

SELECTION TABLE



Model (Outside Diameter)	Project Type	Maximum Allowable Bearing Capacity ^{1 2 3 4}		Allowable Lateral Capacity ⁵	Maximum Installation Torque	Allowable Bending Resistance ⁷
		Compression (lb)	Tension (lb)	lb	ft-lb	ft-lb
P1 (1.9 in)	Light Residential (deck without roof, stairs, etc.)	6,700	3,350 to 4,450	250	1,336 ⁸	785
P2 (2.4 in)	Medium Residential and Light Commercial (deck, carport, sunroom, single story residential addition, etc.)	11,200	5,600 to 7,450	550	2,242 ⁸	1,360
P3 (3.5 in)	Heavy Residential, Light to Medium Commercial and Industrial (two-story residential addition, cottage, sign, carport, solar panel, new construction, underpinning, boardwalk, tie-back, etc.)	29,800 to 33,000	15,000 to 19,850	1,200	8,509 ⁸	4,571
P4⁶ (4 in)	Heavy Residential, Light to Medium Commercial and Industrial (cottage, sign, light post, solar panel, new construction, boardwalk, tie-back, bollard, etc.)	36,000 to 45,000	18,000 to 30,000	1,500	11,000	6,371
P3-HD⁶ (3.5 in)	Heavy Residential, Light to Heavy Commercial and Industrial (new construction, underpinning, tie-back, etc.)	38,000 to 45,000	19,000 to 30,000	1,400	11,000	6,428
P4-HD⁶ (4 in)	Heavy Residential, Light to Heavy Commercial and Industrial (new construction, retaining wall, tie-back, etc.)	44,000 to 50,000	22,000 to 33,000	1,500	14,500	8,944
P5⁶ (5.6 in)	Heavy Residential, Light to Heavy Commercial and Industrial (cottage, sign, light post, new construction, boardwalk, solar panel, bollard, retaining wall, etc.)	30,000 to 50,000	15,000 to 33,000	2,750	14,500 ⁹	14,713
P6⁶ (6.6 in)	Heavy Residential, Light to Heavy Commercial and Industrial (sign, light post, new construction, solar panel, bollard, retaining wall, etc.)	30,000 to 50,000	15,000 to 33,000	3,700	14,500 ⁹	23,142

1. The maximum compressive bearing capacity (allowable load) includes a safety factor of 2.
2. The maximum bearing capacity (allowable load) is determined by the maximum torque applied by the installation equipment.
3. When the helical foundation is laterally unsupported (soil very loose / soft, liquefiable soils, water current and wind), the structural strength of the helical foundation must be approved by TMP Engineering Department.
4. For tension applications, the helical foundation must be installed such that the minimum depth from the ground surface to the helix is 12D, where D is the diameter of the helix. Contact TMP Engineering Department for tension applications when 12D cannot be maintained.
5. Lateral capacity is based on medium dense soils with free head condition with a maximum distance in air or fluid soils of 6" and embedment of 7 feet. Contact TMP Engineering Department for other conditions.

6. TMP Model P4, P3-HD, P4-HD, P5, and P6 are subject to site specific engineering. TMP Engineering Department approval is required to use the upper capacity values shown in table.
7. Allowable bending resistance is based on calculations assuming bare steel, 50 years corrosion per AC358 and 1.67 safety factor.
8. Maximum installation torque for P1, P2, and P3 are based on IAPMO-UES Evaluation report no. 481.
9. Maximum installation torque for P5 and P6 are limited to the maximum torque of the ET1 installation equipment.

Comments:

- For any technical questions, please contact the TMP Engineering Department.
- Larger Techno Metal Posts can be used for applications requiring a lateral or bending resistance higher than shown in the selection table.