

Anchoring Solutions

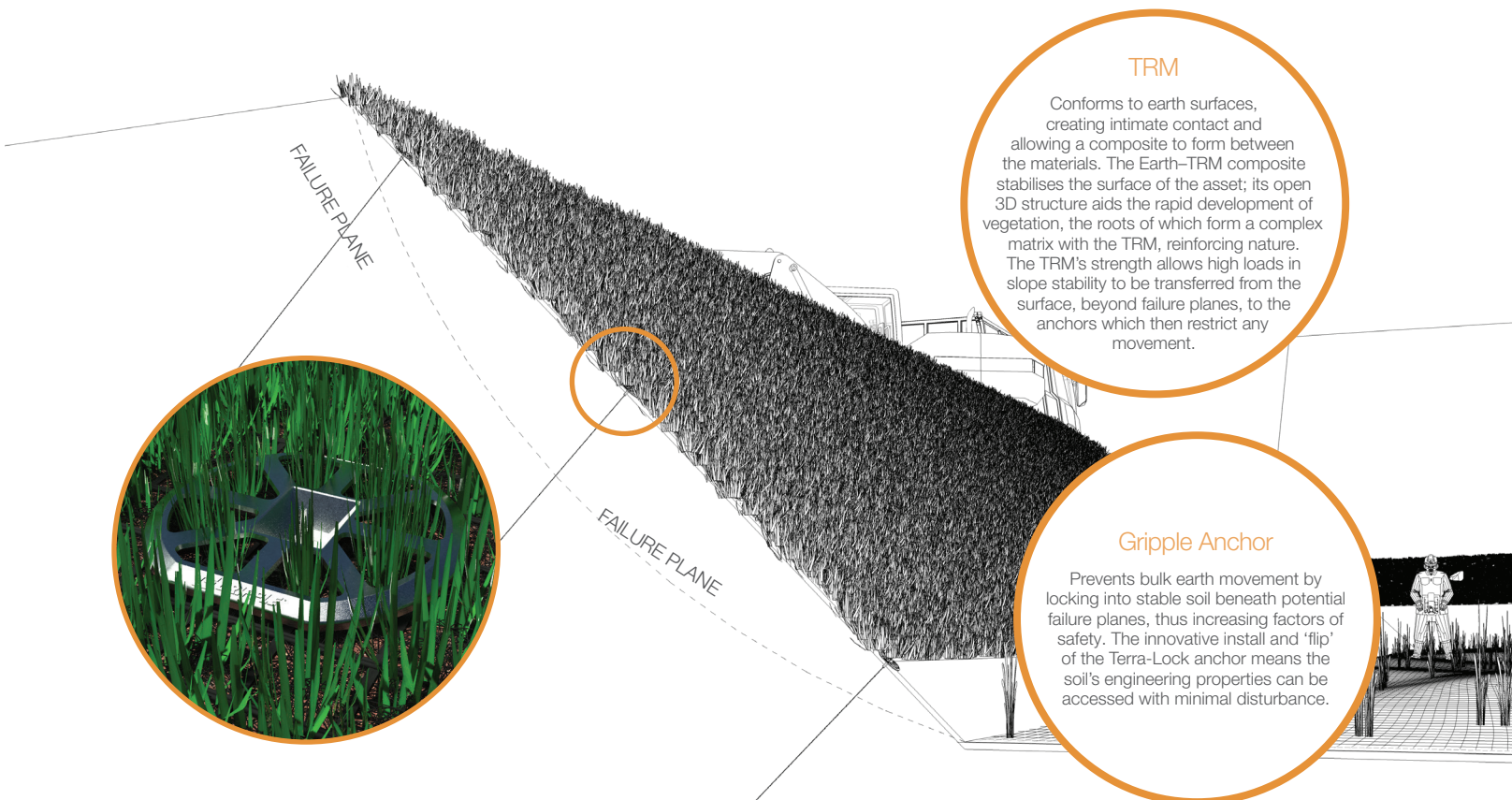
Erosion Control and Slope Reinforcement



Time and labor saving
Immediate performance
Lightweight and flexible
Reinforced vegetation

How It Works

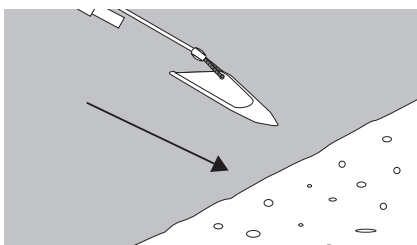
The Terra-Lock System gains its stability by coupling key engineering principles with specifically designed products to successfully utilize the natural properties of on-site materials. Gripple's innovative 'grip' and 'pull' technology is complemented by anchor systems and TRM (Turf Reinforcement Matting) to deliver a comprehensive, trusted solution.



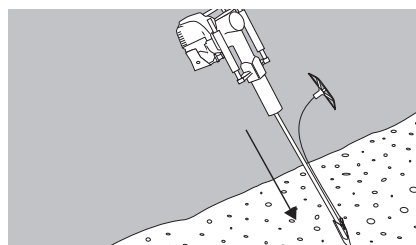
Design Service

Gripple service ensures the correct TRM and Anchor System can be installed. The TRM reduces surface erosion from water and air, while its permeability prevents undermining of the structure. The Earth-Vegetation-TRM composite allows for a large increase in the allowable shear stresses from erosion and resistance to earth movement. The anchors then transfer shear forces deep into the ground to ensure a secure and stable system.

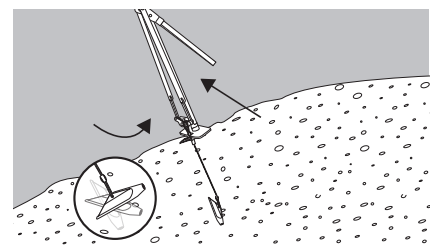
Installation



Drive:
Insert Drive Tool through the anchor and place against surface.



Use GPD to install the anchor at the required depth.



Lock:
Use JackJaw to remove Drive Tool and load lock system.

Tip: For a neat and professional finish, use Gripple Wire Cutters to cut wire below grade if required.

System Benefits



Green solution

Makes use of on-site material, minimizing material transport and related emissions.



Reinforced Nature

Utilizes a system which raises limits of vegetation allows the structure to 'self heal' and slow flows through surface roughness.



Sediment control

Intimate contact with substrate retains soil particles, minimizing erosion and downstream sedimentation and accelerated erosion.



Efficient installation

Can be installed quickly and economically to vastly reduce time spent on-site protecting assets.



Lightweight

Adds minimal excess load to structure, reducing settlement and subsidence, especially in poor soils.



Durable

Manufactured using corrosion resistant materials to create a long term solution.



Steepened Slopes

Allows slopes and embankments to be sharply angled, reducing groundworks and maximising use of space.



Increased Factor of Safety

The installation depth of anchors is calculated based on engineering principles to guarantee the System locks into structurally sound soil.

Products

Terra-Lock System Terminations (above ground)

A variety of terminations are offered to secure a variety of TRM & HPTRM matting.



TL-A2

TL-A3

TL-A4

TL-A5

TL-100

Secures TRM and HRTRM while promoting vegetation regrowth in erosion control and soil stabilization applications.



TL-A2

TL-A3

TL-A4

TL-A5

TL-304

Two piece, low profile design, with a multi-purpose, injection molded load bearing plate.



TL-A2

TL-A3

TL-A4

TL-A5

TL-406

Two piece design incorporates a corrosion resistant plastisol coated steel bearing plate and a 4 mm wire tendon for higher load applications.



TL-A2

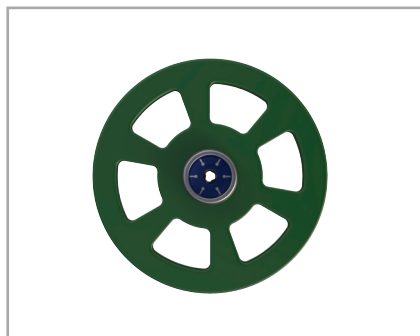
TL-A3

TL-A4

TL-A5

TL-606

Heavy duty, designed for high level security. Open face aids vegetation growth while maintaining strength. Incorporates a corrosion resistant plastisol coated steel bearing plate.



TL-A2

TL-A3

TL-A4

TL-A5

TL-808

Maximum load capacity, corrosion-resistant plastisol coated mild steel plate with perforations to allow vegetation growth. 8mm wire for increased system load. Suitable for retaining walls, gabions, and sheet pile tie backs.



TL-A2

TL-A3

TL-A4

TL-A5

TL-80S

Maximum load capacity, corrosion resistant plastisol coated mild steel plate, square version. 8mm wire for increased system load. Suitable for retaining walls, gabions, and sheet pile tie backs.

Terra-Lock System Anchors (below ground)

Anchors provide drive efficiency and maximum load capacity across a range of ground anchoring solutions. Pre-assembled kits require no crimping, ensuring significant time and labor savings delivered by easy and efficient installation.



TL-A2

Surface area - 1,940 mm² (6.2 ft²)
System Working Load - 225 kg (496 lbs)
Ultimate Load - 500 kg (1,102 lbs)



TL-A3

Surface area - 3,870 mm² (12.7 ft²)
System Working Load - 1,250 kg (2,755 lbs)
Ultimate Load - 1,800 kg (3,968 lbs)



TL-A4

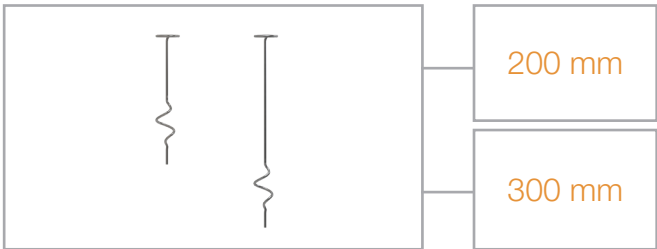
Surface area - 7,740 mm² (25.4 ft²)
System Working Load - 1,250 kg (2,755 lbs)
Ultimate Load - 2,250 kg (4,960 lbs)



TL-A5

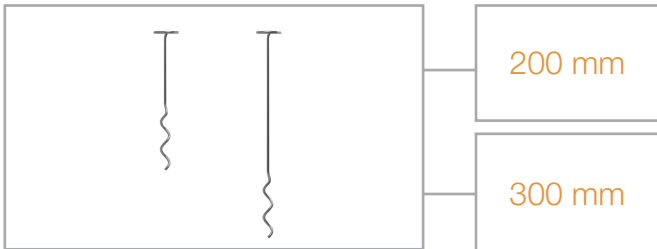
Surface area - 21,645 mm² (71 ft²)
System Working Load - 3,250 kg (7,165 lbs)
Ultimate Load - 4,180 kg (9,215 lbs)

Twist Anchor Pins



TL-TA1 (Soft Ground)

The high load anchoring pin is designed to hold all types of turf reinforcement matting, erosion blankets, geotextiles and landscaping fabrics.



TL-TA2 (Hard Ground)

The high load anchoring pin is designed to hold all types of turf reinforcement matting, erosion blankets, geotextiles and landscaping fabrics.

Technical Services

Gripple is committed to delivering the best value-engineered solution to site. Our team of dedicated engineers ensure all systems are fit for purpose and delivering immediate security. Our services include but are not limited to:



Training

Engineering and on-site installation training ensures the system is performing to its full potential and peace of mind for the installers.



Installation Design Service

Gripple offers a design service of site submittals including technical recommendations, calculations and drawings. Solutions are site specific and tailor-engineered to ensure input from Gripple engineers at all stages of the project.



Product providers

Gripple is a world class product manufacturer with a wealth of expertise – should the requirement be bespoke, we will work with our in-house product design engineers to deliver the right solution.



Site Visits

Our engineers are characterised by their 'hands on' approach; they enjoy visiting sites and getting their hands dirty – this is how we understand the problems on site and deliver practical solutions.



Technical Submittal

All Gripple products are supplied with best practice and installation instructions – should further advice be needed, our technical team are available to provide support.



Testing

On-site and laboratory testing of the system and its components ensures the solution is fit for purpose and meets our own rigorous quality checks.



Case Study

Prima Feeder Canal

Client	Gila River Indian Community
Contractor	Weeminuche Construction Community
Terra-Lock System	TL-100 3mm (1/8") Zinc Aluminum Wire TL-A2
Application	Securing HPTRM
No. of TL Systems	350

The Central Arizona Project directs water through a number of canals extending from the Colorado River into particularly arid regions within the state. Canal realignment construction was completed in 2011. Since the completion of the project, graded slope areas around the perimeter of the outlet structure of the Prima Canal have experienced substantial erosion. As a result, the area was designated for repair and protection using erosion control matting.

Although degradable short-term rolled erosion control products were initially discussed, it was suggested that an anchor reinforced vegetation system utilizing HPTRM was to be used to extend design life. As part of this solution, the Gripple Anchor System was used as a method to add security to the matting. The Gripple terra-Lock™ System employs a number of elements which aid installation ease, reduce installation time, and provide a customized solution for the securing of HPTRM.

Central to this system is the Gripple Terra-Lock™ Ground Anchor, the design of which enables straightforward penetration of the mat without tearing or otherwise damaging it. On this project the required 0.9 m (3 ft) drive depth was reached with ease through use of the GPD and Drive Rod. The TL-100 top termination secured the matting in place and utilized patented Gripple technology to secure the wire under load without the need for time consuming crimping.

The open face of the TL-100 allows vegetation to grow through, so when the root systems begin to establish themselves, the Gripple Terra-Lock™ System supports rather than competes with natural securing methods.



www.gripple.com
grippleinc@gripple.com

Gripple Inc

1611 Emily Lane
Aurora, IL 60502 USA

T | +1 866 474 7753

F | +1 800 654 0689

E | grippleinc@gripple.com

Gripple Canada Inc

7015 Ordan Drive
Unit #15 Mississauga
Ontario L5T 1Y2
CAN

T | +1 905 458 8700

F | +1 800 654 0689

E | CAinfo@gripple.com

Gripple Ltd (Headquarters)

The Old West Gun Works
Savile Street East
Sheffield S4 7UQ
UK

T | +44 (0) 800 018 4264

F | +44 (0) 114 275 1155

E | info@gripple.com

Gripple Europe SARL

1, rue du commerce
BP 37
67211 Obernai Cedex
France

T | +33 (0)3 88 95 44 95

F | +33 (0)3 88 95 08 78

E | frinfo@gripple.com

Gripple India

B 95/2
Naraina Industrial Area
Phase I
New Delhi-110028

T | +91 11-40582703

F | +91 11-40582703

E | ininfo@gripple.com

Gripple Japan K.K

2-57 Tsukizi-cho
Hyogo-ku, Kobe-shi
Hyogo, 652-0845
Japan

T | +44 (0) 800 018 4264

F | +44 (0) 114 275 1155

E | info@gripple.com



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