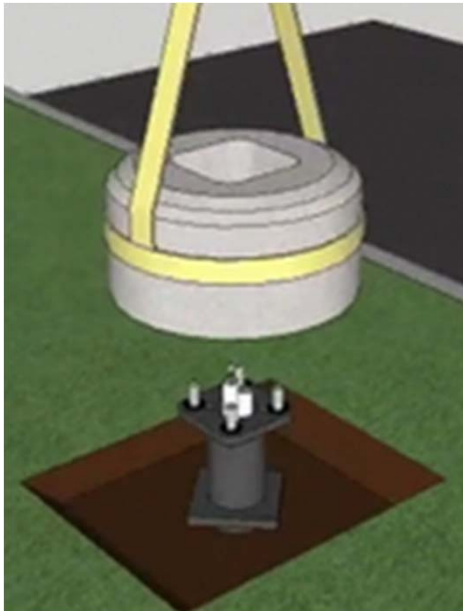


C/E System



Installation Information

The CHANCE anchor installing tools and the ENTERPRISE moving and lifting sling described in these pages should be used by competent personnel familiar with and following good work and safety practices. Should additional information and details be desired, or if specific situations arise which are not covered adequately for the user's purpose, the specifics should be referred to CHANCE or ENTERPRISE. In some cases, CHANCE may make specific recommendations concerning installation torque and installed depth limits for specific applications. In situations where the Enterprise Concrete Collar has a non-standard shape and/or dimensions deeper than 12" and a diameter larger than 24" consult ENTERPRISE for specific recommendation for your applications.

CAUTION

Heavy objects can cause severe injury. Do not stand under the streetlight foundation or concrete collars when moving it to the installation location.

Dangerous stored energy can cause severe injury or death. Relieve installation torque from output string before removing the installing tool.

WARNING: Failure to monitor the condition of all parts and take corrective action as necessary may lead to failure during use resulting in personal injury or property damage. Check all output string bolts along the drive train periodically to ensure they remain tight. Loose or damaged bolts may fail at or below the anchor's torque rating or contribute to damage elsewhere in the output string. Check all parts periodically for wear or damage and replace as necessary. Replacement bolts must be the same grade and length as the originals.

C/E System



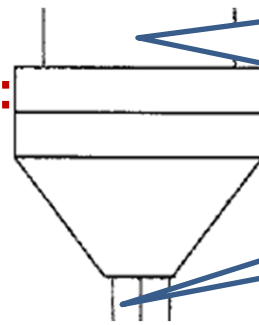
Installation Information

TOOLS - CHANCE ANCHORS:

The most common equipment used to install "power installed helical screw anchors" for streetlight foundations is a Digger Derrick.



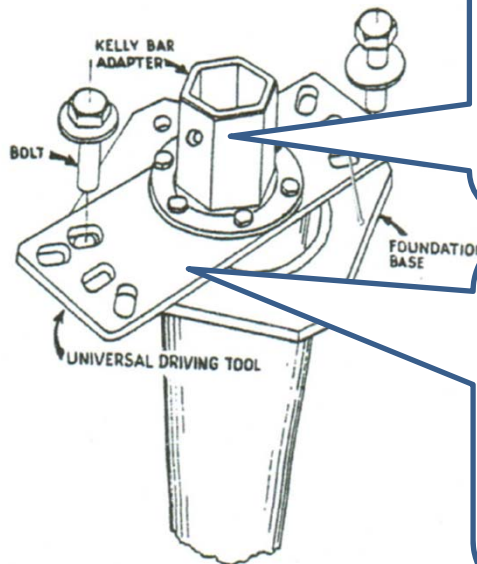
However, Backhoes and Skid Loaders can be equipped with power drives to install them too. Consult your CHANCE REP for more information.



Power Drives and Tools with a 10,000 ft-lb Torque Capacity will work for most screw anchor installations for streetlight bases. Consult CHANCE to verify torque requirement for your project.

"KELLY BAR" is typically attached the Power Drives. So it is not a Special Tool.

"KELLY BAR ADAPTER" is a Special Tool for Screw Anchor Installs. CHANCE sells them in a variety sizes to match your KELLY BAR. Part # 630011.HD Kelly Bar Adaptor that fits a 2 1/2" Hex Kelly Bar is commonly used.



UNIVERSAL DRIVING TOOL is also a Special Tool for screw anchor pole foundation installs. CHANCE sells them too. They are designed to fit a range of Foundation Bases plates with different Bolt Circle holes. Part # C303-0139 is used commonly because it accommodates Bolt Circles from 9" to 13 1/2".

C/E System



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Installation Information

TOOLS - Enterprise Concrete Collars:

Enterprise Concrete Collars with a nominal depth of 12" will weigh from 350 lbs. to 450 lbs. each. The actual weight depends on the EC Collar's outside diameter and Base Plate cavity size.

Typically, four (4) EC Collars are shipped on wood pallets 36" w x 48" l x 32" h so a forklift will be needed at the delivery site to unload.



A sling is commonly used to lift and move individual EC Collars from a digger derrick or truck to the streetlight foundation location. "Drum Handling Slings" are inexpensive and are a good tool for installing Enterprise Concrete Collars.



DRUM HANDLING SLINGS

The contractors that have installed EC Collars have found "Drum Handling Slings" to be an inexpensive and very useful tool.

Lift-All is one manufacture that makes a heavyweight sling using 2" polyester vertical handling sling webbing that is rated for 850 lbs. for 24" diameter drums. Part No. DSV602Dx24



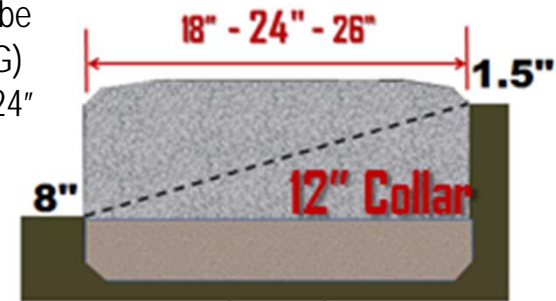
C/E System



Installation Information

STEP 1: PREPARE SITE and Position CHANCE Anchor

- ❑ Remove grass , if necessary, in the area where the EC Collar will sit.
- ❑ The engineer's drawings will dedicate how much of the precast collar will be exposed above finished grade (AFG) Standard EC Collars have an 18", 24" and 26" outside diameter with a nominal depth of 12" and are designed to be exposed as low as 1 ½" to as much as 8" AFG.



- ❑ The TOP of the Base Plate will be the Top the EC Collar
- ❑ The Support Plate for the EC Collar should not have earth beneath it for about 3" to prevent frost heave.
- ❑ Therefore, if the specs call for the EC Collar to be 6" AFG. then a hole is needed that is at least 6" deep and 30" in diameter. This hole is sometimes referred to as "pot hole". However, in some cases this hole needs to be deep enough to expose pre-bored conduit which is typically 12" to 18" below finished grade.
- ❑ Besides digging the pot hole by hand a backhoe or the digger derrick auger could be used.
- ❑ Stand the anchor upright. Then raise the Kelly Bar until the anchor swings free of the ground. Maneuver the Kelly Bar until the point of the anchor is over the center of the specified pole foundation location.

C/E System



Installation Information

STEP 2: Attach Kelly Bar to CHANCE Base Plate



- ❑ If the CHANCE Base Plate has a bolt circle between 9" to 13 ½" then the C303-0139 - "Universal Driving Tool", referenced before, could be used with the correct size "Kelly Bar Adapter" to connect the "Kelly Bar" to the Drive Head on the Digger Derrick. See Kelly Bar Adapter description included previously.
- ❑ However, if single holes with a larger bolt circle, like 15", are to be installed then either extra base plate holes are needed to be included in your CHANCE Anchor order or a different (special) "Driving Tool /Plate" needs to be secured and used.
- ❑ The correct "Kelly Bar Adapter" needs to be connected to the correct "Driving Tool / Plate" with the six (6) ½" Grade 5 Bolts supplied with the adapter tightened to 75 ft.-lbs. dry torque.
- ❑ Connect the Driving Tool/ Plate to the CHANCE foundations using the bolts provided with foundation.

C/E System



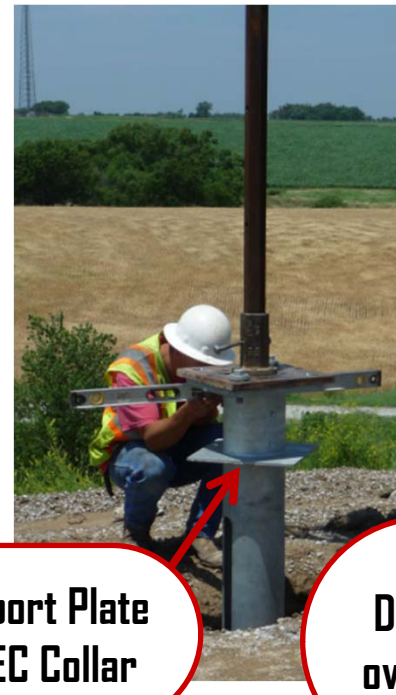
Installation Information

STEP 3: Start screwing the CHANCE Foundation into the ground. Frequently, stop to check that the.....

- Anchor Shaft is **PLUMB**;
- Base Plate is **LEVEL** and correct as necessary.



**Conduit
Access Slot**



**Support Plate
for EC Collar**



**Special
Driving Tool
over CHANCE
Base Plate**

NOTE: No spoils creating by screwing-in CHANCE Anchor

C/E System



Installation Information

STEP 4 a. Continue to screw the anchor into the ground until the top of the Base Plate is level and at the specified concrete exposure height above finished grade (AFG). On this project the exposure was only to be 1.5" AFG.



- ❑ On this particular project the Chance base plate has a 15" bolt circle with single special threaded holes so a special "driving tool / plate" was attached the Kelly Bar Adapter.
- ❑ Also, on this project the Electrical Contractor decided to trench for conduit after the streetlight was installed. So the pot hole is shallow.

The top of the CHANCE Base Plate will be the Top of the EC Collar.



The "<" indicates the direction of the conduit access slot . Line up with conduit

The bottom of the Support Plate is 3" above the bottom of the EC Collar. Therefore, the area below the should be free of soil for 3' .

C/E System



Installation Information

STEP 4 b. Continue to screw the anchor until the top of the Base Plate is level and at the specified concrete exposure height above finished grade (AFG). It's 6" AFG on this project.

Then field connect bored conduit to field fabricated elbow so conduit from both sides is extended vertically through the base plate hole.



**Variable Bolt
Circle (8" to 14")
Base Plate
CONNECTED to
Universal
Driving Tool
/Plate C303-0139**



**This Pot
Hole dug to
the bored
conduit level.**

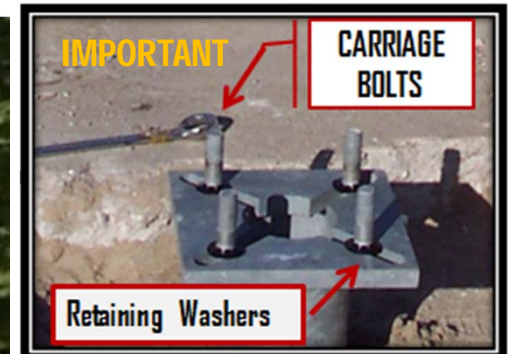


C/E System



Installation Information

STEP 5. Insert carriage bolts that came with the CHANCE Foundation through the bottom of variable bolt circle base plate and hold them into position with the retaining washers that also come with the CHANCE foundation. Then use an appropriate lifting sling to set the EC Collar over the baseplate and rest the collar on to the support plate.



C/E System



Installation Information

STEP 6.

Connect breakaway T Box to foundation base plate, if required.

On this project, the gap between Base Plate and the EC Collar is about 5/8" and was filled before the installing the T Box with concrete grey color Polyurethane Concrete Crack Sealer (caulk) over poly backer rod.

NOTE: The current design version of the EC Collar has a tighter fit because the base plate cavity includes a space for the < shaped base plate tab used to show location of conduit access. Thus, the gap dimension around the base plate should be about 1/4"



C/E
System



The Finished Products



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