



<b>IDEAL Group</b> Helical Piles, Tiebacks & Anchors		<b>Ultimate Capacity Based Upon Torque</b> ( kips - kN ) (1) (2)	<b>Helix Bearing Plate Grade &amp; Thickness</b> ( in - mm )	<b>Section Coupling Method</b>	<b>Building Code Certifications</b>
<b>Round Corner Square Bar (RCS)</b>					
<b>Model 150</b>	<b>1.50 in</b> ASTM A576, GRADE 15V-30M. Yield Strength = 90 ksi (min)	Comp = 70 kips - 311 kN Ten = 70 kips - 311 kN	ASTM A1018 Grade 50 0.375 in - 9.5 mm 0.500 in - 12.7 mm 0.625 in - 15.9 mm	(1) 0.875 in - 22.23 mm ASTM A490 Bolt	None
<b>Model 134</b>	<b>1.75 in - 44.5 mm</b> ASTM A576 Grade 1530M Yield Strength = 90 ksi (min)	Comp = 110 kips - 489 kN Ten = 100 kips - 445 kN	ASTM A572 Grade 50 0.375 in - 9.5 mm 0.500 in - 12.7 mm 0.625 in - 15.9 mm	(1) 0.875 in - 22.23 mm ASTM A490 Bolt	None
<b>Model 200</b>	<b>2.00 in - 50.8 mm</b> ASTM A576 Grade 1530M Yield Strength = 90 ksi (min)	Comp = 150 kips - 667 kN Ten = 150 kips - 667 kN	ASTM A572 Grade 50 0.375 in - 9.5 mm 0.500 in - 12.7 mm 0.625 in - 15.9 mm	(1) 1.125 in - 25.40 mm ASTM A490 Bolt	None
<b>Round Shaft</b>					
<b>Model 238190</b>	<b>O.D. = 2.375 in - 60.3 mm</b> <b>Wall = .190 in - 4.8 mm</b> API / Structural Grade 80 ksi Yield Strength = 80 ksi (min)	Comp = 50 kips - 222 kN Ten = 50 kips - 222 kN	ASTM A572 Grade 50 0.375 in - 9.5 mm 0.500 in - 12.7 mm	(2) 0.75 in - 19.1 mm ASTM A325 Bolts	None
<b>Model 278203</b>	<b>O.D. = 2.875 in - 73.0 mm</b> <b>Wall = 0.203 in - 5.17 mm</b> API / Structural Grade 80 ksi Yield Strength = 80 ksi (min)	Comp = 76 kips - 338 kN Ten = 59 kips - 263 kN	ASTM A572 Grade 50 0.375 in - 9.5 mm 0.500 in - 12.7 mm 0.625 in - 15.9 mm	(2) 0.75 in - 19.1 mm ASTM A325 Bolts	ICC-ES ESR-3750
<b>Model 278276</b>	<b>O.D. = 2.875 in - 73.0 mm</b> <b>Wall = 0.276 in - 7.0 mm</b> API / Structural Grade 80 ksi OR ASTM A500 Grade ST80 Yield Strength = 80 ksi (min)	Comp = 111 kips - 494 kN Ten = 86 kips - 383 kN	ASTM A572 Grade 50 0.375 in - 9.5 mm 0.500 in - 12.7 mm 0.625 in - 15.9 mm	(2) 0.75 in - 19.1 mm ASTM A325 Bolts	ICC-ES ESR-3750
<b>Model 312216</b>	<b>O.D. = 3.50 in - 88.9 mm</b> <b>Wall = 0.216 in - 5.5 mm</b> API / Structural Grade 80 ksi Yield Strength = 80 ksi (min)	Comp = 91 kips - 467 kN Ten = 91 kips - 400 kN	ASTM A572 Grade 50 0.375 in - 9.5 mm 0.500 in - 12.7 mm 0.625 in - 15.9 mm	(2) 0.75 in - 19.1 mm ASTM A490 Bolts	None
<b>Model 312300</b>	<b>O.D. = 3.50 in - 88.9 mm</b> <b>Wall = 0.30 in - 7.62 mm</b> API / Structural Grade 80 ksi OR ASTM A500 Grade ST80 Yield Strength = 80 ksi (min)	Comp = 112 kips - 498 kN Ten = 112 kips - 400 kN	ASTM A572 Grade 50 0.375 in - 9.5 mm 0.500 in - 12.7 mm 0.625 in - 15.9 mm 0.750 in - 19.1 mm	(2) 0.75 in - 19.1 mm ASTM A490 Bolts	None
<b>Model 412337</b>	<b>O.D. = 4.50 in - 114.3 mm</b> <b>Wall = 0.337 in - 8.6 mm</b> API / Structural Grade 80 ksi Yield Strength = 80 ksi (min)	Comp = 148 kips - 658 kN Ten = 148 kips - 658 kN	ASTM A572 Grade 50 0.375 in - 9.5 mm 0.500 in - 12.7 mm 0.625 in - 15.9 mm 0.750 in - 19.1 mm	(2) 1.00 in ASTM A325 or Grade 5 Bolts	None
<b>Model 512361</b>	<b>O.D. = 5.50 in - 139.7 mm</b> <b>Wall = 0.361 in - 9.14 mm</b> API / Structural Grade 80 ksi Yield Strength = 80 ksi (min)	(2)	ASTM A572 Grade 50 0.500 in - 12.7 mm 0.625 in - 15.9 mm 0.750 in - 19.1 mm 0.875 in - 22.2 mm 1.000 in - 25.4 mm	(2) 1.00 in - 25.4 mm ASTM A325 Bolts	Not applicable
<b>Model 700408</b>	<b>O.D. = 7.00 in - 177.8 mm</b> <b>Wall = 0.408 in - 10.4 mm</b> API / Structural Grade 80 ksi Yield Strength = 80 ksi (min)	(2)	ASTM A572 Grade 50 0.500 in - 12.7 mm 0.625 in - 15.9 mm 0.750 in - 19.1 mm 0.875 in - 22.2 mm 1.000 in - 25.4 mm	Project Specific	Not applicable

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Model 858322	O.D. = 8.625 in - 219.1 mm Wall = 0.322 in - 8.2 mm ASTM A500 Grade C Yield Strength = 50 ksi (min)	(2)	ASTM A572 Grade 50 0.625 in - 15.9 mm 0.750 in - 19.1 mm 0.875 in - 22.2 mm 1.000 in - 25.4 mm 1.250 in - 31.8 mm	Project Specific	Not applicable
Model 1034365	O.D. = 10.75 in - 273.1 mm Wall = 0.365 in - 9.3 mm ASTM A500 Grade C Yield Strength = 50 ksi (min)	(2)	ASTM A572 Grade 50 0.750 in - 19.1 mm 0.875 in - 22.2 mm 1.000 in - 25.4 mm 1.250 in - 31.8 mm 1.500 in - 38.1 mm	Project Specific	Not applicable
Model 1234375	O.D. = 12.75 in - 323.9 mm Wall = 0.375 in - 15.9 mm ASTM A500 Grade C Yield Strength = 50 ksi (min)	(2)	ASTM A572 Grade 50 0.750 in - 19.1 mm 0.875 in - 22.2 mm 1.000 in - 25.4 mm 1.250 in - 31.8 mm 1.500 in - 38.1 mm	Project Specific	Not applicable
Model 1600	O.D. = 16.00 in - 406.4 mm Wall = 0.312 in - 7.9 mm ASTM A500 Grade C Yield Strength = 50 ksi (min)	(2)	ASTM A572 Grade 50 0.875 in - 22.2 mm 1.000 in - 25.4 mm 1.250 in - 31.8 mm 1.500 in - 38.1 mm 1.750 in - 44.5 mm	Project Specific	Not applicable
Model 1800	O.D. = 18.00 in - 457.2 mm Wall = 0.625 in - 15.9 mm ASTM A500 Grade C Yield Strength = 50 ksi (min)	(2)	ASTM A572 Grade 50 1.000 in - 25.4 mm 1.250 in - 31.8 mm 1.500 in - 38.1 mm 1.750 in - 44.5 mm	Project Specific	Not applicable
Model 2000	O.D. = 20.00 in - 508.0 mm Wall = 0.375 in - 9.5 mm ASTM A500 Grade C Yield Strength = 50 ksi (min)	(2)	ASTM A572 Grade 50 1.000 in - 25.4 mm 1.250 in - 31.8 mm 1.500 in - 38.1 mm 1.750 in - 44.5 mm	Project Specific	Not applicable
Model 2400	O.D. = 24.00 in - 609.6 mm Wall = Dependent on Avail. ASTM A500 Grade C Yield Strength = 50 ksi (min)	(2)	ASTM A572 Grade 50 1.000 in - 25.4 mm 1.250 in - 31.8 mm 1.500 in - 38.1 mm 1.750 in - 44.5 mm 2.000 in - 50.8 mm	Project Specific	Not applicable
Model 3000	O.D. = 30.00 in - 762.0 mm Wall = Dependent on Avail. ASTM A500 Grade C Yield Strength = 50 ksi (min)	(2)	ASTM A572 Grade 50 1.000 in - 25.4 mm 1.250 in - 31.8 mm 1.500 in - 38.1 mm 1.750 in - 44.5 mm 2.000 in - 50.8 mm	Project Specific	Not applicable
Model 3600	O.D. = 36.00 in - 914.4 mm Wall = Dependent on Avail. ASTM A500 Grade C Yield Strength = 50 ksi (min)	(2)	ASTM A572 Grade 50 1.000 in - 25.4 mm 1.250 in - 31.8 mm 1.500 in - 38.1 mm 1.750 in - 44.5 mm 2.000 in - 50.8 mm	Project Specific	Not applicable

(1) The values shown only address torque correlated soil capacity. Other mechanical limit states of the pile/anchor, its couplers, and its connections to the structure (brackets) may also govern the design capacity. Refer to the manufacturer's technical manual for further information."

(2) Large diameter helical piles develop capacity by a combination of both end-bearing and skin friction. The ultimate pile capacity is calculated based on the site-specific soil profile on a case-by-case basis. Load tests are often recommended for larger shaft sizes to identify a site-specific torque correlation factor (Kt), to determine the pile displacement versus load, and to verify the helical pile configuration.