SETUP AND USAGE INSTRUCTIONS

Bevel Gear Actuator for the Insta-Valve 250

Installation procedure changes for installing an Insta-Valve 250 in a horizontal orientation.

A) Installing an Insta-Valve 250 Installed in a Horizontal Orientation

B) Pressure Test Procedure on a Horizontally Installed Insta-Valve

C) Positioning the Temporary Gate Valve in a Horizontal Installation

D) Mounting and Supporting the Hydra-Tapper During Horizontal Operation

E) Mandatory Core Sampling

F) Set Pin Installation

G) Mounting and Using the Actuator

H) Final Installation Steps

These changes are outlined below.

A) Installing an Insta-Valve 250 Installed in a Horizontal Orientation

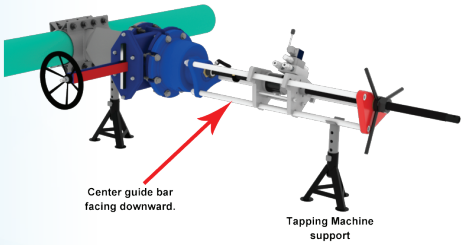
A.1) Liberally lubricate top and bottom of pipe and mat and throat gaskets with a soap/water solution. Ensure branch gasket is adequately lubricated. Initially mount the top half of the valve body on the pipe in a vertical position.

A.2) Install the bottom half of the valve body over the tapered ends of the mat gasket ensuring they are flat and smooth against the pipe surface. Visually inspect gasket to ensure tapered ends are not folded or rolled under themselves.

A.3) Install stainless steel carriage bolts, washers, and nuts. Leave the nuts loose on the bolts.

A.4) Using a crane (or available lift), hook onto the body's flange and gently rotate the clamp along the pipe until the body is lying parallel to the ground.

A.5) Block the body well to ensure its position is kept for permanent installation.



A.6) Be sure that blocking the body does not interfere with the ability to get to the carriage bolts on the underside of the body or with any flange hardware to be used during or after installation.

B) Pressure Test Procedure on a Horizontally Installed Insta-Valve

B.1) Install the pressure testing blind flange (8TIPRSKT08-HP or 8TIPRSKT12-HP).

B.2) Remove the topmost completion plug set pin. Fill the valve body with water using the pressure test plate and let air release out of the set pin hole

B.3) Once the valve is filled, replace the set pin

B.4) Connect a pressure test assembly to the pressure test flange.

B.5) Connect pressure test assembly to your pressure source for pressure testing. Hydra-Stop recommends using a hydrostatic method of pressurizing the valve body.

NOTE: DO NOT use a compressible medium such as air.

B.6) Follow local rules for the recommended length of the pressure test.

B.7) After completing pressure test, use ball valve to blow-off pressure before removing pressure test flange.

B.8) Follow the tightening pattern and re-torque carriage bolts to recommended torque before continuing.

NOTE: DO NOT exceed recommended pressure test specifications.

- Minimum Test Pressure: 1.5 times system working pressure.
- Maximum Test Pressure: 375 psi.

C) Positioning the Temporary Gate Valve in a Horizontal Installation

C.1) Use approved grease to hold the temporary gate valve O-ring in place.

D) Mounting and Supporting the Hydra-Tapper During Horizontal Operation

D.1) The Hydra-Tapper should be installed with the center guide bar oriented toward the ground to simplify tapping process (see image to the left).

D.2) Support the Hydra-Tapper while in the horizontal position. Use blocks or a jack stand for support.

E) Mandatory Core Sampling

E.1) Hydra-Stop **requires** performing a core-sample on a horizontally mounted Insta-Valve. Core sampling will ensure that the tap is positioned properly and allows for proper operation.

E.2) Use of the feed screw to push the cutter into place may be required. This must be done cautiously so as not to break the cutter teeth.

HYDRA-STOP®

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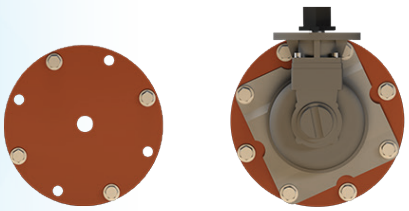
E.3) Tapping depth should be set to 1/2 Pipe OD.

F) Set Pin Installation

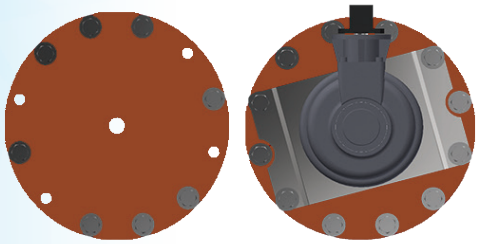
F.1) Start with the bottom most pin.

G) Mounting and Using the Actuator

G.1) Leave four of the bolt holes open for the gearbox (see figure to the below). Cross tighten the bolts, nuts, and washers on the remaining bolts.



MODEL: IB4
4-8" use



MODEL: IB6
10-12" use

NOTE: If the gearbox does not match up to the valve stem, turn the gearbox's input rod until the inner drive bushing and valve stem geometry are lined up.

G.2) Install the gearbox/mounting plate over the valve stem. Ensure that the mounting plate bolt holes line up with those on the bonnet so that the gearbox input rod is pointing up. Set the 2" gearbox operating nut on the gearbox's input rod and tighten down the set pin.

G.3) Fully open/close the valve to confirm a successful installation. The Insta-Valve 250 with a gearbox is 3 turns-per-inch plus 3 turns times 3 depending on the type and condition of the inside diameter of the pipe

H) Final Installation Steps

H.1) Once installation is complete, place the valve adaptor over the bevel gear's flange in the correct orientation. The adaptor fits a 6.90 O.D. pipe (see image to the right).

Bevel Gear Valve Adaptor

H.2) Included in the bevel gear kit is a 1.4" x 4" sticker that should be installed after the valve has been buried. It is important for the sticker to be placed in a visible area for future operators.

DIMENSIONS AND TORQUES

Gearbox	Ratio	Weight	Length
4–8 IV IB4	3:1	35 lbs.	12.5"
10–12 IV IB6	3:1	62 lbs.	15"

4" Open Left Bevel Gear Actuator

Turns to Close/Open: 45 +/- 3

Maximum Torque: 155 ft. lbs.

WARNING: Operating above the maximum torque can damage the valve.

TRENCH SIZE

Full Equipment Stack up dimensions:

Valve Size	Full Equipment Length (ft)*	Width (in)	Depth (in)**
4"	10'	50"	12"–22"
6"	10.5'	50"	12"–24"
8"	11'	50"	12"–26"
10"	12'	62"	18"–30"
12"	12.5'	62"	18"–32"

*Trench should be made longer than the listed lengths for comfortable movement around the pipe and equipment.

**Vertical install is recommended if the measurement from the top of the pipe to ground level is greater than the depth upper limit.

MAX GEARBOX INPUT TORQUE

Valve Size	Approx # Turns (on Gearbox)	Max Input Torque
4"	45	155 ft. lbs.
6"	63	155 ft. lbs.
8"	81	155 ft. lbs.
10"	97	195 ft. lbs.
12"	115	195 ft. lbs.

WARNING: Exceeding the maximum torque can damage the gearbox and valve stem, resulting in problems operating the valve.

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