



## Pumped Storage Plant Nant de Drance (CH) Pressure Water Tunnel Grouting

<b>Employer</b>	Nant de Drance SA, Finhaut
<b>Client</b>	GMI Groupement Marti Implenia, Marti Tunnelbau AG, Moosseedorf
<b>Execution of the works</b>	Renesco GmbH, Abt. Marti Geotechnik
<b>Designer</b>	Pöyry Schweiz AG
<b>Construction Period</b>	2013 - 2014
<b>Contract Sum (grouting only)</b>	CHF 1.250.000

## Project Description

The 900MW Nant de Drance pumped storage station is being built near the French border in the Swiss Canton of Wallis. The two 1,500m long pressure water tunnels, with breakout diameters of 7.7m, are the centerpiece of the project.

## Scope of services

Systematic contact grouting throughout the entire length:

- Number of bore holes: 4,376
- Hole depth: up to 30cm into the rock

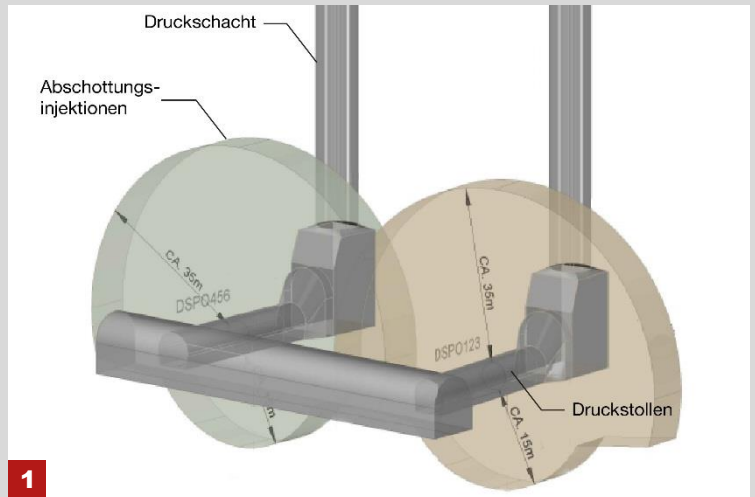
Sector by sector consolidation grouting, depending on geology:

- Number of bore holes: 1,344
- Hole depth: up to 4m into the rock

Bulkhead grouting consisting of three rings each for prevention of water permeability in the longitudinal direction of the pressure tunnels:

- Number of bulkheads: 10
- Number of bore holes: 552
- Bore hole depth: up to 35m into the rock

Grouting took place with two units operating in three shifts.



Front page: Bore holes for bulkhead grouting  
1. Bulkhead grouting system diagram  
2. Grout container (6 pumps) and mixing plant  
3. Bore holes for contact grouting