



The World's Strongest Anchor

Viking Helical Anchors Quick Product Ratings

Table 1: Helical Anchors Product Ratings

Viking Helical Anchors Product Series	Shaft Size (in)	Wall Thickness (in)	Ultimate Tension Strength (lbs)	Compression Load Limit (lbs)	Ultimate Torsional Strength (ft-lbs)	Installation Factor (k)	Capacity Based on Torsional Strength (lbs)
RCS150	1.5 SQ	Solid	70,000	70,000	7,000*	10	70,000
RCS175	1.75 SQ	Solid	100,000	110,000	11,000*	10	110,000
RCS225	2.25 SQ	Solid	200,000	200,000	23,000*	10	200,000
TS238190	2.375 OD	0.190	125,000	100,000	7,500	9-10	75,000
TS238254	2.375 OD	0.254	125,000	135,000	9,000	9-10	90,000
TS238280	2.375 OD	0.280	125,000	140,000	8,000	9-10	80,000
TS278217	2.875 OD	0.217	180,000	140,000	13,000	8-9	117,000
TS278276	2.875 OD	0.276	180,000	180,000	16,000	8-9	144,000
TS312254	3.50 OD	0.254	250,000	210,000	18,000	6.5-8	144,000
TS312368	3.50 OD	0.368	250,000	290,000	27,000	6.5-8	216,000
TS412337	4.50 OD	0.337	360,000	350,000	48,000	5-6.5	312,000
TS5362	5.00 OD	0.362	413,000	413,000	74,000*	4.5-6	413,000
TS512361	5.50 OD	0.361	510,000	466,000	90,700*	4-5.5	466,000
TS7498	7.00 OD	0.498	999,000	814,000	200,000*	3-4.5	814,000

Note: The capacities shown above in Table 1 for ultimate tension strength and compression load limit are calculated ratings not determined by field tests. The ultimate torsional strength values shown above are actually 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. Our unique facility contains a torsion testing machine allowing us to test all our products. Viking Helical Anchors is committed to testing and improving all of our finished products to provide the best quality for the customer. The table will be updated when testing is completed for those products with an asterisk.



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Table 2: General Properties of Helical Anchors Shaft

Viking Helical Anchors Product Series	Shaft Size (in)	Wall Thickness (in)	Area (ft ²)	Radius of Gyration	Moment of Inertia (in ⁴)	Flexural Section Modulus
RCS150	1.5 SQ	Solid	2.20	0.425	0.396	0.414
RCS175	1.75 SQ	Solid	3.01	0.498	0.746	0.658
RCS225	2.25 SQ	Solid	4.94	0.642	2.04	1.42
TS238190	2.375 OD	0.190	1.30	0.775	0.784	0.660
TS238254	2.375 OD	0.254	1.69	0.755	0.965	0.813
TS238280	2.375 OD	0.280	1.84	0.747	1.03	0.867
TS278217	2.875 OD	0.217	1.81	0.943	1.61	1.12
TS278276	2.875 OD	0.276	2.25	0.924	1.92	1.34
TS312254	3.50 OD	0.254	2.59	1.15	3.43	1.96
TS312368	3.50 OD	0.368	3.62	1.11	4.50	2.57
TS412337	4.50 OD	0.337	4.41	1.48	9.61	4.27
TS5362	5.00 OD	0.362	5.27	1.64	14.3	5.71
TS512361	5.50 OD	0.361	5.83	1.82	19.3	7.03
TS7498	7.00 OD	0.498	10.2	2.31	54.1	15.4

Table 3: Ultimate Capacities of Helical Anchors Helices

Shaft Size (in)	Thickness (in)	Helix Diameter (in)				
		8	10	12	14	16
Helical Anchor Helices Ultimate Capacity (lbs)						
2.375	3/8	97,000	78,000	66,000	52,000	---
2.875	3/8	112,000	84,000	82,000	65,000	40,000*
	1/2	151,000	97,000	100,000	80,000	60,000*
3.5	3/8	125,000*	91,000	83,000	68,000	46,000
	1/2	155,000*	108,000	113,000	104,000	82,000
4.5	1/2	---	12,000	105,000	96,000	102,000

Note: Ultimate capacities of helices have been determined by statistical analysis of laboratory testing results. Helix plates are offered in 3/8" and 1/2" thickness for all our products. These are interim ratings since testing is still in process and Table 3 will be updated when testing is completed.