



Bärenwerk Power Station (AT) Tunnel Grouting

Employer	Salzburg AG für Energie, Verkehr und Telekommunikation, Salzburg
Client	ARGE KW Bärenwerk
Execution of works	Renesco GmbH, Abt. Marti Geotechnik
Construction Period	March – May 2014
Contract Sum (grouting only)	€ 700.000

Project Description

Modernisation of the Bärenwerk power station in Fusch on the Grossglocknerstrasse (Austria) includes new construction of an underground pressure tunnel.

- Length: 2,976m
- Breakout diameter: 3.80m
- Inner shell concrete thickness: 25 - 35cm

Grouting concept

- Grout rings at 3m intervals
- 4 bore holes per ring or installation of a sleeve pipe
- Take-up of tensile stress by the unreinforced inner shell while minimising crack formation due to passive prestressing

Scope of services

- Sealing and consolidation grouting over a distance of approximately 200m
- Contact grouting over a distance of 100m
- Contact grouting with passive prestressing at pressures up to 23bar over a distance of 2,745m
- Execution of grouting through bore holes over a distance of 2,145m
- Execution of grouting through sleeve pipes over a distance of 600m in the sector with plastic waterproofing



Front page: Grouting equipment before entering the tunnel
1. View of the tunnel with packers installed
2. Control station for four grout pumps