INSIDE DROP SYSTEM by RELINER[®] / Duran Inc. INSTALLATION INSTRUCTIONS

1. Select **Drop Bowl** of size appropriate to flow rate and pipe diameter.

(Examples: The "A" Bowl with 4" outlet will service up through full 6" inlets. The "A" Bowl with 6" outlet will service up through full 8" inlets. Can be used for 10" & 12" inlet moderate flows.

The "B" Bowl with 8" outlet will service up through full 10" inlets. The "B" Bowl with 10" outlet will service up through full 12" inlets. Can be used for 15" and 16" moderate flows. Larger sizes and flat configurations are also available) A pipe downsize is possible in most applications.

- 2a. Trim incoming pipe so that only 2" maximum protrudes into manhole.
- 2b. For improved flow control, cut a "V" shaped notch at bottom edge of incoming pipe.
- 3. Center Drop Bowl directly under incoming pipe, allow approximately 1" clearance between pipe and bowl.

4. Attach Drop Bowl to manhole wall with 3/8" diameter stainless steel anchors (See following instructions).

NOTE: A & B Bowls are best installed with (4) 3/8" expansion anchors

NOTE: 24 & 30 Bowls are best installed with (6) 3/8" expansion anchors

NOTE: 36 & 48 Bowls require (8) & (10) respectively 3" Wedge Anchors – see install instructions on the other side

NOTE: Fiberglass Manhole Installation Requires Special bolts!!!!!!- see install instructions on the other side

- (1) Drill a 3/4"hole into the base material to the required depth (approximately 1-1/4" deep.)
- (2) Blow the hole clean of dust and other material.
- (3) Insert the anchor into the hole (Lead shield out).
- (4) Position a setting tool or a 9/16 socket against the anchor outer cone. (The outer rim of the tool or socket should seat onto the lead shield rim.)
- (5) Using the tool or socket, set the anchor by driving the lead sleeve over the cone using several <u>sharp</u> hammer blows. (Be sure the anchor is at the required embedment depth.)
- (6) Position the fixture, insert screw or bolt and tighten.

5. Cut and mount drop pipe of diameter appropriate to Drop Bowl size and flow using RELINER adjustable stainless-steel clamping brackets. Use a minimum of 2 brackets with a maximum spacing of 4 feet (RELINER clamping brackets will adjust to allow drop pipe to maintain correct stand off from wall. Must use appropriate brackets for drop pipe type)

- 6. Connection from Drop Bowl to drop pipe shall be by flexible external pipe connector ("Fernco" recommended.)
- 7. Install appropriate pipe elbow to provide smooth transition into channel flow. (We recommend a 45-degree elbow.)

Our Drop Bowl warranty is void if the drop pipe is not installed with the correct RELINER pipe support brackets as these brackets fully support the drop pipe and hold it off the wall the correct distance. (see #5 above)

OPTIONAL DROP BOWL INSTALLATION ANCHORS -- These parts are shipped assembled.

3/8 X 1" X 16 18-8 stainless hex cap screw full thread

3/8 18-8 stainless washers

3/8 16 x 1-1/4 lead tamp-in expansion anchors

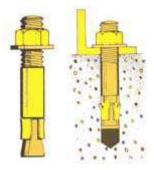
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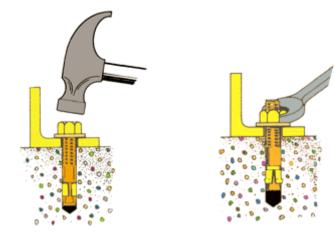
Concrete Wedge Anchor Installation



How to install



1. Drill hole in concrete (hole dia. same as thread dia.) = (3/8")maximum depth of hole could be any depth beyond minimum recommended depth. Clean out hole of all debris.



2. Place nut on the end of the wedge anchor (to protect the threads of the wedge anchor during installation) Drive wedge anchor into drilled hole up) anchorage is now complete. through fixture so that nut is flush with fixture.

3. Tighten nut until wrench resistance is felt (approximately 3 to 4 turns of the nut after snugged

Stainless Drive Screw for Fiberglass Manholes Installation

- (1) Drill a 1/4" pilot hole into the base material
- (2) Insert the self-tapping 3/8" stainless hex head screw and turn clockwise.
- (3) Run the screw in until the head flange is in contact with the structure.
- (4) Remove the screw and install the part. Do not over-tighten, around 10 to 15 # of torque is all that is required. (if ground water is high, set screws with 3M 5200 sealant