



# PERRY JOHNSON LABORATORY ACCREDITATION, INC.

## *Certificate of Accreditation*

*Perry Johnson Laboratory Accreditation, Inc., has assessed the Laboratory of:*

***Precision Instrument Correction, Inc.***

***933 Mariner Street***

***Brea, CA 92821***

*(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:*

***ISO/IEC 17025:2005***

*This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated January 2009):*

***Calibration of Precision Measuring Instruments***

***(As detailed in the supplement)***

*Such testing and/or calibration services shall only be offered at or from the address given above. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.*

For PJLA:

*The validity of this certificate is mandated through ongoing surveillance.*

Tracy Szerszen  
President/Operations Manager

Perry Johnson Laboratory  
Accreditation, Inc. (PJLA)  
26555 Evergreen, Suite 1325  
Southfield, Michigan 48076

*Initial Accreditation Date:*

January 16, 2003

*Issue Date:*

September 15, 2009

*Revision Date:*

November 17, 2009

*Expiration Date:*

September 14, 2011

*Accreditation No.:*

59282

*Certificate No.:*

L09-90-R1

*Page No.:*

Page 1 of 11



# Certificate of Accreditation: Supplement

**Precision Instrument Correction, Inc.**

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Brea, CA 92821

*Accreditation is granted to this facility to perform the following calibrations:*

## Dimensional

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	BEST MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ( $\pm$ )	REMARKS
Gage Blocks	1.27 mm to 101.6 mm (0.050 in to 4 in)	$(9.5758 \times 10^{-2} + 1.04 \times 10^{-3}L) \mu\text{m}$ [(3.77 + 1.04L) $\mu\text{in}$ ]	Gage Block Comparator, Master Gage Blocks
	101.6 mm to 508.0 mm (4 in to 20 in)	$(9.7282 \times 10^{-2} + 1.07 \times 10^{-3}L) \mu\text{m}$ [(3.83 + 1.07L) $\mu\text{in}$ ]	
Cylindrical Plug Gages	0.127 mm to 254 mm (0.005 in to 10 in)	$(5.3848 \times 10^{-1} + 4.86 \times 10^{-3}L) \mu\text{m}$ [(21.2 + 4.86L) $\mu\text{in}$ ]	Supermicrometer
Cylindrical Ring Gages	1.588 mm to 228.6 mm (0.0625 in to 9 in)	$(5.9182 \times 10^{-1} + 4.98 \times 10^{-3}L) \mu\text{m}$ [(23.3 + 4.98L) $\mu\text{in}$ ]	ID Comparator
	228.6 mm to 304.8 mm (9 in to 12 in)	$(6.6294 \times 10^{-1} + 5.74 \times 10^{-3}L) \mu\text{m}$ [(26.1 + 5.74L) $\mu\text{in}$ ]	Gage Blocks and Elec. Amplifier / Ind Probe
Thread Plugs Pitch Diameter	M1.6 x 0.35 to M64.0 x 6.0 (00-120 in to 10-16 in)	$(3.048 + 2.89 \times 10^{-3}L) \mu\text{m}$ [(119 + 5.88L) $\mu\text{in}$ ]	Super micrometer & Thread Wires
Thread Plugs Major Diameter	M1.6 x 0.35 to M64.0 x 6.0 (00-120 to 10-16)	$(5.3848 \times 10^{-1} + 4.86 \times 10^{-3}L) \mu\text{m}$ [(21.2 + 4.86L) $\mu\text{in}$ ]	Supermicrometer
Thread Rings Pitch and Minor Diameter	M1.6 x 0.35 to M30.0 x 1.5 (0.060-80 to 2.375-20)	$(6.731 + 15.2 \times 10^{-3}L) \mu\text{m}$ [(265 + 15.2L) $\mu\text{in}$ ]	Comparison to Set Plugs
Surface Plates Flatness	457.2 mm to 3 657.6 mm (12 in to 144 in diagonal)	$(6.6243 \times 10^{-1} + 1.12 \times 10^{-3}D) \mu\text{m}$ [(26.08 + 1.12D) $\mu\text{in}$ ]	Autocollimator
Surface Plates Repeat Measurement	0.0508 mm (0.002 in)	1.3716 $\mu\text{m}$ (54 $\mu\text{in}$ )	Repeat-O-Meter
Calipers	0 mm to 1 524.0 mm (0 in to 60 in)	$(5.60 + 10.5 \times 10^{-3}L) \mu\text{m}$ [(220.5 + 10.5L) $\mu\text{in}$ ]	Comparison to Gage Blocks
Indicators	0 mm to 127.0 mm (0 in to 5 in)	$(0.381 + 0.020L) \mu\text{m}$ [(15 + 20L) $\mu\text{in}$ ]	Indicator Calibrator
Height Gages	0 mm to 1 524.0 mm (0 in to 60 in)	$(14.478 + 12.3 \times 10^{-3}L) \mu\text{m}$ [(570 + 12.3L) $\mu\text{in}$ ]	Comparison to Gage Blocks
Micrometers	0 mm to 1 625.6 mm (0 in to 64 in)	$(13.97 + 11.0 \times 10^{-3}L) \mu\text{m}$ [(550 + 11L) $\mu\text{in}$ ]	Comparison to Gage Blocks
Angle Blocks	0° to 45°/101.6 mm length 0° to 45°/ (4 in) length	0.005°	Comparison to Angle Blocks



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Angle Knees / Plates Squareness	76.2 mm to 1 219.2 mm (3 in to 48 in)	2.184 4 $\mu\text{m}$ (86 $\mu\text{in}$ )	Master Square (Starrett Lab Grade AA) and Elec Amplifier / Ind Probe
Angle Protractor (Digital / Mechanical)	0° to 180°	0.083°	Comparison to Angle Blocks
Height Master	0 mm to 609.6 mm (0 in to 24 in)	(2.154 + 5.83 x 10 <sup>-4</sup> L) $\mu\text{m}$ [(84.8 + 0.583L) $\mu\text{in}$ ]	Comparison to Gage Blocks

## Electrical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	BEST MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ( $\pm$ )	REMARKS
AC Current – Generate / Measure At the listed frequencies			Multiproduct - Calibrator (Transmille 3041)
10 Hz to 44 Hz	20 $\mu\text{A}$ to 202 $\mu\text{A}$	0.2 % of output + 0.25 $\mu\text{A}$	
45 Hz to 999 Hz	20 $\mu\text{A}$ to 202 $\mu\text{A}$	0.1 % of output + 0.25 $\mu\text{A}$	
1 kHz to 10 kHz	20 $\mu\text{A}$ to 202 $\mu\text{A}$	1.5 % of output + 0.25 $\mu\text{A}$	
AC Current – Generate / Measure At the listed frequencies			Multiproduct - Calibrator (Fluke 5500A)
10 Hz to 5 kHz	0.29 mA to 0.329 99 mA	0.4 % of output + 0.25 $\mu\text{A}$	
5 kHz to 10 kHz	0.29 mA to 0.329 99 mA	1.25 % of output + 0.15 $\mu\text{A}$	
AC Current – Generate / Measure At the listed frequencies			
10 Hz to 5 kHz	0.33 mA to 3.299 9 mA	0.2 % of output + 0.3 $\mu\text{A}$	
5 kHz to 10 kHz	0.33 mA to 3.299 9 mA	0.6 % of output + 0.3 $\mu\text{A}$	
AC Current – Generate / Measure At the listed frequencies			
10 Hz to 5 kHz	3.3 mA to 32.999 mA	0.2 % of output + 3 $\mu\text{A}$	
5 kHz to 10 kHz	3.3 mA to 32.999 mA	0.6 % of output + 3 $\mu\text{A}$	
AC Current – Generate / Measure At the listed frequencies			
10 Hz to 5 kHz	33 mA to 329.99 mA	0.2 % of output + 30 $\mu\text{A}$	
5 kHz to 10 kHz	33 mA to 329.99 mA	0.6 % of output + 30 $\mu\text{A}$	
AC Current – Generate / Measure At the listed frequencies			
10 Hz to 1 kHz	0.33 A to 2.199 99 A	0.2 % of output + 300 $\mu\text{A}$	
1 kHz to 5 kHz	0.33 A to 2.199 99 A	0.75 % of output + 300 $\mu\text{A}$	



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AC Current – Generate / Measure At the listed frequencies			Multiproduct - Calibrator (Fluke 5500A)
45 to 500 Hz	2.2 A to 11 A	0.1 % of output + 2 000 $\mu$ A	
500 Hz to 1 kHz	2.2 A to 11 A	0.33 % of output + 2 000 $\mu$ A	
AC Current – Generate / Measure At the listed frequencies			
30 Hz to 44 Hz	2 A to 30 A	0.2 % of output + 5 000 $\mu$ A	
45 Hz to 99 Hz	2 A to 30 A	0.06 % of output + 2 000 $\mu$ A	
100 Hz to 1 kHz	2 A to 30 A	0.3 % of output + 4 000 $\mu$ A	
DC Current – Generate / Measure	0 mA to 3.299 99 mA	0.013 % of output + 0.05 $\mu$ A	
	0 mA to 32.999 9 mA	0.01 % of output + 0.25 $\mu$ A	
	0 mA to 329.999 mA	0.01 % of output + 3.3 $\mu$ A	
	0 A to 2.199 99 A	0.03 % of output + 44 $\mu$ A	
	0 A to 11 A	0.06 % of output + 330 $\mu$ A	
AC Voltage – Generate / Measure At the listed frequencies			
10 Hz to 100 kHz	1.0 mV to 32.999 mV	0.35 % of output + 33 $\mu$ V	
100 kHz to 500 kHz	1.0 mV to 32.999 mV	1 % of output + 60 $\mu$ V	
AC Voltage – Generate / Measure At the listed frequencies			
10 Hz to 100 kHz	33 mV to 329.999 mV	0.25 % of output + 170 $\mu$ V	
100 kHz to 500 kHz	33 mV to 329.999 mV	0.7 % of output + 330 $\mu$ V	
AC Voltage – Generate / Measure At the listed frequencies			
10 Hz to 50 kHz	0.33 V to 3.299 99 V	0.15 % of output + 300 $\mu$ V	
50 kHz to 100 kHz	0.33 V to 3.299 99 V	0.24 % of output + 1 700 $\mu$ V	
100 kHz to 500 kHz	0.33 V to 3.299 99 V	0.5 % of output + 3 300 $\mu$ V	
AC Voltage – Generate / Measure At the listed frequencies			
10 Hz to 50 kHz	3.3 V to 32.999 9 V	0.19 % of output + 5 000 $\mu$ V	
50 kHz to 100 kHz	3.3 V to 32.999 9 V	0.24 % of output + 17 000 $\mu$ V	
AC Voltage – Generate / Measure At the listed frequencies			
45 Hz to 1 kHz	33 V to 329.999 V	0.05 % of output + 6.6 mV	
1 kHz to 10 kHz	33 V to 329.999 V	0.08 % of output + 15 mV	
10 kHz to 20 kHz	33 V to 329.999 V	0.09 % of output + 33 mV	



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AC Voltage – Generate / Measure At the listed frequencies			Multiproduct - Calibrator (Fluke 5500A)
45 Hz to 1 kHz	330 V to 1 020 V	0.05 % of output + 80 mV	
1 kHz to 5 kHz	330 V to 1 020 V	0.20 % of output + 100 mV	
5 kHz to 10 kHz	330 V to 1 020 V	0.20 % of output + 500 mV	
DC Voltage Generate / Measure	0 mV to 329.999 9 mV	0.006 % of output + 3 $\mu$ V	
	0 V to 3.299 999 V	0.005 % of output + 5 $\mu$ V	
	0 V to 32.999 99 V	0.005 % of output + 50 $\mu$ V	
	30 V to 329.999 9 V	0.005 5 % of output + 500 $\mu$ V	
	100 V to 1 020.000 V	0.005 5 % of output + 1 500 $\mu$ V	
AC Power – Generate / Measure At the listed frequencies			
33 mV to 329.999 mV	3.3 mA to 329.99 mA	0.40 % of output	
330 mV to 1 020 V	3.3 mA to 329.99 mA	0.25 % of output	
AC Power – Generate / Measure At the listed frequencies			
33 mV to 329.999 mV	0.33 A to 11 A	0.35 % of output	
330 mV to 1 020 V	0.33 A to 11 A	0.25 % of output	
DC Power – Generate / Measure At the listed frequencies			
33 mV to 1 020 V	3.3 mA to 329.99 mA	0.04 % of output	
DC Power – Generate / Measure At the listed frequencies			
0.33 A to 11 A	33 mV to 1 020 V	0.12 % of output	



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Capacitance Generate	0.33 nF to 0.499 9 nF	0.5 % of output + 0.01 nF	Multiproduct - Calibrator (Fluke 5500A)
	0.5 nF to 1.099 9 nF	0.5 % of output + 0.01 nF	
	1.1 nF to 3.299 9 nF	0.5 % of output + 0.01 nF	
	3.3 nF to 10.999 nF	0.5 % of output + 0.01 nF	
	11 nF to 32.999 nF	0.25 % of output + 0.1 nF	
	33 nF to 109.99 nF	0.25 % of output + 0.1 nF	
	110 nF to 329.99 nF	0.25 % of output + 0.3 nF	
	0.33 $\mu$ F to 1.099 9 $\mu$ F	0.25 % of output + 1 nF	
	1.1 $\mu$ F to 3.299 9 $\mu$ F	0.35 % of output + 3 nF	
	3.3 $\mu$ F to 10.999 $\mu$ F	0.35 % of output + 10 nF	
	11 $\mu$ F to 32.999 $\mu$ F	0.40 % of output + 30 nF	
	33 $\mu$ F to 109.99 $\mu$ F	0.50 % of output + 100 nF	
	110 $\mu$ F to 329.99 $\mu$ F	0.70 % of output + 300 nF	
	330 $\mu$ F to 1.1 mF	1 % of output + 300 nF	
Resistance Generate	0 $\Omega$ to 10.99 $\Omega$	0.012 % of output + 0.008 $\Omega$	
	11 $\Omega$ to 32.999 $\Omega$	0.012 % of output + 0.015 $\Omega$	
	33 $\Omega$ to 109.99 $\Omega$	0.009 % of output + 0.015 $\Omega$	
	110 $\Omega$ to 329.999 $\Omega$	0.009 % of output + 0.015 $\Omega$	
	330 k $\Omega$ to 1.099 99 k $\Omega$	0.009 % of output + 0.06 $\Omega$	
	1.1 k $\Omega$ to 3.299 99 k $\Omega$	0.009 % of output + 0.06 $\Omega$	
	3.3 k $\Omega$ to 10.999 9 k $\Omega$	0.009 % of output + 0.6 $\Omega$	
	11 k $\Omega$ to 32.999 9 k $\Omega$	0.009 % of output + 0.6 $\Omega$	
	33 k $\Omega$ to 109.999 k $\Omega$	0.011 % of output + 6 $\Omega$	
	110 k $\Omega$ to 329.999 k $\Omega$	0.012 % of output + 6 $\Omega$	
	330 k $\Omega$ to 1.099 99 M $\Omega$	0.015 % of output + 55 $\Omega$	
	1.1 M $\Omega$ to 3.299 99 M $\Omega$	0.015 % of output + 55 $\Omega$	
	3.3 M $\Omega$ to 10.999 9 M $\Omega$	0.06 % of output + 550 $\Omega$	
	11 M $\Omega$ to 32.999 9 M $\Omega$	0.1 % of output + 550 $\Omega$	
	33 M $\Omega$ to 109.999 M $\Omega$	0.5 % of output + 5.5 k $\Omega$	
110 M $\Omega$ to 330 M $\Omega$	0.5 % of output + 16.5 k $\Omega$		



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Temperature Calibration, Indication and Control Equipment used with Thermocouple Type B Generate / Measure	600 °C to 800 °C	0.44 °C	Electrical Simulation of Thermocouple Output Multiproduct - Calibrator (Fluke 5500A)
	800 °C to 1 000 °C	0.34 °C	
	1 000 °C to 1 550 °C	0.30 °C	
	1 500 °C to 1 820 °C	0.33 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type C Generate / Measure	0 °C to 150 °C	0.30 °C	
	150 °C to 650 °C	0.26 °C	
	650 °C to 1 000 °C	0.31 °C	
	1 000 °C to 1 800 °C	0.50 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type E Generate / Measure	250 °C to 100 °C	0.50 °C	
	100 °C to 25 °C	0.16 °C	
	25 °C to 350 °C	0.14 °C	
	350 °C to 650 °C	0.16 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type J Generate / Measure	200 °C to 100 °C	0.27 °C	
	100 °C to 30 °C	0.16 °C	
	30 °C to 150 °C	0.14 °C	
	150 °C to 760 °C	0.17 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type K Generate / Measure	760 °C to 1 200 °C	0.23 °C	
	200 °C to 100 °C	0.33 °C	
	100 °C to 25 °C	0.18 °C	
	25 °C to 120 °C	0.16 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type L Generate / Measure	120 °C to 1 000 °C	0.26 °C	
	1 000 °C to 1 372 °C	0.40 °C	
	200 °C to 100 °C	0.37 °C	
	100 °C to 800 °C	0.26 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type N Generate / Measure	800 °C to 900 °C	0.17 °C	
	200 °C to 100 °C	0.40 °C	
	100 °C to 25 °C	0.22 °C	
	25 °C to 120 °C	0.19 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type N Generate / Measure	120 °C to 410 °C	0.18 °C	
	410 °C to 1 300 °C	0.27 °C	



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Temperature Calibration, Indication and Control Equipment used with Thermocouple Type R Generate / Measure	0 °C to 250 °C	0.57 °C	Electrical Simulation of Thermocouple Output Multiproduct - Calibrator (Fluke 5500A)
	250 °C to 400 °C	0.35 °C	
	400 °C to 1 000 °C	0.33 °C	
	1 000 °C to 1 767 °C	0.40 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type S Generate / Measure	0 °C to 250 °C	0.47 °C	
	250 °C to 1 000 °C	0.36 °C	
	1 000 °C to 1 400 °C	0.37 °C	
	1 400 °C to 1 767 °C	0.46 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type T Generate / Measure	-250 °C to -150 °C	0.63 °C	
	-150 °C to 0 °C	0.24 °C	
	0 °C to 120 °C	0.16 °C	
	120 °C to 400 °C	0.14 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type U Generate / Measure	-200 °C to 0 °C	0.56 °C	
	0 °C to 600 °C	0.27 °C	
Temperature Calibration, Indication and Control Equipment used with RTD Type Pt 385, 100 $\Omega$ Generate	-200 °C to -80 °C	0.05 °C	Electrical Simulation of RTD Output Multiproduct - Calibrator (Fluke 5500A)
	-80 °C to 0 °C	0.05 °C	
	0 °C to 100 °C	0.07 °C	
	100 °C to 300 °C	0.09 °C	
	300 °C to 400 °C	0.10 °C	
	400 °C to 630 °C	0.12 °C	
	630 °C to 800 °C	0.23 °C	
Temperature Calibration, Indication and Control Equipment used with RTD Type Pt 3916, 100 $\Omega$ Generate	-200 °C to -190 °C	0.25 °C	
	-190 °C to -80 °C	0.04 °C	
	-80 °C to 0 °C	0.05 °C	
	0 °C to 100 °C	0.06 °C	
	100 °C to 260 °C	0.07 °C	
	260 °C to 300 °C	0.08 °C	
	300 °C to 400 °C	0.09 °C	
	400 °C to 600 °C	0.10 °C	
600 °C to 630 °C	0.23 °C		



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Temperature Calibration, Indication and Control Equipment used with RTD Type Pt 3926, 100 $\Omega$ Generate	-200 °C to -80 °C	0.05 °C	Electrical Simulation of RTD Output Multiproduct - Calibrator (Fluke 5500A)
	-80 °C to 0 °C	0.05 °C	
	0 °C to 100 °C	0.07 °C	
	100 °C to 300 °C	0.09 °C	
	300 °C to 400 °C	0.10 °C	
	400 °C to 630 °C	0.12 °C	
Temperature Calibration, Indication and Control Equipment used with RTD Type Pt 385, 200 $\Omega$ Generate	-200 °C to -80 °C	0.04 °C	
	-80 °C to 0 °C	0.04 °C	
	0 °C to 100 °C	0.04 °C	
	100 °C to 260 °C	0.05 °C	
	260 °C to 300 °C	0.12 °C	
	300 °C to 400 °C	0.13 °C	
	400 °C to 600 °C	0.14 °C	
	600 °C to 630 °C	0.16 °C	
Temperature Calibration, Indication and Control Equipment used with RTD Type Pt 385, 500 $\Omega$ Generate	-200 °C to -80 °C	0.04 °C	
	-80 °C to 0 °C	0.05 °C	
	0 °C to 100 °C	0.05 °C	
	100 °C to 260 °C	0.06 °C	
	260 °C to 300 °C	0.08 °C	
	300 °C to 400 °C	0.08 °C	
	400 °C to 600 °C	0.09 °C	
	600 °C to 630 °C	0.11 °C	
Temperature Calibration, Indication and Control Equipment used with RTD Type Pt 385, 1 000 $\Omega$ Generate	-200 °C to -80 °C	0.03 °C	
	-80 °C to 0 °C	0.03 °C	
	0 °C to 100 °C	0.04 °C	
	100 °C to 260 °C	0.05 °C	
	260 °C to 300 °C	0.06 °C	
	300 °C to 400 °C	0.07 °C	
	400 °C to 600 °C	0.07 °C	
	600 °C to 630 °C	0.23 °C	
Temperature Calibration, Indication and Control Equipment used with RTD Type PtNi 385, 120 $\Omega$ Generate	-80 °C to 0 °C	0.08 °C	
	0 °C to 100 °C	0.08 °C	
	100 °C to 260 °C	0.14 °C	



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Temperature Calibration, Indication and Control Equipment used with RTD Type Cu 427, 10 $\Omega$ Generate	100 $^{\circ}$ C to 260 $^{\circ}$ C	0.30 $^{\circ}$ C	Electrical Simulation of RTD Output Multiproduct - Calibrator (Fluke 5500A)

## Time and Frequency

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	BEST MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ( $\pm$ )	REMARKS
Frequency	0.01 Hz to 119.99 Hz	25 parts in $10^6 + 1$ mHz	Multiproduct - Calibrator (Fluke 5500A)
	120.0 Hz to 1 199.9 Hz	25 parts in $10^6 + 1$ mHz	
	1 200 Hz to 11.999 kHz	25 parts in $10^6 + 15$ mHz	
	12.00 kHz to 119.99 kHz	25 parts in $10^6 + 15$ mHz	
	120.0 kHz to 1 199.9 kHz	25 parts in $10^6 + 15$ mHz	
	1 200 kHz to 2 000 MHz	25 parts in $10^6 + 15$ mHz	
Stop Watches / Timers Digital 0.1 s resolution	0.1 s to 24 Hrs	0.61 s	NIST Time (Telephone Signal)
Stop Watches / Timers Mechanical 1 s resolution		1.3 s	

## Mechanical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	BEST MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ( $\pm$ )	REMARKS
Pressure Gages Generate / Measure	0 psi to 5 psi	0.24 % full scale	Pressure Tester
	0 psi 300 psi	0.25 % full scale	
	0 psi 1 000 psi	0.24 % full scale	
	0 psi 10 000 psi	0.26 % full scale	
Torque Wrench / Tester	1 lbf-in to 1 000 lbf-ft	1.17 % of indicated value	Torque Tester (Snap-On Versatorq 1)
Air Flow Meters	0 L/min to 20 L/min	0.5 % of reading	Flow Calibrator



# Certificate of Accreditation: Supplement

**Precision Instrument Correction, Inc.**

933 Mariner Street

Brea, CA 92821

*Accreditation is granted to this facility to perform the following calibrations:*

## Mass, Force, and Weighing Devices

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	BEST MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ( $\pm$ )	REMARKS
Scales	1 g to 220 g	$(3.90 \times 10^{-5} + 2.84 \times 10^{-6} \text{Wt}) \text{ g}$	Class 1 Weights
	221 g to 4.536 kg	$(2.75 \times 10^{-2} + 1.16 \times 10^{-4} \text{Wt}) \text{ g}$	Class F Weights
	4.536 kg to 22.679 kg	$(2.70 \times 10^{-2} + 1.16 \times 10^{-4} \text{Wt}) \text{ g}$	
	22.679 kg to 45.359 kg	$(1.19 \times 10^{-1} + 1.12 \times 10^{-4} \text{Wt}) \text{ g}$	
	45.359 kg to 226.796 kg	$(2.25 \times 10^{-1} + 1.14 \times 10^{-4} \text{Wt}) \text{ g}$	

1. Remarks: This column shall include pertinent information about the calibration of the Measured Instrument or parameter. The information should include the type of standards used and any pertinent information about the measurement method. This column is not to be used for commercial advertisement of laboratory services.
2. The term L represents length in inches or millimeters as appropriate to the uncertainty statement.
3. The term D represents diagonal distance in inches or millimeters as appropriate to the uncertainty statement.
4. The term Wt represents weight in pounds or grams (including SI multiple and submultiple units) appropriate to the uncertainty statement.