

Gruner Stucky Ltd.

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Gruner Company

Gruner is a leading engineering consultancy specialized in Energy, Infrastructure and Building Engineering, providing innovative design services since 1862.

We support both private and public clients in all project phases from strategic planning through the construction to the commissioning, the management of and rehabilitation of hydropower plants, reservoirs and infrastructure. With more than 1,100 highly qualified employees, we are proud to have over 40 nationalities in over 30 offices, including, in Switzerland, Germany, Austria, Serbia, Georgia, Turkey and Tajikistan, as well as at countless project locations worldwide.

As a leading consultancy, Gruner has been involved in the design, the assistance during construction and the site supervision of underground facilities since the foundation of the company. In 1947 Eduard Gruner wrote his technical essay «*Journey through the Gotthard Base Tunnel in 2000*» with the visionary idea of a 50 km long Gotthard Base Tunnel from Amsteg to Biasca with one station at Sedrun. This project was completed in 2016...

Gruner & Underground Space

Space in populated areas is rapidly becoming more restricted, cities are becoming more densely populated, changes are and will be required in everyday infrastructure to manage:

- the growth of traffic, and increased use of public transport,
- the demand for clean water supply, and the subsequent treatment of resulting wastewater,
- the need for green energy from renewable resources such as hydropower.

At the same time, it is becoming critical, due to global warming and the increased intensity of flooding to manage flood risk. Consequently, more infrastructure and structures, in general, are progressively being moved below the earth's surface, so that they may reduce their footprint on the environment and be built in harmony with the communities.

Since its inception, our company's vision is that the "underground space" should not just be considered as a solution to fulfilling a particular requirement of a project, it should be considered more holistically as an available resource for Communities. This vision has been confirmed through the many engineering services performed to date, through which we consistently manifest a long-term strong commitment to a sustainable design that provides for the intensive use of underground space in support of sustainable development.

In our Company, a competent and dedicated team of multidisciplinary Experts, active in different sectors collaborate to develop all the required diverse and specific services necessary to the sustainable design of underground facilities, for hydropower plants and transport infrastructure (roads and utilities, railway and metros).

Services provided and Experiences

Gruner is an independent multi-disciplinary company, and it offers a complete package of engineering services and expertise during the complete life cycle of projects, from the planning and feasibility, to design, construction, operation and maintenance and ultimately to the decommissioning.

We consider the strict collaboration of all the different competences from all engineering fields as not only useful but necessary, for the correct, cost-effective, and comprehensive design of each project, and ideally at the earliest stage of the project as possible. Gruner can therefore put at our clients disposal experienced and multidisciplinary teams of experts in the following fields:

- geology, geotechnics and rock mechanics,
- transport and energy engineering,
- tunnelling,
- geotechnical works,
- safety and MEP engineering,
- construction and material technology,
- construction management and logistics,
- health and safety,
- environment.

Gruner's service offering includes BIM design methodology, and we also propose highly digitized services such as reality capture services. We are proud of our tradition of innovation, as we adapt to the changing needs of the market and to the development in technology and innovation in engineering methods.

Our services include:

Before Construction / in Tender Phase:

- Project Management, including Risk Management,
- Feasibility studies & Preliminary Design,
- Final & Tender Design,
- Technical Proposal for Bids,
- Value Engineering,
- Variant Analysis (alternative design solutions, construction methods or equipment).

During Construction / on Site:

- Detailed Design (for Owners or Contractors in “Design & Build”),
- Site Supervision,
- Technical assistance on-site during U/G works construction,
- Contract Management & Claims Management,
- Health & Safety,
- Quality Control.

After Construction:

- As-Built Design & Commissioning,
- Due Diligence.

Our references speak for themselves:

- We have studied, planned, and designed more than 500 km of tunnels,
- We have analyzed and designed more than 250 km of safety & MEP installations in underground facilities,
- We have designed more than 25 large caverns and 50 shafts.

All these projects are in many countries worldwide.

Our extensive experience starts with one of the most prestigious projects in the world, the Gotthard Base Tunnel in Switzerland, currently, the longest tunnel in the world, and our experience extends also to specific and small projects developed in detail for our Clients.

