

# 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 Resistance <sup>7</sup>
		Compression (lb)	Tension (lb)	lb	ft-lb	ft-lb
<b>P1</b> (1.9 in)	<b>Light Residential</b> (deck without roof, stairs, etc.)	6,700	3,350 to 4,450	250	1,336 <sup>8</sup>	785
<b>P2</b> (2.4 in)	<b>Medium Residential and Light Commercial</b> (deck, carport, sunroom, single story residential addition, etc.)	11,200	5,600 to 7,450	550	2,242 <sup>8</sup>	1,360
<b>P3</b> (3.5 in)	<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	15,000 to 19,850	1,200	8,509 <sup>8</sup>	4,571
<b>P4<sup>6</sup></b> (4 in)	<b>Heavy Residential, Light to Medium Commercial and Industrial</b> (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
<b>P3-HD<sup>6</sup></b> (3.5 in)	<b>Heavy Residential, Light to Heavy Commercial and Industrial</b> (new construction, underpinning, tie-back, etc.)	38,000 to 45,000	19,000 to 30,000	1,400	11,000	6,428
<b>P4-HD<sup>6</sup></b> (4 in)	<b>Heavy Residential, Light to Heavy Commercial and Industrial</b> (new construction, retaining wall, tie-back, etc.)	44,000 to 50,000	22,000 to 33,000	1,500	14,500	8,944
<b>P5<sup>6</sup></b> (5.6 in)	<b>Heavy Residential, Light to Heavy Commercial and Industrial</b> (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 <sup>9</sup>	14,713
<b>P6<sup>6</sup></b> (6.6 in)	<b>Heavy Residential, Light to Heavy Commercial and Industrial</b> (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 <sup>9</sup>	23,142

- The maximum compressive bearing capacity (allowable load) includes a safety factor of 2.
  - The maximum bearing capacity (allowable load) is determined by the maximum torque applied by the installation equipment.
  - 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.
  - 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.
  - 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.
  - 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.
  - Allowable bending resistance is based on calculations assuming bare steel, 50 years corrosion per AC358 and 1.67 safety factor.
  - Maximum installation torque for P1, P2, and P3 are based on IAPMO-UES Evaluation report no. 481.
  - 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.