GEOWEB®
SMART EARTH SOLUTIONS FOR THE MINING INDUSTRY
Powered by GEOSYSTEMS® technology.

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

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

DESIGN SOFTWARE

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

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

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

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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.

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.

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