

COURSE DESCRIPTION

CHH621 – Gearless Mill Drive Theoretical System Overview

Course goal

The goal of this course is to provide participants with the required theoretical knowledge of gearless mill drives (GMD) before the system will be installed and operated on-site.

Main learning objectives

The participants will be able to:

- Identify the hardware components and the installation principles
- Understand the functionality of the main components of the gearless mill drive system
- Understand the cooperation and interaction of the system components and how they do affect the system behavior and protection
- Understand general operation principles of the GMD on a non-technical level

Participant profile

This training is targeted to project managers, sales, planning and management personnel that need to understand the system and have a better comprehension about operation and different components of the GMD system.

Prerequisites

Participants should be working or be involved with the GMD business.

Topics

- GMD system components (control hardware, power hardware)
- GMD system components description and operation from other vendors (out of battery limits, brakes, pumps, MCB, knife switches)

- GMD system general operation principles (functional description of each system and subsystem components)
- GMD application 800xA description
- GMD application AC800PEC description
- Ring motor and instrumentation description
- Ring motor auxiliaries description
- E-house description
- E-house auxiliaries description
- Cycloconverter and instrumentation description
- 800xA auxiliary control of GMD system
- AC800PEC & 800xA interaction communication and control description.
- Software tools – purpose and examples
- GMD operation manuals and documentation

Course type and methods

This is an instructor-led course with interactive classroom discussions, group work, demonstrations and associated theoretical exercises. Practical hands-on activities are not part of this basic course.

Duration

The duration is 1 day.

Remarks

This training course is a recommended prerequisite for all our other GMD courses. It is delivered at our ABB training center in Switzerland.

Course map

	MORNING	AFTERNOON
Topics	Welcome, personnel introduction Course overview Participants expectations GMD system overview and control phylosophy Interconnection and flow of information between 800xA, PEC and DCS 800xA HMI (auxiliary control) 800xA software tools and application structure 800xA hardware	E-house components Functionality of GMD system and cyclovonverter CCT and MLCP Mill operation and point of control Questions and asnwers Evaluation Course close
Time	8:30 am – 12:00 pm	1:30 pm – 5:00 pm

Typical course layout (time or sequence may change)