

CRANE

Bronze Gate Valve Installation, Operation and Maintenance Instructions

Installation

- 1) The standard gate valve is bi-directional and may be installed for flow in either direction.
- 2) Before valve installation thoroughly clean and prepare piping system, be sure mating pipe threads are free from excessive grit, dirt or burrs.
- 3) Use pipe sealant on threaded valves, which is recommended for valve, end use.
- 4) Use solder on solder joint valves, which is recommended for valve, end use.
- 5) Inspect the valve ports and seating surfaces for cleanliness just prior to installation. Take care to assure that pipe sealant is not excessively applied to the pipe threads, as to foul the valve seats.
- 6) Support the valve to prevent unnecessary stresses induced by the connecting pipe.
- 7) Operate the valve from the full open to closed position.
- 8) Verify the tightness of the packing nut after installation.

Operation

- 1) Gate valves are operated manually. To open, turn the handle in a counterclockwise direction. To close, turn the handle in a clockwise direction.
- 2) If the handwheel is difficult to turn, loosen packing nut $\frac{1}{4}$ to $\frac{1}{2}$ turn. Retighten packing nut after open-close operation is completed.
- 3) Operation of the valve is recommended only in the full open or full closed position.
NOTE: Rising stem valves are equipped with backseats. The backseat can be used to determine the full open valve position. In the open position, the stem should be backed off so that the backseat is not in contact, permitting the stem packing to assume its intended sealing function.

Inspection and Maintenance

- 1) Periodic inspection of the valve is recommended.
- 2) If a valve develops a stem packing leak, adjust the packing nut to increase the pressure on the stem packing. The packing nut should be turned in a clockwise direction approximately $\frac{1}{4}$ to $\frac{1}{2}$ turn.
- 3) If tightening the packing nut does not stop the leak, the backseat can be used to limit the leakage until circumstances permit a system shutdown and packing replacement.
- 4) Stem packing replacement with the valve under pressure and backseated represents a hazard and should not be undertaken. The hazard is magnified as fluid pressure or temperature increases or when the fluid is toxic.

Repair Parts

Parts that may be considered as recommended spare parts are:

Handwheels, Handwheel nut, Packing, Packing gland, Packing nut

When ordering parts, please provide figure number, size, part needed and age of valve.