

CANAL GATE INSTALLATION INSTRUCTIONS

The following instructions are provided to guide the user in proper installation techniques and procedures for Waterman equipment.

If proper care and accuracy are exercised in the field when installing our gates, they will operate as designed at maximum efficiency.

PROCEDURE FOR WALL MOUNTING OF “FLATBACK” STYLE GATES

Note: use anchoring system with bolts set in two-part epoxy. Use of L-shaped anchor bolts embedded in concrete typically not required. Each bolt will have two nuts, one for behind the gate frame, and one to secure frame to anchor bolt.

1. Use the gate as a template, or make a cardboard template from the gate bolt pattern and mark the hole locations on the mounting wall.
2. Prepare/drill anchor holes per two-part epoxy manufacturer instructions.
3. Install two-part epoxy.
4. Install anchor studs, take care that all anchor bolts are in proper position. Do not attempt to install gate onto bolts that are not properly set.
5. Install back nut and washer.
6. Install gate.
7. Install front washer and nut.
8. Using double nuts, plumb the gate frame.
9. Once plumb and nuts are tightened, check seals using feeler gauge. After gate is seated properly and plumb, grout the gap between the frame ring and the concrete headwall with a non-shrink material. Fill all voids.

Notes: do not force gate onto mis-aligned bolts. Tighten bolts uniformly to avoid warpage of gate.

For more information on creating a template and the double nut method, visit our website to view videos of the step by step process at <http://watermanusa.com/resources/instructional-videos/>



WATERMAN VALVE LLC

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INSTALLATION OF “SPIGOT-BACK” STYLE GATE (USED WHEN GATE IS TO BE CONNECTED TO CORRUGATED METAL PIPE OR OTHER SIMILAR PIPING SYSTEM)

1. Fit spigot over the end of the pipe, taking care to assure the gate is perpendicular to pipe.
2. Using the pre-drilled holes on the gate spigot as a guide, drill matching holes in the wall of the pipe, using 7/16" drill bit.
3. Fasten gate to pipe by bolting from the inside out.
4. Add mastic caulking for sealant between frame and pipe.
5. Brace the inside of pipe and gate as necessary. (deflection or distortion of the attached pipe section may cause warpage of gate seat and potential for leakage).
6. Place coupled gate and pipe in form or ditch and backfill or pour as required, making sure that gate frame is vertical in two planes.
7. Remove bracing and clean gate seats and operating joints. Check to see that seats make proper contact around full periphery of gate (use .004" feeler gauge).



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INSTALLING GATE ON CONCRETE PIPE USING TAPERED SETTING COLLAR

The light gauge galvanized taper setting collar is used as a “form” for placing grout and as a temporary means of locating a gate in the end of concrete pipe. This setting collar is not designed to be a permanent item, but only an aid to installation. Anchor bolts may be needed on upper structural frame members and may be cast in place at time of pour, or expansion anchors may be used.

1. Place gate on pipe or opening inserting the taper collar until a snug fit is obtained or gate is stopped by structure or pipe.
2. Align gate in a vertical and horizontal plane and place grout around the gate, making a heavy band sealing and attaching the cast iron frame ring to the pipe. Grout is normally lapped over the frame flange and smoothed in lace with laying mitts or gloves.

NOTE: If desired, anchor bolts or reinforcing rod can be attached in the anchor bolt holes and placed in the grout band for added strength.

3. After band has dried, check for cracks and repair as needed. Open gate and pack grout in void between collar and pipe.
4. Check gate for grout on seats or in slide grooves and clean as required.



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