



The P220G and P220GS Series provide a full family of plastic valves that can deliver the water to meet the challenging needs of today's courses. With precise pressure regulation these valves deliver the optimum pressure and flow requirements to every sprinkler on the zone ensuring maximum uniformity of the water to the turf.

FEATURES & BENEFITS

EZReg® Pressure Regulating System

Can be adjusted from 5-100 psi to deliver the optimum pressure for every need.

Spike Guard™ Solenoid

With its 20,000 volt lightning rating, it virtually eliminates the need for solenoid replacements in high lightning environments.

Internal Manual Bleed

Ensures the optimum pressure of the system even when being operated manually.

Double-beaded Fabric Reinforced Diaphragm

Provides superior performance and extended life without tearing in high-pressure golf applications.



Self-Cleaning Metering Pin
A self-cleaning feature that operates two times during every valve cycle ensuring smooth positive opening and closing.



Additional Features

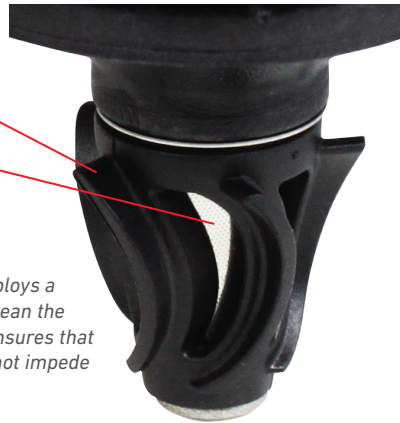
- ✓ Glass-filled nylon and stainless steel construction
- ✓ Internal and External bleed
- ✓ No external tubing
- ✓ Standard, built-in Schrader-type valve for downstream pressure verification
- ✓ Flow control independent of solenoid
- ✓ Self-aligning bonnet to ensure correct installation
- ✓ Self-cleaning, stainless steel metering rod
- ✓ Low-flow capability down to 5 gpm
- ✓ Low-power requirement for longer wire runs

VALVE WIRE SIZING CHART

Maximum One-way Distance (in ft.) Between Controller and Valve Using Spike-Guard™ Solenoid*

Ground Wire	Control Wire						
	18	16	14	12	10	8	6
18	2040	2520	2940	3280	3540	3720	3860
16	2520	3260	4000	4660	5220	5620	5920
14	2940	4000	5180	6360	7420	8300	8960
12	3280	4660	6360	8240	10100	11800	13180
10	3540	5220	7420	10100	13180	16060	18770
8	3720	5260	8300	11800	16060	20800	25540
6	3860	5960	8960	13180	18700	25540	33080

* Solenoid Model: 24 V ac
Pressure: 150 psi
Voltage Drop: 4 V
Minimum Operating Voltage: 20 V
Amperage (peak) 0.12 A



"Scrubber" Turbine

Filter Surface

ACT™ System

Toro's patented technology employs a constantly rotating turbine to clean the metering/filtration area. This ensures that dirt, algae and particulates do not impede valve performance.

SPECIFICATIONS

Operational

- Flow Range:
 - 1" – 5 to 40 gpm
 - 1½" – 30 to 110 gpm
 - 2" – 80 to 180 gpm
- Operating Pressure (220 psi maximum pressure rating):
 - 1" – 1½" – 10 to 220 psi
 - 2" – 20 to 220 psi
- EZReg® Pressure regulating:
 - Outlet: 5 to 100 psi ± 3 psi
- Inlet: 10 to 220 psi
- Minimum pressure differential (between inlet and outlet) for pressure regulation: 10 psi
- Burst pressure safety rating: 750 psi
- Body styles:
 - Globe/Angle – 1", 1½", 2" female threads
- Spike Guard™ Solenoid: 24 VAC (50/60 Hz) Standard
 - Inrush: 60 Hz: 0.12 amps
 - Holding: 60 Hz: 0.1 amps
- DC latching – momentary low voltage pulse

Dimensions

- 1" – 6¾" H x 3⅝" W
- 1½" – 7¼" H x 3⅝" W
- 2" – 9½" H x 6⅛" W

Warranty

- Five years

P220G SERIES FRICTION LOSS DATA*

Size	Configuration	gpm Flow																	
		5	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	180	
1"	Globe	4.00	4.20	3.20	4.10	7.20													
	Angle	4.00	4.20	3.10	2.70	4.80													
1½"	Globe				1.60	2.30	3.60	5.20	7.00	9.20	11.20	13.60	16.40						
	Angle				1.30	1.60	2.80	4.00	5.50	7.10	8.90	10.90	13.50						
2"	Globe									2.10	2.70	3.30	4.00	4.80	5.60	6.50	7.50	8.70	
	Angle									1.20	1.60	2.00	2.40	2.80	3.30	3.90	4.40	5.20	

P220GS SERIES FRICTION LOSS DATA*

Size	Configuration	gpm Flow																	
		5	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150		
1"	Globe	4.63	4.74	3.10	6.05	10.75													
	Angle	4.14	4.64	2.54	5.53	9.46													
1½"	Globe			1.14	1.56	2.85	4.36	6.28	8.57	11.20	14.03	17.20	20.46						
	Angle			0.95	1.51	2.28	3.69	5.29	6.97	9.26	11.80	14.60	17.40						
2"	Globe									3.57	4.62	5.33	6.80	8.20	9.02	10.46	11.61		
	Angle									2.79	3.50	4.41	5.62	6.39	7.35	8.81	9.37		

Note: For optimum performance when designing a system, be sure to calculate total friction loss to ensure sufficient downstream pressure. For optimum regulation performance, size regulating valves toward the higher flow ranges. Flow rates are recommended not to exceed 5 psi loss.

Specifying Information—P220G and P220GS Series

P220GS-27-OX-XXX			
Type	Body Style	Size	Optional
P220GS	27	OX	XXX
P220G—P220G Series Plastic Valve P220GS—P220GS Series Plastic Scrubber Valve	27—NPT, Pressure-regulated (5–100 psi)	4—1" 6—1½" 8—2"	E—Effluent DL—DC Latching Solenoid for GDC System DLE—DC Latching Solenoid for GDC System, Effluent
Example: A 1" P220G Series plastic electric, pressure-regulating valve with a 60 Hz solenoid, would be specified as: P220G-27-04			