



Preferred Specifications

Document Number	Issue Date	Rev. Date
F-2942	04/22	

Discharge Valves

A. Waterous Discharge Valve Construction

1. Ball valve shall be chromium-plated bronze with stainless steel internal moving parts.
2. 2-1/2-inch valves shall have upper and lower bronze bushings to support the valve trunnions.
3. 3-1/2-inch valves shall have ball bearings on valve trunnions for easy opening and closing.
4. Valve body shall be constructed of cast iron.
5. Multi-drain port shall drain both the valve body and discharge hose.
6. Valve shall be supplied with hydraulically balanced floating seal that self-adjusts for wear and prevents leakage. O-rings shall be used throughout for easy replacement.
7. All valves shall be 1/4-turn open to close.
8. Flange mounted valves shall be mounted directly on the pump discharge flange or directly on a discharge fitting flange.
9. For in-line mounting where the valve is plumbed directly in the piping, the customer must order tapped flanges and re-configure the valve themselves.

B. Discharge Valve Operating Mechanisms

Waterous valves are designed to open and close easily at any pressure with any one of the operating mechanisms described below. Mechanisms include provisions for valves mounted at the operator's panel, remote panel mounting and for top control arrangements. All valves are 1/4-turn open to close

1. Push-Pull, Twist Lock Operation (2-1/2-inch Standard and Full-Flow only)

- a) Rack and sector operating mechanism shall provide constant force at any valve position.
- b) Panel-mounted stainless steel T handle shall lock the valve in any position regardless of pressure.
- c) Valve shall be locked in position by a 90° twist of the handle in either direction.

2. Quarter-Turn, Remote Locking (2-1/2-inch Standard and Full-Flow only)

- a) An arm attached to the valve stem shall open or close the valve by turning.
- b) The arm cannot be locked at the valve. Customer must provide a remotely located locking device.
- c) Drain taps shall be at 90 degrees to waterway for 2-1/2 in. full-flow and 45 degrees to waterway for 2-1/2 in. standard.

3. Push-Pull with Flowmeter Provision (2-1/2 in. Full Flow only)

- a) Rack and sector shall be operated by a push-pull handle to open or close.
- b) Valve shall be locked in position by a 90° twist of the handle in either direction.
- c) Valve shall have a provision for mounting a flowmeter (Waterous does not furnish flowmeter).

4. Manual Rotary (All Valves)

- a) Manual Rotary control shall comply with NFPA requirements for slow actuation.
- b) Hand crank worm gear shall allow easy operation of any size valve.
- c) Ten (10) turns shall move the valve from fully open to closed.
- d) Open, Closed and intermediate positions shall indicate position on bright LED panel.

5. Electric Rotary Actuator (All Valves)

- a) Electric Rotary Actuator control shall comply with NFPA requirements for slow actuation.
- b) Panel mounted switch shall allow for easy positioning of the valve.
- c) Valve control shall indicate accurate valve position with bright LED's located on operator's panel.