



TERRATORQUE HELICAL ANCHORS AND HELICAL PILING

PRODUCT CATALOG

INTRODUCTION

TerraTorque offers quality helical anchors and helical piling to the construction industry. Our products are available in solid square shaft (type TSA), hollow round shaft (type TRP) and hollow square shaft (type TSP) configurations. Standard series TSA solid square anchors are available in 1-1/2", 1-3/4" and 2" square sizes. Standard series TRP hollow round piles are available in 2-3/8" OD up to 12-3/4" OD and standard series TSP hollow square piles are available in 2-1/2" to 5" sizes. Custom sizes per customer request can be easily accommodated. Type TSA, TRP and TSP are suitable for compression and tension applications in a wide variety of soils and load capacities. The TSA series anchors are also utilized for our TPL pipeline anchor sets.

For pipeline buoyancy control, our TPL series pipeline anchors are offered as a complete pipeline anchor set. This product is commonly used on pipelines worldwide to provide buoyancy control for onshore pipelines. The TPL series anchor sets are also utilized offshore to provide pipeline stabilization solutions, span rectification and buoyancy control. The TPL pipeline anchor sets are designed to meet the project specifications and are supplied complete with anchors, extensions, saddles, corrosion protection and fasteners.

The TSA solid square shaft anchors utilize a high strength steel coupling to bolt the sections together to reach the required depth. The TRP round pipe and TSP square tubing incorporate a welded sleeve/coupling and high strength bolts to connect sections together. Our helices are machine pressed to form a true helical shape that does not auger or dig its way into the soil, but slowly screws into the soil with minimal soil disturbance.

The lead section has helical plates welded to the shaft. The lead may be a single helix or multiple helices, depending on the site soil conditions and the design loads. If additional helices are required, a helical extension may be used. Plain extensions are then added to the assembly as required until the lead sections penetrate into the bearing strata of the soil and the installation torque requirements are achieved.

Our materials are fabricated in our ISO 9001-2008 certified factory using new materials and industry accepted fabrication techniques. Our on-premises hot dip galvanizing is available for all our products. To ensure that only high quality products reach our customers, we utilize documented product inspection, material test reports and third party inspection of materials/products as part of our ongoing fabrication QA/QC process.

Worldwide shipping is no problem. Our experienced shipping team can ship our products worldwide to your destination quickly, efficiently and economically.

Common material configurations are provided in this catalog. We can also readily manufacture products to meet the specific requirements of our customers. In addition to what we present in our catalog we also have the flexibility, upon request, to provide custom designed product with:

1. Larger or smaller size square shafts or round shafts
2. Any diameter pipe or tubing for helical shafts as specified by a project requirement or customer
3. Any wall thickness of pipe for helical piling shafts as specified by project requirement or customer
4. Higher grades of pipe for helical piling shafts as specified by project requirements or customer
5. Wide range of component lengths
6. Various grades, thicknesses, diameters and quantities of helices
7. Stepped or transition piling / combination piles

TerraTorque, Inc.
Labuan, Malaysia
Phone: +66 91 782 9491
Website: www.terratorque.com
Email: info@terratorque.com



TERRATORQUE FAMILY OF PRODUCTS

Our Product Line at a Glance:

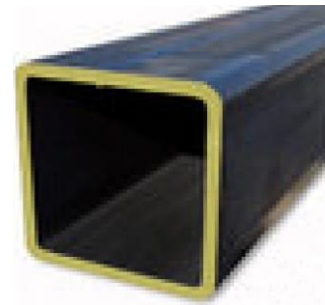
Product	Description	Standard Sizes
TSA	Solid Square Shaft Helical Anchors	1-1/2" to 2" Solid Square Bar
TPL	Pipeline Anchor Sets Utilizing TSA Anchors	1-1/2" to 2" Solid Square Bar
TRP	Hollow Round Pipe Shaft Helical Piling	2-3/8" O.D. to 12-3/4" O.D pipe
TSP	Hollow Square Tubing Shaft Helical Piling	2-1/2" square to 5" square tubing



TSA/TPL
Solid Square Bar



TRP
Hollow Round Tubing/Pipe



TSP
Hollow Square Tubing

Note: Above table indicates typical sizes. Custom sizes per customer requirements available on request.
Shipping: Our experienced shipping team can ship our products worldwide quickly and economically



TERRATORQUE HOLLOW ROUND SHAFT (TRP) PRODUCTS COMPONENT DIMENSIONS



Tubular Round Shaft (TRP) Dimensions

Round Pipe/Tube Size	Wall Thickness (inches)	Coupling Bolt Diameter (inches)
TRP20 - 2" Pipe (2-3/8" OD)	0.218, 0.344	0.75
TRP25 - 2-1/2" Pipe (2-7/8" OD)	0.203, 0.276	0.75
TRP30 - 3" Pipe (3-1/2" OD)	0.216, 0.300	0.75
TRP40 - 4" Pipe (4-1/2" OD)	0.237, 0.337	1.00
TRP50 - 5" Pipe (5-9/16" OD)	0.258, 0.375	1.00
TRP60 - 6" Pipe (6-5/8" OD)	0.280, 0.432	1.00
TRP70 - 7" Pipe (7-5/8" OD)	0.301, 0.500	1.25
TRP80 - 8" Pipe (8-5/8" OD)	0.322, 0.500	1.50
TRP120 - 12" Pipe (12-3/4" OD)	0.375, 0.500	2.50

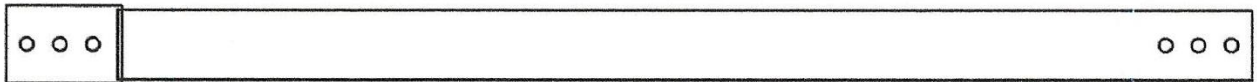
Note: Above table indicates standard size products. Additional pipe sizes, tubing sizes, wall thickness and grades are readily available upon request. Contact info@terratorque.com for price and delivery of your specific material requirements.



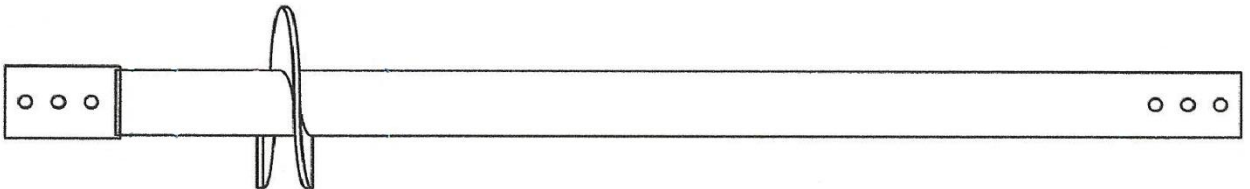
TerraTorque TRP Hollow Round Shaft Helical Piling Typical Components



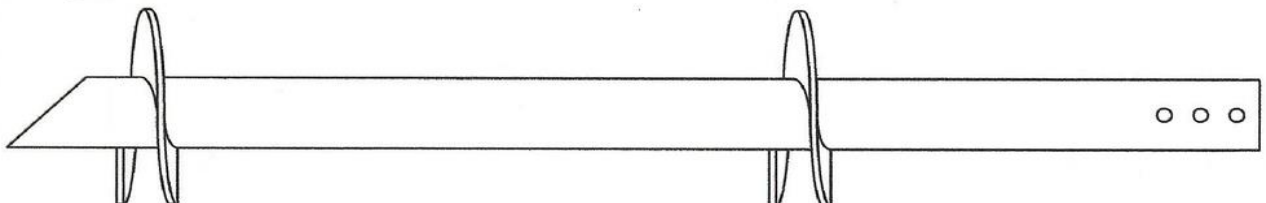
ROUND PIPE / TUBING SHAFT



PLAIN EXTENSION



HELICAL EXTENSION



LEAD SECTION
SINGLE OR MULTIPLE HELIX



TerraTorque

TRP Hollow Round Shaft Helical Piling

Hollow Round Shaft (TRP) Typical Data

Product Specifications	
Shaft Dimensions	2-3/8" OD to 12-3/4" OD*
Shaft Material Standard	Q345 GB/T 1591-2008
Shaft Strength, Min. per Standard	Yield: 50KSI; Tensile: 68KSI**
Material Condition	New, hot rolled, seamless
Standard Length, Leads, Extensions	3/5/7/10 (feet)***
Coupling	Welded
Coupling Material	Steel tube or Cast Steel
Helix Material	Q345B per GB/T 1591-2008
Helix Strength, Min. per Standard	Yield: 50KSI; Tensile: 68KSI****
Helix Diameter Sizes, Standard	8/10/12/14/16/20/24 (inches)
Helix Thicknesses, Standard	0.375, 0.500, 0.625, 0.750 (inches)
Welding	All welds are full fillet weld, both sides
Fasteners per coupling	2 to 4 bolts based on design
Fasteners	Gr 8.8; Yield: 95KSI; Tensile: 120KSI
Surface Options	Bare steel, Galvanizing, Painted

*Typical sizes; customer specified sizes of tubing or pipe readily available

**Higher strength shaft tubing available on request

***Typical lengths shown; optional lengths easily accommodated

****Higher strength helix material available on request

Ordering Information

We offer quick turn-around and competitive pricing on all piling and anchor orders. For load transfer to piling, we also provide pile caps that utilize either rebar, plates, or underpinning assemblies. Pile caps can also be custom fabricated to customer requirements. Our expert shipping team will make sure your products are shipped quickly and economically to any destination, worldwide.

If your pile design is already established, simply contact us at info@terratorque.com and indicate the details of your pile requirements. We will provide you a price and delivery quotation for the piling you require.

If your pile design is undetermined, we can assist you in developing the helical pile design to meet your project specifications. Simply contact us at info@terratorque.com and we can help you determine the piling configuration that will meet your project needs.