

## Machine Tool Metrology 101 Training Ashaway, RI A Three-Day Course on Machine Tool Metrology Applications



hosted and conducted by IQL Independent Quality Labs, Inc.

### Course Abstract

This program provides an understanding and application of fundamental metrology principles specific to the testing and improvement of machine tools and coordinate measuring machines (CMMs). Through lecture and demonstrations, focus is placed on the importance of functionally significant tests, the proper use of terminology for describing these tests and parametric test procedures as outlined in ANSI and ISO machine tool and CMM standards.

Visit <http://www.iqlinc.com/training/mtm101.htm> for full course details.

**"I highly recommend this class. It is time well spent and will result in quick return on the time invested." - Industrial Training & Support Engineer**

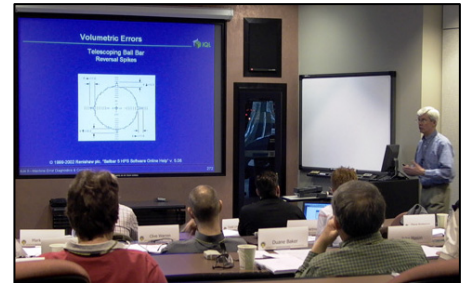
**Date:** TBD...Contact us today! [info@iqlinc.com](mailto:info@iqlinc.com)

**Time:** 8:00 AM – 5:00 PM

**Location:** IQL – Ashaway, RI

**Registration Fee:** \$1195

**Deadline:** TBD



### What You Will Learn

By attending this information-packed program, you will...

- assess, characterize and understand the accuracy errors of machine tools
- perform the necessary tests for particular applications
- create specifications based on standards
- learn misconceptions of "pitch error" or "axis" compensation
- communicate in terms used and understood by the machine tool community
- prescribe the correct acceptable test procedures
- compare the accuracy of similar machines and predict performance
- make informed purchase decisions
- discover the importance of proper foundations
- make adjustments to improve performance
- understand the relationship between machine performance and on-machine measurement

Visit [http://www.iqlinc.com/training/MTM101\\_Agenda.pdf](http://www.iqlinc.com/training/MTM101_Agenda.pdf) for full course agenda.

### Basic Skills / Prerequisites

To attend this course, you should have a familiarity with machine tools (lathes, milling machines, turning centers, machining centers, etc.) functions, terminology, and applications. You should also be proficient with shop level math (trigonometry, algebra, geometry, etc.).

## Instructor



Robert (Buz) Callaghan, MSME, is the Senior Engineer at IQL Independent Quality Labs, Inc. He has over 47 years experience in precision tool and machine design and metrology. Buz has published numerous papers on the accuracy of CMMs and CNC machine tools. He is an active member of the ASME standard committees: B5.54 "Methods for Performance Evaluation of Computer Numerically Controlled Machining Centers," and B5.57 "Methods for Performance Evaluation of Computer Numerically Controlled (CNC) Lathes and Turning Centers," as well as a supporter of ISO 230 Test code for machine tools.

*"I am very pleased with the class. Buz did an excellent job in delivering the information, addressing it to individual backgrounds and experiences, patiently addressing all questions and all levels of questions. He stayed focused on topic despite all of the varied questions...I appreciate his depth of knowledge, and his willingness and patients [sic] to convey that information to others."* - Industrial Training & Support Engineer

## Host Facility

IQL will be hosting this course in the new manufacturing and training facility. Located in Ashaway, Rhode Island, the IQL facility is less than 30 minutes from maritime exploration in Mystic (Seaport and Aquarium) and world-class entertainment venues in Uncasville (Mohegan Sun) and Mashantucket (Foxwoods), Connecticut, as well as less than 1 hour from artistic and historic Providence and Newport, Rhode Island.

Visit <http://www.iqlinc.com/company/directions.htm> for directions.



## Schedule & Registration

### Registration Fees: \$1195

This fee includes all text and note materials, continental breakfast each morning and lunches each day of class. Interested parties may register through IQL at [https://www.iqlinc.com/training/mtm101\\_registration.htm](https://www.iqlinc.com/training/mtm101_registration.htm).

Companies sending more than one attendee will receive a **10% discount** on each additional registration.

### Sign-in:

7:30 AM - 8:00 AM Tuesday

### Course Hours:

8:00 AM - 5:00 PM Tuesday through Thursday

## IQL Contact

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