Retaining Structures and Soil Reinforcement Solutions

MACGRID™ WG

MACCAFERRI
WHY MACCAFERRI MACGRID

- Reduces Cost
- Increases land availability for development
- Provides a vegetated slope face to minimize visual impact
- Re-uses on-site materials (wherever possible)
- Reduces construction land-use
- Reduces import of environmentally expensive quarried materials

Reinforced Walls/Steep Slopes
A combination of Maccaferrì MacGrid™ and Maccaferrì Terramesh/Gabion System offers the most cost effective and structurally stable solution for construction of reinforced soil structures. This system is favored especially for marine application.

Required Material
- Maccaferrì MacGrid™ as Reinforcement
- Maccaferrì Terramesh/Gabion Units as Fascia System

Reinforced Walls
The availability of versatile technical values in Maccaferrì MacGrid™ allows it to be incorporated into design using any proprietary software. This includes masonry block design. This system is favored especially for housing/township development.

Required Material
- Maccaferrì MacGrid™ as Reinforcement
- Masonry Units as Fascia System

Reinforced Slopes/Steep Slopes
The flexibility of Maccaferrì MacGrid™ allows it to form the face of the slope without any other structural components required. The apertures in MacGrid™ allows vegetation to grow and the strength of MacGrid™ provides surface protection against erosion.

Required Material
- MacGrid™ as Reinforcement and Fascia System
- Biomac as Fascia Support System

Reinforced Soil Bioengineering
With the increase emphasis for environment friendly system, Maccaferrì MacGrid™, coupled with bioengineering techniques, provides structural strength within an environmentally integrated system.

Required Material
- Maccaferrì MacGrid™ as Reinforcement
- Biodegradable gunny sack or similar material available locally, as Fascia System
MacGrid™ Geogrids for Soil Reinforcement

MacGrid™ is a geogrid for soil reinforcement, made from high molecular weight, high tenacity polyester multifilament yarns. The yarns are woven on tension in machine direction and finished with a polymeric coating. MacGrid™ geogrids are engineered to be mechanically and chemically durable and resistant to biological degradation.

Sound/Noise Barrier
Construction of Reinforced Earth Bund Using Maccaferri MacGrid™ and Maccaferri Green Terramesh Fascia

Required Material
- Maccaferri MacGrid™ as Reinforcement
- Maccaferri Green Terramesh Units as Fascia System

Reinforced Embankment Base
High strength Maccaferri MacGrid™ is commonly used as basal reinforcement for the construction of embankments over soft foundation soil. This application expedites the duration of embankment construction and protects the embankment from slip circle failure.

Required Material
- High Strength Maccaferri MacGrid™ as Reinforcement

Reinforced Pile Embankment
High strength Maccaferri MacGrid™ can be used as a substitute to concrete deck over piled embankments. It is used to span the voids between piles. MacGrid™ offers the opportunity to further reduce costs by increasing the spacing between piles and reducing the number of piles.

Required Material
- High Strength Maccaferri MacGrid™ as Reinforcement

Technical Support
Throughout the years Maccaferri technical team has been actively developing software to facilitate designing using Maccaferri products. Coupled with an experienced technical team, Maccaferri offers solutions to complex geotechnical and environmental problems. The software's commonly used are:

- MacStar 2000 - Reinforced Soil Structure Design
- MacBars - Pile Embankments
- MSEW® - Reinforced Soil Wall Systems

MacStar 2000 Design Output
Officine Maccaferri
Group Profile

Founded in 1879, Officine Maccaferri soon became a technical reference in the design and development of solutions for erosion control and retaining structures.

Since then, through technological innovation, geographical expansion and focussed diversification, Maccaferri now offers solutions at a global level for a wide range of civil and environmental engineering applications.

Consultancy and Partnership

Maccaferri’s motto is ‘Engineering a Better Solution’: We do not merely supply products, but work in partnership with our clients, offering technical expertise to deliver versatile, cost effective and environmentally sound solutions. We aim to build mutually beneficial relationships with clients through the quality of our service and solutions.

Organisational Structure

Officine Maccaferri is at the heart of the Maccaferri Industrial Group. Its continued growth is based upon long-held values of innovation, integrity, excellent service and respect for the environment.

Maccaferri’s vision is to become a leading international provider of advanced solutions to the civil engineering and construction market. Implementing a strategy of vertical integration, Maccaferri researches, manufactures, designs, supplies and constructs solutions within its target markets.

The capability of the business continues to expand due to a strategic plan to open new markets and grow existing ones; Maccaferri now offers advanced engineered solutions from beach nourishment to reinforced soil structures and from rockfall mitigation to tunnelling systems.

With over 2000 employees, 26 manufacturing facilities and local operations in 100 countries around the world, Maccaferri can truly claim to have a global presence with local focus.

Maccaferri: Engineering a Better Solution