

Geotechnical Engineering (Geotech) operates one of Australia's largest and most diversely skilled civil contracting businesses.

Geotech have also been involved in the drilling, installation and testing of permanent ground anchors, temporary ground anchors, rock bolts and soil nails in both the civil engineering and building industries for over 40 years and is arguably the fastest developing specialist contractor in this field in Australia.

We have experienced staff comprising engineers that are significantly involved in the geotechnical aspects of ground anchor design, construction and testing.

Geotechnical Engineering Ground Anchor GEGA

In 2001 Geotechnical Engineering developed, specified, tested and commissioned a permanent ground anchoring system, the Geotechnical Engineering Ground Anchor System or "GEGA System". GEGA is the only system fully developed in Australia.

A large number of these anchors have now been installed on major projects, including dams.

The system continues to take full advantage of recent advances in ground anchor technology and has the benefit of being a fully specified anchor. The anchors achieve current best engineering practice and satisfy both Australian and European Codes and Standards.

Continual development is a core business objective and to meet this Geotech continues to invest through internal research and development of our specialist anchoring knowledge and skills. We retain an international ground anchor expert, Dr Devon Mothersille who works in collaboration with our experienced engineers to ensure we maintain anchoring activities that are state of the art.



Single Bore Multiple Anchor (SBMA) Technology

We are committed to maintain our presence as a Ground Anchoring market leader. Geotech have also been granted a patented license to implement SBMA technology in Australasia.

This technology dramatically increases capacity when anchors are installed in soils and weak rocks. Case history evidence has shown the SBMAs can double the capacities of conventional anchors in this type of ground.

Carbon Fibre Ground Anchors

Geotech have actively sponsored a substantial research programme, undertaken by Geotech's Dr Matthew Sentry, which focussed on improving understanding of the use of carbon fibre tendons in ground anchor systems.

Working in collaboration with Dr Mothersille, our senior managers and engineers, Dr Sentry was awarded a PhD for his research in this emerging technology. Geotech is committed to deliver ground anchor works to the highest standards.

Drilling and Grouting of Large Bore Holes

A major part of Geotech's operations involves the drilling and placing of rock bolts, rock dowels, anchors and starter bars.

We have developed particular techniques to ensure accurate straight hole drilling to enable anchor holes up to 400 mm diameter and up to 150m deep to be accurately drilled in their required position.



Grouting Works

Geotech also carries out specialist grouting works. We offer many types of grouting; Pressure, Cement/ Bentonite or Chemical. Typically pressure grouting is used for:

- ↘ Construction of grout curtains
- ↘ Ground improvement of soils and silts
- ↘ Remediation of structures
- ↘ Restoration and stabilisation of foundations
- ↘ Civil applications such as pipes, annular or backfill applications

Slope Stabilisation Works

Geotech have developed specialised access equipment to undertake all facets of Slope Stabilisation works including:

- ↘ Rock bolting.
- ↘ Rock fences.
- ↘ Shotcreting.
- ↘ Meshing.
- ↘ Permanent anchors
- ↘ Rock Fall Fences (150 to 2000kj)
- ↘ Drain holes.
- ↘ Gabion baskets.
- ↘ Scaling.

Geotech is able to provide advice at the design stage to ensure that the most appropriate, practical, safe and efficient stability methods are implemented.



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