

# SELECTION TABLE



Model (Outside Diameter)	Project Type	Maximum Allowable Bearing Capacity <sup>1 2 3 4</sup>		Allowable Lateral Capacity <sup>5</sup>	Maximum Installation Torque	Allowable Bending Resis- tance <sup>7</sup>
		Compression (lb)	Tension (lb)	lb	ft-lb	ft-lb
<b>P1</b> (1.9")	<b>Light Residential</b> (deck without roof, stairs, etc.)	6,700	4,450	250	1,336 <sup>8</sup>	785
<b>P2</b> (2.4")	<b>Medium Residential and Light Commercial</b> (deck, carport, sunroom, single story residential addition, etc.)	11,200	7,450	550	2,242 <sup>8</sup>	1,360
<b>P2-HD</b> (2.4")	<b>Medium Residential and Light Commercial</b> (deck, carport, sunroom, single storey residential addition, concrete slab, etc.)	20,000	13,300	550	4,000	2,300
<b>P2.5</b> (2.9")	<b>Medium Residential and Light Commercial</b> (deck, carport, sunroom, single storey residential addition, new construction, concrete slab etc.)	20,000	13,300	650	4,444	2,809
<b>P3</b> (3.5")	<b>Heavy Residential, Light to Medium Commercial and Industrial</b> (two-story residential addition, cottage, sign, carport, solar panel, new construction, underpinning, boardwalk, tie-back, etc.)	29,800 to 33,000	19,850	1,200	8,509 <sup>8</sup>	4,571
<b>P4<sup>6</sup></b> (4")	<b>Heavy Residential, Light to Medium Commercial and Industrial</b> (cottage, sign, light post, solar panel, new construction, boardwalk, tie-back, bollard, etc.)	35,000 to 45,000	23,100	1,500	11,000	6,371
<b>P3-HD<sup>6</sup></b> (3.5")	<b>Heavy Residential, Light to Heavy Commercial and Industrial</b> (new construction, underpinning, tie-back, etc.)	38,500 to 45,000	25,700	1,400	11,000	6,428
<b>P4-HD<sup>6</sup></b> (4")	<b>Heavy Residential, Light to Heavy Commercial and Industrial</b> (new construction, retaining wall, tie-back, etc.)	45,600 to 50,000	30,400	1,500	14,500	8,944
<b>P5<sup>6</sup></b> (5.6")	<b>Heavy Residential, Light to Heavy Commercial and Industrial</b> (cottage, sign, light post, new construction, boardwalk, solar panel, bollard, retaining wall, etc.)	32,600 to 50,000	21,700	2,750	14,500 <sup>9</sup>	14,713
<b>P6<sup>6</sup></b> (6.6")	<b>Heavy Residential, Light to Heavy Commercial and Industrial</b> (sign, light post, new construction, solar panel, bollard, retaining wall, etc.)	31,200 to 50,000	20,900	3,700	14,500 <sup>9</sup>	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 and air), 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, P3HD, P4HD, 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 are based on calculations assuming bare steel, 50 year corrosion per AC358 and 1.67 safety factor.

8. Maximum installation torque for P1, P2 and P3 are based on IAP-MO-UES Evaluation report no. 481

9. Maximum installation torque for P5 and P6 are limited to the maximum torque of the ET-1 installation equipment.

10. Maximum allowable capacities shown in table may be obtained with site specific analysis and/or load testing.

#### COMMENTS

- For any technical questions, please contact the TMP Engineering department.

- Larger Techno Metal Post can be used for applications requiring a lateral or bending resistance higher than shown in the selection table.