



ROTERRA
PILING^{LTD}

A Name You Can **Build On**



DRIVEN PILING

A driven pile is a relatively long, slender column, provided to offer support or to resist forces, made of preformed material having a predetermined shape and size that can be physically inspected prior to and during installation, which is installed by impact hammering, vibrating, or pushing into the earth. Driven piles can be cut, capped and used without delay and without a source of concrete.

A driven pile is a total engineered solution – the design installation, and quality assurance that are part of each driven pile combine to eliminate guess work and produce a known, reliable and cost effective product that can accommodate a wide variety of subsurface conditions.



We offer modern and innovative pile driving equipment - which can safely and efficiently complete pile driving projects. Our team can determine what type of pile solution is needed for your project - regardless of the application.

Contact Roterra Piling today for all of your foundation needs. Our experts can help you with pile feasibility, design, budgets, execution plans, load testing, pile analysis, fabrication, and installation. Roterra's team are dedicated to assisting you in a timely manner.



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DRIVEN PILE ADVANTAGES

- Pile displaces ground during installation, which results in soil improvements
- Installation process provides feedback on capacity
- Good control over structural integrity
- Group efficiency almost always greater than 100%
- Design changes can be easily implemented in the field by splicing additional lengths of pile material and driving the pile deeper
- Does not produce spoil, eliminating the need to dispose of drill cuttings
- Driven piles are "tested" piles. During the installation process, the pile is advanced into the ground using a hammer with predetermined energy. This allows the designer to empirically determine the pile carrying capacity based on the input energy and the output penetration resistance (blow count/unit length)
- Long single length piles feasible
- Flexibility in material choices

DISADVANTAGES

- Requires heavy equipment for handling and driving of piles
- Inability to penetrate hard, shallow layer without driving aids
- When installation is required adjacent to existing foundations, those foundations may be subjected to vibration
- Measured capacity at or shortly after end of driving underestimates capacity

Driven piles come in many forms including concrete, and steel. Roterra specializes in steel pipe and beam material that ranges in thickness, diameter and length. Our product ranges greatly in size based on application and typically includes pipe diameters from 8 5/8" to 30" and wall thicknesses up to 1".

APPLICATIONS

Driven piles are manufactured off site in one of three forms: steel (pipe or beam), precast concrete, or treated timber. Utilizing a hydraulic or diesel hammer attached to a self erecting rig or crane, the material is driven into the ground until the required depth or resistance is reached. Steel and concrete piles can be spliced together for deeper depths and driven piles can also be installed at a slight batter. Driven piles are commonly used deep foundation elements with a wide range of applications in commercial, industrial, infrastructure, and off-shore projects. Driven piles are often the pile of choice in rural areas as well as major Oil and Gas projects.

