5	12.0	14.8																
	Angle											1.3	1.5	2.0	2.5	3.1	4.5	6.1	7.9	10.0	12.3																
2-1/2"	Straight													1.0	1.2	1.5	1.9	2.4	3.4	4.6	6.1	7.7	9.5	12.0	14.8	17.9	21.3										
	Angle														1.2	1.6	1.9	2.8	3.8	4.9	6.3	7.7	9.8	12.0	14.6	17.4											
3"	Straight																1.2	1.5	2.1	2.8	3.7	4.7	5.8	7.3	9.1	11.0	13.1	15.3	17.8	20.4	23.2						
	Angle																1.0	1.2	1.7	2.3	3.0	3.8	4.7	6.0	7.4	8.9	10.6	12.5	14.5	16.6	18.9						

Pressure Loss (in psi) at Various Flow Rates (minimum flow rate .01 GPM)

Size	Flow Rate (GPM)																											
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	3000	3100	3200	3300	3400	
4"		1.0	2.3	4.0	6.3	9.0	12.3	16.0	20.3																			
6"				0.8	1.2	1.7	2.3	3.0	3.8	4.7	5.7	6.8	8.0	9.3	10.6	12.1	13.7	15.3	17.1	18.9	20.8	Consult with factory in this range						
8"							0.8	1.1	1.4	1.7	2.0	2.4	2.9	3.3	3.8	4.3	4.9	5.5	6.1	6.7	7.4	8.2	15.2	16.2	17.3	18.4	19.5	

## Irrigation Valves 1" to 3" Applications

### 2000 Solenoid Valve

- Remote control valve (RCV)
- Master valve
- Ideal for all landscapes, parks, right-of-ways, golf courses

### 2030 Low Power Solenoid Valve

- Remote control valve (RCV)
- Master valve
- Long wire will run solar battery powered controllers
- Ideal for all landscapes, parks, right-of-ways, golf courses
- Parallel or multiple—open valve operation



### 2160 Solenoid Valve

- Master valve
- Ideally implemented when flow sensitive controller with flow sensor is used

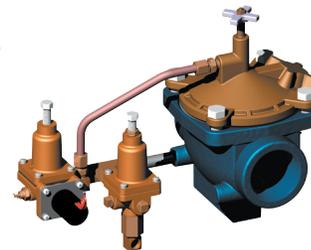


### 2230 Pressure Reducing Solenoid Valve

- Remote control valve (RCV)
- Master valve
- Designed for low precipitation sprinklers, spray heads and drip systems
- Perfect for slopes, banks and hilly terrain
- Long wire will run solar battery powered controllers
- Parallel or multiple—open valve operation
- Works well in high inlet pressure conditions that need to be reduced

### 2250 Pressure Reducing/Surge Anticipation

- Master valve for systems with high supply pressure
- Perfect for slopes, banks and hilly terrain
- Long wire will run solar battery powered controllers
- Ideal for all landscapes, parks, right-of-ways, golf courses
- Parallel or multiple open valve operation
- Surges above settings are automatically relieved



### 2260 Solenoid Valve

- Master valve
- Perfect for slopes, banks and hilly terrain
- Perfect when flow sensitive controller with flow sensor is used
- Works well in high inlet pressure conditions that need to be reduced



### 2265 Pressure Reducing/Surge Anticipation

- Master valve
- Perfect for slopes, banks and hilly terrain
- Ideal for all landscapes, parks, right-of-ways, golf courses.
- Perfect when flow sensitive controller with flow sensor is used
- Surges above settings are automatically relieved



## Irrigation Valves 4" to 8" Applications

### 2000 Solenoid Valve

- Remote control valve (RCV)
- Master valve
- Ideal for all landscapes, parks, right-of-ways, golf courses

### 2030 Low Power Solenoid Valve

- Remote control valve (RCV)
- Master valve
- Long wire will run solar battery powered controllers
- Ideal for all landscapes, parks, right-of-ways, golf courses
- Parallel or multiple-open valve operation



### 2160 Solenoid Valve

- Master valve
- Ideally implemented when flow sensitive controller with flow sensor is used



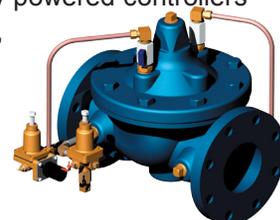
### 2230 Pressure Reducing Solenoid Valve

- Remote control valve (RCV)
- Master valve
- Designed for low precipitation sprinklers, spray heads and drip systems
- Perfect for slopes, banks and hilly terrain
- Long wire will run solar battery powered controllers
- Parallel or multiple-open valve operation
- Works well in high inlet pressure conditions that need to be reduced



### 2250 Pressure Reducing/Surge Anticipation Solenoid Valve

- Master valve for systems with high supply pressure
- Perfect for slopes, banks and hilly terrain
- Long wire will run solar battery powered controllers
- Ideal for all landscapes, parks, right-of-ways, golf courses
- Parallel or multiple open valve operation
- Surges above settings are automatically relieved



### 2260 Solenoid Valve

- Master valve
- Perfect for slopes, banks and hilly terrain
- Perfect when flow sensitive controller with flow sensor is used
- Works well in high inlet pressure conditions that need to be reduced

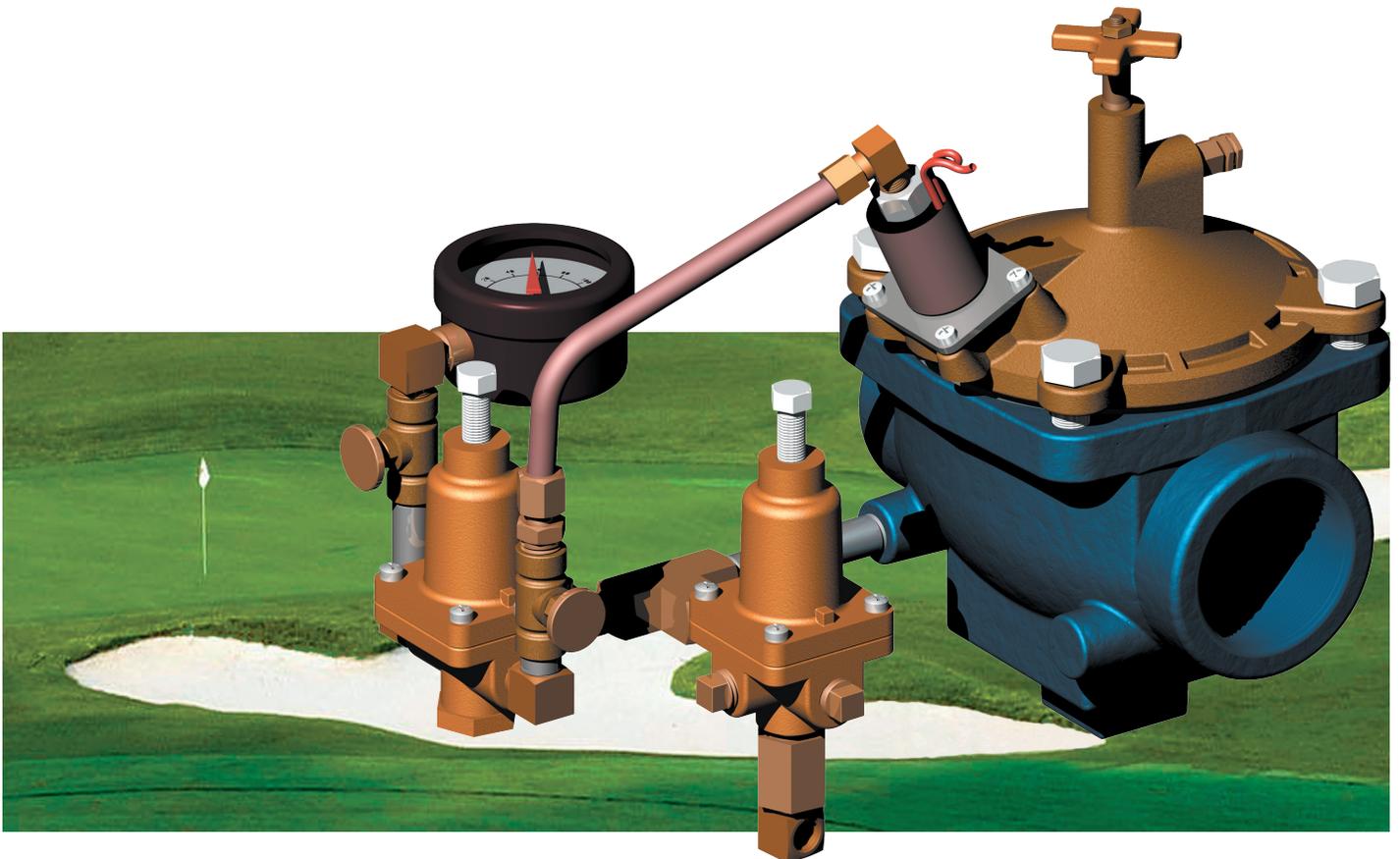
### 2265 Pressure Reducing / Surge Anticipation Solenoid Valve

- Master valve
- Perfect for slopes, banks and hilly terrain
- Ideal for all landscapes, parks, right-of-ways, golf courses.
- Perfect when flow sensitive controller with flow sensor is used
- Surges above settings are automatically relieved



Fail safe position	Valve	Size	Voltage Operating Range (VAC)	Standard Regulating Range	Internal Manual Bleed	Current Requirement	Pressure Gauge
Normally closed	2000	1-8"	17-40	N/A	No	0.40A at 24 VAC	N/A
	2030	1-8"	16-40	5-125 psi <sup>1</sup>	No	0.07A at 24 VAC	N/A
	2230	1-8"	16-40	5-125 psi	Yes	0.07A at 24 VAC	N/A
	2250	1-8"	16-40	5-125 psi	Yes	0.07A at 24 VAC	N/A
Normally open	2160	1-8"	17-40	N/A	No	0.40A at 24 VAC	N/A
	2260	1-8"	17-40	5-125 psi <sup>1</sup>	Yes	0.40A at 24 VAC	N/A
	2265	1-8"	17-40	5-125 psi <sup>1</sup>	Yes	0.40A at 24 VAC	Standard

<sup>1</sup> Higher regulating range also available (Optional)



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