



Count on it.

# P-220 Scrubber Series Solenoid Valve

## V A L V E S

*A true dirty water irrigation valve, that can handle chlorine and other chemicals found in reclaimed and other non-potable water systems. Constructed of heavy-duty, glass-filled nylon and EPDM rubber materials, these valves resist clogging and feature a patent-pending active scrubbing mechanism (ACT™ System) to actively fight sand, algae and other particles from blocking the proper metering through the valve.*

### Features & Benefits

#### Active Cleansing Technology (ACT™)

Industry's first active scrubber valve cleans continuously whereas competitive valves only clean on opening and closing.

#### Fabric-reinforced EPDM Diaphragm and EPDM Seat

Designed to work in virtually all water applications.

#### Rugged Internal Plastic And Stainless Steel Parts

Scrubber fan, nut and metering system are designed with aerospace plastics which make them resistant to water treated with chlorines and ozones.

#### Precise Pressure Regulation Option

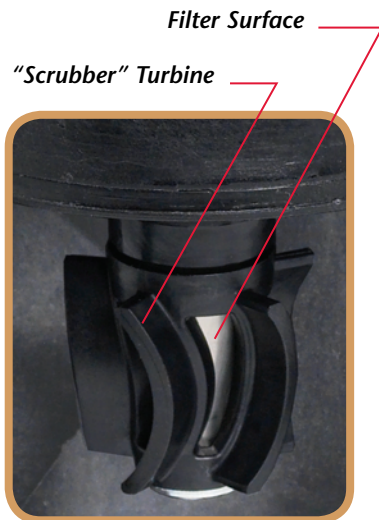
Compact EZReg® dial-design technology ensures precise downstream pressure for optimizing sprinkler head performance.

#### Completely Serviceable and Retrofittable

Diaphragm assembly may be replaced or retrofitted to previous models.

#### Durable Glass-Filled Nylon

Ensures all P-220 valves can operate at pressures up to 15 bar (220 psi).



### The P-220S Scrubber

The new P-220 Scrubber Valves have the patent-pending ACT™ System – Active Cleansing Technology – in which the durable turbine is constantly rotating to clean the metering/ filtration area. This continual cleaning ensures that dirt, algae, chlorines, chloramines and water treated with ozone will not impede valve performance.

### Specifying Information—P220S

P220S-2X-XX			
Model	Activation Type	Solenoid	Size
<b>P220S</b>	<b>2X</b>	<b>X</b>	<b>X</b>
P220S—P-220S Scrubber Series Plastic Valve	23—BSP, Electric 26—NPT, Electric	5—50Hz Solenoid 9—DC Latching Solenoid	8—50mm (2") 0—75mm (3")

**Example:** A 2" P-220S Series plastic electric valve would be specified as: **P220S-23-58**



# P-220 Scrubber Series Solenoid Valve

## Specifications

Model	Description
• P220S-23-58	• P-220, 50mm(2") BSP Plastic, 50Hz, with ACT™ System
• P220S-23-50	• P-220, 75mm(3") BSP Plastic, 50Hz, with ACT™ System
• 102-7879	• 50mm (2") scrubber diaphragm assembly
• 102-7880	• 75mm (3") scrubber diaphragm assembly

## Operating Specifications

- Flow Range:
  - 50mm (2") — 300-680 LPM
  - 75mm (3") — 568- 1135 LPM
- Operating Pressure (15 bar maximum pressure rating):
  - Electric — 0,7-15 bar (10-220 psi)
- Pressure regulating:
  - Outlet (EZR-30): 0,3-2 bar ± 0,2 bar (5 – 30 psi + 3 psi)
  - Outlet (EZR-100): 0,3-6,9 bar ± 0,2 bar
- Inlet: 0,7-15 bar (10-220 psi)
- Minimum pressure differential (between inlet and outlet) for pressure regulation: 0,7 bar (10 psi)
- Burst pressure safety rating: 51.7 bar (750 psi)
- Body styles:
  - Globe/Angle – 50mm (2"), 75mm (3") female threads
- 102-7054 Solenoid: 24 VAC (50 Hz) Standard BSP
  - Inrush: 50 Hz: 0.34 amps
  - Holding: 50 Hz: 0.2 amps

## Additional features

- Tough glass-filled nylon and stainless steel construction
- Internal and External bleed
- Pressure regulates in electric or pressure-regulating models
- No external tubing for either pressure-regulating model
- 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 19 LPM with EZReg
- Low-power requirement for longer wire runs

## Dimensions

- 50mm (2") — 241mm H x 155mm W (9 1/2" x 6 1/8")
- 75mm (3") — 273mm H x 155mm W (10 3/4" x 6 1/8")

## Options Available

- EZR-30 –EZReg, 0,3-2 bar (5-30 psi) Regulator Module
- EZR-100—EZReg, 0,5-6.9 bar (5-100 psi)
- EFF-KIT-50HZ—Effluent Water (Lavender) solenoid Assembly (24 VAC, 50 Hz) and Warning Tag
- 102-7054 – 24 VAC Solenoid Assembly, 50Hz
  - 450 mm (18") Leads, Captive Plunger
- DCLS-P—Potted DC Latching Solenoid Assembly

## Warranty

- Five years

## P-220 Series Friction Loss Data – Metric\*

Size	Configuration	LPM Flow																					
		40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100
25mm (1")	Globe Angle	0,29 0,29	0,25 0,35	0,25 0,21	0,26 0,20	0,32 0,21	0,43 0,29	0,55 0,38	0,69 0,49	0,82 0,61													
40mm (1 1/2")	Globe Angle					0,12 0,09	0,14 0,10	0,18 0,13	0,23 0,17	0,28 0,22	0,43 0,34	0,62 0,48	0,85 0,65	1,11 0,85									
50mm (2")	Globe Angle											0,14 0,08	0,20 0,12	0,25 0,15	0,32 0,19	0,40 0,24	0,48 0,29	0,54 0,32					
75mm (3")	Globe Angle																	0,18 0,14	0,24 0,19	0,32 0,26	0,41 0,34	0,52 0,43	0,65 0,54

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 0,3 bar loss. Values shown in bar. For kPa values, multiply tabular values by 100. For kg/cm<sup>2</sup> values, multiply tabular values by 1,02.

\* Data taken with EZReg pressure regulation device installed. Data remains the same with or without pressure regulation.



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