



Hydro generator basics

Application and design

Getting an overview of generators and the process of electro-mechanical energy conversion, is a key step to gain a global understanding of hydroelectric energy production. In this course participants receive a basic overview on hydropower generators theoretical, functional and operating principle.

The theoretical concepts are underlined by case studies of our 150 years of experience as a special machines manufacturer. After participating, attendees will understand the functional processes in hydro generators with different application layout and they will get a basic insight in the machine design process.

Course content

Electro-Mechanical Energy Conversion

- How does the energy conversion process work in our machines?
- How does voltage induction and torque generation work?
- What kind of active materials are being used and why?

Generator Application Layout

- Why does a hydro generator always look different?
- How is a large generator tailor made for its purpose?
- What are the interfaces and boundaries in generator application design?

Generator Design

- What are the basic steps in designing a custom made hydro generator?

All lectures will be supported by practical examples

Advantages

- + Experts with up-to-date specialist knowledge
- + Learning from theory and practice
- + Introduction to the topic
- + Certificate of participation
- + Seminar handout

Trainer

Voith experts with many years of design experience.

Target groups

Engineers, maintenance and repair specialists and technical personnel responsible for specifying or operating hydropower generators. Relevant experience in hydropower engineering and a basic knowledge of the structure of generators are required for this seminar.

Minimum number of participants

5 participants

Participation fee

€900 plus VAT per participant, including documents, beverages and lunch

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