MACCAFERRI DESIGN SOFTWARE

Maccaferri has created a suite of software to help our clients design using our products in a range of applications. Depending on your specific project needs, Maccaferri has a software platform to provide you with support to

MacRO Studio software enables engineers to design suitable rockfall solutions, helping to ensure the safety of those working at the mine.

MacREAD enables the design soil stabilization applications either in dynamic or static conditions including haul roads.

MacRA enables the design of hydraulic and erosion protection measures including mine drainage plans.





Officine Maccaferri S.p.A.

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Engineering a Better Solution

OFFICINE MACCAFERRI GROUP PROFILE Founded in 1879, Officine Maccaferri soon became a technical reference in the design and development of solutions for hydraulic works 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, geotechnical and environmental engineering applications.

MACCAFERRI APPLICATIONS





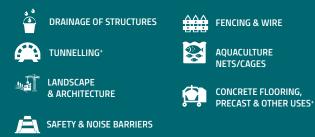
MACCAFERRI

Maccaferri's motto is **'Engineering a Better Solution'**; We don't 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 through the quality of our service and solutions.

ORGANIZATIONAL STRUCTURE

Officine Maccaferri is at the heart of the Maccaferri Industrial Group, a corporation with revenues of €1.2B, operating in mechanical engineering, real estate & construction, energy, food & agro-industry and tobacco.

Officine Maccaferri's vision is to become a leading international provider of advanced solutions to the civil engineering and construction market. With nearly 3000 employees, over 30 manufacturing facilities and local operations in 100 countries around the world, Maccaferri can truly claim to have a global presence with local focus.



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DELIVERING STABILITY AND **REDUCING RISK THROUGH OUR GLOBAL FOOTPRINT**

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Maccaferri's Corporate Ethical Policy brings transparency and accountability to our operations and interactions with our clients.

Our goals are aligned with yours to deliver high value, quality solutions that embrace safety, environmental compatibility and sustainability.

The service we provide ranges from feasibility or comparison between alternative solutions, to a full design and installation supervision.

Our products are certified through internationally recognized standards as well as a rigorous QC/QC program ensure our clients, customers and partners are receiving Best In Class products.



Project Life Cycle Support

Our Area Managers and Regional Engineering teams are committed to supporting projects from concept to completion: starting with preliminary options/ solutions/cost estimates to complete designs followed by manufacturing and delivery then on-site technical assistance.





Where we work

Maccaferri has manufacturing in more than 30 countries and operations in more than 100. You are never far from our engineering support and product availability; essential in time critical and mine safety projects.



Access Roads, Haul Roads & Foundation Improvement

Access to mines often requires traversing difficult geology and topography. Our complete portfolio of geosynthetics can lower upfront costs. A150 mm (6 in) rut on a haul road can reduce the life of a tire by 47%! Haul roads are critical assets and our geogrids can reduce maintenance and down time, helping improve output. Our ultra-high strength **Paraproducts** (geogrids) can increase pile spacing by 25 -45% and reduce pile caps. These geogrids can also create desired bearing capacities beneath ore piles, building pads, and other structures.

Stormwater Management

Maccaferri Gabions, Reno Mattresses,

erosion control mats and drainage solutions provide the most cost-effective and durable stormwater solutions for mines. At 1/3 the thickness of riprap, **Reno Mattresses** reduce installation and material costs, along with being eco-friendly.

Crusher / ROM Walls

Maccaferri's **Terramesh** System has been used to construct single face walls over 32 m (105 ft) high. The reinforcement in these structures ensure they will last the life of the mine. Our **MacRes** System offers a precast panel wall solution, working in concert with our ultra-high strength geogrid **ParaWeb** where access to rock may be limited.

Reclaim Tunnels, Portals & Declines

Maccaferri offers the most advanced corrugated steel structures for use in reclaim tunnels, portals and underpass structures. These structures can span more than 20 m (65 ft). These heavily galvanized prefabricated structures ensure durability and allow for ease of transport and installation on remote sites. Additionally, our steel fibres can be used to reinforce concrete.

Rockfall Solutions

Our extensive rockfall portfolio focuses on one thing: *SAFETY*. Our double-twist mesh, SteelGrid and HEA Panels all focus on high strength and low deformation. Our Hybrid Barriers combine the energy absorption of a dynamic rockfall barrier with the reduced maintenance of drapery mesh, providing a cost-effective solution for long slopes with available catchment space.

Tailings Storage Facilities

Maccaferri's geomembranes, geocomposites and retaining solutions allow for increased storage capacity and reduced footprints in lined impoundments. Our engineered solutions allow for steepened slopes and reduced raises.

Maccaferri's stormwater solutions optimize spillway designs and reduce costs.







