

Table A: Structural Capacity Table (SCT) – METRIC VERSION -

Helical Anchors Products	Shaft Size OD** (mm)	Wall Thickness (mm)	Ultimate Tension Strength (kN)	Compression Load limit (kN)	Ultimate Torsional Strength (kN·m)	Installation Torque factor k (m ⁻¹)	Capacity Based on Torsional Strength (kN)
TS238190	60.3	4.8	556	444	8.81	29.5–32.8	289
TS238254	60.3	6.5	556	600	12.20	29.5–32.8	400
TS278217	73.0	5.5	800	622	17.63	26.2–29.5	520
TS278276	73.0	7.0	800	800	21.69	26.2–29.5	640
TS312254	88.9	6.5	1112	934	24.41	21.3–26.2	640
TS312368	88.9	9.4	1112	1290	36.61	21.3–26.2	960
TS412250	114.3	6.4	1223	1156	40.68	16.4–21.3	867
TS412337	114.3	8.6	1601	1556	65.08	16.4–21.3	1387
TS500362*	127.0	9.2	1837	1837	100.33*	14.8–19.7	1837
TS512361*	139.7	9.2	2268	2072	122.97*	13.1–18.0	2072
TS700498*	177.8	12.7	4443	3620	244.05*	9.8–14.8	3603

** OD = Outside Diameter

Important Notes:

- HAI recommends only using 85% of the Ultimate Torsional Strength shown above in table A1 for 60.3 – 88.9 mm helical piles. All other diameter helical piles are recommended to be used to 95% of their Ultimate Torsional Strength.
- When using helical piles for tieback or any battered application with more than 10 degrees from vertical, HAI recommends only using 80% of the Ultimate Torsional Strength which will only apply to 60.3 mm and 73.0 mm diameter helical piles.
- * The ultimate torsional strength values shown above were determined by statistical analysis of laboratory testing results except for values with an asterisk next to them. Values with an asterisk next to them are calculated ratings.
- The capacities shown above in table A for ultimate tension strength and compression load limit are calculated ratings not determined by field tests.
- Our unique facility contains a torsion testing machine allowing us to test all our products. Helical Anchor Inc. is committed to testing and improving all our finished products to provide the best quality for the customer. This table will be updated when testing is completed for those products with an asterisk.