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## COURSE DESCRIPTION

# CHH634 – GMD Ring Motor Stator Winding Troubleshooting (Theoretical)

### Course goal

The goal of this course is to understand all theoretical aspects of stator winding troubleshooting of a gearless mill drive (GMD) ring motor after a stator earth fault indication on the motor protection. Participants will learn about all the necessary preparation work, the needed material, and its relevance in the process. General, the course contributes effectively in the time saving path prior to the emergency repair with the target to minimize the forced outage time of the ring motor (one of the main sub-systems in the GMD system).

### Main learning objectives

The participants will be able to:

- Name the main parts of a ring motor
- Understand the stator winding principle
- Read and interpret the stator winding diagram
- Locate stator earth fault position
- Initiate and conclude all required pre-works and preparation activities prior to the installation of a stator winding jumper
- Handle properly and store safely the hazardous material and understand the importance and role of the safety data sheet
- Prepare the workplace at site for the winding specific related tasks
- Know the content of a jumper kit

### Participant profile

This training is targeted to skilled mechanical or electrical maintenance personnel and service engineers with electrical basic know how.

### Prerequisites

Participants should have knowledge of the GMD system and the ring motor. Basic knowledge or experience in mechanical or electrical work is a plus.

### Topics

- Ring motor overview
- Stator winding principle
- Stator earth fault localization
- Knowing all required spare parts, tools and consumables related to an emergency repair
- Handling of hazardous materials and Material Safety Data Sheets (MSDS)
- Preparation of the workplace
- Jumper kit overview

### Course type and methods

This is an instructor led course with presentations, exercises and interactive classroom discussions.

### Duration

The duration is 2 days.

### Remarks

**Note:** This course **does not** certify, approve, authorize, accredit or validate any engineer to perform any repair work. Any repairs must be performed by ABB or supervised by ABB.

This course can be delivered at:

- Customer site
- ABB training center in Switzerland

## Course map

	DAY 1	DAY 2
<b>Topics</b>	Welcome, personnel introduction Course introduction Main parts of a ring motor Read and interpret the winding diagram Locate the fault in the stator winding Preparation of tools, spare parts and workplace Exercises	Review day 1 How to remove and reinstall the stator covers How to remove and reinstall the dust seals Handling of the hazardous material and safety data sheet Jumper installation Exercises Questions and answers Evaluation Course close
<b>Time</b>	9:00 a.m. – 5:00 p.m.	9:00 a.m. – 5:00 p.m.

Typical course layout (time or sequence may change)