

Helical Foundations & Installing Tools for SOLAR and other Renewable Energy Sources

Warranty - Material

The Chance Company warrants all products sold by it to be merchantable (as such term is defined in the Uniform Commercial Code) and to be free from defects in material and workmanship. Buyer must notify the Company promptly of any claim under this warranty. The Buyer's exclusive remedy for breach of this warranty shall be the repair or replacement, F.O.B. factory, at the Company's option, of any product defective under the warranty which is returned to the Company within one year from the date of shipment. NO OTHER WARRANTY, WHETHER EXPRESS OR ARISING BY OPERATION OF LAW, COURSE OF DEALING, USAGE OF TRADE OR OTHERWISE IMPLIED, SHALL EXIST IN CONNECTION WITH THE COMPANY'S PRODUCTS OR ANY SALE OR USE THEREOF. The Company shall in no event be liable for any loss of profits or any consequential or special damages incurred by Buyer. The Company's warranty shall run only to the first Buyer of a product from the Company, from the Company's distributor, or from an original equipment manufacturer reselling the Company's product, and is non-assignable and non-transferable and shall be of no force and effect if asserted by any person other than such first Buyer. This warranty applies only to the use of the product as intended by Seller and does not cover any misapplication or misuse of said product.

Warranty - Application

The Chance Company does not warrant the accuracy of and results from product or system performance recommendations resulting from any engineering analysis or study. This applies regardless of whether a charge is made for the recommendation, or if it is provided free of charge.

Responsibility for selection of the proper product or application rests solely with the purchaser. In the event of errors or inaccuracies determined to be caused by The Chance Company, its liability will be limited to the re-performance of any such analysis or study.

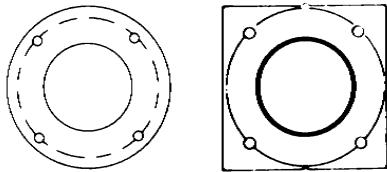
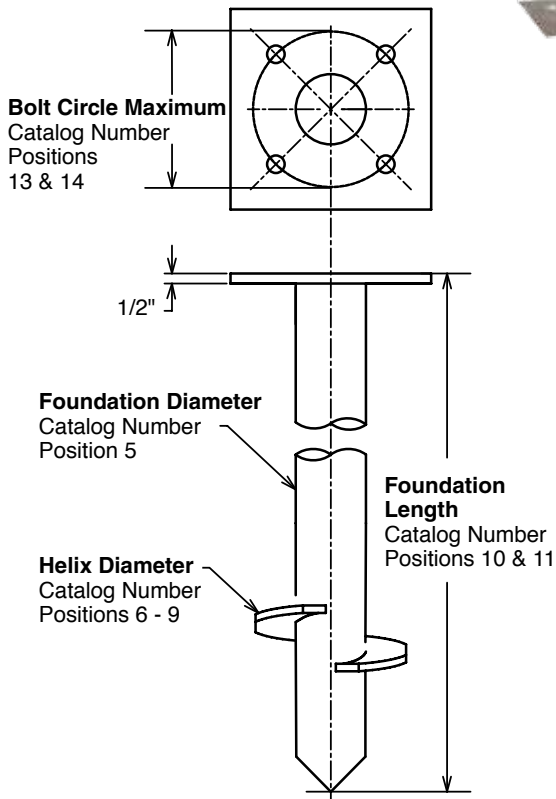


NOTICE: For latest revision of our Catalog and Literature, please visit our web site: www.hubbellpowersystems.com

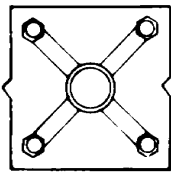
NOTE: Because Hubbell has a policy of continuous product improvement, we reserve the right to change design and specifications without notice.

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Typical Solar Foundation with Baseplate

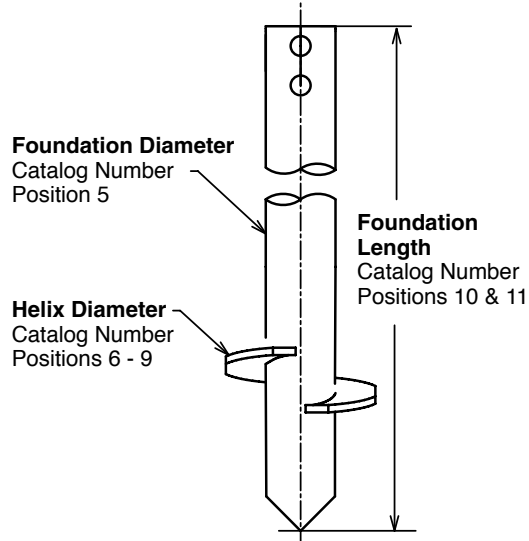


Fixed Bolt Circles



Variable Bolt Circles

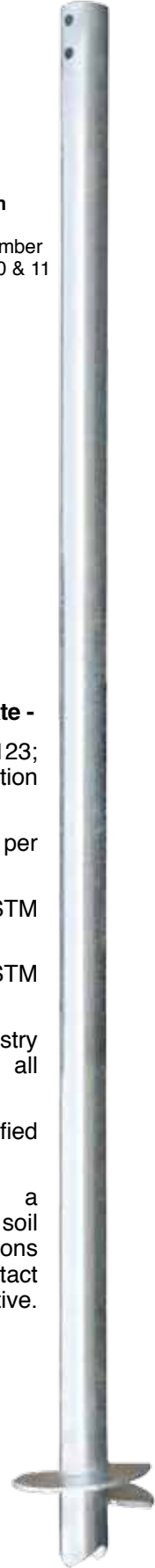
Typical Solar Foundation without Baseplate



NOTES

- Apply to both with & without Baseplate -

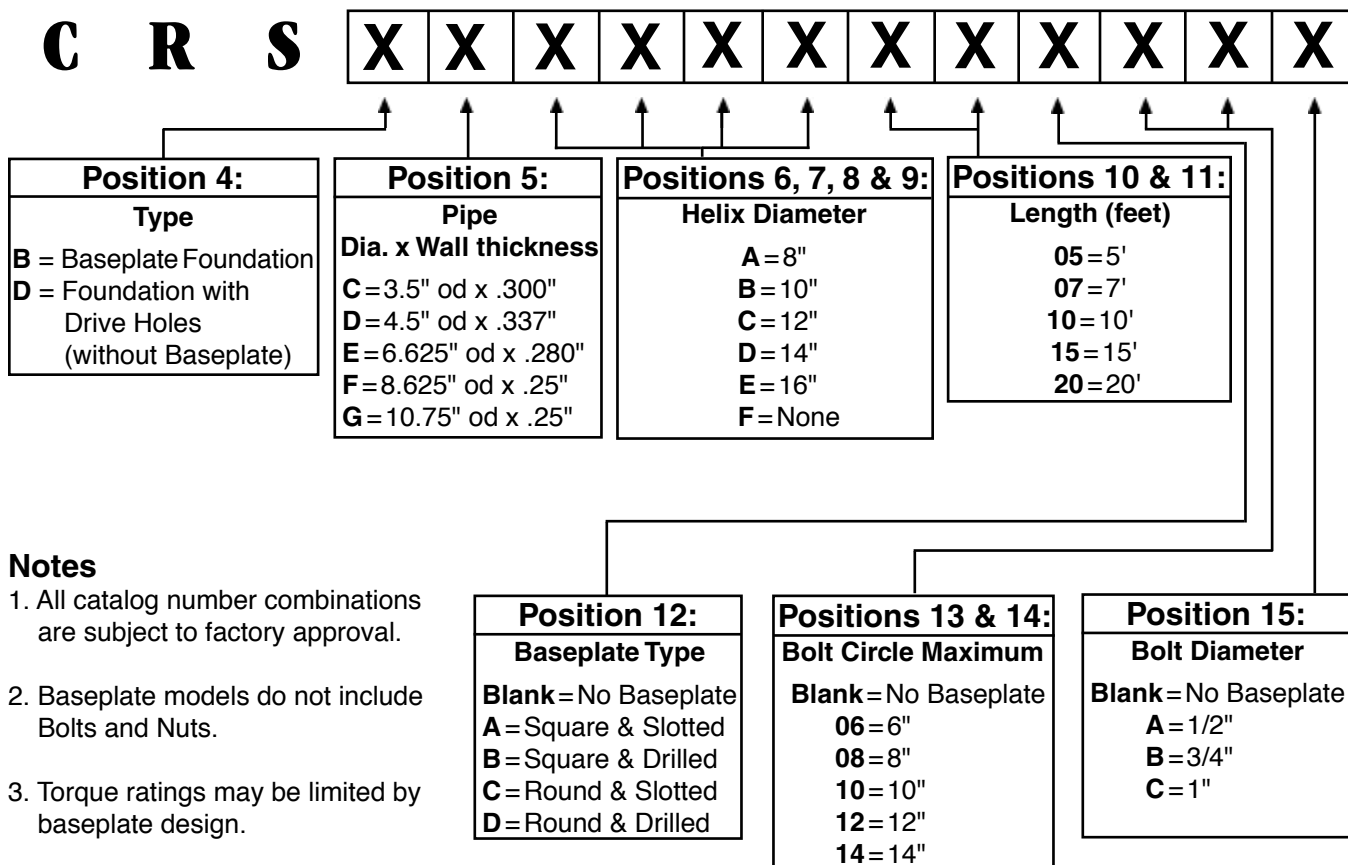
1. Finish: Hot dip galvanize per ASTM A123; coating Grade 85. Appearance per Section 6.4, except no rack marks.
2. Baseplate Material: Hot rolled steel per ASTM A572 Grade 50; 1/2" thick.
3. Helix Material: Hot rolled steel per ASTM A572 Grade 50; 3/8" thick.
4. Shaft Material: Steel round HSS per ASTM A500 Grade B, minimum yield 50 KSI.
5. Manufacturer to have in effect industry recognized written Quality Control for all materials and manufacturing processes.
6. All welding to be done by welders certified under Section 5 of the AWS Code D1.1.
7. CHANCE® can custom design a helical foundation for given loads and soil conditions, and is not limited to the options shown. For more information, please contact your Hubbell Power Systems representative.





SOLAR-PANEL Foundations Catalog Numbering System

NOTICE: CHANCE[®] can custom design a helical foundation for given loads and soil conditions, and is not limited to the options shown below. For more information, please contact your Hubbell Power Systems representative.



Notes

1. All catalog number combinations are subject to factory approval.
2. Baseplate models do not include Bolts and Nuts.
3. Torque ratings may be limited by baseplate design.

Example:

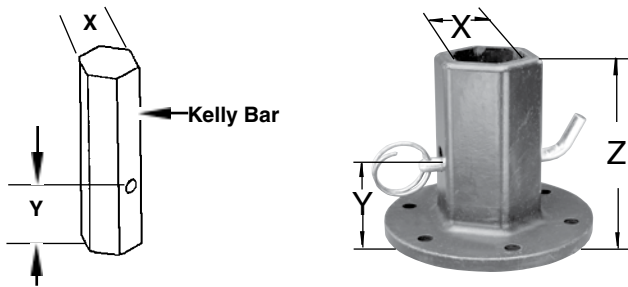
CRSBECFFF10B08B = Baseplate Foundation with Helix:
on Pipe Shaft of 6.625" Diameter with .280" Wall thickness; 1 Helix of 12" Diameter; 10 feet Long;
Square & Drilled Baseplate with 8" Maximum Bolt Circle for use with 3/4" Bolts.

Kelly Bar Adapters

Selecting the correct Kelly Bar Adapter is key to building a proper Drive String.

Follow these two easy steps:

- 1) Remove the auger from the driver and carefully measure the X and Y dimensions of the Kelly Bar.
- 2) Match the shape of the Kelly Bar and the X and Y dimensions with the Kelly Bar Adapter charts below. The Y dimension on the Kelly Bar Adapter must be equal to or greater than the Y dimension on the intended Kelly Bar.



A Note about Bolt Circles

Chance anchor installing tools are provided with appropriate bolt circles for the expected service. The torque limitations for the two standard bolt circles are given below. **Never exceed the rated torque of any Chance installing tool.**

Bolt Circle	Max. Torque
(6) 1/2" Grade 5 bolts on 5 1/4" B.C.	10,000 ft.-lb.
(12) 5/8" Grade 2 bolts on 7 5/8" B.C.	20,000 ft.-lb.

5 1/4"-Bolt-Circle Kelly Bar Adapters for 10,000 ft.-lb. Maximum Installing Torque

Each of these Kelly Bar Adapters has six holes for 1/2" bolts on a 5 1/4" bolt circle and comes with six 1/2" Grade 5 bolts, nuts & lockwashers, Bent-Arm Pin with Coil Lock.

Catalog Number	Kelly Bar Shape	Kelly Bar Dimension			Weight, lb.
		X	Y	Z	
630016	Square	2 1/4"	2 1/4"	3 1/2"	10
630017	Square	2 1/2"	2 1/4"	3 1/2"	10
630013	Hex	2"	5"	6 1/8"	10
630013A	Hex	2"	3 1/4"	6 1/8"	10
630012HD	Hex	2 5/8"	4 1/4"	8 1/8"	12
630011HD	Hex	2 1/2"	4 1/4"	8 1/8"	12

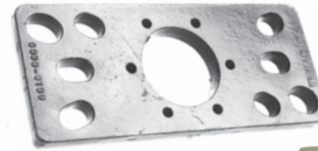
7 5/8"-Bolt-Circle Kelly Bar Adapters for 20,000 ft.-lb. Maximum Installing Torque

Each of these Kelly Bar Adapters has twelve holes for 5/8" bolts on a 7 5/8" bolt circle and comes with twelve 5/8" Grade 2 bolts, nuts & lockwashers, Bent-Arm Pin with Coil Lock.

Catalog Number	Kelly Bar Shape	Kelly Bar Dimension			Weight, lb.
		X	Y	Z	
C303-0936	Hex	2 1/2"	4 3/8"	8 1/4"	23
C303-0937	Hex	2 5/8"	4 3/8"	8 1/4"	23
C303-0940	Hex	3"	3 1/2"	8"	27
C303-0955	Square	2 1/2"	2 1/4"	7"	22
C303-0958	Square	3"	3 1/2" & 2 1/16"	7"	23

Universal Tools for Foundations

These tools fit Foundations with 9" to 13 1/2" bolt circles.



C303-0139



C303-0684

C303-0139 connects direct to a Kelly bar adapter with (6) 1/2" furnished bolts. C303-0684 includes (12) 5/8" bolts.

Catalog Number	Bolt Circle, Holes	Approx. Weight, lb.
C303-0139*	5 1/4", (6) 1/2" tapped holes	18
C303-0684†	7 5/8", (6) 5/8" drilled holes	49

*Maximum torque rating for C303-0139: 10,000 ft.-lb.

†Maximum torque rating for C303-0684: 20,000 ft.-lb. Coupling C303-0684 to a Kelly bar adapter with a 5 1/4" bolt circle requires use of T303-0166 adapter and limits tool's maximum torque rating to 10,000 ft.-lb.

Baseplate Drive Tool

Catalog No. C3031526

Fits on 10"-Square Baseplate Foundations for *20,000 ft.-lb. Maximum Installing Torque

This tool weighs approx. 60 lb. and has twelve holes on a 7 5/8" bolt circle, tapped for 5/8" bolts furnished with compatible Kelly bar adapters.

*Coupling to a Kelly bar adapter with a 5 1/4" bolt circle requires use of T303-0166 adapter and limits tool's maximum torque rating to 10,000 ft.-lb.



Drive-Holes Tools

Fit on Foundations WITHOUT Baseplates for Installing Torques up to *20,000 ft.-lb.

Drive tools are provided to coordinate with each specified Drive-Hole style foundation design to meet installing torque requirements as well as drive-hole size and spacing.

*A typical tool is shown for 10,000 maximum torque rating coupled to a Kelly bar adapter with a 5 1/4" bolt circle.

For more information, please contact your Hubbell Power Systems representative.

