

**Cold Properties Analysers Workshop  
(ASTM D97, ASTM D2500, ASTM D7346, ASTM D7619,  
EN116/EN16329, and ASTM D7153)**

European Training Center  
Walter Herzog GmbH  
Badstr. 3-5  
97922 Lauda-Königshofen, Germany



**Course Description:**

This hands-on and lecture course is intended to increase your understanding of PAC's cold properties analysers and the related ASTM methods. You will receive presentations for theory and component identification, mixed with hands on training with instruments in our laboratory. Also covered will be the software for user interface, calibration, maintenance, and troubleshooting for common problems. Customized applications will be reasonably accommodated upon request. This course is conducted by certified, skilled PAC technicians who have experience with the instruments in real world applications. You will also have access to the PAC support group for specific discussions and forums for your unique situations.

**Who Should Attend?**

New users or current operators who need a refresher to fill in knowledge gaps.

**Course Materials:**

PAC will provide the presentations, as well as the instruments.

**Length:**

3 days. Time: 9:00 - 16:30

**Language:**

German. English classes are available on request. For further information, please contact us.

**Cost:** 1200€ for each attendee

**Course Agenda:**

As shown below. Modifications can be made on participant's requests

**Terms and Conditions:**

- Payments need to be settled 100% prior to the start date of the training course.
- Cancellation within 10 business days before the course starts or in case of non-participation, 100% of the course fees will be charged. Training registration can be transferred to a colleague.
- Classes are limited to 6 participants. Courses with less than 3 registrations are subject to cancellation 20 business days before scheduled date.
- Training price includes training, training material, and lunch and beverages at the training facility. Cost for travelling, accommodation, and other meals are not included.
- Customers under a "Total Care" service program receive a 10% discount on all training courses

## Agenda

### Day 1

- **Cloud and Pour Point**  
ASTM D2500 / 97
- Method requirements
  - How to ensure you are in compliance with the method
  - Interpretation of the test results
  - Common application problems
- **Instrument Overview**
  - Theory of operation
  - Hands-on laboratory
  - User interface / Test setup
- **Calibration**
  - Calibration procedure
  - Tools and reagents
- **Maintenance**
  - Common maintenance
  - Materials and tools
- **Basic troubleshooting**
  - Common user errors
  - Troubleshooting

### Day 2

- **Cold Filter Plugging Point**  
EN 116 / EN 16329
- Method requirements
  - How to ensure you are in compliance with the method
  - Interpretation of the test results
  - Common application problems
- **Instrument Overview**
  - Theory of operation
  - Hands-on laboratory
  - User interface / Test setup
- **Calibration**
  - Calibration procedure
  - Tools and reagents
- **Maintenance**
  - Common maintenance
  - Materials and tools
- **Basic troubleshooting**
  - Common user errors
  - Troubleshooting

### Day 3

- **Mini Cloud / Pour Point**  
ASTM D7346 / D7619
- **Freeze Point**  
ASTM D7153
- Method requirements
  - How to ensure you are in compliance with the method
  - Interpretation of the test results
  - Common application problems
- **Instrument Overview**
  - Theory of operation
  - Hands-on laboratory
  - User interface / Test setup
- **Calibration**
  - Calibration procedure
  - Tools and reagents
- **Maintenance**
  - Common maintenance
  - Materials and tools
- **Basic troubleshooting**
  - Common user errors
  - Troubleshooting