ABB PGC Basic 2000 Training Course Synopsis

ABB PGC 2000  Gas Chromatograph Training Course
ABB PGC 2000 Training Synopsis

Course type and Goal

This is an instructor led course with interactive class room discussions, presentations, and practical exercises.

This course will cover Theory, Operation and Maintenance of Gas chromatographs and sample conditioning systems

This course provides knowledge of the functional capabilities of ABB Gas chromatographs PGC 2000

Learning Objective

Upon completion of this course the participants will be able to,

- Understand Basic Gas chromatography.
- Different parts of Gas chromatograph.
- Understand PGC 2000 Operation
- Analyzer start up
- Collect PGC 2000 backup.

Prerequisite

Students attending this course should have basic knowledge of gas chromatography

Course Duration

The duration is 3 days
ABB PGC 2000 Training Synopsis

Day 1

- Basics of Gas chromatography.
  - What is Gas chromatograph?
  - Function of Gas chromatograph.
  - Why Chromatograph is required.

- Parts of a Gas Chromatograph.
  - Carrier Gas.
  - Flow/Pressure Control
  - Sample Injection.
  - Column – The Heart of a GC
  - Detectors.
  - Output Device

- Different types of carrier gas used in PGC 5000.
  - Helium.
  - Nitrogen.
  - Hydrogen.

- Cylinder pressure regulator.
  - Carrier pressure cylinder.
  - Calibration cylinder.
  - Regulator types.
  - Single stage Regulator.
  - Dual stage regulator.

- Career pressure transport line.

- Different type off injection valve used in PGC 5000.
  - Liquid sample injection valve. (LSV)
  - M2CP /Slider valve.
  - Diaphragm valve.
ABB PGC 2000 Training Synopsis

Day 2

- **Function of columns.**

- **Different types of columns used in PGC 2000.**
  - Packed columns.
  - Capillary columns.
  - Temperature Effect on column.
  - Carrier Flow Effect on column.
  - When column do not work.
  - Manufacture’s recommendations.

- **Different types of detectors & Theory of operation**

  - TCD (Thermal conductivity Detector)
    - STCD (Single Thermal conductivity Detector)
    - MTCD (Multi port Thermal conductivity Detector).

  - FID (Flame Ionization Detector)

  - FPD. (Flame Photometric Detector)
ABB PGC 2000 Training Synopsis

Day 3

- Detailed explanation of controller operation.
- Alarm status.
- Create / edit method
- Temperature Control table
- Pressure control table
- Stream assignment
- Calibration & Bench mark
- Basic operator skills.

- VistaNET Essential Network configuration
- Storage and configuration.
- Trend & Digital table.

- Manual control mode.
- Detector screen.
- Method table basics.
- Current report.
- Stream Assignment.
- View report.
- Storage and config.
Training Fees / Terms & Conditions

Course Fee : 

Course Duration : 

Training Location :

- Tuition accommodates minimum 6 to maximum 10 students per class
- Comprehensive colored printed Training Manuals are included at no extra charge

No Soft copies of training material and No Audio / Video Reproductions

- Distributing soft copies of training material, audio or video recording of any ABB training class is prohibited.
- Any unauthorized use, reproduction, distribution or disclosure to third parties is strictly forbidden.
- ABB reserves all of its intellectual property rights in and to the information and the document.

Abb trading branch - Riyadh  
C. R. 1010432522 - CoC 349962  
P. O. Box 8796 Riyadh 11492  
Tel.: +966 (O) 11 484 5600

Abb projects branch- Riyadh  
C. R. 1010432521 - CoC 349963  
P. O. Box 8796 Riyadh 11492  
Tel.: +966 (O) 11 484 5600

Abb electrical industries co. ltd.  
GIS factory- Dammmam  
C. R. 2050106361 - CoC 194491  
P. O. Box 31521 Dammmam 31281  
Tel.: +966 (O) 13 816 3333

Abb electrical industries co. ltd.  
Cable Trays Factory- Dammmam  
C. R. 2050113306 - CoC 225632  
P. O. Box 514 Dammmam 31952  
Tel.: +966 (O) 13 812 1222