



Techno Metal Post Helical Piles, Tiebacks & Anchors		Ultimate Capacity Based Upon Torque ( kips - kN ) (1) (2)	Helix Bearing Plate Grade & Thickness ( in - mm )	Section Coupling Method	Building Code Certifications
<b>Round Shaft</b>					
Model P1	O.D. = 1.9 in - 48.3 mm Wall = 0.145 in - 3.7 mm ASTM A500 Grade C Yield Strength = 51 ksi (min)	Comp = 13.6 kips - 60 kN Ten = 6.8 kips - 30 kN	CSA G40.21 44 ksi / ASTM A36 0.375 in - 9.5 mm	Welded	CCMC 13059-R Technical Note 3/13-740 #3/16-873, CCFAT
Model P2	O.D. = 2.375 in - 60.3 mm Wall = 0.154 in - 3.9 mm ASTM A500 Grade C Yield Strength = 51 ksi (min)	Comp = 19.2 kips - 85 kN Ten = 9.6 kips - 43 kN	CSA G40.21 44 ksi / ASTM A36 0.375 in - 9.5 mm	Welded	CCMC 13059-R Technical Note 3/13-740 #3/16-873, CCFAT
Model P3	O.D. = 3.5 in - 88.9 mm Wall = 0.216 in - 5.5 mm ASTM A500 Grade C Yield Strength = 51 ksi (min)	Comp = 67.5 kips - 300 kN Ten = 33.75 kips - 150 kN	CSA G40.21 44 ksi / ASTM A36 0.50 in - 12.7 mm	Welded	ICC-ES ESR 3418 CCMC 13059-R Technical Note 3/13-740 #3/16-873, CCFAT
Model P3HD	O.D. = 3.5 in - 88.9 mm Wall = 0.300 in - 7.6 mm ASTM A500 Grade C Yield Strength = 51 ksi (min)	Comp = 90 kips - 400 kN Ten = 45 kips - 200 kN	CSA G40.21 44 ksi / ASTM A36 0.50 in - 12.7 mm	Welded	ICC-ES ESR 3418 CCMC 13059-R Technical Note 3/13-740 #3/16-873, CCFAT
Model P4	O.D. = 4.0 in - 101.6 mm Wall = 0.226 in - 5.7 mm ASTM A500 Grade C Yield Strength = 51 ksi (min)	Comp = 90 kips - 400 kN Ten = 45 kips - 200 kN	CSA G40.21 44 ksi / ASTM A36 0.50 in - 12.7 mm	Welded	CCMC 13059-R Technical Note 3/13-740 #3/16-873, CCFAT
Model P4HD	O.D. = 4.0 in - 101.6 mm Wall = 0.313 in - 7.95 mm ASTM A500 Grade C Yield Strength = 51 ksi (min)	Comp = 100 kips - 445 kN Ten = 50 kips - 223 kN	CSA G40.21 44 ksi / ASTM A36 0.50 in - 12.7 mm	Welded	CCMC 13059-R Technical Note 3/13-740 #3/16-873, CCFAT
Model P5	O.D. = 5.563 in - 141.3 mm Wall = 0.258 in - 6.6 mm ASTM A500 Grade C Yield Strength = 51 ksi (min)	Comp = 100 kips - 445 kN Ten = 50 kips - 223 kN	CSA G40.21 44 ksi / ASTM A36 0.50 in - 12.7 mm	Welded	CCMC 13059-R Technical Note 3/13-740 #3/16-873, CCFAT
Model P6	O.D. = 6.625 in - 168.3 mm Wall = 0.28 in - 7.1 mm ASTM A500 Grade C Yield Strength = 51 ksi (min)	Comp = 100 kips - 445 kN Ten = 50 kips - 223 kN	CSA G40.21 44 ksi / ASTM A36 0.50 in - 12.7 mm	Welded	CCMC 13059-R Technical Note 3/13-740 #3/16-873, CCFAT
Model P8	O.D. = 8.625 in - 219.1 mm Wall = 0.322 in - 8.2 mm ASTM A500 Grade C Yield Strength = 51 ksi (min)	(2)	CSA G40.21 44 ksi / ASTM A36 0.50 in - 12.7 mm	Welded	None
Model P10	O.D. = 10.75 in - 273.1 mm Wall = 0.365 in - 9.3 mm ASTM A500 Grade C Yield Strength = 51 ksi (min)	(2)	CSA G40.21 44 ksi / ASTM A36 0.50 in - 12.7 mm	Welded	None

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Model P12	O.D. = 12.75 in - 323.9 mm Wall = 0.375 in - 9.5 mm ASTM A500 Grade C Yield Strength = 51 ksi (min)	(2)	CSA G40.21 44 ksi / ASTM A36 0.50 in - 12.7 mm	Welded	None

(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.