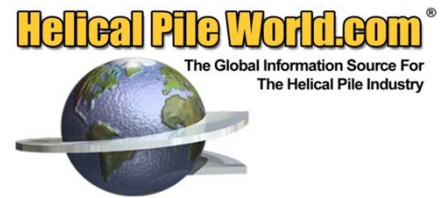


Helical Anchors, Inc. Helical Piles, Tiebacks & Anchors		Ultimate Capacity Based Upon Torque (kips - kN) (1) (2)	Helix Bearing Plate Grade & Thickness (in - mm)	Section Coupling Method	Building Code Certifications
Round Shaft					
Model 238-190	O.D.= 2.375 in - 60.3 mm Wall= 0.190 in - 4.8 mm API 5 CT N80 Yield Strength = 80 ksi (min)	Comp = 65 kips - 289 kN Ten= 65 kips - 289 kN	ASTM A572 Grade 50 0.375 in-9.5mm	(3) 0.625 in-15.9 mm ASTM A325 Bolt	None
Model 238-254	O.D.= 2.375 in - 60.3 mm Wall= 0.254 in - 6.5 mm API 5 CT N80 Yield Strength = 80 ksi (min)	Comp = 90 kips - 400 kN Ten= 90 kips - 400 kN	ASTM A572 Grade 50 0.375 in-9.5mm	(3) 0.625 in-15.9 mm ASTM A325 Bolt	None
Model 278-217	O.D.= 2.875 in - 73 mm Wall= 0.217 in - 5.5 mm API 5 CT N80 Yield Strength = 80 ksi (min)	Comp = 110 kips - 489 kN Ten= 110 kips - 489 kN	ASTM A572 Grade 50 in-9.5mm	0.375 (3) 0.750 in-19.1 mm ASTM A325 Bolt	ICC-ES ESR Pending
Model 278-276	O.D.= 2.875 in - 73 mm Wall= 0.276 in - 7.0 mm API 5 CT N80 Yield Strength = 80 ksi (min)	Comp = 144 kips - 640 kN Ten= 144 kips - 640 kN	ASTM A572 Grade 50 0.375 in-9.5mm	(3) 0.750 in-19.1 mm ASTM A325 Bolt	None
Model 312-254	O.D.= 3.50 in - 88.9 mm Wall= 0.254 in - 6.5 mm API 5 CT N80 Yield Strength = 80 ksi (min)	Comp = 144 kips - 640 kN Ten= 144 kips - 640 kN	ASTM A572 Grade 50 in-9.5mm 12.7 mm	0.375 0.500 in- (3) 0.875 in-22.23 mm ASTM A325 Bolt	None
Model 312-368	O.D.= 3.50 in - 88.9 mm Wall= 0.368 in - 9.3 mm API 5 CT N80 Yield Strength = 80 ksi (min)	Comp = 216 kips - 960 kN Ten= 216 kips - 960 kN	ASTM A572 Grade 50 in-9.5mm 12.7 mm	0.375 0.500 in- (3) 0.875 in-22.23 mm ASTM A325 Bolt	None
Model 412-250	O.D.=4.50 in - 114.3 mm Wall= 0.250 in - 6.4 mm API 5 CT N80 Yield Strength = 80 ksi (min)	Comp = 195 kips - 867 kN Ten= 195 kips - 867 kN	ASTM A572 Grade 50 0.375 in-9.5mm 0.500 in-12.7 mm	(2) 1.125 in-28.6 mm ASTM A325 Bolt	Not Applicable
Model 412-337	O.D.=4.50 in - 114.3 mm Wall= 0.337 in - 8.6 mm API 5 CT N80 Yield Strength = 80 ksi (min)	Comp = 312 kips - 1387 kN Ten= 312 kips - 1387 kN	ASTM A572 Grade 50 0.375 in-9.5mm 0.500 in-12.7 mm	(3) 1.125 in-28.6 mm ASTM A325 Bolt	Not Applicable
Model 500-362	O.D.= 5.00 in - 127 mm Wall= 0.362 in - 9.19 mm API 5 CT N80 Yield Strength = 80 ksi (min)	Comp = 413 kips - 1837 kN Ten= 413 kips - 1837 kN	ASTM A572 Grade 50 in-9.5mm 12.7 mm	0.375 0.500 in- (3) 1.25 in-31.75 mm ASTM A325 Bolt	Not Applicable
Model 512-361	O.D.= 5.50 in - 139.7 mm Wall= 0.361 in - 9.17 mm API 5 CT N80 Yield Strength = 80 ksi (min)	Comp = 466 kips - 2072 kN Ten= 466 kips - 2072 kN	ASTM A572 Grade 50 0.375 in-9.5mm 0.500 in-12.7 mm	(3) 1.25 in-31.75 mm ASTM A325 Bolt	Not Applicable
Model 658-280	O.D.= 6.625 in - 168.3 mm Wall= 0.280 in - 7.1 mm API 5 CT J55 Yield Strength = 55 ksi (min)	*(2)	ASTM A572 Grade 50 0.500 in-12.7 mm 0.750 in-19.1 mm	Project Specific	Not Applicable



Model 700-362	O.D.= 7.00 in - 177.8 mm Wall= 0.362 in - 9.19 mm API 5 CT N80 Yield Strength = 80 ksi (min)	*(2)	ASTM A572 Grade 50 0.500 in-12.7 mm 0.750 in-19.1 mm	Project Specific	Not Applicable
Model 700-498	O.D.= 7.00 in - 177.8 mm Wall= 0.498 in - 12.65 mm API 5 CT N80 Yield Strength = 80 ksi (min)	*(2)	ASTM A572 Grade 50 0.500 in-12.7 mm 0.750 in-19.1 mm	Project Specific	Not Applicable
Model 858-322	O.D.= 8.625 in - 219 mm Wall= 0.322 in - 8.18 mm API 5 CT J55 Yield Strength = 55 ksi (min)	*(2)	ASTM A572 Grade 50 0.500 in-12.7 mm 0.750 in-19.1 mm 1.000 in -25.4 mm	Project Specific	Not Applicable
Model 858-500	O.D.= 8.625 in - 219 mm Wall= 0.500 in - 12.7 mm API 5 CT J55 Yield Strength = 55 ksi (min)	*(2)	ASTM A572 Grade 50 0.500 in-12.7 mm 0.750 in-19.1 mm 1.000 in -25.4 mm	Project Specific	Not Applicable
Model 1034-365	O.D.= 10.75 in - 273.1 mm Wall= 0.365 in - 9.3 mm API 5 CT J55 Yield Strength = 55 ksi (min)	*(2)	ASTM A572 Grade 50 0.500 in-12.7 mm 0.750 in-19.1 mm 1.000 in -25.4 mm	Project Specific	Not Applicable
Model 1034-500	O.D.= 10.75 in - 273.1 mm Wall= 0.500 in - 12.7 mm API 5 CT J55 Yield Strength = 55 ksi (min)	*(2)	ASTM A572 Grade 50 0.500 in-12.7 mm 0.750 in-19.1 mm 1.000 in -25.4 mm	Project Specific	Not Applicable
Model 1234-375	O.D.= 12.75 in - 323.9 mm Wall= 0.375 in - 9.53 mm API 5 CT J55 Yield Strength = 55 ksi (min)	*(2)	ASTM A572 Grade 50 0.500 in-12.7 mm 0.750 in-19.1 mm 1.000 in -25.4 mm	Project Specific	Not Applicable
Model 1234-500	O.D.= 12.75 in - 323.9 mm Wall= 0.500 in - 12.7 mm API 5 CT J55 Yield Strength = 55 ksi (min)	*(2)	ASTM A572 Grade 50 0.500 in-12.7 mm 0.750 in-19.1 mm 1.000 in -25.4 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.