Course goal
The course conveys profound knowledge on the assembly and pre-commissioning of Gas Insulated Switchgear systems.

Participant profile
ABB installation personnel, technical personnel from ABB companies and customers.

Prerequisites
Knowledge on electrical or mechanical engineering, knowledge on Gas Insulated Switchgear system operation and maintenance.

Topics
Product description and design
- Circuit-breaker and breaker drive mechanism
- Disconnector, earthing switch, fast acting earthing switch
- Statical components like connecting elements, busbars, lateral dismantling elements, compensators
- SF6-to-air bushing
- Surge arrester

Site assembly instructions
- Civil work requirements and building conditions
- Cleanliness on site
- Admissible torques on flanges
- Corrosion protection and flange greasing
- Tools and instruments set
- Handbook / guide for site supervisors

Assembly unit handling
- Overview and detailed drawings of assembly units
- Packing list
- Documents and protocols

Assembly steps and procedures
- Anchor drilling and positioning of circuit-breakers
- Coupling and alignment of assembly units, busbars, compensators and exit bus
- Coupling and adjustment of transmission shafts of disconnector, earthing switch, fast acting earthing switch
- Installation of interfaces (bushings, cable- and transformer connections and isolating links for testing)
- Structure and arrangement of gas zones
- Safe working procedures on pressurized compartments

Steel structures
Earthing connections
Installation SF6 - gas density monitors
Apparatus wiring and cabling
Health and safety on site
Gas schematic diagram and layout
SF6 - gas processes on site
Pre-commissioning

Course type and methods
Presentations, practical demonstrations (assembly, cabling and pre-commissioning of complete GIS feeder ELK-14/300), factory tour, visit at sub-supplier and installed GIS in Switzerland.

Duration
20 days

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