

CHANCE® Type RS7000.362 Helical Piles

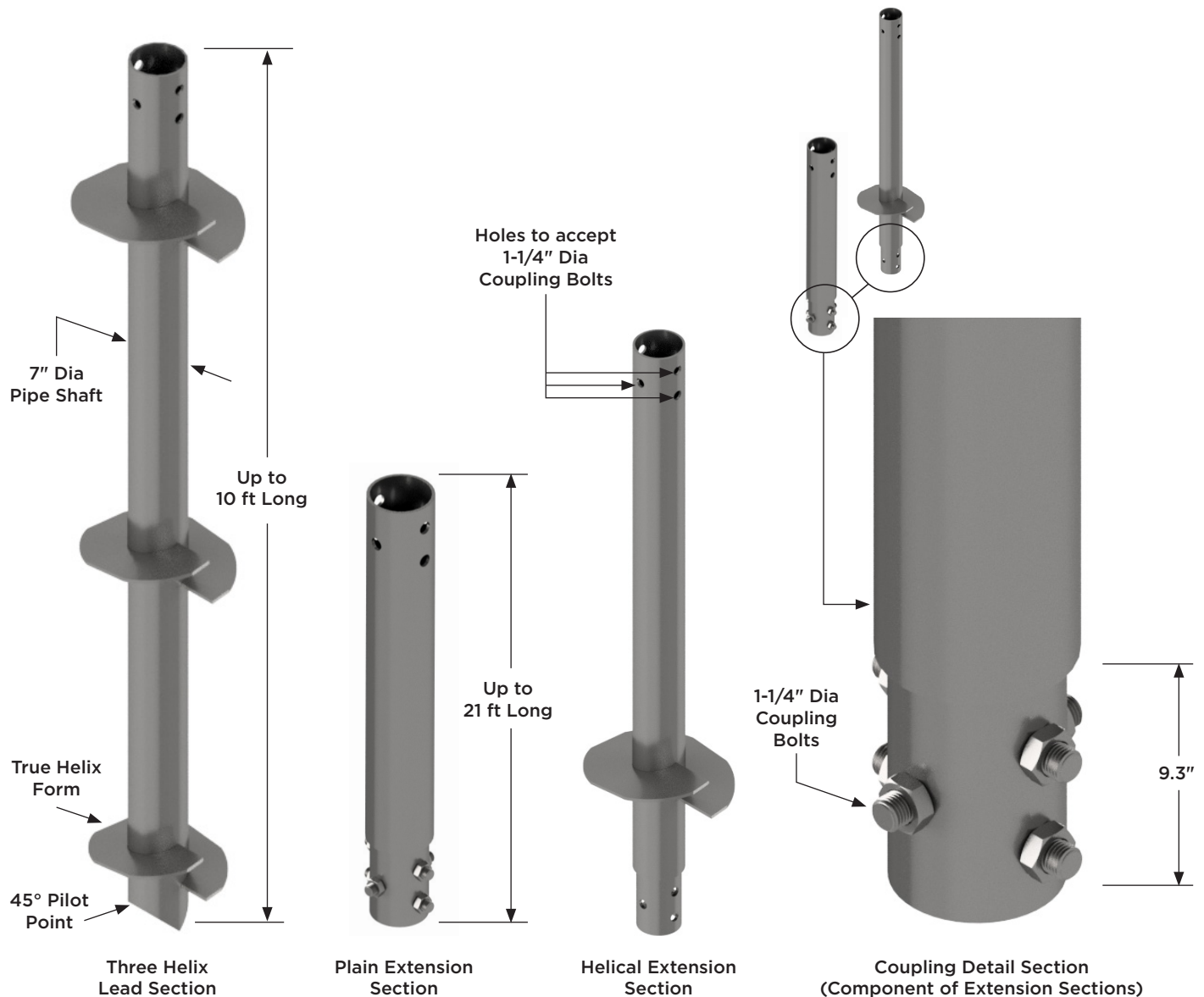
360 kip Ultimate – 180 kip Allowable Capacity

Installation Torque Rating – 90,000 ft-lb

Multi-Purpose 7" Diameter, 0.362" Wall, Round HSS Shaft with Sleeve Couplings

Description:

Hubbell Power Systems, Inc. / CHANCE Type RS7000.362 Helical Piles have 360-kip ultimate capacity and 180-kip working or allowable capacity in compression or tension. This capacity is based on well documented correlations with installation torque, which is recognized as one method to determine capacity per IBC Section 1810.3.3.1.9. Lead sections and extensions couple together to extend the helix bearing plates to the required load bearing stratum. Round shaft helical piles offer increased lateral and buckling resistance compared to solid square shafts with similar torque strength. Strength calculations are based on an average life expectancy of 50 years for most soil conditions. CHANCE Type RS helical piles and anchors feature straight leading edge helix plates that are circular in plan to provide uniform load bearing in most soil conditions. Custom lengths and helix configurations are available upon request. See page 2 for additional information and specifications.



RS5500.361 Helical Pile Specifications & Available Configurations

Shaft - HSS 7 inch OD x 0.362 inch wall steel shaft produced exclusively for CHANCE products.

Coupling - welded internal sleeve forming a flush joint connected with multiple structural grade bolts.

Helix - 1/2 and 5/8 inch Thick: ASTM A656 with minimum yield strength of 80 ksi, and ASTM A572 with minimum yield strength of 50 ksi, depending on helix diameter.

6 inch Helix Pitch - a Standard established by CHANCE for larger diameter Helical Anchors & Piles

Available Helix Diameters: 16, 18, 20, 22, 24 and 26 inches

All helix plates are spaced 3 times the diameter of the preceding (lower) helix unless otherwise specified.

The standard helix plate has straight leading edges.

Configurations:

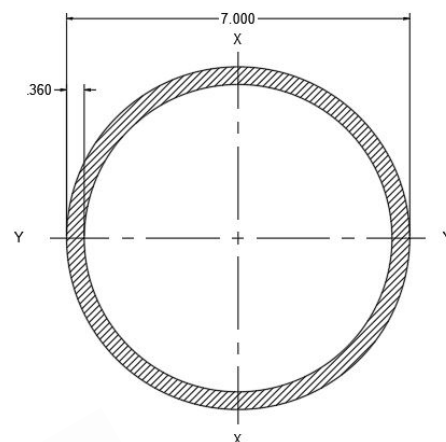
- Single, double, triple, lead sections, 10 feet long
- Plain extensions, 3-1/2, 5, 7, 10, 15, and 21 feet long
- Extensions with helix plates, 5 and 7 feet long

Helical products are hot dip galvanized per ASTM A123 Grade 75, or are available black.

NOTE: Helical piles shall be installed to appropriate depth in suitable bearing stratum as determined by the geotechnical engineer or local jurisdictional authority. Torque correlated capacities are based on installing the pile to its torque rating, using consistent rate of advance and RPM. A minimum factor of safety of 2 is recommended for determining allowable capacity from correlations. Deflections of 0.25 to 0.50 inches are typical at allowable capacity.

RS7000.362 HELICAL PILE AND ANCHOR PRODUCT SPECIFICATIONS				
SHAFT	Hot Rolled HSS 7-inch, 0.392 inch nominal wall per with 80 ksi minimum yield strength			
Shaft Size, OD	7 in	177.8 mm	Corroded	
			6.987 in	177.5 mm
Shaft Size, ID*	6.33 in	160.8mm	Corroded	
			6.342 in	161.1 mm
Moment of Inertia (I)*	39.2 in ⁴	1631.6 cm ⁴	Corroded	
			37.58 in ⁴	1564.2 cm ⁴
Shaft Area (A)*	7.05 in ²	45.5 cm ²	Corroded	
			6.75 in ²	43.5 cm ²
Section Modulus (S _{x-x})*	11.2 in ³	183.5 cm ³	Corroded	
			10.76 in ³	176.3 cm ³
Perimeter	22 in	55.9 cm	Corroded	
			21.95 in	55.7 cm
Coupling	Welded Internal Sleeve Flush Fit Joint			
Coupling Bolts	Three 1-1/4 in Dia. ASTM A354 Grade BD Threaded Studs			
Helix Plates	0.5 - 0.625-inch Thick, Formed on Matching Metal Dies, ASTM A572 Grade 50 & A656 Grade 80 or better			
Coatings	Hot Dip Galvanized per ASTM A123 Grade 75, 3.0 mil minimum thickness or Bare Steel			
TORQUE PROPERTIES				
Torque Correlation Factor	4 ft ⁻¹		13.2 m ⁻¹	
Torque Rating	90,000 ft-lb		122,000 N-m	
STRUCTURAL CAPACITY				
Tension / Compression Strength	Nominal		LRFD Design	
	1601 kN	270 kip	1201 kN	934 kN
Allowable Tension / Compression Strength	180 kip		801 kN	
TORQUE CORRELATED CAPACITY				
Capacity Limit Based on Torque Correlation, Tension / Compression	Ultimate		Allowable	
	360 kip	1601 kN	180 kip	801 kN

* computed with 93% of wall thickness per AISC 360-10, B4.2



CHANCE Type
RS7000.363
Helical Pile Shaft
Cross-Section



Assembly of
RS7000.362

