

Performance Test Summaries — HELICAL PULLDOWN™ Micropile

Soil Type Supporting Upper Shaft (UngROUTED pile data provided for comparison where available.)	Micropile Description					Compression Load Data			
	Location	Helix Diameters (inches)	Grouted Shaft Dia. (inches)	Grouted Shaft Length (feet)	Overall Length (feet)	Effective Torque (ft-lb)	Load Max Applied (kip)	Load at Deflection ≤ 1/2" (kip)	Load at Deflection ≤ 1" (kip)
SS5 Anchor Series (1½" Square Shaft, 5,500 ft-lb Torque Rating)									
Clay, soft and peat	Coquitlam, BC	12 & 14	10	48	55	< 1000	70	62	>70
Clay, fill	Tunica, MS	8, 10 & 12	5	39	45	4500	70	62	>70
Clay, high plasticity	Winnipeg, MB	6 & 8	5	45	48	5000	72	57	64
Clay, high plasticity w/organic silt	Beau Chene, LA	8, 10 & 12	7	25	30	1700	70	54	68
Clay, high plasticity w/organic silt	Beau Chene, LA	8, 10 & 12	5	25	30	1500	52.4	41	50
Clay, organic w/ sand lenses	Kenner, LA	8, 10 & 12	7	38	45	750	38.1	33	37.5
Clay, stiff	Centralia, MO	8, 10 & 12	UngROUTED	0	21	3000	45	35	41
Clay, stiff, medium plasticity	Centralia, MO	8, 10 & 12	6	14	25	3000	68.4	60	66
Sand, medium dense	Farmington, MO	10, 12 & 14	4	47	54	3900	155	93	117
Sand, medium dense	Farmington, MO	10, 12 & 14	UngROUTED	0	56	3730	tension 67.3	25	37
Sand, medium dense	Farmington, MO	10, 12 & 14	UngROUTED	0	56	3000	105	26	35
Sand, medium dense	Farmington, MO	10, 12 & 14	5	49	56	4500	206	160	180
Sand, poorly graded	Virginia Beach, VA	10 & 12	5	16	21	5500	90	90	>90
SS150 Anchor Series (1½" Square Shaft, 7,000 ft-lb Torque Rating)									
Clay to Sand, well graded	St. Louis, MO	8 & 10	5	35	40	3000	100	80	>100
Sandy Silt w/ organics	Medina, MN	8, 10 & 12	5	38	47	5250	70	63	>70
Silt, ash fill	Burlington, VT	10, 12 & 14	5	18	25	5000	70	>70	>70
SS175 Anchor Series (1¾" Square Shaft, 10,000 ft-lb Torque Rating)									
Clay and peat	Coquitlam, BC	8, 10 & 12	8	43	50+	< 1000	144	95	134
Clay, soft	Fourchon, LA	8, 10 & 12	7	37	41	10000	112	76	104.5
Clay, stiff, medium stiff	Centralia, MO	10, 12 & 14	5	28	36	9000	132	84	118
Fill-Silt, plastic till	Toronto, ON	10, 12, 14 & 14	6	20	38	9000	80	80	>80
Sand	Clearwater, FL	8, 10 & 12	5	33	43	7100	166	110	159
Sand, firm	Clearwater, FL	6, 6 & 8	UngROUTED	0	61	3000	84	45	59
Sand, silty	Olympia, WA	10, 12, 14 & 14	7	35	35	< 4000	180	140	180
Sand, well graded	Lewes, DE	10, 12 & 14	7	56	66	10000	144	100	134
Silt, very soft	Brookside, MA	10, 12 & 14	6	45, cased 20	57	900	66	65	>66
SS200 Anchor Series (2" Square Shaft, 15,000 ft-lb Torque Rating)									
Clay Till	Richmond Hill, ON	8, 10 & 12	6	cased 37	44	12000	102	64	102
Clay, soft	Los Angeles, CA	6, 8, 10, 12 & 14	8	33, cased 15	45	15000	218	119	173
Clay, soft	Los Angeles, CA	6, 8, 10, 12 & 14	6	39, cased 15	50	13500	230	154	205
Clay, soft	Los Angeles, CA	8, 10, 12, 14 & 14	12	37, cased 3	50	15000	218	129	165
Clay, soft	Los Angeles, CA	10, 12, 14 & 14	UngROUTED	0	53	16000	124	80	124
Fill to Sandy Clay	Shreveport, LA	8, 10 & 14	6	43	51	15000	188	>188	>188
Fill-Silt Till	Kitchener, ON	6, 8, 10 & 12	UngROUTED	0	27	15000	180	90	150
Fill-Silt Till	Kitchener, ON	6, 8, 10 & 12	6	17	27	15000	300	120	195
Sand and Silt	Toronto, ON	8, 10 & 12	6	cased 18	25	15000	108	103	108
Sand, fill	Cambridge, MA	10, 12 & 14	6	cased 5	16	12500	156	108	146
SS225 Anchor Series (2¼" Square Shaft, 20,000 ft-lb Torque Rating)									
Fill-Silty Glacial Till	Mississauga, ON	10, 12, 14 & 14	6	28	31	20000	410	180	270