

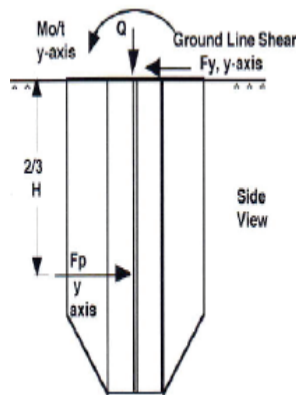


Wherever you would use piles, pile alternatives, or large concrete pours, consider Structural Foundations first. Structural Foundations is a licensed general contractor that engineers and hydraulically installs high-capacity steel foundations for buildings and industrial structures, including conveyors, equipment platforms, transfer towers, and storage tanks, saving substantial cost and time. Cost savings of 25% to 50% is common.

The Foundation System

Structural Foundations are customized for each application and consist of a steel pipe having welded steel fins and a steel top cap. Foundations that primarily resist moment and sliding forces have wide fins, while foundations that primarily provide bearing capacity have tapered fins. Foundations are fabricated in the U.S. by AWS-certified welders using domestic steel and hot-dip galvanized when specified. For high-uptift applications, foundations are mated with our hydraulically-installed anchor systems.

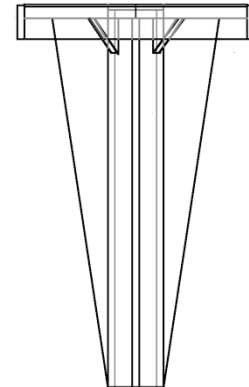
Moment Foundations



For high moment and sliding forces, the wide fins of our moment foundations multiply moment resistance per foot of depth, providing superior economics and performance.



Bearing Foundations



For high-capacity applications and especially those in poor soils, our bearing foundations achieve the highest capacities at the shallowest foundation depths, providing the most economical solution.



High Capacity

Individual Structural Foundations have achieved the following impressive capacities:

600+ kips bearing capacity in moderate – strength soils

300+ kips bearing capacity in very poor soils

1,000+ ft.-kips overturning moment capacity in poor soils

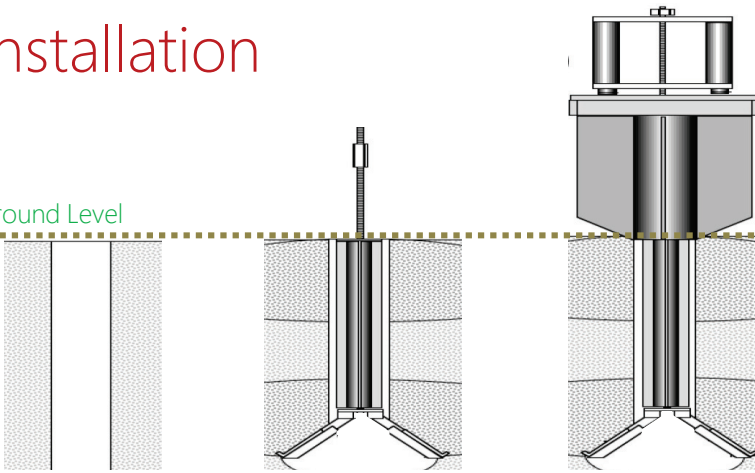
Designed and installed to most economically suit your application and soil conditions, Structural Foundations can be sized for bearing capacities of as little as 20 kips to over 600 kips.

Verified Capacity

Our hydraulic method of installation provides an accurately applied and known force to the foundation and soils within the zone of influence. Foundation capacity is verified during the installation process, with settling and creep virtually eliminated at equal or less loading than the installation force. A Structural Foundation is a tested foundation!

Installation

Ground Level

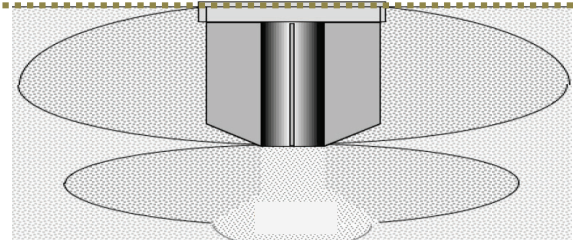


Step 1: Small-diameter hole drilled.

Step 2: Anchor inserted, hydraulically actuated, and hydraulically installed using soils pre-stressed.

Step 3: Steel foundation anchor rod.

Just weld or bolt your structure to, or pour concrete over, the installed foundation!



Step 4: Anchor removed (or kept in place for high-uplift applications). Hydraulics removed. Voids filled with the excavated material. Steel foundation secure and ready to be built upon.

Installation Time

After drilling, most foundations require only mere minutes up to an hour.

Equipment

Equipment with a drilling attachment or a small drilling rig+ Front-end loader or small crane to lift foundations + Compact hydraulic system.

Disposal

None! Spoils from drilling are minimal and most can be returned to the pipe of the foundation or easily and thinly spread in the vicinity.

Vibration

None from foundation installation! Minimal vibration from drilling.

Features & Benefits for Material Handling Industries

For Poor Soils & Rock

Geotechnical conditions pose little challenge to the installation of Structural Foundations. Structural Foundations consolidate and compact soils, improving their load bearing, and the method of installation accurately measures soils' minimum bearing capacities. In contrast, traditional foundation systems are designed to utilize existing strengths of soils, and where soils are deficient, require uneconomical soils remediation in installation or larger safety factors in design. As well, inconsistencies in soil conditions across an installation site challenge the performance of traditional foundation design. Structural Foundations can be installed in soils where traditional concrete and / or pile systems are impractical or highly uneconomical.

Removable & Reusable

With minimal site disruption, installations of Structural Foundations can be removed and reused. This can be particularly beneficial for material handling industries. Quick removal, often ranging from five minutes to under one hour depending upon size, can be accomplished with heavy equipment or with a similar hydraulic process as in installation. Structural Foundations can be reused again and again as uses and locations change. One-piece integral design provides portability and ease in re-installation. Where removed, only minimal infilling of soils is necessary. Structural Foundations may be particularly attractive for installation in jurisdictions that regulate environmental restoration and reclamation.

All-Weather Installation

Structural Foundations are entirely prefabricated and can be installed and built upon the same day, regardless of the ambient and ground temperatures, including deep frost!

Confined Space Installation

Equipment requirements for installation aren't intensive. Most sizes of Structural Foundations can be installed quickly and capably with small equipment. For most of our foundations, the vertical clearance required for drilling and installation will be as low as eight feet. Structural Foundations can be equally valuable to projects in remote areas with rugged terrain as in densely populated areas where jobsite space is scarce.

P.E. Stamped

All engineering drawings for our foundations and construction are prepared by a professional engineer (P.E.) registered in the respective jurisdiction of the project site.

Let's Get Started

Contact us! Please provide, if available, a soils report, site survey, and foundation loading information. We'll gladly provide estimates. We can also perform the soils sampling and report services for you. Structural Foundations is a licensed general contractor and is available as a general contractor or subcontractor in most U.S. states and localities. We are available for large projects in most of the contiguous U.S. and will perform smaller projects in these states:



STRUCTURAL FOUNDATIONS

ENGINEERING & INSTALLATION

- Over 800 installations across the U.S.
- First installation completed in 1986
- Over 30 years of field performance
- Seven issued U.S. patents, multiple issued foreign patents, and additional patents pending
- Foundations and anchors fabricated in the U.S. by AWS-certified welders using domestic steel.
- Foundation engineering and installation performed for these notable clients and end-users:

FirstEnergy Corporation
nTelos (now Sprint Corporation)
U.S. Department of Energy
Federal Emergency Management Agency (FEMA)
State of West Virginia
Marietta College

"The foundation strength is proven during the installation process, as the hydraulically applied installing load is the same as the uplift and bearing capacities."

"Another unique feature of the foundation is the ability to increase the natural bearing capacity of the soil."

- U.S. Department of Energy, NREL, Cooperative Research and Development Agreement, 2004



BUILD ON IT TODAY.™

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