

Strength Squared™ Pipe Coupler

MacLean's patented square coupling system has set the industry standard for all helical piles. This unique and patented system allows for increased installation torque as well as decreasing the time required to install a complete pile. The square engagement allows the installation crew to "bottom out" the couplers when adding an extension rather than spending valuable time trying to line up bolt holes with common pipe couplers. Engineers and Contractors agree that this is the best helical coupling system in the industry.

Our square coupling system shines when increased installation torque must be applied to the pile to advance it into competent soils. This increased torque can have devastating effects to the integrity of the material and greatly reduce the strength of the competition's piles. The square couplers combat this by not transferring all of the torque through coupling bolts but by bearing on the internal corners of the coupling. This distributes the torque over a wider surface area and virtually eliminates "egging" of the bolt holes seen on most helical piles.

Similarly, a pipe pile with square couplers stands up better to larger compressive loads. This is due to the couplers "bottoming out" and transferring the compressive load through the entire pipe wall and to the helices. In standard pipe piles, the load is transferred from each section via the bolts. On critical projects, this could mean crews spend more time tinkering with the hardware and lining up bolt holes than installing the piles.

The square coupler engagement allows each segment to be secured faster than the typical pipe pile, increasing the installation crews' efficiency and decreasing overall cost of construction.



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The picture on the left is of a typical in line bolted pipe coupler. The bolt holes have deformed due to the installation torque, potentially reducing its holding capacity. The square coupler on the right is unchanged after being installed, ensuring that the pile will be able to properly resist the expected loading.

