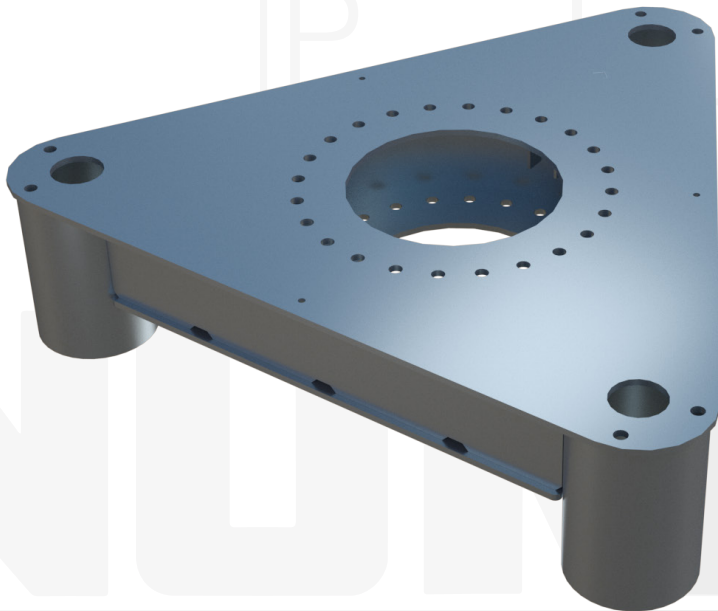


MAGNUM® MUG133-7 Utility Grillage

2,100 Kip-Ft Ground Line Moment

3-Pile Steel Grillage Foundation System

Description: MAGNUM® MUG133-7 Utility Grillage (MUG) has a factored groundline moment capacity of 2,100 kip-ft. MUGs are made to order in the USA following our ISO 9001 certified quality program. Grillage central mounting plates are configured to coordinate with project specific pole base plates while the grillage beams span to a symmetric pile group. Patented clamp-style caps allow MAGNUM® helical piles to directly support the MUG providing an all-steel foundation solution for remote or demanding site locations.

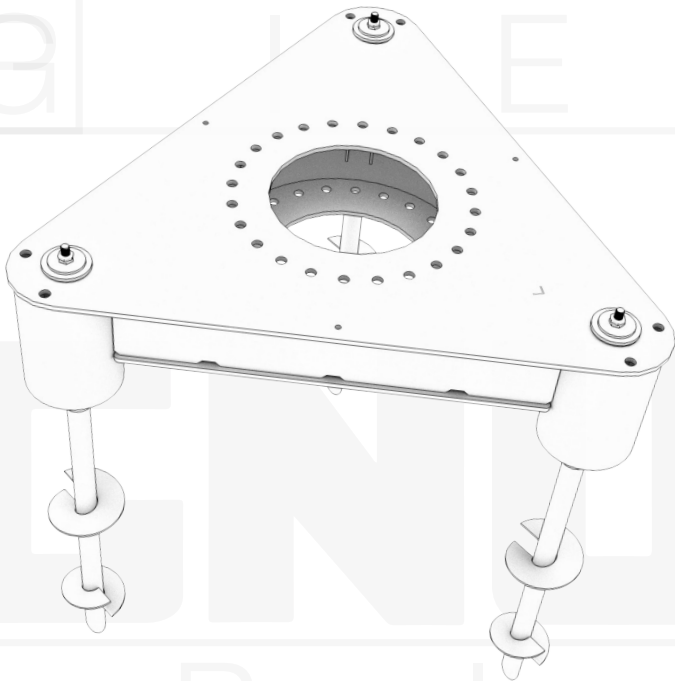


Approximate Service Level Tower Reactions	
Moment (kip-ft)	2,100
Vertical (kip)	190
Properties	
Number of Piles	3
Pile Circle	7 ft

Example Helical Piles for Varying GLM:

Helical Pile Type	Ground Line Moment (k-ft)	Pile Axial (kip)	Pile Shear (kip)
MH1338	2,100	360	18
MH939	1,400	267	13.4
MH736	700	134	6.7

Installation Notes: After Installation of MAGNUM® helical piles, cut off excess pile shafts to the desired elevation then install MAGNUM® MHC1304 pile end caps on each pile. Install the MUG on top of the end caps and connect to the piles using provided threadbar and washer plates. MUG connection detail allows up to 3" pile location tolerance to accommodate typical pile installations. After MUG is fastened in place, directly mount the structure onto the central mounting plate and secure in place.



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