

# Helical Pile Specifications

## System Ratings & Specifications



Product	Shaft Specifications					Structural Capacity (Tension & Comp)		Maximum Torque (ft-lbs)	Capacity to Torque Ratio (ft <sup>-1</sup> )	Geotechnical Capacity (Tension & Comp)		Helix Specifications		Surface Coating	Standard Section Lengths (ft)
	Design Wall Gauge (in)	Outside Diameter (in)	Approx Weight (plf)	Min. Yield Strength (ksi)	Min. Tensile Strength (ksi)	Ultimate (tons)	Allowable (tons)			Ultimate (tons)	Allowable (tons)	Diameters (available in standard & dual cutting edge) (in)	Design Gauge (in)		
MS150B	1-1/2 SQ		7.7	90	100	36	18	7,000	10	36	18	8, 10, 12 & 14	0.375	NG, G, EP	3, 5, 7
MS175B	1-3/4 SQ		10.4	90	100	58	29	10,500	10	52	26	8, 10, 12 & 14	0.5	NG, G, EP	3, 5, 7
MH2325U	0.25	2-3/8	5.7	80	90	34	20	5,700	10	29	14	8, 10, 12 & 14	0.375	NG, G, EP	3, 6, 10
MH222U	0.22	2-7/8	6.2	80	90	41	21	7,800	9	35	17.5	8, 10, 12, 14 & 16	0.375	NG, G, EP	3, 6, 10, 15
MH227U	0.276	2-7/8	7.7	80	90	51	25	9,400	9	42	21	8, 10, 12, 14 & 16	0.375	NG, G, EP	3, 6, 10, 15
MH227U-6	0.276	2-7/8	7.7	80	90	51	25	9,400	7.3	34	17	8, 10, 12, 14 & 16	0.375	NG, G, EP	3, 6, 10, 15
MH313B	0.125	3	3.8	65	80	18	9	4,500	8	18	9	8, 10, 12, 14 & 16	0.375	NG, G, EP	3, 6, 10, 15
MH313BR	0.125	3	3.8	65	80	29	15	5,900	8	24	12	8, 10, 12, 14 & 16	0.375	NG, G, EP	3, 6, 10, 15
MH325B	0.27	3	7.3	65	80	33	16.5	8,300	8	33	16.5	8, 10, 12, 14 & 16	0.375	NG, G, EP	3, 6, 10, 15
MH325BR	0.27	3	7.3	65	80	54	27	12,500	8	50	25	8, 10, 12, 14 & 16	0.375	NG, G, EP	3, 6, 10, 15
MH325BR-6	0.27	3	7.3	65	80	54	27	12,500	7	44	22	10, 12, 14 & 16	0.375	NG, G, EP	3, 6, 10, 15
MH3521U	0.21	3-1/2	7.4	80	90	42	21	11,400	7	40	20	10, 12, 14 & 16	0.375	NG, G, EP	3, 6, 10, 15
MH3530U	0.3	3-1/2	10.3	80	90	48	24	13,700	7	48	24	10, 12, 14, 16, 20 & 24	0.375	NG, G, EP	3, 6, 10, 15
MH429U	0.29	4-1/2	13	80	90	91	45	26,200	5.7	75	37	10, 12, 14, 16, 20 & 24	0.5	NG, G, EP	5, 7.5, 10, 15

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MH429Y	0.29	4-1/2	13	110	120	120	60	34,900	5.7	99	50	10, 12, 14, 16, 20 & 24	0.5	NG, G, EP	5, 7.5, 10, 15
MH434U	0.34	4-1/2	15	80	90	120	60	29,700	5.7	85	42.5	10, 12, 14, 16, 20 & 24	0.5	NG, G, EP	5, 7.5, 10, 15
MH434U-6	0.34	4-1/2	15	80	90	120	60	29,700	4.9	73	36	10, 12, 14, 16, 20 & 24	0.5	NG, G, EP	5, 7.5, 10, 15
MH530Y-6	0.3	5-1/2	16.7	110	120	199	100	56,400	4.8	135	68	12, 14, 16, 20, 24, 30 & 36	0.625	NG, G, EP	10, 15, 20
MH536Y-6	0.36	5-1/2	19.8	110	120	234	117	65,300	4.8	157	78	12, 14, 16, 20, 24, 30 & 36	0.625	NG, G, EP	10, 15, 20
MH542Y-6	0.415	5-1/2	22.5	110	120	234	117	73,400	4.8	176	88	12, 14, 16, 20, 24, 30 & 36	0.625	NG, G, EP	10, 15, 20
MH547Y-6	0.47	5-1/2	25.3	110	120	234	117	82,000	4.8	197	98	12, 14, 16, 20, 24, 30 & 36	0.625	NG, G, EP	10, 15, 20
MH736U-6	0.36	7	25.5	80	90	247	124	86,600	3.9	169	84	14, 16, 20, 24, 30 & 36	0.625	NG, G, EP	10, 15, 20
MH740U-6	0.41	7	28.7	80	90	252	126	96,100	3.9	187	94	14, 16, 20, 24, 30 & 36	0.625	NG, G, EP	10, 15, 20
MH745U-6	0.45	7	31.5	80	90	280	140	105,200	3.9	205	103	14, 16, 20, 24, 30 & 36	0.625	NG, G, EP	10, 15, 20
MH745Y-6	0.45	7	31.5	110	120	280	140	140,300	3.9	274	137	14, 16, 20, 24, 30 & 36	0.625	NG, G, EP	10, 15, 20
MH850Q-6	0.5	8-5/8	43.4	50	60	261	131	123,500	3.3	204	102	16, 20, 24, 30, 36 & 42	0.625	NG, G, EP	10, 15, 20
MH939U-6	0.39	9-5/8	38.8	80	90	280	140	192,100	3	280	140	16, 20, 24, 30, 36 & 42	0.625	NG, G, EP	10, 15, 20

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MH1050U-6	0.5	10-3/4	54.7	80	90	504	252	293,200	2.8	410	205	18, 20, 24, 30, 36 & 42	1	NG, G, EP	10, 15, 20
MH1250Q-6	0.5	12-3/4	64.6	50	60	280	140	233,000	2.4	280	140	18, 20, 24, 30, 36 & 42	0.625	NG, G, EP	10, 15, 20
MH1338Q-6	0.38	13-3/8	52.7	50	60	233	116	194,200	2.4	233	116	18, 20, 24, 30, 36 & 42	0.625	NG, G, EP	10, 15, 20
MH1650U-6	0.495	16	82	80	90	280	140	265,700	2.1	280	140	20, 24, 30, 36 & 42	0.625	NG, G, EP	10, 15, 20
MH1843Q-6	0.43	18-5/8	83.6	50	60	267	134	281,100	1.9	267	134	24, 30, 36 & 42	0.625	NG, G, EP	10, 15, 20



As Magnum is committed to testing and improving products, these specifications are subject to change. Additional product specifications are available at [www.magnumpiering.com](http://www.magnumpiering.com) and in the Magnum Helical Pile Engineering Reference Manual. Structural capacity is the buckling strength of the shaft and couplings in firm soils. Structural capacity takes into account corrosion over 75 year design life for bare steel in non-severe corrosive soils based on ICC-ES AC308, unless noted otherwise on pile cut sheet. Consult a Magnum corrosion engineer for severe corrosive soils. Geotechnical capacity is the theoretical bearing and pullout capacity in uniform ground when installed at maximum torque. Pullout capacity requires installation to minimum depth of 5 to 12 helix diameters below ground surface depending on soil.

\* See Pile cut sheet for special capacity design considerations.

# Helical Pile Number Specification Legend



## Example

The MAGNUM® Helical Pile product number below, MHL434U10L12S14S6G, is for a Lead with 4.5" diameter shaft, a 0.337" wall thickness, 80ksi shaft material, 10 ft. long with (2) 0.50" Single Edge Helices 12 and 14 inches in diameter with a 6" pitch, and the surface preparation is Galvanized.

