

Society of Independent  
CMM Service Engineers

# Accredited Laboratory

The Accreditation Council of the SICMMSE has recognized:

**Midwest CMM Services**  
Chesterfield, Missouri

for technical competence in the field of:

## Calibration

This certification covers the specific calibrations listed on the attached scope of accreditation. The above named laboratory meets the requirements of ISO/IEC 17025 – 2005 under its scope in addition to “General Requirements for the Competence of Testing and Calibration Laboratories”. Midwest CMM Services also operates in accordance with ISO 9001:2008 under a separate certificate. The SICMMSE Accreditation Council accredits member companies by means of a peer review system as set forth in ISO 17040, “General requirements for peer assessment of conformity assessment bodies and accreditation bodies”.

Presented this 15<sup>th</sup> day of May, 2011



SICMMSE  
Founded 1991



James F. Cramer, Chairman  
SICMMSE Accreditation Council



Morrell H. Smith, President  
Society of Independent CMM Service Engineers

Certificate Number: G1009.04

Valid through: May 15, 2012

**Calibration Scope of Accreditation ISO/IEC 17025-2005**  
**Certificate Number G1009.04**

**Midwest CMM Services**  
**733-Q Crown Industrial Court**  
**Chesterfield, Missouri 63005**

Parameter / Equipment	Range	Best Measurement Uncertainty	Remarks
Coordinate Measuring Machines (CMMs) <sup>3</sup>			
Linear Displacement <sup>3</sup>	(0-30 meters)	(0.23+0.19L) μm	Renishaw ML10 Laser Per ASME b89.4.1-1997-Sec 5.4.3
Linear Displacement <sup>3</sup>	(0-2.5 meters)	1.91 x L +.127 (μm)	Starrett RBCM-650 Per ASME b89.4.1-1997-Sec 5.4.3
Linear Displacement <sup>3</sup>	(8", 12")	+/- 40μin	Mitutoyo Gage Blocks Per ASME b89.4.1-1997-Sec 5.4.3
Volumetric Performance <sup>3</sup>	Ballbar Lengths (4.0" through 24.0")	+/- (R*64L)μin	Per ASME b89.4.1-1997-Sec 5.5.2 Using Ballbar L= length of ballbar
Repeatability <sup>3</sup>	Calibrated Ref. Sphere (1.0000")	+/- 40μin	Per ASME b89.4.1-1997-Sec 5.3.3 Using calibrated master sphere

**Notes:**

- 1) This laboratory offers commercial on-site calibration service.
- 2) Best Uncertainties represent expanded uncertainties using a coverage factor of k=2 which provides a level of confidence of approximately 95%.
- 3) On-site service is available for this parameter.

*Disclaimer: The uncertainties achievable on a customer's site can normally be expected to be larger than the Best Measurement Capabilities (BMC) that the accredited laboratory has been assigned. Allowances must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the calibration uncertainty being larger than the BMC.*