ABB PGC 5000 Advance Training Course Synopsis
ABB PGC 5000 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 5000

Learning Objective

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

- Understand Basic Gas chromatography.
- Different parts of Gas chromatograph.
- Understand PGC 5000 Operation
- Identify PGC 5000 MC & Oven hardware components
- PGC 5000 startup.
- Configure & edit PGC 5000 parameter.
- Operate PGC 5000 with remote client software.
- Identify the alarms and confirm the healthiness of PGC 5000
- View chromatograph, reports and confirm that components are identified correctly.
- Perform regular maintenance & trouble shooting activities.
- Collect PGC 5000 backup.

Prerequisite

Students attending this course should have basic knowledge of gas chromatography

Course Duration

The duration is 3 days
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Day 1

- Study of PGC menu
- Explanation of Main TABs & Sub TABs
- Analyzer status messages & Errors
- Home tab.
- Status Tab.
- Schedule Tab.
- Set up Tab.
- Analysis tab.

- History of results and chromatographs
- Configuration of PGC 5000
- Editing of analysis/method.
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PGC 5000 Hardware.
- **Master controller.**
- Detailed study of Master controller Hardware electronics components.
- How to use MC alarm status and LED information to troubleshoot problem.
- **SBC Details.**
- Oven controller cards & LED status information to troubleshooting WAGO Module.
- DCS interface ports.
- Network interface ports and configurations.
- Daily routine checks for MC.

- **Oven Electronics.**
- Detailed study of Oven’s different Hardware electronics components
- Electronic Pressure controller
- Digital temperature controller
- How to use oven alarm status and LED information to troubleshoot problem.
- Daily routine checks for Oven chromatographs
- Hex code troubleshooting information.

- **Different types of Detectors & Theory of operation.**
- How to troubleshoot Common TCD problem.
- TCD hardware zero high/ Auto zero over range alarm
- How to troubleshoot Common FID problem.
- FID flame out issue.
- How to troubleshoot Common FPD problem.
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Day 2

**Status/Backup/Data collection.**
- Analyzer status messages & Errors.
- History of results and chromatographs.
- Save / Restore analyzer configuration.
- PGC 5000 File management.
- Upgrade PGC 5000 software.
- Format PGC 5000.

**Maintenance activities.**
- Understanding PGC Application Test Data. sheet
- Daily routine checks.
- Perform calibration.
- Perform Validation /Benchmark.
- Trouble shooting.
- Hex code troubleshooting information

**Electronics accessibility**
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Day 3

Serviceability.

- LSV (Liquid Sample Injection Valve)
- LSV seal leaking symptoms.
- How to perform LSV Valve maintenance / Overhauling.

- Diaphragm valve (DV 22).
- How to perform DV 22 valve maintenance / Overhauling.
- Diaphragm leaking symptoms

- M2CP Valve (Slider valve)
- M2CP valve (Slider valve).
- Replace 10 port slider.
- Replace Wedges/ red cushion.
- How to perform M2CP valve maintenance / Overhauling.

PGC 5000 Flow setup.

- Test data sheet.
- Checking PGC valve schematic.
- Set PGC 5000 pressure zone.
- Checking, Setting & Balancing Carrier Flows.
- Understand Sample injection, Backflush and selector valve function.

Setting Total Column Flow

- S/BF + Selector valve ON
- All Columns in series

Sample-Backflush to Vent

Carrier
Added Carrier

Detect

Vent

A. 1 2 3 4 5

B. 1 2 3 4 5

Flow meter
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

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