



MACLEAN POWER SYSTEMS

A Maclean-Fogg Company

Cross-Plate Anchor Application Data

Soil Classification Data

Class	Common Soil-Type Description	Geological Soil Classification	Typical Blow Count "N" per ASTM-D1586
0	Sound hard rock, unweathered	Granite, Basalt, Massive Limestone	N.A. ROD = 50-1/2
1	Very dense and/or cemented sands; coarse gravel and cobbles	Caliche, (Nitrate-bearing gravel/rock)	60-100+
2	Dense Fine sand; very hard silts and clays (may be preloaded)	Basal till; boulder clay; caliche; weathered laminated rock	45-60
3	Dense clays, sands and gravel; hard silts and clays	Glacial till; weathered shales, schist, gneiss and siltstone	35-50
4	Medium dense sandy gravel; very stiff to hard silts and clays	Glacial fill; hardpan; marls	24-40
5	Medium dense coarse sand and sandy gravels; stiff to very stiff silts and clays	Saprolites, residual soils	14-25
6	Loose to medium dense fine to coarse sand; firm stiff clays and silts	Dense hydraulic fill; compacted fill; residual soils	7-14
7**	Loose fine sand; Alluvium; loess; soft-firm clays; varied clays; fill	Flood plain soils; lake clays; adobe; gumbo, fill	4-8
8**	Peat, organic silts; inundated silts, fly ash	Miscellaneous fill, swamp marsh	0-5

Notes: Class 1 soils are difficult to probe consistently and the ASTM blow count may be of questionable value.

** It is advisable to install anchors deep enough to penetrate a Class 5 or 6 underlying the Class 7 or 8 soils.

Application Table

Catalog Number	Hole Size (inches)	Area (sq. inches)	Rod Size (inches) (Order Separately)	Ultimate Holding Strength (lbs) Soil Class 3	Ultimate Holding Strength (lbs) Soil Class 4	Ultimate Holding Strength (lbs) Soil Class 5	Ultimate Holding Strength (lbs) Soil Class 6	Ultimate Holding Strength (lbs) Soil Class 7
J3516	16	150	5/8 or 3/4	26,500	22,500	18,500	14,500	9,500
J3520	20	250	5/8 or 3/4	34,000	29,000	24,000	19,000	14,000
J3520-1	20	250	1	34,000	29,000	24,000	19,000	14,000
J3524-3/4	24	400	5/8 or 3/4	45,000	37,000	30,000	23,500	18,000
J3524	24	400	1	45,000	37,000	30,000	23,500	18,000
J3524-1	24	400	1-1/4	45,000	37,000	30,000	23,500	18,000