Anchoring Solutions
Stormwater & Erosion Control Applications

Terra-Lock™ Systems
- Pre-assembled
- Easy to install
- Cost effective
- Immediate protection
Applications

The Terra-Lock™ Anchor System provides a cost effective and labor efficient means to help fortify today’s traditional erosion control systems. The fortified system provides an enhanced solution that helps reduce erosion and structural damage due to extreme hydraulic forces and stresses. Some typical applications include the following:

- Stormwater/Drainage Channels
- Culverts/Pipe Inlets and Outlets
- Levees and Canals
- Shorelines
- Retained Earth Structures
- Scour Countermeasures

Terra-Lock™ Anchor Reinforced Solutions

The Terra-Lock™ anchoring assembly provides the necessary intimate soil contact required for maximum performance of flexible armoring erosion control systems. There are an abundance of armoring systems that synergistically interact with anchors to meet the demands of preventing erosion and structural damage.

Examples of Anchor Reinforced Armoring Systems include:

- High Performance Turf Reinforcement Mats
- Cellular Confinement Systems
- Articulating Concrete Block Mats (Revetment Systems)
- Gabions / Reno Mattresses
- Soil Reinforced Slopes and Walls
- Transition Mats (Scour Protection)
The System

The Gripple Anchor System encompasses a range of innovative ground anchoring products which allow for flexibility and adjustability across a number of applications.

Our systems are provided in ready to use kits with combinations of Terra-Lock™ anchors, terminations, and tendon lengths specific to the job requirements and geotechnical conditions.

Our products have been designed to save time and labor through easy and efficient installation. Our anchor system provides immediate stabilization, requires no crimping, and is compatible with a range of installation tools.

How It Works

The Terra-Lock™ System gains its stability through the creation of a truncated (frustum) cone of soil. This consolidated soil mass provides the resistance that determines the ultimate load bearing capacity of the anchor. It is formed in two steps:

Step One: After driving the anchor to the correct depth, the tendon is tensioned. This rotates and locks the anchor so that the load bearing surface is parallel to the ground surface.

Step Two: The tendon is further tensioned to compress the soil above the anchor’s bearing surface. The compression transfers towards the surface to form a cone of soil that helps prevent further anchor movement.

The load bearing capacity of the system is determined by anchor surface area size, anchor depth, and soil shear angle. Due to the complex interaction between these factors it is advisable that a geotechnical report be utilized as part of the engineering and design process to ensure the appropriate anchor size and depth are selected.
**Terra-Lock™**

**TL-100**
- Available Anchors: TL-A2, TL-A3, TL-A4
- Size: 4"
- Cable Diameter: 1/8"
- Wedge Grip: Zinc Diecast
- Plate: Zinc Diecast

**TL-304**
- Available Anchors: TL-A2, TL-A3
- Size: 4"
- Cable Diameter: 1/8"
- Wedge Grip: Zinc Diecast
- Plate: UV stabilized plastic disc

**TL-406**
- Available Anchors: TL-A3, TL-A4
- Size: 6"
- Cable Diameter: 5/32"
- Wedge Grip: Zinc Diecast
- Plate: Plastisol coated steel

**Load Bearing Plates**

**TL-40A**
- Available Anchors: TL-A3, TL-A4
- Size: 6"
- Cable Diameter: 5/32"
- Wedge Grip: Zinc Diecast
- Plate: Plastisol coated steel

**TL-CRS**
- Available Anchors: TL-A3, TL-A4
- Size: 12”x12”
- Cable Diameter: 5/32” or 1/4”
- Wedge Grip: Zinc Diecast
- Plate: Plastisol coated steel

**TL-606**
- Available Anchors: TL-A3, TL-A4
- Size: 6"
- Cable Diameter: 5/32” or 1/4”
- Wedge Grip: Zinc Diecast
- Plate: Plastisol coated steel
Terra-Lock™

- **TL-A2**
  - Composition: Zinc diecast
  - Surface Area: 3 in²
  - Cable Diameter: 1/8" or 5/32"
  - Cable Type: Zinc Aluminum or Stainless Steel
  - Ultimate Strength: 1,100 lbs

- **TL-A3**
  - Composition: Zinc diecast
  - Surface Area: 6 in²
  - Cable Diameter: 1/8" or 5/32"
  - Cable Type: Zinc Aluminum or Stainless Steel
  - Ultimate Strength: 1/8" = 1,700 lbs, 5/32" = 2,600 lbs

- **TL-A4**
  - Composition: Zinc diecast
  - Surface Area: 12 in²
  - Cable Diameter: 1/8", 5/32", or 1/4"
  - Cable Type: Zinc Aluminum or Stainless Steel
  - Ultimate Strength: 1/8" = 1,700 lbs, 5/32" = 2,600 lbs, 1/4" = 4,960 lbs

- **TL-RA**
  - Composition: Galvanized Steel
  - Ultimate Strength: 1,650 lbs

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Anchor Range

- **TL-A2**
  - Composition: Zinc diecast
  - Surface Area: 3 in²
  - Cable Diameter: 1/8" or 5/32"
  - Cable Type: Zinc Aluminum or Stainless Steel
  - Ultimate Strength: 1/8" = 1,700 lbs, 5/32" = 2,600 lbs

- **TL-A3**
  - Composition: Zinc diecast
  - Surface Area: 6 in²
  - Cable Diameter: 1/8" or 5/32"
  - Cable Type: Zinc Aluminum or Stainless Steel
  - Ultimate Strength: 1/8" = 1,700 lbs, 5/32" = 2,600 lbs

- **TL-A4**
  - Composition: Zinc diecast
  - Surface Area: 12 in²
  - Cable Diameter: 1/8", 5/32", or 1/4"
  - Cable Type: Zinc Aluminum or Stainless Steel
  - Ultimate Strength: 1/8" = 1,700 lbs, 5/32" = 2,600 lbs, 1/4" = 4,960 lbs

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This graph is derived from idealized theoretical calculations and should be used as a guide only. The variability of soil types should always be taken into account, and on-site testing should be carried out in order to obtain more accurate results.
# Twist Anchor (TL-TA1)

The TL-TA1 Twist Anchor holds all types of erosion control and soil stabilization blanket matting securely in place.

## Installation Procedure

- Quick and easy installation with a standard electric drill.
- Superior performance compared to traditional pins.
- Eliminates time & labor associated with replacing or reworking pins that have become loose or pulled out.
- Innovative installation chuck allows TL-TA1 to be installed to full depth without damaging mat.
- Integrated top coil shape eliminates the need for a washer, spreads the load, and helps secure the matting.
- Extended tip allows faster placement and enhanced interaction with mat on install.

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# Technical Support

Gripple provides engineering design support to ensure you specify the optimum Terra-Lock™ system to meet your project requirements. The Gripple Technical Support Team can work with you at every stage of your project to provide a complete turn-key solution.

- Submittals
- CAD
- Specifications
- Testing
- On-Site

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Ask about our Gripple products for these other industries:

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- Vineyard and Orchard Trellising
- Greenhouse Applications
- Landscape and Nursery
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