

International Accreditation Service  
**CERTIFICATE OF ACCREDITATION**

*This is to signify that*

**ERGONOMICS INC.**  
324 SECOND STREET PIKE, UNIT 2  
SOUTHAMPTON, PENNSYLVANIA 18966

Calibration Laboratory CL-116

has met the requirements of the IAS Accreditation Criteria for Calibration Laboratories (AC204), has demonstrated compliance with the ISO/IEC Standard 17025:2005, *General requirements for the competence of testing and calibration laboratories*, and has been accredited commencing July 1, 2013, for the calibration discipline(s) listed in the approved scope of accreditation. The laboratory meets IAS program requirements in the field of calibration.



Patrick V. McCullen  
Vice President



C. P. Ramani, P.E.  
President



*(see attached scope of accreditation for fields of calibration and accredited calibration methods)*

Print Date: 08/23/2013

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.  
See the IAS Accreditation Listings on the web at [www.iasonline.org](http://www.iasonline.org) for current accreditation information, or contact IAS directly at (562) 364-8201.

Page 1 of 5

International Accreditation Service  
**SCOPE OF ACCREDITATION**

Ergonomics Inc. CL-116

Ergonomics, Inc.  
 324 Second St. Pike, Unit 3  
 Southampton, PA 18966

David L. George  
 Director  
 (215) 357-5124

MEASUREMENT AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY <sup>1</sup> (CMC) (±)	TECHNIQUE, REFERENCE STANDARD, EQUIPMENT
<i>Dimensional</i>			
Length Caliper Micrometer	0 to 25 mm/0.0001 mm 0 to 25 mm/0.001 mm 0 to 100 mm >100 to 150 mm >150 to 200 mm >200 to 300 mm >300mm to 1000mm	3.5 microns 3.5 microns 10.5 microns 10.7 microns 11.2 microns 11.8 microns (12 +4L) microns	Use of step gage block and optical comparator.
Mass	up to 300g >300g to 1.2kg >1.2 to 10kg >10 to 22kg	0.008 g 0.09 g 0.85g 1.5g	Comparison to standard weights using scale

July 1, 2013  
 Commencement Date



*C. P. Ramani*  
 C. P. Ramani, P.E.  
 President

Print Date: 08/23/2013

Page 2 of 5

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.  
 See the IAS Accreditation Listings on the web at [www.iasonline.org](http://www.iasonline.org) for current accreditation information, or contact IAS directly at (562) 364-8201.

International Accreditation Service  
**SCOPE OF ACCREDITATION**

Ergonomics Inc. CL-116

MEASUREMENT AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY <sup>1</sup> (CMC) (±)	TECHNIQUE, REFERENCE STANDARD, EQUIPMENT
Angle <i>Mechanical</i>	0° to 90	0.4minutes	Optical comparator
Field Strength Magnetic <i>Electrical – DC/LF</i>	0 to 5 mT DC to 300 kHz	0.5% of Reading + 2 nT	Requires use of a Helmholtz Coil
Electrical	0 to 5 kV/m DC 0.5 kV/m AC 0 Hz to 300kHz	0.5% of Reading + 1 V/m 0.5% of Reading + 1 V/m	Requires reference plane
AC Volts - Measure	0 to 750 Vac 10 Hz to 1kHz 1kHz to 20kHz 20kHz to 100 kHz 100 kHz to 300kHz 300 kHz to 750 MHz >750 to 10kVac	%RDG + %RNG 0.04 + 0.002 0.006 + 0.002 0.3 + 0.002 0.4 + 0.01 1.5 + 0.01 0.044%	Agilent 3458A  Picotest and Voltage Divider

July 1, 2013  
 Commencement Date



*C. P. Ramani*  
 C. P. Ramani, P.E.  
 President

Print Date: 08/23/2013

Page 3 of 5

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.  
 See the IAS Accreditation Listings on the web at [www.iasonline.org](http://www.iasonline.org) for current accreditation information, or contact IAS directly at (562) 364-8201.

International Accreditation Service  
**SCOPE OF ACCREDITATION**

Ergonomics Inc. CL-116

MEASUREMENT AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY <sup>1</sup> (CMC) (±)	TECHNIQUE, REFERENCE STANDARD, EQUIPMENT
<i>Electrical – DC/LF (continued)</i> AC Current - Measure	0 to 3A 10 Hz to 5 kHz	0.21%	Agilent 3458A
DC Volts - Measure	0 to 1000 V >1000 to 10,000 V	0.0017% 0.04%	M3500A Pico Test Voltage Divider
DC Current – Measure	0 to 3 A	0.12%	Agilent 3458A
Resistance - Measure	0 to 100ohms >100 to 100kohms	ppm of reading + ppm of range 15 + 5 8 + 0.5	Agilent 3458A

July 1, 2013  
 Commencement Date



*C. P. Ramani*  
 C. P. Ramani, P.E.  
 President

Print Date: 08/23/2013

Page 4 of 5

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.  
 See the IAS Accreditation Listings on the web at [www.iasonline.org](http://www.iasonline.org) for current accreditation information, or contact IAS directly at (562) 364-8201.

International Accreditation Service  
**SCOPE OF ACCREDITATION**

Ergonomics Inc. CL-116

MEASUREMENT AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY <sup>1</sup> (CMC) (±)	TECHNIQUE, REFERENCE STANDARD, EQUIPMENT
Force <i>Mechanical</i>	0 to 300g >300g to 1.2 KG (11.77N) >1.2 to 10 KG (98.067N) >10 to 22.7 KG (222.61N)	0.0000255N 0.00057N 0.0057N 0.011N	Use of weights
Impact Hammer	0 to 2J (Nm)	0.01 J (Nm)	Impact hammer test apparatus
Impact Energy	0 to 2J (Nm)	0.01 J (Nm)	

<sup>1</sup>"Calibration and Measurement Capability" is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or of nearly ideal measuring instruments. Calibration Measurement Capabilities are expressed as uncertainties at approximately the 95% level of confidence, usually using a coverage factor of  $k=2$ . The measurement uncertainty of a specific calibration performed by the laboratory may be greater than the least uncertainty due to the behavior of the customer's device, to the environment (if the calibration is performed in the field), and to influences from the circumstances of the specific calibration.

July 1, 2013  
 Commencement Date



*C. P. Ramani*  
 C. P. Ramani, P.E.  
 President

Print Date: 08/23/2013

Page 5 of 5

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.  
 See the IAS Accreditation Listings on the web at [www.iasonline.org](http://www.iasonline.org) for current accreditation information, or contact IAS directly at (562) 364-8201.