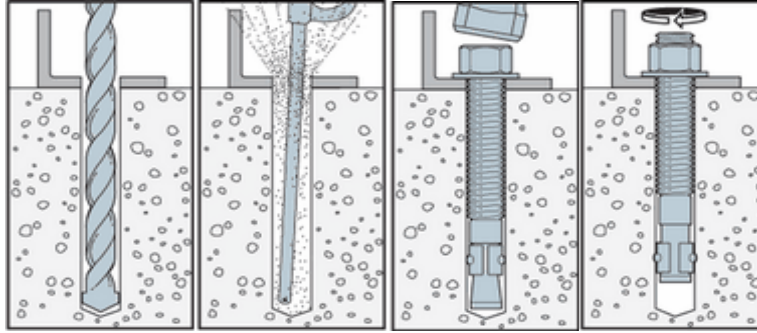




## Installation Instructions for Wedge Anchors for the Bollard Post:



Wedge Anchors



Drill Hole

Clean Hole

Tap Anchor

Tighten Nut

- 1) Always wear safety glasses.
- 2) Follow the drill manufacturer's safety instructions.
- 3) Use only solid carbide-tipped bits meeting the ANSI B212.15-1994 tip diameter as shown below in Table 1.
- 4) Drill the hole perpendicular to the work surface. To assure full holding power. Do not ream the hole or allow the drill to wobble.
- 5) Drill the hole as deep as the full length of the anchor, but not closer than two anchor diameters to the bottom (opposite surface of the concrete.)
- 6) Clean the hole using compressed air and a wire brush. A clean hole is necessary for proper performance.
- 7) Assemble the washer and nut on the anchor so the nut is recessed slightly below the head of the anchor.
- 8) Tap the anchor through the fixture (must be 1/8" larger than diameter solidly against the fixture or tap the anchor into the hole and then place bracket over the anchor.
- 9) Tighten the nut with torque wrench to the proper torque shown in Table 2.
- 10) If spinning occurs, pull up on the anchor using the claw end of a hammer and then torque.

**Table 1. Drill Bit Tolerance-ANSI B212.15-1994**

<u>Anchor Diameter</u>	<u>Minimum</u>	<u>Maximum</u>
1/4"	.260"	.268"
3/8"	.390"	.398"
7/16"	.458"	.468"
1/2"	.520"	.530"
9/16"	.582"	.592"
5/8"	.650"	.660"
3/4"	.775"	.787"
7/8"	.905"	.917"
1"	1.030"	1.042"
1 1/4"	1.285"	1.300"

**Table 2. Torque Requirements**

<u>Anchor Diameter</u>	<u>Torque Range</u>
1/4"	5-10 ft. - lbs
3/8"	25-30 ft. -lbs
1/2"	50-60 ft. - lbs
5/8"	75-90 ft. -lbs
3/4"	150-175 ft.-lbs
7/8"	200-250 ft.-lbs
1"	250-300 ft.-lbs
1 1/4"	400-450 ft. - lbs

Exclusive  
Manufacturer of  
the  
INGRESS'R®

