



# Magnum® Piering Push Pier Specifications

Magnum® Push Piers		System Ratings & Specifications									
		Description	Shaft Design Wall Gauge (in)	Shaft O.D. (in)	Structural Capacity* (Compression)		Ram Specifications		Maximum Test Load** (tons)	Maximum Allowable Load from Test w/ F.S. = 1.5 (tons)	Surface Coating***
Ultimate (tons)	Allowable (tons)				Piston Area (in <sup>2</sup> )	Maximum Test Pressure (psi)					
MP212	1.75" Dia. x 0.12" Wall Push Pier	0.12	1.75	8	5	3.14	5,100	8	5	G, NG, EP	18, 36
MP313	3.00" Dia. x 0.13" Wall Push Pier	0.125	3.00	22	13	8.30	5,300	22	15	G, NG, EP	18, 36
MP325	3.00" Dia. x 0.25" Wall Push Pier	0.25	3.00	55	33	8.30	7,500	31	21	G, NG, EP	18, 36
MP413	4.50" Dia. x 0.13" Wall Push Pier	0.13	4.50	40	24	8.30	7,500	31	21	G, NG, EP	18, 36
MP419	4.50" Dia. x 0.19" Wall Push Pier	0.188	4.50	68	41	8.30	7,500	31	21	G, NG, EP	18, 36
MP425	4.50" Dia. x 0.25" Wall Push Pier	0.25	4.50	96	57	15.90	7,500	60	40	G, NG, EP	18, 36
MP431	4.50" Dia. x 0.31" Wall Push Pier	0.31	4.50	122	73	15.90	7,500	60	40	G, NG, EP	18, 36
MP212-S	1.75" Dia. x 0.12" Wall Starter	0.12	1.75	8	5	3.14	5,100	8	5	G, NG, EP	18, 36
MP313-S	3.00" Dia. x 0.13" Wall Starter	0.125	3.00	22	13	8.30	5,300	22	15	G, NG, EP	9, 18
MP325-S	3.00" Dia. x 0.25" Wall Starter	0.25	3.00	55	33	8.30	7,500	31	21	G, NG, EP	10, 18
MP413-S	4.50" Dia. x 0.13" Wall Starter	0.13	4.50	40	24	8.30	7,500	31	21	G, NG, EP	10, 18
MP419-S	4.50" Dia. x 0.19" Wall Starter	0.188	4.50	68	41	8.30	7,500	31	21	G, NG, EP	10, 18
MP425-S	4.50" Dia. x 0.25" Wall Starter	0.25	4.50	96	57	15.90	7,500	60	40	G, NG, EP	10, 18
MP431-S	4.50" Dia. x 0.31" Wall Starter	0.31	4.50	122	73	15.90	7,500	60	40	G, NG, EP	10, 18

**Notes:**

\*Structural capacity is the theoretical buckling strength of the shaft in firm soils with fixed head conditions (60 in unbraced length, K=0.65). The calculation takes into account corrosion per ICC-ES AC308 and represents the capacity after corrosion has occurred. Buckling capacity will be less in soft soils, when any part of the shaft is standing unsupported in air, water or fluid soils, or if head conditions differ.

\*\*Maximum test load is based on maximum ram pressure times piston area. Ram pressure is limited to that which would buckle the pile or the maximum safe operating pressure of the system, whichever is less. The strength of the push pier system may be governed by the bracket, connection of the bracket to the pier, or connection of the bracket to the structure. All push piers should be load tested to 1.5 times the desired design/working load.

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

All Magnum Push Pier products are manufactured using ASTM A513 Grade 65 ksi minimum yield strength structural tubing. As Magnum is committed to testing and improving products, these specifications are subject to change. Additional product specifications are available at [www.magnumpiering.com](http://www.magnumpiering.com) and upon request.