

# CHS225

## Gas Insulated Switchgear Installation

### 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
- Disconnecter, 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 disconnecter, 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

For more information about visit us at:

[www.abb.com/product/us/9aac710047.aspx](http://www.abb.com/product/us/9aac710047.aspx)

[www.abb.com/abbuniversity](http://www.abb.com/abbuniversity)

**ABB Schweiz AG**

**High Voltage Products**

**Training Center**

**Brown Boveri Strasse 5**

**CH-8050 Zurich / Switzerland**

**Phone: +41 58 58 8 22 33**

**Fax: +41 58 58 8 18 22**

**E-Mail GCB : [gcb\\_training@ch.abb.com](mailto:gcb_training@ch.abb.com)**

**E-Mail GIS : [gis\\_training@ch.abb.com](mailto:gis_training@ch.abb.com)**