

Phase Technology FAQ: Calibration, Recertification, and Maintenance

What is calibration?

Calibration is the act of comparing a test instrument's performance to a known standard. For Phase Technology analyzers, a set of ASTM standard reference samples are used in the calibration process because of their widely tested and known precision. For individual labs, intracompany QA crosscheck samples may be included in calibration.

What is a Calibration Certificate?

A calibration certificate is documented proof that your Phase Technology analyzer is measuring pour, cloud or freeze point according to the manufacturer's specifications. The certificate specifies the allowable deviation from the average measurement over a range of standard results.

Every new Phase Technology analyzer is shipped with a Certificate of Calibration which details the specific customer, serial number, test methods and precision (repeatability and reproducibility), date of calibration, and date for next recertification.

Why is having a Calibration Certificate important?

A calibration certificate is proof of traceability. Traceability is the unbroken chain of comparisons between a test instrument and defined international standards, all having stated uncertainties.

Phase Technology analyzers are calibrated during the manufacturing process and are traceable to ASTM standards. ASTM standards are well recognized and have been quantified in accepted round robin tests.

What are the benefits of maintaining current, calibrated equipment?

Maintaining an up-to-date calibration certificate for your Phase Technology analyzer provides necessary documentation that gives you:

- proof of calibration for quality audits
- traceability to respected ASTM standards
- documentation to satisfy your ISO-9000 or N.I.S.T. laboratory accreditation requirements
- verification and assurance that your analyzer meets required measurement specifications

How often does my analyzer's calibration need to be certified?

Phase Technology calibration certificates are valid for one year. They should be renewed by Phase Technology on an annual basis.

Will recertification of calibration prevent my analyzer from needing future service?

No, not necessarily. Recertification is an official recognition that the analyzer results are within the range of the applicable ASTM method. It's still possible that some parts or electrical components may wear out and need to be replaced.

What if my analyzer's results are out of spec with the calibration standards and cannot be recertified?

Before performing an on-site or remote recertification, Phase Technology pre-qualifies the customer with a set of performance criteria. The customer is asked to provide their control sample data and other documentation. To help reduce this risk, an annual scheduled analyzer maintenance should be performed.

What is Phase Technology's recommended analyzer maintenance?

To keep your analyzer running at peak performance, Phase Technology recommends a regularly scheduled maintenance and operation inspection performed by one of our technicians.

Regularly scheduled maintenance is a proactive, preventive way for you to safeguard against unexpected down-time and associated costs while ensuring optimum instrument performance and maximizing your lab and production up-time.

Is Phase Technology Maintenance Service the same as general, routine maintenance?

No, routine maintenance consists of procedures that are a part of good laboratory practices. These include cleaning the test chamber, sample cup and optic lens. Replacing desiccant and performing certain diagnostic tests are also part of routine maintenance.

Phase Technology Maintenance Service goes beyond regular cleaning and consumables replacement with performance checks and inspection of internal components to prevent potential problems before they develop.

What are the benefits of having on-site or service center maintenance?

Maintenance ensures that your analyzer is running optimally and helps identify possible problems before they cause bottlenecks in workflow:

- assurance that results are consistent and repeatable
- increased production yields
- reduced test errors and analyzer stoppage

How often should a scheduled maintenance be performed?

Phase Technology recommends On-Site Preventive Maintenance or Service Center Scheduled Maintenance be performed annually. For labs with heavier analyzer use, a more frequent interval may be beneficial.