



800-910-4356  
service@mass4.com  
to request a quote

## Basic Operator Training for Helium Mass Spectrometer Leak Detectors

**Learning Objectives:** This intensive, one day workshop provides practical, hands-on knowledge along with basic vacuum fundamentals for operators of helium leak detectors: a solid understanding of basic vacuum system function, along with customized knowledge pertaining to your in-house leak detector(s) and processes to encourage each operator to become more proficient at leak check processes.

**Recommended Attendees:** Leak Detector Operators, Production Leads, Quality Personnel and Lab Technicians who use the leak detection equipment, or supervise leak detection processes.

**Workshop Setup:** One day workshop, approximately 6 hours of instruction-time. Small group size allows for individual instruction, a workbook for each attendee, and guided, hands-on experience. We recommend that training workshops be kept to 4-6 participants to maximize the learning opportunities for all. The workbook provides interactive practice and assessment as an integral part of the workshop. A Certificate of Completion is awarded to participants who successfully complete all the requirements of this workshop.

**Workshop Fees:** \$610 USD/participant up to 3, then 5% off, or \$579.50, for each additional participant. Standard travel charges from our San Jose, CA facility will be applied. *Please request a Quote.*

## Operator Training *Workshop Syllabus*

### **Workshop Content Overview:**

#### I. Basic Vacuum Fundamentals

vocabulary, properties of matter, scientific notation  
units of pressure & vacuum measurement,  
pressure & gas properties, characteristics of leaks

#### II. Leak Detector System Components

basic component function  
spectrometer tube (analyzer cell), standard leak,  
roughing pump & high vac pump function  
user interface, display, menus, gauges  
flow types, throughput & outgassing  
leak detection methods, leak rates

#### III. Helium Leak Detector Function & Maintenance

*(customized to focus on your in-house equipment and processes)*  
start-up & calibration, auto zero, shut down  
operation, menu navigation, error messages  
using the leak detector in your process  
maintenance, recommended solvents & materials  
solutions to simple issues, tech support

*Each attendee receives a customized workbook for learning and future reference, along with individualized hands-on training.*

**Instructors:** All instruction is provided by Mass 4 Service personnel.