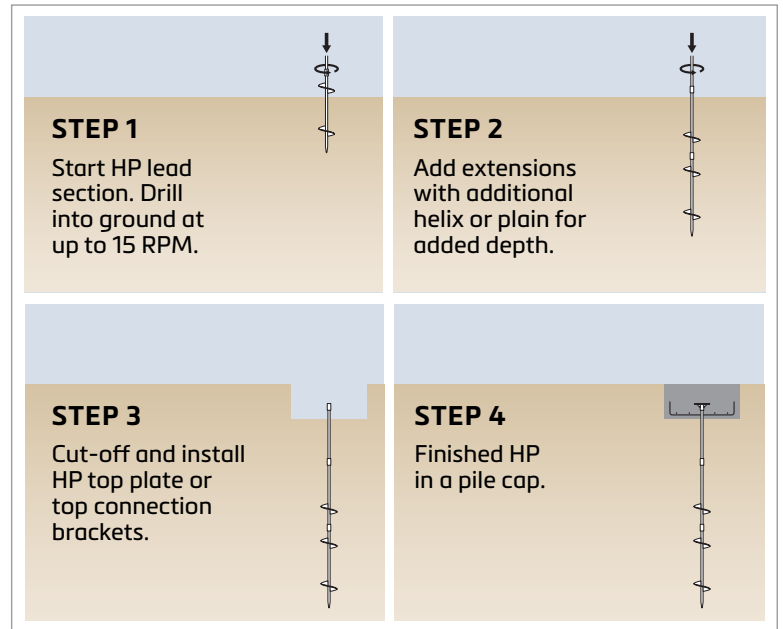


# Helical Pile (HP)

Helical Pile (HP) is a small diameter, high strength, manufactured steel, component pile solution. HP are drilled and screwed into the ground to develop bearing and tension resistance for the support of foundations. HP offers a well-defined, component steel pile with reliable support of foundations and produces low noise and no vibrations.

HP obtains capacity at a deeper soil layer in bonding to competent soil or bearing on the helical plates and are often used for underpinning, temporary bracing of historic building walls, and new construction tilt panels. HP can be installed with low headroom equipment, in tight access areas, and in new construction for foundation bearing and uplift forces. HP is a versatile, cost effective, foundation pile for supporting foundations, bracing, and retrofit/repair projects.



## Installation

Helical Pile (HP) offers high capacity, tight access, deep foundation support with nearly instant force resistance after installation. HP is used for seismic retrofit, support new foundations, upgrade old foundations, add capacity to existing foundations, arrest settlement of foundations, and help lift a foundation as the structure will allow.

HP consists of a lead section and one or more extensions that are screwed into the ground by application of crowd and torsion. The HP lead looks like a screw with single to multiple 6 to 14-inches diameter helices. HP capacity is initially monitored by the installation torque when installed into soil. The torque resistance is a function of the soil type and size of helix components. HP extensions are added as the pile is advanced into the ground.

Once the design depth and installation torques are reached the HP are cut off and a load bearing plate or new construction bracket is attached. Full-scale load tests to 200% confirm design bearing and uplift capacity.

Menard uses mobile drill rigs, excavators, and compact track loaders equipped with a drill to install HP. These piles are commonly installed to depths of 15 to 100-feet with capacities ranging from 25 to 250 kips.

## Applications

Helical Pile (HP) are designed for projects where space and access are limited. They can be installed using small equipment, making them ideal for tight access areas and challenging job sites. This capability makes HP an excellent choice for repair and retrofit applications where larger rigs cannot operate.

The installation process creates minimal site impact and produces no vibrations, which is critical for sensitive environments or sites near occupied buildings. Additionally, HP offers the added benefit of low spoils during installation, reducing cleanup and disposal requirements and making it suitable for environmentally sensitive projects.

Every HP installation meets IBC and CBC compliance standards, ensuring structural integrity and adherence to building codes. These features make Helical Piles a versatile and reliable solution for foundation support in complex or constrained conditions.