



Gate Valve Installation Instructions

Intended Use

Dixon Fire's gate valves are intended to provide connections for hose service for standpipe connections or other water sources. These valves are intended for non-potable water service only. Working conditions are limited to the liquid range of water. They are intended for installation on systems that are non-pressurized when not in use. Gate valves offer the advantage of gradual, controlled opening and closing, reducing the possibility of a "water hammer."

Before Installation

The connection on the inlet side is by 2½" NPT thread. Standard outlet connection is 2½" NH. Other nominal 2½" thread sizes are available.

Ensure that the inlet and outlet threads are undamaged and free of debris. Check operation of the valve, that it fully opens and closes smoothly and that the stem has not been bent in transport.

Installation

The system should be flushed prior to installation. Clean threads on the 2½" male and female threads at connection point. Apply thread sealant, paste or tape, as approved by the AHJ (Authority Having Jurisdiction), to the male threads to which the valve is to be connected. Rotate the entire valve onto the threaded male pipe connection. Tighten to the desired orientation using a wrench on the hex on the inlet side of the valve. Do not use the handwheel or bear against the valve stem while tightening.

After Installation

Close the valve fully, and apply system pressure. Maximum working pressure is **300 PSI (20.7 bar, 2.07 mega pascal)**. Air may be purged by loosening the stuff nut at the top of the valve. Do not attempt to operate the valve under pressure for the first time until only water exits around the stem. Re-tighten the stuff nut once the air has been purged. Check for any leakage at the inlet connection. If there is any leakage, the valve must be removed and the sealant reapplied. There may be some weepage of fluid around the valve seat. Valve seats are designed so that repeated opening and closing maintains or improves sealing capability.

Maintenance

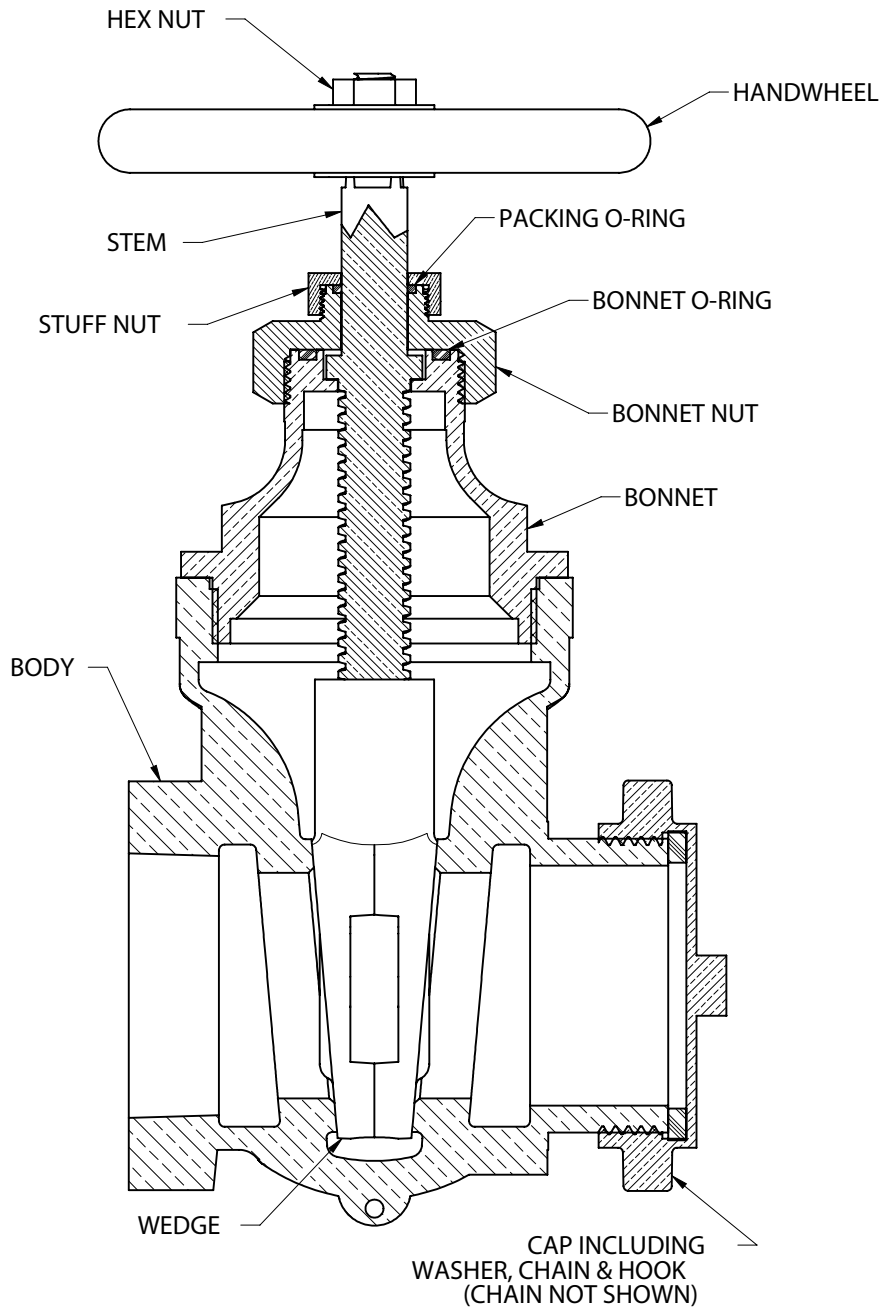
Dixon® wedge disk gate valves do not require regular maintenance under normal use. They should be operated at least once a year to ensure that the mechanism operates freely.

Service

The only wear part that may require replacement is the packing O-ring. To access it, close the valve and turn off any upstream water supply. Loosen the hex nut above the handwheel, and remove and set aside the nut. Remove the handwheel. The handwheel may be tapped parallel to the stem with a rubber mallet if it does not come off by hand. Do not strike the handwheel sideways, as this may damage the stem. Remove the stuff nut to access the O-ring. If the O-ring does not come out easily, do not pry it with a metal object, as this may damage the sealing surfaces. Plastic or wood may be used as a pick to loosen the O-ring.

Should the bonnet O-ring fail and leak, remove all of the parts above the bonnet nut. The bonnet O-ring is beneath the bonnet nut. Replace the packing O-ring and the bonnet O-ring. If the valve is disassembled this far, lithium or similar grease may be applied to the threads on the stem. If your valve is under warranty and there is a leak between the bonnet and the body please contact Dixon Fire at 540-535-2181 to have your valve evaluated and repaired.

Gate Valve Breakdown



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