

Magnum® Piering Helical Pile Specifications



| Magnum® Helical Pile Products | System Ratings & Specifications | | | | | | | | | | | | | |
|--|--|-----------------|---------------------|--------------------------------------|------------------------------|-------------------------|--|-------------------------------------|------------------|--|------------------|-------------------------------------|-----------------|--|
| | Shaft Design Wall Gauge (in) | Shaft O.D. (in) | Approx Weight (plf) | Structural Capacity (Tension & Comp) | | Maximum Torque (ft-lbs) | Capacity to Torque Ratio (ft ⁻¹) | Capacity by Torque (Tension & Comp) | | Helix Sizes (available in standard & dual cutting edge) (in) | Helix Gauge (in) | Bolted (B) or Welded (W) Connection | Surface Coating | Standard Section Lengths (custom sizes available) (ft) |
| | | | | Ultimate (tons) Bare / Galv | Allowable (tons) Bare / Galv | | | Ultimate (tons) | Allowable (tons) | | | | | |
| MH313 | 0.13 | 3.00 | 3.8 | 26 / 35 | 13 / 17 | 4,000 | 8.0 | 16 | 8 | 8,10,12,14 | 0.375 | B (1) | G, NG, EP | 3, 6, 10, 15 |
| MH313R | 0.13 | 3.00 | 3.8 | 26 / 35 | 13 / 17 | 6,000 | 8.0 | 24 | 12 | 8,10,12,14 | 0.375 | B (1) | G, NG, EP | 3, 6, 10, 15 |
| MH325 | 0.25 | 3.00 | 7.3 | 60 / 68 | 30 / 34 | 8,700 | 8.0 | 35 | 17 | 8,10,12,14 | 0.375 | B (1) | G, NG, EP | 3, 6, 10, 15 |
| MH325R | 0.25 | 3.00 | 7.3 | 60 / 68 | 30 / 34 | 12,700 | 8.0 | 51 | 25 | 8,10,12,14 | 0.375 | B (1) | G, NG, EP | 3, 6, 10, 15 |
| MH425 | 0.25 | 4.50 | 11.6 | 93 / 105 | 47 / 53 | 24,000 | 5.7 | 68 | 34 | 10,12,14,16 | 0.625 | B (2) | G, NG, EP | 5, 7, 10, 15 |
| MH425R | 0.25 | 4.50 | 11.6 | 93 / 105 | 47 / 53 | 28,000 | 5.7 | 80 | 40 | 10,12,14,16 | 0.625 | B (2) | G, NG, EP | 5, 7, 10, 15 |
| MH431 | 0.31 | 4.50 | 14.3 | 118 / 131 | 59 / 65 | 29,000 | 5.7 | 83 | 41 | 10,12,14,16 | 0.625 | B (2) | G, NG, EP | 5, 7, 10, 15 |
| MH431R | 0.31 | 4.50 | 14.3 | 118 / 131 | 59 / 65 | 34,000 | 5.7 | 97 | 48 | 10,12,14,16 | 0.625 | B (2) | G, NG, EP | 5, 7, 10, 15 |
| MH625 | 0.25 | 5.72 | 15.0 | 120 / 136 | 60 / 68 | 40,000 | 4.6 | 92 | 46 | 12,16,20,24 | 0.875 | W or B (3) | G, NG, EP | 6, 10, 15 |
| MH625R | 0.25 | 5.72 | 15.0 | 120 / 136 | 60 / 68 | 45,000 | 4.6 | 104 | 52 | 12,16,20,24 | 0.875 | W or B (3) | G, NG, EP | 6, 10, 15 |
| MH637 | 0.37 | 5.72 | 21.2 | 180 / 196 | 90 / 98 | 58,000 | 4.6 | 133 | 67 | 12,16,20,24 | 0.875 | W or B (3) | G, NG, EP | 6, 10, 15 |
| MH637R | 0.37 | 5.72 | 21.2 | 180 / 196 | 90 / 98 | 65,000 | 4.6 | 150 | 75 | 12,16,20,24 | 0.875 | W or B (3) | G, NG, EP | 6, 10, 15 |
| MH646 | 0.46 | 5.72 | 27.2 | 238 / 253 | 119 / 127 | 74,000 | 4.6 | 170 | 85 | 12,16,20,24 | 0.875 | W or B (3) | G, NG, EP | 6, 10, 15 |
| MH646R | 0.46 | 5.72 | 27.2 | 238 / 253 | 119 / 127 | 83,000 | 4.6 | 191 | 95 | 12,16,20,24 | 0.875 | W or B (3) | G, NG, EP | 6, 10, 15 |
| Magnum Patented Dual-Cutting Edge Blades Available on All Products | Improved Penetration into Dense & Cobble Soils, Cuts Through Many Fills/Trash, Eliminates Wobble, Maintains Plumbness, Less Soil Disturbance | | | | | | | | | | | | | |

R = Reinforced

Magnum's patent pending reinforced helical pile to torque motor connection design increases the torsional capacity of the pinned connection to the torque motor and therefore increases the pile's ultimate capacity by approximately 10%.

Surface Coatings

G = Hot-Dip Zinc Galvanized per ASTM A123/A153, NG = Bare Steel, EP = Epoxy Powder Coated per ICC-ES AC228

Notes and Specifications

All Magnum helical pile products are manufactured using minimum 65 ksi minimum yield strength structural tubing, or better, for the shaft and ASTM A36 plate steel, or better, for the helical bearing plates. As Magnum is committed to testing and improving products, these specifications are subject to change. Additional product specifications available at www.magnumpiering.com and in the Magnum Helical Pile Engineering Manual available upon request. Structural capacity is for piles in firm soil with fully braced pile cap. Structural capacity takes into account corrosion over IBC design life in moderate to high corrosive soils based on ICC-ES AC358. Consult a Magnum corrosion engineer for severe corrosive soils.