



# 220 Brass Series



## Valves

**Built for superior performance under pressure**, these Toro® heavy-duty brass and stainless steel valves are rugged and reliable. The debris-resistant design is tested and proven under the harshest conditions.

### Features & Benefits

#### Nearly Three Times the Lightning

Protection of Competitive Product with a lightning rating exceeding 20,000 volts.

#### Precise Pressure Control Option

Compact EZReg® dial-design technology (factory or field installed no need to remove solenoid).

#### Dirty Water Resistance

120-mesh, stainless steel filter screen is constantly flushed by the flow, enabling the use of very dirty water without clogging and valve closure failure.

#### External Downstream Manual Bleed

Keeps valve box dry and allows for manually setting pressure regulation.

#### Spike-Guard™ Solenoid

Reduces wire size requirements, allows twice as many valves to run simultaneously on a transformer and lowers power costs.



## Water Management Highlight

### Dirty Water Resistance

The 120-mesh, stainless steel filter screen is positioned on the supply side of the water stream. It is constantly flushed by the flow, enabling the use of very dirty water without clogging. Stainless steel construction of both the filter screen and the valve solenoid seat ensure long component life in all types of water and pressures.



## Specifications

### Dimensions

- 1" (25mm): 5 1/4" H x 5" W (133 x 127mm)
- 1 1/4" (32mm): 6 1/2" H x 6" W (165 x 152mm)
- 1 1/2" (40mm): 6 1/2" H x 6" W (165 x 152mm)
- 2" (50mm): 7 1/2" H x 7" W (191 x 178mm)
- 2 1/2" (65mm): 8 3/4" H x 8 1/2" W (223 x 216mm)
- 3" (80mm): 8 3/4" H x 8 1/2" W (223 x 216mm)

### Operating Specifications

- Flow Range:
  - 1" (25mm): 5 to 40 GPM (19 to 151 LPM)
  - 1 1/4" (32mm): 20 to 100 GPM (75 to 378 LPM)
  - 1 1/2" (40mm): 20 to 130 GPM (75 to 492 LPM)
  - 2" (50mm): 30 to 180 GPM (114 to 681 LPM)
  - 2 1/2" (65mm): 60 to 250 GPM (227 to 946 LPM)
  - 3" (80mm): 80 to 350 GPM (303 to 1324 LPM)
- Operating Pressure:
  - Electric – 10 to 220 psi (1,4 to 15,2 Bar)
- Pressure regulating:
  - Outlet (EZR-30): 5 to 30 psi ± 3 (0,3 to 2,1 Bar)
  - Outlet (EZR-100): 5 to 100 psi ± 3 (0,3 to 7,0 Bar)
- Inlet: 10 to 220 psi (1,4 to 15,2 Bar)
- Minimum pressure differential (between inlet and outlet) for pressure regulation: 10 psi (1,4 Bar) 2" & 3" – 20 PSI (1,38 Bar)
- Burst pressure safety rating: 750 psi (51,7 Bar)
- Body styles:
  - Globe valve – 1" (25mm), 1 1/4" (32mm), 1 1/2" (40mm), 2" (50mm) female threads
  - Angle valve – 2 1/2" (65mm), 3" (80mm) female threads
- Spike Guard™ Solenoid: 24 VAC (50/60 Hz) Standard
  - Inrush: 60 Hz: 0.12 amps
  - Holding: 60 Hz: 0.1 amps

### Additional features

- Diaphragm stem guide
- 316 nuclear-grade stainless-steel stem for maximum corrosion resistance
- Pressure regulator can be installed as a service kit without draining the main line
- Pressure regulates in electric and manual modes, serviceable under pressure
- Forward-flow design for more precise regulation
- Standard, built-in Schrader-type valve for downstream pressure verification
- Anti-vandal dust cap on pressure-regulating models
- No external tubing for either electric or pressure regulating models
- Manual flow control: adjustable to zero flow
- Tough, double-beaded, fabric-reinforced rubber diaphragm

### Options Available

- EZR-30 - EZReg, 5-30 psi (0,3-2,1 Bar) Regulator Module
- EZR-100 - EZReg, 5-100 psi (0,3-7,0 Bar) Regulator Module
- EFF-KIT-60 Hz - Effluent Water (Lavender) Solenoid Assembly (24 VAC, 60 Hz) and Warning Tag
- 118-5982 - 24 VAC Solenoid Assembly, 60 Hz, 18" (45,7cm) Leads, Captive Plunger
- DCLS-P - Potted DC Latching Solenoid Assembly

### Warranty

- Five years

### 220 Brass Series Friction Loss Data

Model	Type	GPM Flow																			
		5	10	15	20	30	40	50	60	70	80	100	120	150	170	180	200	250	300	350	
1"	Electric	1.75	2.0	2.2	3.10	5.05	7.80														
1 1/4"	Electric				1.85	2.50	2.70	3.50	4.10	5.6											
1 1/2"	Electric				2.15	2.45	2.80	3.05	3.80	5.0	6.55										
2"	Electric					3.05	3.20	2.90	2.95	3.25	3.40	4.50	6.55	10.10	13.45	14.85					
2 1/2"	Electric								2.0	2.2	2.3	2.4	2.5	3.0	4.0	4.5	5.5				
3"	Electric											2.2	2.4	2.5	3.0	4.0	4.5	5.5	6.5	7.0	7.5

Notes: For optimum performance when designing a system, 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—220 Brass

220-2X-X-X			
Model	Activation Type	Solenoid	Size
220	2X	X	X
220—220 Series Brass Valve	6—NPT, Electric 7—NPT, Pressure regulated (5—100)	0—Spike Guard Solenoid 6—Less Solenoid 9 - DC Latching Solenoid	4—1" (25mm) 8—2" (50mm) 5—1 1/4" (32mm) 9—2 1/2" (65mm) 6—1 1/2" (40mm) 0—3" (80mm)

Example: A 1" (25mm) NPT pressure-regulated, 220 Series Brass Valve with Spike Guard solenoid, would be specified as: **220-27-04**

Note: 1", 1 1/2" and 2" —globe configuration.  
2 1/2" and 3" —angle configuration.

### 220 Brass Series Model List

Model	Description
• 220-26-04	1" (25mm) In-line
• 220-26-05	1 1/4" (32mm) In-line
• 220-26-06	1 1/2" (40mm) In-line
• 220-26-08	2" (50mm) In-line
• 220-26-09	2 1/2" (65mm) Angle
• 220-26-00	3" (80mm) Angle
Pressure Regulated With EZREG®	
• 220-27-04	1" (25mm) In-line
• 220-27-05	1 1/4" (32mm) In-line
• 220-27-06	1 1/2" (40mm) In-line
• 220-27-08	2" (50mm) In-line
• 220-27-09	2 1/2" (65mm) Angle
• 220-27-00	3" (80mm) Angle
With Latching Solenoid	
• 220-26-94	1" (25mm) In-line
• 220-26-95	1 1/4" (32mm) In-line
• 220-26-96	1 1/2" (40mm) In-line
• 220-26-98	2" (50mm) In-line
• 220-26-99	2 1/2" (65mm) Angle
• 220-26-90	3" (80mm) Angle
Electric Valves Less Solenoid	
• 220-26-64	1" (25mm) In-line
• 220-26-66	1 1/2" (40mm) In-line
• 220-26-68	2" (50mm) In-line
• 220-26-60	3" (80mm) Angle

