

Practical Usage of Grouting Fundamentals

Course administrator: Swedish Rock Engineering Association/www.svbergteknik.se

11 September 2023 in Stockholm, Sweden

08.30 – 15.30

This course brings up the fundamentals of grouting, focusing on how to interpret the rock for grouting works. We discuss fracture apertures, the grouting technique with pressure and time and the basic rheology of grout with viscosity and yield stress. The fundamentals also clarify how to interpret grouting results such as pressure-, volume- and time-datasets. The course includes lectures with discussion exercises and calculation exercises with supplied spreadsheets. This is applied to the concept of calculated penetration length and how different parameters affect the grout spread.

Who should attend:

Anyone who wants to deepen their knowledge in grouting. Geologists, engineers, designers, contractors, consultants and tunnelowners/damowners can all benefit from attending this course.

The goals for this course are that the attendees should be able to

- understand the basic behavior of grout
- discuss the results of grouting curves
- understand how to adjust the penetration length of grout
- discuss a design concept of a grouting fan

The course will take place at Trafikverkets project site the Stockholm Bypass at Lovön.

A technical visit for course & symposium delegates on the afternoon of 11 September will be announced in the final symposium programme.

Course Fee: 5 000 SEK (exkl. VAT).

The fee include:

- Spreadsheets for calculation exercises
- Documentation of the slides shown at the course
- 1 hard copy of the book Rock Grouting-theories and application / Håkan Stille, 2015
- Lunch and coffee breaks.
- Participation at a technical visit at Bypass Stockholm (optional)





How to get there: From Stockholm T-Centralen to Lovö Edeby (Ekerö) takes about 35 min by public transportation. Please visit <https://sl.se/>.

Certificate of Participation: To obtain the certificate one must have been present and participated in the course assignments.

Final Program & Registration:

Course registration will open 2023-03-15. Program will be available in January 2023. The number of participants is limited.

Participation at the Nordic Grouting Symposium, 12-13 September 2023:

Please register to the symposium [here](#)

Course leaders:

Dr Johan Funehag, Associate Professor Johan Funehag/Luleå University of Technology, Division of Mining and Geotechnical Engineering. Research Area: Mining and Rock Engineering. Throughout the 20 years in academia and consultancy, Dr Funehag has spent almost half of his career in the field of research of grouting and engineering projects involving grouting. Considerable amount of field tests consisting of design, execution and follow up has given him allot of “know how” in grouting. Funehag has supervised 5 PhD students.

Dr Johan Thörn, Consultant at Bergab. For more than a decade Thörn has been working with research, design and hands-on work regarding grouting, fractured rock and groundwater flow. Thörn has also been involved in teaching the topic of grouting at Chalmers University of Technology since 2011.

