

Installation Instructions for Underpinning Bracket C1500733, C1500738, C1500840 and C1500841

These products must be installed by Chance certified dealers trained to install the CHANCE® Helical Pile System.

1. Brackets C1500738 may be used with only SS5 and SS150 (1-1/2" square shaft) piles. Bracket C1500733 may be used with only SS175 (1-3/4" square shaft) piles. Brackets C1500840 may be used with only RS2875.203 and RS2875.276 (2-7/8" OD pipe shaft) piles. Brackets C1500841 may be used with only RS3500.300 (3-1/2" OD pipe shaft) piles. Always use the correct bracket and T-pipe for the size of piles to be installed.

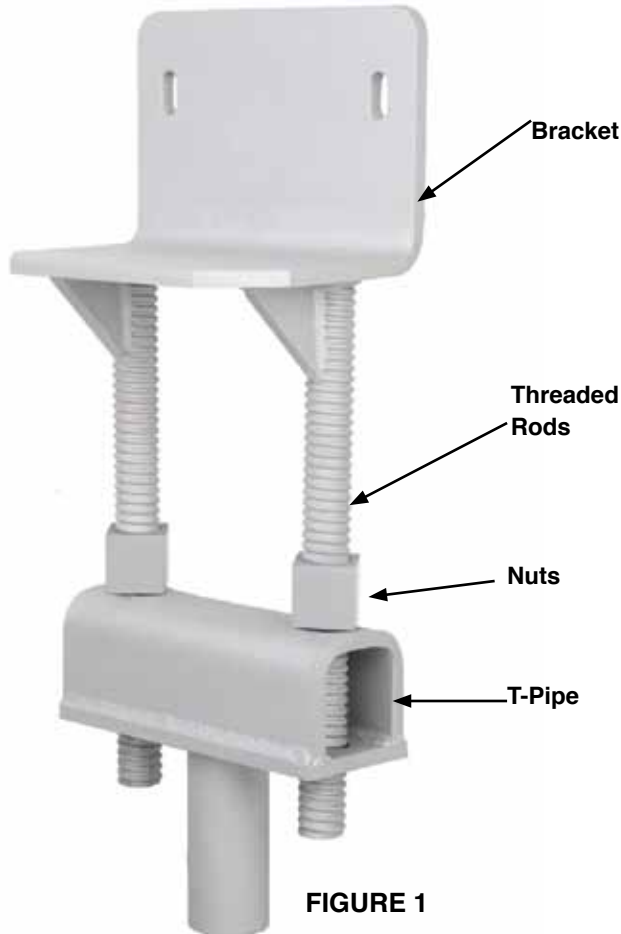


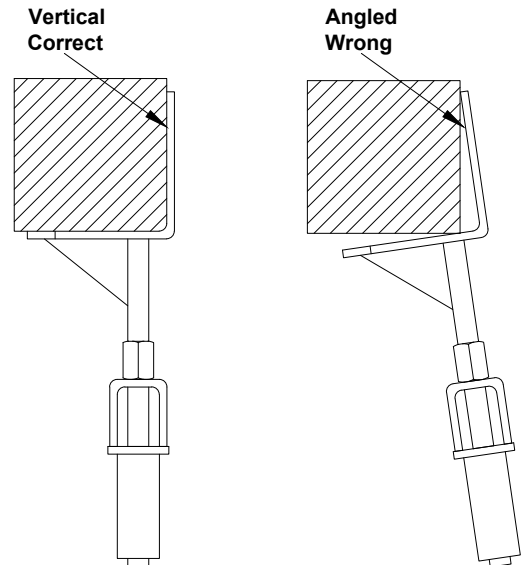
FIGURE 1

2. Excavate a hole at each location where an underpinning bracket is to be installed. The hole should be excavated to a minimal depth to maintain the maximum amount of undisturbed soil. A depth of at least 20 to 24 inches below the footing is usually required to install the pile and bracket. The width of the hole should be at least 18 inches.

⚠ WARNING
Potential for Soil Collapse.
Can cause personal injury or death.
When digging large holes, take appropriate shoring measures. Always abide by all local and OSHA requirements.

3. Clean off any soil attached to the bottom of the footing. Prepare the footing by chipping away irregularities from bottom and side surfaces. The bracket must fit snug and flush with the footing.

⚠ WARNING
Incorrect footing preparation will prevent proper seating of the bracket against the footing. Can result in bracket push-out or rotation, or damage to the bracket, pile, jacking equipment, footing or entire structure.
Provide flat, smooth surface for the bracket to mount against.



4. Place the pile in the excavated hole. The pile should be centered along the width of the hole and as close to the foundation as possible. The lead helix should be placed under the foundation and the pile shaft should be close to vertical.
5. Secure the top of the pile shaft to the installing tool/hydraulic torque motor. Always use the bent arm pins and coil locks provided for secure attachment of the pile to the installing equipment.

⚠ WARNING
Misuse of pile installing equipment can result in property damage, severe injury, or death. Read and understand the instructions and warnings included with the installing equipment before beginning anchor installation.

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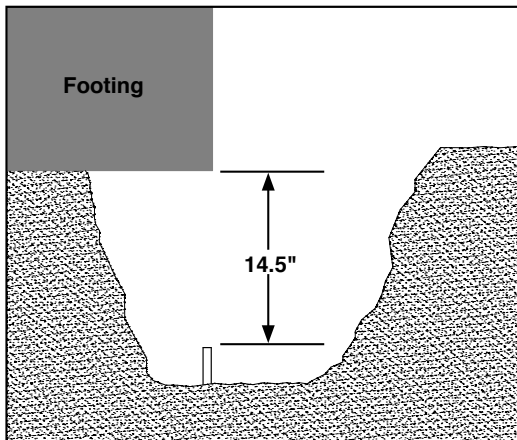
⚠ WARNING

Piles are electrically conductive.

Avoid contact with underground utilities. Contact between anchor and underground objects may result in serious injury, death and/or property damage.

Before installing the pile, determine the location of all underground utilities (electric, gas, water, sewer, telephone, CATV, etc.) to prevent accidental pile contact or puncture.

6. Check that the pile is still nearly vertical. Begin the pile installation by applying down pressure to the pile. Once the pile has begun penetrating the soil, down pressure will no longer be required. Continue to drive the pile as vertical as possible. As extensions are added, shaft coupling bolts should be tightened 1/4 turn past hand tight. Add extension shafts as necessary until the predetermined torque and depth has been reached. This predetermined torque should be maintained for at least the final 3 feet of embedment before stopping the pile installation.



7. The pile shaft should be terminated with approximately 14.5 inches between the top of the shaft and the footing. A portable band saw may be used to cut the shaft off at the proper height below the footing.
8. Remove the nuts and T-pipe as they are packaged. Reassemble the bracket and T-pipe assembly by threading the nuts on the rods first and then placing the T-pipe in position with the pipe section pointing down to accept the pile shaft. As seen in FIGURE 1.
9. Slide the fully assembled bracket and T-pipe over the pile shaft backwards (bracket facing away from footing) and let it fall below the footing. Then rotate the bracket 180 degrees until it is facing the footing. Lift the bracket up by adjusting the nuts on the threaded rods making sure the bracket is seated flush with the footing.
10. Check to see that the T-pipe is all the way down on the pile shaft; gently tapping the top of the T-pipe with a hammer may be required.
11. Drill two holes in the foundation through the mounting bolt slots of the bracket. Follow the directions of the anchor bolt manufacturer when installing the anchor bolts. The underpinning bracket requires two 1/2 inch anchor bolts, each with 7500 lb of ultimate tension capacity in 2500 psi concrete.

12. Place jack between the T-pipe and bracket. Adjust the height of the jack as required.



13. Apply a small amount of pressure to jack, just enough to take up the “slack” in the assembly. Once again check to see if the bracket is still mounted flush with the footing. Check the anchor mounting bolts again before proceeding.

⚠ WARNING

Potential for structural collapse.

Can cause property damage, personal injury or death.

Do not raise the foundation unless the necessary structural considerations have been made. Structural integrity of the foundation must be determined by qualified personnel before lifting or stabilizing. A plan of repair must be made and followed to prevent overloading of the foundation, anchor or bracket.

14. More pressure can now be applied to the jacks to lift or stabilize the structure. Lifting or stabilizing a structure should be done at multiple bracket locations at the same time. Always use a jack with a pressure gage in order to monitor the lifting force. The two nuts on the threaded rods should be tightened often during the jacking process. This transmits load from the jack to the bracket body and pile. Set up reference points on the foundation to monitor movements both inside and outside the structure.

⚠ WARNING

Potential crushing hazard.

Can cause personal injury or death.

Stay clear of any voids created under the foundation during lifting.

15. Once the lifting or stabilizing of the structure is complete, tighten the nuts on the two lifting bolts down to the top of the T-pipe.
16. When the nuts on the lifting bolts are tight, release the pressure from the jack. Remove the jack and backfill the hole.



NOTE: Because Hubbell has a policy of continuous product improvement, we reserve the right to change design and specifications without notice.