SELECTION TABLE

techno Metal Post™

Model (Outside Diameter)	Project Type	Maximum Bearing Capacity								Lateral Capacity [6]		Factored Bending Resistance	
		Compression [1 2 4 5]				Tension [1 3 4]							
		SLS [7]		ULS [8]		SLS [7]		ULS [8]		SLS			
		(lb)	(kN)	(lb)	(kN)	(lb)	(kN)	(lb)	(kN)	(lb)	(kN)	(ft-lb)	(kN-m)
P1 (O.D. 1.9 in / 48.3mm)	**Light Residential** (deck without roof, stairs, etc.)	6,800	30	9,520	42	3,400	15	4,760	21	500	2.2	1,010	1.4
P2 (O.D. 2.4 in / 60.3mm)	**Medium Residential and Light Commercial** (deck, carport, sunroom, single-story residential addition, etc.)	11,000	49	15,400	69	5,500	24	7,700	34	1,000	4.4	1,785	2.4
P2HD (O.D. 2.4 in / 60.3mm)	**Medium to Heavy Residential, Light Commercial** (deck, carport, sunroom, residential addition, sign, new construction, etc.)	20,000	89	28,000	125	10,000	44	14,000	62	1,000	4.4	3,321	4.5
P2.5 (O.D. 2.9 in / 73mm)	**Medium to Heavy Residential, Light Commercial** (deck, carport, sunroom, residential addition, sign, new construction, board-walk, etc.)	20,000	89	28,000	125	10,000	44	14,000	62	1,500	6.7	4,057	5.5
P3 (O.D. 3.5 in / 88.9mm)	**Heavy Residential, Light to Medium Commercial and Industrial** (two storey residential addition, cottage, sign, light post, solar panel, new construction, underpinning, boardwalk, tie-back, carport, etc.)	33,750	150	47,250	210	16,875	75	23,625	105	2,250	10	6,454	8.8
P4 (O.D. 4.0 in / 101.6mm)	**Heavy Residential, Light to Medium Commercial and Industrial** (cottage, sign, light post, solar panel, new construction, boardwalk, tie-back, bollard, etc.)	45,000	200	63,000	280	22,500	100	31,500	140	2,700	12	9,057	12.3
P3HD (O.D. 3.5 in / 88.9mm)	**Heavy Residential, Light to Heavy Commercial and Industrial** (new construction, underpinning, tie-back, etc.)	45,000	200	63,000	280	22,500	100	31,500	140	2,250	10	9,411	12.8
P4HD (O.D. 4.0 in / 101.6mm)	**Heavy Residential, Light to Heavy Commercial and Industrial** (new construction, underpinning, tie-back, etc.)	50,625	225	70,875	315	25,313	113	35,438	158	2,700	12	13,165	17.9
P5 (O.D. 5.6 in / 141.3mm)	**Heavy Residential, Light to Heavy Commercial and Industrial** (cottage, sign, light post, new construction, boardwalk, solar panel, bollard, retaining wall, etc.)	50,625	225	70,875	315	25,313	113	35,438	158	4,500	20	21,507	29.2
P6 (O.D. 6.6 in / 168.3mm)	**Heavy Residential, Light to Heavy Commercial and Industrial** (sign, light post, new construction, solar panel, bollard, retaining wall, etc.)	50,625	225	70,875	315	25,313	113	35,438	158	5,625	25	33,876	45.9

1. The bearing capacity values in the selection table are an indication and must be validated on-site according to the soil conditions encountered and the driving torque attained during installation.

2. The compression load capacity (SLS) is determined by the driving torque which is provided by the installation equipment when installing the piles.

3. The tension load capacity is obtained according to the driving torque which is attained during installation and according to the penetration depth of the pile. For tension applications, contact the TMP Engineering Department.

4. The maximum compression/tension loads presented in the selection table to limit the settlement to 12 mm (1/2 inch).

5. When the helical pile is laterally unsupported (very loose soil/soft, liquifiable soil, water and wind), the structural strength of the pile must be approved by the TMP Engineering Department.

6. The lateral capacity values are just indicative. They are based on dense granular soil, a free head condition of the pile, an above-ground height of the piles of 150 mm (6 inches) and with the application of only a lateral load. For applications with lateral loads, contact the TMP Engineering Department.

7. The compression load capacity (SLS) values are based on a minimum safety factor of 2 on the ultimate geotechnical resistance.

8. Factored ultimate geotechnical resistance at ULS.

Comments:

- For all technical questions, please contact the TMP Engineering Department at 418 338-8735, or via email at eng@technometalpost.com

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