



**PRESTO**

**GEO SYSTEMS®**

GLOBAL LEADER • GLOBAL PARTNER



**GOWEB®**

**SMART EARTH SOLUTIONS FOR  
THE MINING INDUSTRY**

Powered by GEO SYSTEMS® technology.



**STRONG** on Performance. **EASY** on the Environment.

# GEOWEB®

## STABILIZATION & PROTECTION SOLUTIONS

*Increases efficiency. Reduces cost. Minimizes environmental impact.*

Presto GEOSYSTEMS® works together with the mining industry and their consultants to solve specific soil stabilization challenges. The Presto GEOWEB® system delivers unique and cost-effective, long-term solutions for a variety of earth challenges in applications including haul roads, slope reclamation, containment basins, channel stabilization, pipeline protection and flexible earth retention.

With over 30 years of successful in-ground applications, the GEOWEB® system is a proven solution that's **easy to deploy**, **easy to construct** and **easy to maintain**. The three-dimensional cellular structure dramatically improves the stability of infill materials through confinement. The GEOWEB® system offers economical and sustainable solutions to problems in all phases of mining operations from new mine development to closure and site reclamation.

## RECLAMATION & SLOPE STABILIZATION, ENVIRONMENTAL PROTECTION

The GEOWEB® system effectively solves challenging slope-surface stability problems by **confining and stabilizing the upper soil layer**. The system meets all design and aesthetic requirements with variable integral components and infill type:

- long-lasting, fully-vegetated slope surfaces that otherwise could not support sustainable plant life
- aggregate or waste rock infill for permeable, non-vegetated surface protection
- concrete infill for armored systems
- single or multi-layered systems offer a broad range of slope surface protection solutions

## FLEXIBLE EARTH RETENTION STRUCTURES

The GEOWEB® earth retention system delivers structural stability with the distinct advantage of a sustainable, vegetated, or rock-filled facias. Presto's flexible retaining wall system:

- withstands reasonable differential settlement without loss of structural integrity
- resists seismic events
- utilizes on-site rock
- can be constructed in remote areas without specialized equipment

## DESIGN SOFTWARE

Presto offers free, licensed MSE software to design GEOWEB® reinforced slopes, and gravity and reinforced walls.



### SLOPE STABILIZATION APPLICATIONS

- Stabilization of embankments and cut slopes
- Containment face stabilization
- Process and hazardous wastewater containment
- Geomembrane liner protection
- Pipeline support protection



### EARTH RETENTION APPLICATIONS

- Steepened embankment stabilization in areas with limited site access
- Cut and fill stabilization through mountainous areas
- Berm protection and stabilization of tailings/waste containment lagoons
- Natural free-standing site barrier walls

## CHANNEL STABILIZATION/PROTECTION

Mine owners can substantially **reduce costs to manage stormwater and wastewater** with the GEOWEB® channel protection system. The GEOWEB® system is a proven solution for stabilizing open channels and hydraulic structures. Our stormwater and process channel systems:

- protect and stabilize continuous or intermittent flow channels exposed to varying flow conditions
- stabilize topsoil/vegetation in swales and intermittent channels
- allow the use of smaller, less expensive aggregate and potentially on-site waste rock
- offer flexible armoring with concrete infill, substantially less costly than articulating block systems or reinforced channels

## HAUL ROADS

The GEOWEB® system delivers value for mine haul roads by confining and stabilizing infill material, controlling shear, and reducing vertical & lateral movement.

With infill confined, the GEOWEB® system reduces the overall cross section of sub-base by **50% or more**. The resulting driving surface substantially **lowers rolling resistance, delivers faster cycle times and reduces operational costs**. The bottom line? The road is more stable long-term so **maintenance is minimal**.

On-site waste rock can often be utilized, eliminating the costs to import materials and reducing a site's overall carbon footprint. GEOWEB® load-supporting solutions provide:

- surface stabilization for surface and underground haul roads
- base stabilization over weak soils
- temporary stabilization for site access and equipment mobilization

## DESIGN SUPPORT

Regardless of the system that fits your needs, Presto GEOSYSTEMS® engineering support before, during and after construction is second to none.

From free preliminary design evaluations, to on-site training and installation guidance, we are committed to helping you get it right the first time. Our trained network of distributors and representatives can offer valuable support from a project's concept through construction.



### CHANNEL STABILIZATION APPLICATIONS

- Stormwater diversion channels
- Surface process water channels
- Movement of tailings/waste materials
- Environmental remediation creating natural channels



### HAUL ROAD APPLICATIONS

- Haul roads into and around mines
- Underground mine roads
- Base improvement for staging areas subjected to all types of equipment loading
- Surface pipeline protection from dynamic loading of rock-falls
- Tailings containment
- Heap Leachate collection systems



## THE ORIGINAL MOST COMPLETE GEOCELL

The **GEOWEB® system** is the original geocell developed by Presto GEOSYSTEMS® for soil stabilization challenges. The GEOWEB® brand is recognized as the industry's high-quality, high-performance solution and the **most complete geocell**, offering integral design components critical to the strength of the engineered solution.

## INTEGRAL COMPONENTS

The complete GEOWEB® solution includes proper integral components with higher performance strength and faster installation than with alternative methods.



### ATRA® KEYS

#### GEOWEB® Connection Device



ATRA® keys, made from weather-resistant polyethylene, are 3 times stronger and 3 times faster than stapling. Easy installation: ATRA® keys are inserted through adjoining GEOWEB® cell walls, turned and locked for the most secure connection.

### ATRA® ANCHORS & DRIVERS

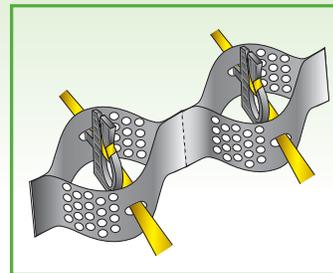


Presto's ATRA® anchors make a secure connection with the GEOWEB® cell wall and are fast and easy to drive with ATRA® drivers.



### TENDONS & ATRA® TENDON CLIPS

#### Support System



Tendons suspend the GEOWEB® material over geomembranes, hard surfaces, or steep slopes without anchors. Presto uses industry-leading tendons, as tendon type and density are critical to the design strength.

#### Load Transfer Device



Presto's ATRA® tendon clips make a secure connection with the GEOWEB® cell wall for transferring loads from the tendon to the cell wall.

**PRESTO GEOSYSTEMS® COMMITMENT** — To provide the highest quality products and solutions.

Presto GEOSYSTEMS® is committed to helping you apply the best solutions for your site requirements. Our solutions-focused approach to solving problems adds value to every project. Rely on the leaders in the industry when you need a solution that is right for your application. Contact Presto GEOSYSTEMS® or our worldwide network of knowledgeable distributors/representatives for assistance.



670 N Perkins Street • Appleton, Wisconsin, USA  
800-548-3424 or +1 920-738-1328  
Email: [info@prestogeo.com](mailto:info@prestogeo.com) • [www.prestogeo.com](http://www.prestogeo.com)

#### FIND US | FOLLOW US

We are a global business with accessibility through a worldwide distribution network.



#### DISTRIBUTED BY:

© 2019 PRESTO GEOSYSTEMS®  
GEOSYSTEMS®, GEOWEB®, GEOBLOCK®, GEOPAVE®, GEOTERRA®, GEORUNNER®, PADLOC®, and ATRA® are registered trademarks of Reynolds Presto Products, Inc.

*This information has been prepared for the benefit of customers interested in Presto GEOSYSTEMS® products. It was reviewed carefully prior to publication. Presto assumes no liability for its accuracy or completeness. Final determination of the suitability of any information or material for the use contemplated, or for its manner of use, is the sole responsibility of the user.*