



# TOOL TESTING LAB

## CALIBRATION PRICE GUIDE



[WWW.TTLCAL.COM](http://WWW.TTLCAL.COM)

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**5 DAY OR LESS TURNAROUND TIME**

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**NEW TOOLS IN STOCK**

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**WE ARE ACCREDITED  
ON MOST CALIBRATIONS!**

**ISO 17025**

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**ASK US  
ABOUT OUR  
MOBILE LAB!**

**TTL MOBILE**  
CALIBRATION



**TOOL TESTING LAB**

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**What's  
inside?**



This catalog includes most of our calibration capabilities and pricing of tools "in house." For on-site calibration, please contact [onsite@ttlcal.com](mailto:onsite@ttlcal.com) or call us @ 937-898-5696. Our capabilities are continuing to grow, therefore, contact us if your tool is not listed.



# ELECTRONIC

## Ask us about our used tools!

Here at the lab, we also carry a variety of used tools. As a thank you for purchasing your tool through us, we will include the certification with each tool that you buy new or used.

4 WIRE STD RESISTOR	49
ACCELEROMETER, BIAxIAL	220
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HIGH VOLTAGE RESISTOR	66
HIPOT CALIBRATION CHECK STICK	66
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IGNITION HARNESS TESTER	78
IGNITION LEAD TESTER	78
IMPEDANCE TESTER	78
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INSULATION TESTER 10001 TO 100000 VOLTS	259
INSULATOR TESTER <=5,000 VOLTS	78
JETCAL ANALYZER	369
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**Need a new multimeter?**  
**Call 937-898-5696 for new multimeter pricing**

LIGHTMETER, UV LIGHT	78
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MICROAMP METER	49
MICRO-OHMMETER	78
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MILLIOHMMETER	78
MOISTURE METER	116
MULTIFUNCTION CALIBRATOR	550
MULTIMETER	78
MULTIMETER, 5.5 TO 6.5 DIGITS	121
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OHMMETER	49
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OSCILLOSCOPE, 8 CHANNEL	352
OSCILLOSCOPE, SINGLE CHANNEL	176
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PHASEMETER	121
PHOTOMETER	78

# FLUKE & EXTECH SALE

PHOTO TACHOMETER	78
PLATING RECTIFIER	99
PORTABLE HOLIDAY DETECTOR	165
POWER SUPPLY, AC	121
POWER SUPPLY, DC, 3 OR 4 STAGE OUTPUT	143
POWER SUPPLY, DC, DUAL OUTPUT	106
POWER SUPPLY, DC, HIGH OUTPUT	121
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PROCESS ADVANCED CALIBRATOR	176
PROCESS CALIBRATOR	165
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RECORDER, AMPROBE	85
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REFERENCE CAPACITOR	121
REFLECTOMETER	78
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RF ELT TESTER	132
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RF POWER METER	83
RF SIGNAL GENERATOR	313
ROTARY ABRASER	78
RPM ENGINE METER	121
RUDDER POWER CONTROL BOX	78

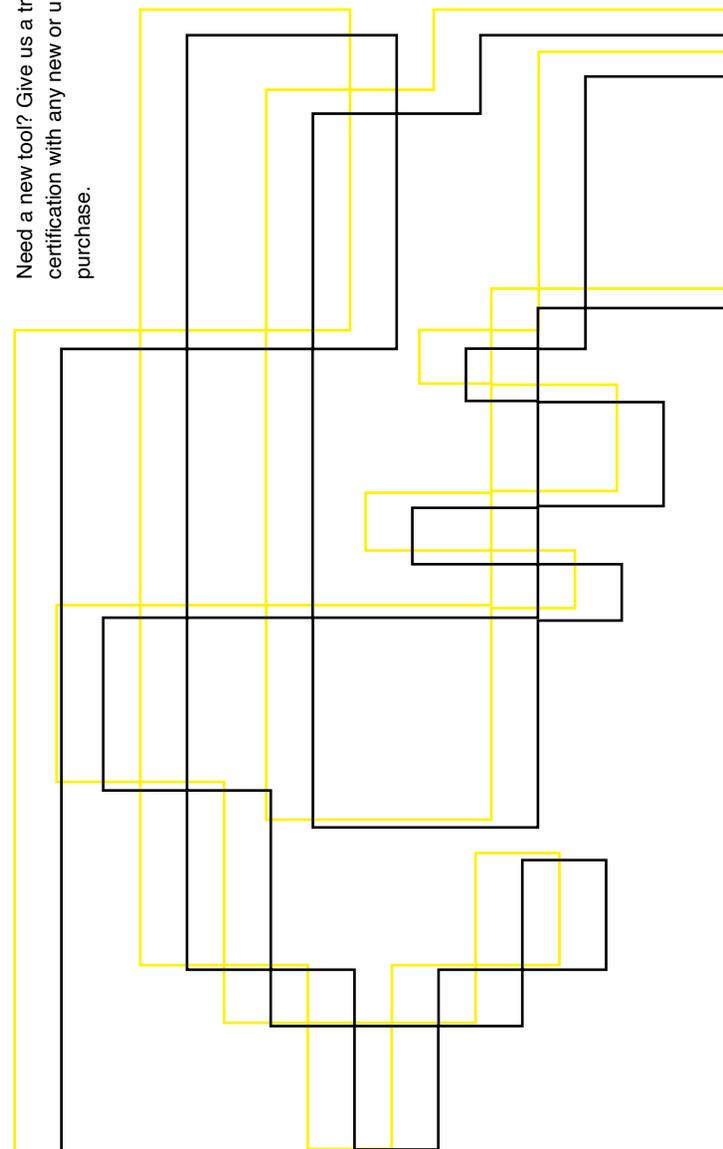
SAFETY ANALYZER	132
SCOPEMETER 1 or 2 CHANNEL	121
SCOPEMETER 3 or 4 CHANNEL	176
SCOPE PROBE	36
SERVICE MONITOR, HIGH POWER	313
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SIGHT COMPASS	116
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SITE MASTER	660
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STABILIZATION TESTER	78
STATIC GROUND STRAP	49
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STRAY VOLTAGE DETECTOR	231
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STROBOSCOPE	78
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TIME-DOMAIN REFLECTOMETER	116
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WINDSHIELD HEAT TESTER	78
WRIST STRAP TESTER	49
XPNDR/INTERROGATOR	308
ZETEC EDDY CURRENT INSTRUMENT	120



Visit [www.ttlcal.com](http://www.ttlcal.com)

Need a new tool? Give us a try. We include certification with any new or used tool purchase.



# POPULAR ELECTRONIC PRODUCTS

Offering you the best products with accuracy guaranteed.



## True-rms AC/DC Clamp Meter

- 600 A ac and dc current measurement
- Optional iFlex™ current probe measures to 2500 A ac
- Min, max, avg, and inrush

MODEL NUMBER  
FLU-374



MODEL NUMBER  
EXT-EX330

## Mini Multimeter

- Autoranging DMM with 12 functions and 0.5% basic accuracy
- AC/DC voltage and current, resistance, capacitance, frequency, temperature, duty cycle, and diode/continuity
- Built-in non-contact AC voltage detector (NCV) with red LED indicator and audible beeper
- Large-digit 4,000 count LCD display
- 10A max current
- Max hold, data hold, relative and auto power off
- Type K temperature measurements
- Complete with test leads, tilt stand, protective holster, general purpose type K bead probe and 2 AAA batteries



MODEL NUMBER  
FLU-177

## Fluke 177 Multimeter

- Large LCD backlit display
- Lifetime warranty
- Automatic ranging that measures twice as quickly as other multimeters
- Measures voltage, resistance, capacitance, frequency, diode testing, continuity and 10 amp current capacity
- Basic accuracy .09%
- Includes manual, test leads, and case



MODEL NUMBER  
FLU-179

## MEASURETEMP

### Fluke 179 Multimeter

- Measures temperature (probe included)
- Large LCD backlit display
- Lifetime warranty
- Automatic ranging that measures twice as quickly as other multimeters
- Measures voltage, resistance, capacitance, frequency, diode testing, continuity and 10 amp current capacity
- Basic accuracy .09%
- Includes manual, test leads, and case



MODEL NUMBER  
EXT-470

## ECONOMICAL

### Extech Multimeter

- True RMS DMM with 12 functions and 0.3% basic accuracy
- AC/DC voltage and current, resistance, capacitance, frequency, typeK and IR temperature, diode/continuity, and duty cycle
- Built-in non-contact InfraRed thermometer with 8:1 distance to target ratio with 0.95 fixed emissivity
- Input fuse protection and mis-connection warning
- 20A max current
- Type K temperature measurements
- Data hold, relative, auto power off
- Large-digit backlit LCD
- Complete with CAT III test leads, tilt stand, protective holster, velcro hanging strap, type K bead wire temp probe and 9V battery

Most items are in stock and all are certified upon purchase.



MODEL NUMBER  
EXT-365515

## Stop Watch

- 1/100th second resolution for 30 min
- 1 second resolution up to 24 hours
- Calendar displays day, month, and date



BEST SELLER

MODEL NUMBER  
FLU-87-5

## Fluke 87-5 Multimeter

- Unique function for accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment (87V)
- Built-in thermometer conveniently allows you to take temperature readings without having to carry a separate instrument
- Optional magnetic hanger for easy set-up and viewing while freeing your hands for other tasks
- Large digit display with bright, two-level backlight makes the 80- Series V significantly easier to read than older models



# TORQUE



### Did you know?

At TTL we carry a wide variety of CDI torque wrenches for purchase. We also stock parts for almost all American made wrenches so we can bring your wrench back to life with precision and quality.

FYI... Drive size typically determines cost for digital and analog torque wrenches.

ANGLE TORQUE WRENCH 1/2 DR.	85
ANGLE TORQUE WRENCH 1/4 DR.	74
ANGLE TORQUE WRENCH 3/4 DR.	108
ANGLE TORQUE WRENCH 3/8 DR.	80
CALIBRATION ARM (TORQUE), UPTO 24 IN	83
CALIBRATION ARM (TORQUE), UPTO 48 IN	138
COMPUTORQUE TORQUE WRENCH 1/2 DR.	47
COMPUTORQUE TORQUE WRENCH 3/4 DR.	70
NUTRUNNER	95
OIL FILTER WRENCH	36
PRESET TORQUE ADAPTOR	36
SWEENEY MULTIPLIER 2500 TO 5001 FT LB	275
TORQUE ALERT 3/4 DR.	70
TORQUE CALIBRATOR <= 75 FT LB	132
TORQUE CALIBRATOR <= 900 IN LB	132
TORQUE CALIBRATOR >75 FT LB	193
TORQUE CALIBRATOR >900 IN LB	193
TORQUE CALIBRATOR, MULTI-RANGE, 2 RANGES	286
TORQUE CALIBRATOR, MULTI-RANGE, 3 RANGES	286
TORQUE CALIBRATOR, MULTI-RANGE, 4 RANGES	479
TORQUE LIMITER	36
TORQUE MULTIPLIER < 1501 FT LB	132
TORQUE MULTIPLIER >2500 & < 5001 FT LB	275

TORQUE MULTIPLIER, 10001-20000 FT LB	550
TORQUE MULTIPLIER, 5001-10000 FT LB	385
TORQUE MULTIPLIER, POWERDYNE < 2501 FT LB	176
TORQUE SCREWDRIVER	36
TORQUE TRANSDUCER <= 75 FT LB	132
TORQUE TRANSDUCER <= 900 IN LB	132
TORQUE TRANSDUCER >75 FT LB	193
TORQUE TRANSDUCER >900 IN LB	193
TORQUE TRANSDUCER, MULTI-RANGE, 2 RANGES	286
TORQUE TRANSDUCER, MULTI-RANGE, 3 RANGES	385
TORQUE TRANSDUCER, MULTI-RANGE, 4 RANGES	479
TORQUE WATCH	46
TORQUE WRENCH >1000 FT LB	130
TORQUE WRENCH 1" DR. > 1000 FT LBS	130
TORQUE WRENCH 1" DRIVE < 1001 FT LBS	94
TORQUE WRENCH 1/2 DR.	47
TORQUE WRENCH 1/4 DR.	36
TORQUE WRENCH 10001-20000 FT LB	550
TORQUE WRENCH 1-1/2 IN DRIVE	176
TORQUE WRENCH 3/4 DR.	70
TORQUE WRENCH 3/8 DR.	41
TORQUE WRENCH 5001-10000 FT LB	385

TORQUE WRENCH TESTER 1-75 FT LB	132
TORQUE WRENCH TESTER <= 75 FT LB	132
TORQUE WRENCH TESTER <= 900 IN LB	132
TORQUE WRENCH TESTER >75 FT LB	193
TORQUE WRENCH TESTER >900 IN LB	193
TORQUE WRENCH TESTER, MULTI-RANGE, 2 RANGES	286
TORQUE WRENCH TESTER, MULTI-RANGE, 3 RANGES	385
TORQUE WRENCH TESTER, MULTI-RANGE, 4 RANGES	479
TORQUE WRENCH, 1000 - 2500 FT LB	130
TRANSDUCER TORQUE <= 900 IN LB	132

“ We are your torque wrench’s best critic. ”



### Torque- Turning wrenches from the beginning

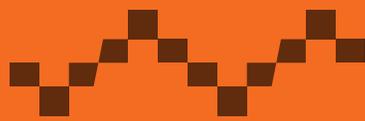
It's where calibration all began at Tool Testing Lab. Beginning with a wrench and a dream, Tool Testing Lab has made huge strides in becoming a versatile company to better serve our customers calibration and tooling needs. As our capabilities continue to expand, so do our expectations... We set our standards high in delivering quality service while still providing a quick turn-around time.



# IN A PINCH

## & NEED A WRENCH?

We carry a wide variety of click-type, digital, and dial torque wrenches in stock.



# FORCE / MASS / TENSION

Did you know?

All new tool purchases are moved to the front of the line for calibration. Our goal is for them to ship out the same day.



**Need an aircraft scale in a hurry?** We offer a certified 50K aircraft scale as a weekly rental. Call for details. **Save Big!**

AIRCRAFT PLATFORM SCALE ≤5000 LB	87	AIRCRAFT SCALE, 3 CELLS 5K-5K-2K	260	BALANCE BEAM SCALE	35
AIRCRAFT PLATFORM SCALE 5001 - 10K LB	110	AIRCRAFT SCALE, 3 CELLS 5K-5K-5K	260	BELT TENSIO METER	53
AIRCRAFT PLATFORM SCALE 10001 - 50K LB	151	AIRCRAFT SCALE, 3 CELLS 6K-6K-2.5K	307	BOOT STRAP KIT	772
AIRCRAFT PLATFORM SCALE 50001 - 100K LB	314	AIRCRAFT SCALE, 3 CELLS 6K-6K-6K	330	BORROUGHS, TENSIO METER	53
AIRCRAFT SCALE, 2 CELLS 100K-100K	627	AIRCRAFT SCALE, 4 CELLS 100K-100K-100K-100K	1254	BRITISH TENSIO METER & US CABLE	203
AIRCRAFT SCALE, 2 CELLS 50K-50K	300	AIRCRAFT SCALE, 4 CELLS 10K-10K-10K-10K	440	CABLE TENSIO METER	131
AIRCRAFT SCALE, 3 CELLS 2.5K-2.5K-2.5K	260	AIRCRAFT SCALE, 4 CELLS 15K-15K-15K-15K	599	CABLE TENSIO METER, OVER 600 LBS	213
AIRCRAFT SCALE, 3 CELLS 7.5K-2.5K-7.5K	307	AIRCRAFT SCALE, 4 CELLS 15K-15K-15K-3K	536	CABLE TENSIO METER, US & BRITISH CABLE	203
AIRCRAFT SCALE, 3 CELLS 100K-100K-100K	941	AIRCRAFT SCALE, 4 CELLS 15K-15K-15K-6K	559	CALIBRATION SPRING	35
AIRCRAFT SCALE, 3 CELLS 10K-10K-10K	330	AIRCRAFT SCALE, 4 CELLS 1K-1K-1K-1K	346	DIGITAL DYNAMOMETER	202
AIRCRAFT SCALE, 3 CELLS 10K-10K-5K	307	AIRCRAFT SCALE, 4 CELLS 24K-24K-24K-24K	599	DIGITAL SCALE	35
AIRCRAFT SCALE, 3 CELLS 10K-10K-6K	330	AIRCRAFT SCALE, 4 CELLS 50K-50K-50K-50K	599	DIGITAL TENSIO METER, US & BRITISH CABLE	203
AIRCRAFT SCALE, 3 CELLS 15K-15K -15K	449	AIRCRAFT SCALE, 4 CELLS 5K-5K-5K-5K	346	DUROMETER	52
AIRCRAFT SCALE, 3 CELLS 15K-15K-5K	387	AIRCRAFT SCALE, 5 CELLS 30K-30K-30K-30K-30K	748	DUROMETER/ 2 TYPES	78
AIRCRAFT SCALE, 3 CELLS 25K-25K-25K	449	AIRCRAFT SCALE, 6 CELLS 15K-15K-6K-6K-2K-2K	692	DUROMETER/ 3 TYPES	107
AIRCRAFT SCALE, 3 CELLS 30K-30K-30K	449	AIRCRAFT SCALE, 6 CELLS 50K-50K-6K-6K-2K-2K	692	DUROMETER/ 4 TYPES	137
AIRCRAFT SCALE, 3 CELLS 50K-50K-15K	449	ALPHATRON WIRE PULL TESTER	119	DYNAMOMETER	202
AIRCRAFT SCALE, 3 CELLS 50K-50K-50K	449	ANALYTICAL BALANCE	138	ENERPAC LOAD CELL ≤5000 LB	87
		ANALYTICAL SCALE	138	ENERPAC LOAD CELL 5001 - 10000 LB	110
				FABRIC TESTER	36
				FISH SCALE	35
				FLOOR SCALE < 101 LB	35
				FLOOR SCALE 101 LB TO 300 LB	87
				FLOOR SCALE 301-500 LB	110
				FLOOR SCALE 501-1000 LB	165
				FLOOR SCALE 1001-3000 LB	248

FLOOR SCALE 3001-5000 LB	330
FLOOR SCALE 5001-7500 LB	413
FLOOR SCALE 7501-10000 LB	495
FLYING WIRE TENSIO METER	160
FORCE GAGE	79
GRAM SCALE	35
GRIPSCALE	26
HARDNESS INDENTER	248
HARDNESS STANDARD	35
HARDNESS TESTER 1 SCALE	160
HARDNESS TESTER 2 SCALES	187
HARDNESS TESTER 3 SCALES	215
HARDNESS TESTER 4 SCALES	242
HARDNESS TESTER 5 SCALES	270
HARDNESS TESTER 6 SCALES	297
HARDNESS TESTER 7 SCALES	325
HARDNESS TESTER 8 SCALES	352
HARDNESS TESTER 9 SCALES	380
HOIST<=5000 LB	87
HOIST 5001 - 10000 LB	110
HOIST 10001 - 20000 LB	151
HOIST 20001 - 30000 LB	202
KENT-MOORE TENSION GAUGE	53
KNEE FORCE GAGE	49
KNEE JOINT TESTER	49
LANYARD INSPECTION	28
LB. WEIGHT < 2 LB	7
LB. WEIGHT > = 2 LB	12
LOAD CELL <= 5000 LB BOTH DIRECTIONS	130
LOAD CELL<=5000 LB ONE DIRECTION	87
LOAD CELL 5001-10000 LB BOTH DIRECTIONS	165
LOAD CELL 5001 - 10000 LB ONE DIRECTION	110
LOAD CELL 10001-40000 LB BOTH DIRECTIONS	226

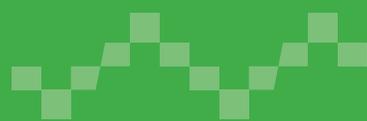
LOAD CELL 10001 - 50000 LB ONE DIRECTION	151
LOAD CELL 50000 LB BOTH DIRECTIONS	276
LOAD CELL 50001-100K LB BOTH DIRECTIONS	471
LOAD CELL 50001 - 100K LB COMPRESSION	314
LOAD FRAME DISPLACEMENT	138
LOAD FRAME DISPLACEMENT & SPEED	231
LOAD FRAME FORCE	138
LOAD FRAME SPEED	94
OZ. WEIGHT < 32 OZ	7
OZ. WEIGHT > = 32 OZ	12
PLATFORM SCALE, AIRCRAFT <=5000 LB	87
PLATFORM SCALE, AIRCRAFT 5001 - 10K LB	110
PLATFORM SCALE, AIRCRAFT 10001 - 50K LB	151
PLATFORM SCALE < 101 LB	35
PLATFORM SCALE AIRCRAFT 50001 - 100K LB	314
PROOF TEST, CHAIN, CABLE LIFTING BAR	63
PROVING RING	108
PULL TESTER, WIRE TERMINALS	119
PUSH-PULL SCALE	35
RECIPROCATING ABRASER	78
RETENTION TEST TOOL	22
SAFE FLIGHT FORCE GAGE	49
SAFE FLIGHT SCALE	49
SCALE, SAFE FLIGHT	49
SCALES, 4 LOAD CELLS <=5K NULL READINGS	691
SPRING CALIBRATION	35
SPRING SCALE	35
SPRING TESTER	49
STRAP & BANDING TENSION METER	53



New tensiometers are available for purchase. We carry a variety of digital and analog styles for you to choose from. We understand the importance of comfort and accessibility when working with tensiometers. Every tensiometer includes a cable size guide and a chart when applicable.

VALVE SPRING TESTER	49
WEBBING INSPECTION	28
WEIGHT, GRAM >= 1 Kg	12
WEIGHT, GRAM < 1 Kg	7
WEIGHT, GRAM SET 12PC	74
WEIGHT, GRAM SET 13PC	86
WEIGHT, GRAM SET 14PC	98
WEIGHT, GRAM SET 9PC	56
WEIGHT, LB/OZ >= 2 LB, >= 32 OZ	12
WEIGHT, LB/OZ < 2 LB, < 32 OZ	7
WEIGHT GRAM 21 PC SET	147
WELD FORCE GAGE	171
WELD PROBE FORCE GAGE	171
WINGRIP	495
WIRE PULL TESTER	119





# TEMP & HUMIDITY

Did you know?

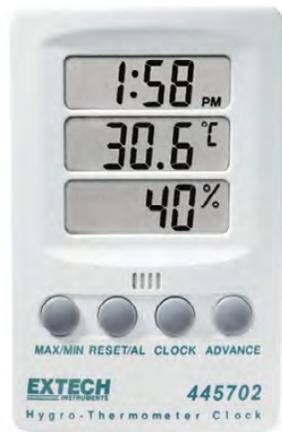
You can check out our ISO/IEC 17025 accreditation online at [www.ttlcal.com](http://www.ttlcal.com).

BELFORD PSYCHROMETER	83
BOILING TEST BOX	313
CHART RECORDER, TEMPERATURE & HUMIDITY	85
DIGITAL THERMOMETER, 2 CHANNEL	165
DIGITAL THERMOMETER, 3 CHANNEL	248
DIGITAL THERMOMETER, 4 CHANNEL	330
DRYWELL CALIBRATOR, DUAL WELL	275
DRYWELL CALIBRATOR, SINGLE WELL	165
DUAL PROBE THERMOMETER	83
EA001A THERMOCOUPLE SIMULATOR	165
EXTRA TC PROBE	42
FIRE DETECTOR	42
FOG CHAMPER	385
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SURFACE THERMOMETER	83
TEMPERATURE 1 PT & HUMIDITY 1 PT	85
TEMPERATURE 2 PT & HUMIDITY 2 PT	165
TEMPERATURE 3 PT & HUMIDITY 3 PT	248
TEMPERATURE BATH	165
TEMPERATURE CALIBRATOR, MULTI-RANGE	165
TEMPERATURE CONTROLLER	121
TEMPERATURE HEAT SOURCE	42
TEMPERATURE INDICATOR	42
TEMPERATURE KIT, WITH 1 WEIGHT	48
TEMPERATURE KIT, WITH 2 WEIGHTS	54
TEMPERATURE KIT, WITH 3 WEIGHTS	60
TEMPERATURE MULTI-RANGE	83
TEMPERATURE PROBE (PER POINT)	15
TEMPERATURE SENSOR (PER POINT)	15
TEMP/TIME/VOLT CHAMPER	205
THERMAL IMAGING CAMERA	275
THERMOCOUPLE CALIBRATOR	160

THERMOMETER (PER POINT)	15
THERMOMETER, MULTI-RANGE, 1 CHANNEL	83
THERMOMETER, MULTI-RANGE, 2 CHANNEL	165
THERMOMETER, MULTI-RANGE, 3 CHANNEL	248
THERMOMETER, MULTI-RANGE, 4 CHANNEL	330
WEATHER STATION, REMOTE	138

# Temp & Humidity



“ Get your temp checked here. ”

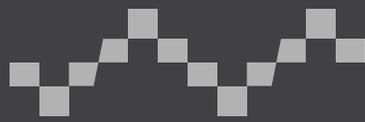






# FREE CERTIFICATION WITH NEW TOOL PURCHASE

New tool purchases include the initial calibration and a redeemable coupon for the next calibration of the same tool. Some exclusions may apply.



# DIMENSIONAL

Did you know?

We have a climate controlled gage lab used to test your equipment with optimal accuracy.

**Have a surface plate that requires calibration?** Take advantage of our on-site calibration and resurfacing capabilities. Ask us for details.

ANGLE BLOCK - ADJUSTABLE	77
ANGLE BLOCK LARGE	77
ANGLE BLOCK SET (PER BLOCK)	12
ANGLE BLOCK SMALL	12
ANVIL MICROMETER, 0-6 IN	58
ANVIL MICROMETER, 6-12 IN	88
BALL GAGE SET, 52 PIECE	286
BLADE MICROMETER	26
BORE GAGE (PER HEAD)	35
BORE GAGE WITH MICROMETER HEAD & DIAL IND	72
BORE GAGE W/ RING	65
BORESCOPE	165
BRAKE DRUM MICROMETER	34
CALIPERS 1-12 IN	26
CALIPERS 13-24 IN	31
CALIPERS 25-36 IN	50
CALIPERS 37-48 IN	62
CALIPERS 49-72 IN	78
CALIPERS 73-100 IN	94
CHAMFER GAGE	48
CHAMFER GAGE	48
CMM DIMENSION CK, MINUTE CHARGE	2.33
CMM/LAYOUT	138
CO-AXIAL INDICATOR	51
COMPULEVEL	35
CONTROL SURFACE PROTRACTOR	35
CRIMPER	40
CRIMPER DIE (EACH)	30
CRIMPER PIN GAGE	12

CUSTOM 3 POINT	24
CUSTOM 4 POINT	29
CUSTOM 5 POINT	35
CUSTOM 6 POINT	41
CUSTOM 7 POINT	47
CUSTOM 8 POINT	52
CUSTOM 9 POINT	58
CUSTOM 10 POINT	64
CUSTOM 11 POINT	70
CUSTOM 12 POINT	76
CUSTOM 13 POINT	81
CUSTOM 14 POINT	87
CUSTOM 15 POINT	93
CUSTOM 16 POINT	99
CUSTOM 17 POINT	104
CUSTOM 18 POINT	110
CUSTOM MEASUREMENT 1 POINT	18
CUSTOM MEASUREMENT 2 POINT	18
CYLINDER GAGE	35
CYLINDER SQUARE 0 TO 12 IN	58
CYLINDER SQUARE 12 TO 24 IN	110
CYLINDER SQUARE 24 TO 36 IN	138
DEPTH MICROMETER, 1 ROD ONLY	26
DEPTH MICROMETER 0-3 IN	32
DEPTH MICROMETER 0-4 IN	38
DEPTH MICROMETER 0-6 IN	47
DEPTH MICROMETER 0-9 IN	65
DEPTH MICROMETER 0-12 IN	86
DIAL INDICATOR	26
DIGITAL LEVEL	35

DIGITAL MICROMETER, O.D. 0-3 IN/RODS	49
DIGITAL MICROMETER, O.D. 0-4 IN/RODS	62
DIGITAL MICROMETER, O.D. 0-6 IN/RODS	85
DIGITAL MICROMETER, O.D. 2-6 IN/RODS	49
DIGITAL MICROMETER, O.D. 6-9 IN/RODS	49
DIGITAL MICROMETER, O.D. 6-12 IN/RODS	85
DIGITAL MICROMETER, O.D. 9-12 IN/RODS	49
DIGITAL MICROMETER, O.D. 12-18 IN/RODS	85
DIGITAL MICROMETER, O.D. 20-24 IN/RODS	62
DIGITAL MICROMETER + STANDARD	32
DMC 221-BOX 1 CRIMPER KIT	473
DMC 350 CRIMPER	140
DMC 519 CRIMPER KIT	523
DMC 567 CRIMPER KIT MOD 1	1252
DMC 584 CRIMPER KIT	873
DMC 776	435
DMC 852 CRIMPER KIT	510
DMC 921 CRIMPER KIT	763
DMC 973	435
DMC 977 CRIMPER KIT	883
DMC 1107 CRIMPER KIT	626
DMC 1384 CRIMPER KIT	644
DMC 1522 CRIMPER KIT	784

DMC 1550 CRIMPER KIT	225
DMC 1591 CRIMPER KIT	962
DMC 1704 CRIMPER KIT	783
DMC 315A CRIMPER KIT	403
DMC603, 2 CRIMPERS+1 STRIPPER	120
DUAL SCALE DIAL INDICATOR	31
ELECTRONIC LEVEL SYSTEM	138
ELECTRONIC THICKNESS GAGE	55
EXTENSOMETER	165
FEELER GAGE, SINGLE LEAF	12
FEELER GAGE SET PER LEAF (2 OR MORE)	4
FILLET GAGE SET	35
FLATNESS CHECK	31
GAGE BLOCK 5 TO 20 IN	19
GAGE BLOCK INDIVIDUAL, UNDER 5 INCH	18
GAGE BLOCK SET (5 OR MORE) < 5 INCHES, EACH	3
GAGE PIN IN A SET 6 OR MORE	1
GAGE PIN INDIVIDUAL CERTIFICATION	12
GRANITE SQUARE 0 TO 12 IN	33
GRANITE SQUARE 12 TO 24 IN	66
GRANITE SQUARE 24 TO 36 IN	99
HEIGHT GAGE 1-12 IN	44
HEIGHT GAGE 13-18 IN	51
HEIGHT GAGE 19-24 IN	59
HEIGHT GAGE 25-30 IN	66
HEIGHT GAGE 40 IN	73
HEIGHT MASTER	91
HEIGHT PROBE	48
I.D. MICROMETER (8")	54
I.D. MICROMETER (9")	60
I.D. MICROMETER (10")	66
I.D. MICROMETER (12")	91
I.D. MICROMETER, 1.5-6 IN	49
I.D. MICROMETER, 1.5-12 IN	91
I.D. MICROMETER, 4-15 IN	73

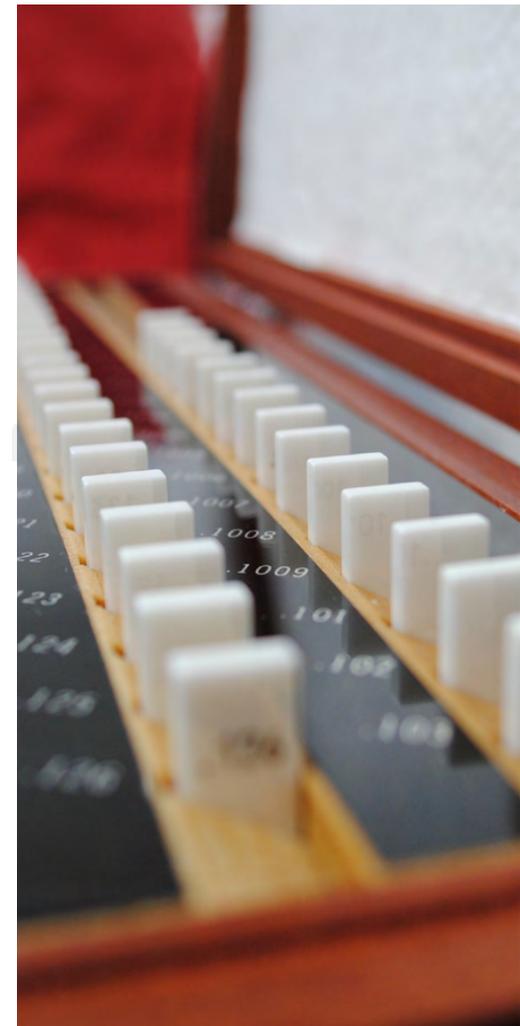
I.D. MICROMETER, 4-24 IN	73
I.D. MICROMETER, 30-32 IN	49
I.D. MICROMETER, 32-56 IN	77
I.D. MICROMETER, SINGLE ROD > 12 IN	49
I.D. MICROMETER, SINGLE ROD < 13 IN	26
IIW BLOCK	160
INCLINOMETER	138
LASER LEVEL (NOT SITE)	35
LASER MICROMETER	165
LASER SITE LEVEL	78
LENGTH STANDARD 0-50 IN, PITCH/ROLL	149
LENGTH STANDARD >50-100 IN, PITCH/ROLL	165
LENGTH STANDARD >100-150 IN, PITCH/ROLL	220
LENGTH STANDARD >150-200 IN, PITCH/ROLL	275
LEVEL, BUBBLE	35
LEVEL, DIGITAL	35
LEVEL, SITE	78
LINEAR SCALE 0-50 IN	55
LINEAR SCALE 51-100 IN	110
LINEAR SCALE 101-150 IN	165
LINEAR SCALE 151-200 IN	220
MAGNETIC BLOCK	35
MICROMETER	26
MICROMETER, ANVIL 6-12 IN	88
MICROMETER, BRAKE DRUM	34
MICROMETER, DEPTH 0-3 IN	32
MICROMETER, DEPTH 0-4 IN	38
MICROMETER, DEPTH 0-6 IN	47
MICROMETER, DEPTH 0-9 IN	65
MICROMETER, DEPTH 0-12 IN	86
MICROMETER, I.D. (8")	54
MICROMETER, I.D. (9")	60
MICROMETER, I.D. (10")	66
MICROMETER, I.D. 1.5-6 IN	49

MICROMETER, I.D. 1.5-12 IN	91
MICROMETER, I.D. 4-15 IN	73
MICROMETER, I.D. 4-24 IN	73
MICROMETER, I.D. 30-32 IN	49
MICROMETER, I.D. 32-56 IN	77
MICROMETER, LASER	165
MICROMETER, O.D. 0-3 IN/RODS	49
MICROMETER, O.D. 0-4 IN/RODS	62
MICROMETER, O.D. 0-6 IN/RODS	85
MICROMETER, O.D. 2-6 IN/RODS	49
MICROMETER, O.D. 6-9 IN/RODS	49
MICROMETER, O.D. 6-12 IN/RODS	85
MICROMETER, O.D. 9-12 IN/RODS	49
MICROMETER, O.D. 12-18 IN/RODS	85
MICROMETER, O.D. 16-20 IN/RODS	85
MICROMETER, OPTICAL	61
MICROMETER HEAD	26
MICROMETER MASTER 5 1/2 IN STANDARD	78
MICROMETER + STANDARD	32
MICROMETER STANDARD, 12-17 IN, SET	139
MICROMETER STANDARD 1-3 IN, SET	31.5
MICROMETER STANDARD 1-5 IN, SET	58
MICROMETER STANDARD 1-11 IN, SET	128
MICROMETER STANDARD 1-23 IN, SET	418
MICROMETER STANDARD 6-11 IN, SET	70
MICROMETER STANDARD <=12 IN	12
MICROMETER STANDARD 13-24 IN, EACH	26
MICROMETER STANDARD 25-48 IN, EACH	38
MICROMETER STANDARD 49-80 IN EACH	55
MU GAGE	51
NDT STANDARD	35

O.D. MICROMETER	26
O.D. MICROMETER + STANDARD	32
O.D. MIC SPECIAL PRICE	58
OPTICAL COMPARATOR	248
OPTICAL FLAT	48
OPTICAL JIG TRANSIT	78
OPTICAL MICROMETER	61
PARALLELISM	26
PI TAPE	38
PLUG GAGE, GO/NOGO (NON THREADED)	24
PLUG GO GAGE (NON THREADED)	12
PLUG NOGO GAGE (NON THREADED)	12
POCKET THICKNESS GAGE	26
PRECISION SQUARE 2 SIDES	31
PRECISION SQUARE 4 SIDES	55
PROFILOMETER	112
PROFILOMETER TEST PATCH	50
PROPELLER PROTRACTOR	35
PROTRACTOR	35
PROTRACTOR/RULER/SQUARE COMBO SET	69
RADIUS GAGE 1 POINT	4
RADIUS GAGE 2 POINTS	4
RADIUS GAGE 3 POINTS	5
RADIUS GAGE 5 POINTS	5
REAMER	14
RING GAGE 7-12 INCH, 178-305 MM	44
RING GAGE 13-18 INCH, 330-457 MM	57
RING GAGE UP TO 6 INCH, 152 MM	31
ROTARY ENCODER	44
RULER 1-48 IN	26
RULER 49-60 IN	32
RULER 61-72 IN	37
RULER 73-84 IN	43
RULER 85-96 IN	50
SETTING GAGE	31
SIEVE	44

SINE BAR	47
SINGLE DIMENSION	18
SITE LEVEL	78
SKIN WAVINESS CHECK	165
SNAP RING GAGE MASTER	31
SPHERE	31
SPINDLE MICROMETER	35
SPLINE GAGE, 3 POINTS	35
SQUARE, PRECISION 2 SIDES	31
STAGE MICROMETER OPTICAL RULER	110
SUPER MICROMETER	165
SURFACE ROUGHNESS TESTER	112
SURFTEST	112
SURVEILLANCE MASTER 6 IN	78
SURVEILLANCE MASTER 12 IN	116
SWAGER, 6 PC TUBING	303
TAPE MEASURE OVER 12 FEET	36
TAPE MEASURE UP TO 12 FEET	22
TAPER GAGE	31
TCOMP MASTER DISC	31
TEST SIEVE	44
THICKNESS COATING GAGE	55
THICKNESS GAGE	26
THICKNESS GAGE BLOCK, ULTRASONIC	55
THREAD PLUG (2 SIDES)	35
THREAD PLUG (NPT)(1MEMBER)	35
THREAD PLUG < 4 IN (1 SIDE)	19
THREAD PLUG > 4 IN (1 SIDE)	35
THREAD RING(NPT)	47
THREAD RING > 3.9 IN	44
THREAD RING < 4 IN	35
THREAD WIRES, 1 SET (3 WIRES)	22
TRAVEL BOARD	91
TURBINE STRETCH INDICATOR	248
ULTRASONIC TESTER	55
ULTRASONIC THICKNESS GAGE	55
UNIVERSAL LENGTH MACHINE (ULM)	165

V-BLOCK, PER BLOCK, ONE SIDE	49
V-BLOCK, TWO-SIDED	77
WELD FILLET GAGE W/DATA (PER GAGE)	24
WHEEL SECTION INSP.	97
WINDSHIELD STANDARD	35
WIRE LENGTH METER	40
WIRE STRIPPER	40
Z- MICROMETER	165



# List it & Ship it

**Hassle-free Certification:** With no RMA required, we keep it simple when sending in your tools. Just list it and ship it with a P.O. and you will be notified of the tools received. Tools will be calibrated in 5 business days or less. (some exclusions may apply)

If your tool fails calibration, the sales team will notify you.



# FLOW / CHEMICAL

Did you know?  
We can perform limited certifications, at your request, on many different tools.

**Our capabilities are continuing to grow...** Please don't hesitate to ask about a tool that is not shown.

AIR FLOWMETER, 1.81 TO 60 CFM	165
AIR FLOWMETER, 51 TO 1699 LPM	165
AIR FLOWMETER, 109 TO 3600 CFH	165
AIR FLOWMETER <= 1.8 CFM	108
AIR FLOWMETER <= 50 LPM	108
AIR FLOWMETER 60 CFM TO 3600 CFH	248
AIR FLOWMETER <= 108 CFH	108
AIR FLOWMETER 1700 TO 3200 LPM	248
ANEMOMETER	83
ANEMOMETER-THERMO	121
BALL FLOWMETER <= 1.8 CFM	108
BALL FLOWMETER <= 50 LPM	108
BALL FLOWMETER <= 108 CFH	108
COMBUSTION ANALYZER	165
CONDUCTIVITY METER	83
CONDUCTIVITY MULTI	116
CONDUCTIVITY STD/1	83
CONDUCTIVITY STD/2	165
CONDUCTIVITY STD/3	248
CONDUCTIVITY STD/4	330
CONDUCTIVITY STD/5	413
DIGITAL FLOW METER	154
FLOWMETER, GPM	108
FLOWMETER <= 1.8 CFM	108
FLOWMETER <= 50 LPM	108
FLOWMETER <= 108 CFH	108
FLOWMETER TEST KIT	248
FUEL PORTA TEST UNIT	440



GAS ANALYZER	165
GAS DETECTOR, SNIFFER SINGLE GAS	83
GAS INDUSTRIAL METER	468
GAS MONITOR, SNIFFER SINGLE GAS	83
GRADUATED CYLINDER	27
HYDROMETER	83
LEAKAGE TESTER	79
MEASURING VESSEL OR CUP	27
PH/ION/CONDUCTIVITY METER	83
PH METER	49
PIPETTES	55
REFRACTOMETER	43
THERMO-ANEMOMETER	121
VISCOSITY CUP	55



**IT'S FLOW TIME.**

EXPEDITE SERVICES AVAILABLE UPON REQUEST.



# PRESSURE

Did you know?

Tool Testing Lab has been calibrating tools for over 30 years.

We are known for our high quality pressure assemblies. See them on page 22.

ADDITEL PRESSURE CALIBRATOR, 3 RANGES	593	DIGITAL PRESSURE TRANSDUCER < 1001 PSI	94	MULTI-RANGE PRESSURE CALIBRATOR	358
AIR CONDITIONER FREON TEST GAUGES	88	DIGITAL PRESSURE TRANSDUCER > 1000 PSI	94	NITROGEN PRESSURE REGULATOR	94
AIR DATA MULTIMETER	435	DRUCK PRESSURE DISPLAY	50	ORIFICE TOOL	25
AIRDATA TEST SET WITH RVSM	468	FLUKE PRESSURE MODULE	78	OUTFLOW VALVE TESTER	248
ALTIMETER	110	FUEL NOZZLE TESTER	127	OXYGEN PRESSURE REGULATOR	94
BACKFLOW PREVENTER	64	HASTINGS VACUUM GAUGE	106	PITOT STATIC TEST SET, ALTIMETER & AIRSPEED	248
BAR PRESSURE GAUGE 0-27 BAR >=1%	35	HEATER DECAY TESTBOX	116	PITOT STATIC TESTER, ANALOG, 3 INSTRUMENTS	358
BAR PRESSURE GAUGE 28-68 BAR >=1%	41	HEATER DECAY TESTER	116	PRESSURE CALIBRATOR 0-1000 PSI	116
BARFIELD PRESSURE TESTER	116	HEATER TESTBOX	116	PRESSURE CALIBRATOR 1001 TO 16K PSI ONE RANGE	53
BAROMETER, LOW PRESSURE	35	HEISE PRESSURE GAUGE	50	PRESSURE CALIBRATOR, .2 TO 1K PSI ONE RANGE	193
BAROMETER/HA <1% & >=.1%	64	HIGH ACCY/COMBO VACUUM/ PRESSURE <1% & >=0.1%	82	PRESSURE DECAY TESTER	116
CABIN PRESSURE TESTER	248	HIGH ACCY/PRESSURE GAUGE 0-400 PSI <1% & >=.1%	64	PRESSURE GAUGE 0-27 BAR >=1%	35
CHART RECORDER, HIGH PRESSURE	127	HIGH ACCY/PRESSURE GAUGE 401-999 PSI <1% & >=0.1%	69	PRESSURE GAUGE 0-400 >=1% PSI	35
CHART RECORDER, LOW PRESSURE	116	HIGH PRESSURE , DUAL RANGE CALIBRATOR	825	PRESSURE GAUGE 0-400 PSI/HA <1% & >=0.1%	64
COMBINATION AIRSPEED & ALTIMETER INSTRUMENT	220	HIGH PRESSURE CALIBRATOR, HIGH ACCURACY	275	PRESSURE GAUGE 0-400 PSI/UHA <0.1%	145
CRYSTAL CALIBRATOR	226	HIGH PRESSURE CUSTOM LEAK TEST	121	PRESSURE GAUGE 10K-15K PSI >=1%	78
CYLINDER TESTER, DIFFERENTIAL	50	HIGH PRESSURE REGULATOR	94	PRESSURE GAUGE 10K-15K PSI/HA <1% & >=0.1%	107
CYLINDER TESTER, DIFFERENTIAL+ORIFICE	70	HIGH PRESSURE STATIC TEST	55	PRESSURE GAUGE 10K-15K PSI/ UHA <0.1%	217
DEAD WEIGHT CALIBRATOR	446	HYDRAULIC POWER UNIT	186	PRESSURE GAUGE 1K-5K PSI >=1%	48
DECAY HEATER TESTBOX	116	MAGNEHELIC GAUGE	35	PRESSURE GAUGE 1K-5K PSI/HIGH ACCY <1% & >=0.1%	76
DECAY PRESSURE KIT	121	MANOMETER	35	PRESSURE GAUGE 1K-5K PSI/UHA <0.1%	186
DIFFERENTIAL CYLINDER TESTER	50	MANOMETER/HA <1% & >=0.1%	64		
DIFFERENTIAL CYLINDER TESTER+ORIFICE	70	MERCURY PRESSURE GAUGE	35		
DIGITAL MANOMETER	64	MICO QUADRIGAGE	118		

PRESSURE GAUGE 20K PSI $\geq 1\%$	116
PRESSURE GAUGE 28-68 BAR $\geq 1\%$	41
PRESSURE GAUGE 30000 PSI	99
PRESSURE GAUGE 401-999 PSI $\geq 1\%$	41
PRESSURE GAUGE 401-999 PSI/HA $< 1\%$ & $\geq 0.1\%$	69
PRESSURE GAUGE 401-999 PSI/UHA $< 0.1\%$	151
PRESSURE GAUGE 5001-7500 PSI $\geq 1\%$	55
PRESSURE GAUGE 5001-7500 PSI/HA $< 1\%$ & $\geq 0.1\%$	84
PRESSURE GAUGE 5001-7500 PSI/UHA $< 0.1\%$	194
PRESSURE GAUGE, 345-517 BAR $\geq 1\%$	55
PRESSURE GAUGE, 518-1034 BAR $\geq 1\%$	78
PRESSURE GAUGE, 69-344 BAR $\geq 1\%$	48
PRESSURE GAUGE, MODULE	78
PRESSURE/PRESSURE GAUGE COMBO $\geq 1\%$	53
PRESSURE/PRESSURE GAUGE COMBO/HA $< 1\%$ & $\geq 0.1\%$	82
PRESSURE/PRESSURE GAUGE COMBO/UHA $< 0.1\%$	163
PRESSURE/VACUUM COMBO GAUGE/HA $< 1\%$ & $\geq 0.1\%$	82
PRESSURE/VACUUM GAUGE COMBO $\geq 1\%$	53
PRO SERIES TIRE KIT	70
PROOFMASTER KIT	119
QUADRIGAGE	118
RAM GAUGE, HYDRAULIC PRESS	76
RATE OF CLIMB	110
REGULATOR, HIGH PRESSURE	95
RELIEF VALVE 0-999 PSI	36
RELIEF VALVE 1000-5000 PSI	48

SETRA PRESSURE GAUGE	226
STATIC TEST SET, ALTIMETER & AIRSPEED	248
TTL MULTI-GAUGE KIT	70
ULTRA HIGH PRESSURE REGULATOR	99
VACUUM GAUGE	35
VACUUM PRESSURE MODULE	61
VACUUM/PRESSURE COMBO GAUGE/HA $< 1\%$ & $\geq 0.1\%$	82
VACUUM/PRESSURE COMBO GAUGE/UHA $< 0.1\%$	163
VACUUM/PRESSURE GAUGE COMBO $\geq 1\%$	53
VACUUM/PRESSURE GAUGE COMBO/UHA $< 0.1\%$	163
VERTICAL SPEED INDICATOR	110
WATER PRESSURE GAUGE	35



**Custom  
Gauges  
for aviation**

## Custom | Built for Aviation

When it comes to checking pressure, we understand the importance of safety and precision. Our line of TTL tire gauges are built with the aviation technician in mind. If you need something custom made, then we will make it happen. With our variety of parts and assembly options, we can create the perfect gauge for you to use for many years to come.

Visit [www.ttlcal.com](http://www.ttlcal.com) to view our stock assemblies.



Model #	TTL-300-ATG-I	TTL-160-ATG	TTL-300-ATI	TTL-300-DTG-HA	TTL-300-DTI-HA	TTL-300-DTG-K-HA	TTL-3000-ASG
Description	Analog Aircraft Tire Gauge	Analog Aircraft Tire Gauge	Analog Aircraft Tire Inflator	Digital Aircraft Tire Gauge	Digital Aircraft Tire Inflator	Digital Aircraft Tire Gauge Master Kit	Analog Aircraft Strut Inflator
List Price	<b>\$135</b>	<b>\$135</b>	<b>\$215</b>	<b>\$288</b>	<b>\$365</b>	<b>\$365</b>	<b>\$250</b>
Gauge Pressure (PSI)	300	160	300	300	300	300	3000
Accuracy	+/- 1% Full Scale	+/- 1% Full Scale	+/- 1% Full Scale	+/- 0.25% Full Scale	+/- 0.25% Full Scale	+/- 0.25% Full Scale	+/- 1% Full Scale
Display Readout	PSI	PSI	PSI	PSI / BAR / Kpa / mPa / FtH <sub>2</sub> O, InHg, cmHG, mmHg	PSI / BAR / Kpa / mPa / FtH <sub>2</sub> O, InHg, cmHG, mmHg	PSI / BAR / Kpa / mPa / FtH <sub>2</sub> O, InHg, cmHG, mmHg	PSI
Auto Shut-off	-	-	-	Yes	Yes	Yes	-
Protective Rubber Boot	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Air Release Bleed Valve	-	-	Yes	Yes	Yes	Yes	Yes
Safety Blow-Out	-	-	Yes	-	Yes	-	-
Small Bore Chuck	1	1	-	1	-	2	-
Dual Foot Chuck	-	-	-	-	-	Yes	-
Lock-On Chuck	-	-	Yes	-	Yes	-	-
Strut Chuck	-	-	-	-	-	-	Yes
Quick Connect	-	-	-	-	-	Yes	-
Swivel Fittings	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Inverted Gauge	Yes	-	-	Yes	-	Yes	-
Backlit Display	-	-	-	Yes	Yes	Yes	-
Peak Hold	-	-	-	Yes	Yes	Yes	-
Tire Tread Depth Tool	-	-	-	-	-	Yes	-
Case	Included	Included	Included	Included	Included	Included	Included
NIST Certification	Included	Included	Included	Included	Included	Included	Included
Warranty	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year

\*See manuals online at [www.ttlcal.com](http://www.ttlcal.com)



Replacement Inverted Gauge  
Model # TTL-300-HA-I  
Cost: \$200 including certification



Replacement Gauge  
Model # TTL-300-HA  
Cost: \$200 including certification



Replacement Inverted Gauge  
Model # TTL-300 PSI-I  
Cost w/o boot: \$70 including certification  
Rubber boot: add \$10



Replacement Gauge  
Model # TTL-300 PSI  
Cost: \$70 including certification  
Rubber boot: add \$10

## TERMS AND CONDITIONS

The Terms and Conditions are designed to assure that the outcome of the Tool Testing Lab, Inc. (TTL) goods and services are as successful as possible for both parties involved, requiring the combined effort of both TTL staff and the customer. Tool Testing Lab, Inc. is referred to herein as "TTL". The Customer's acceptance of the products or services provided by TTL shall agree to the following terms and conditions.

**Record Keeping** - TTL will maintain records of calibration and repair history for a minimum of 10 years.

**Pricing** - TTL agrees to maintain the quoted service pricing for the term of a purchase order and/or contract, provided that a firm purchase order and/or contract for the work, is received within thirty (30) days of the quote date.

**Calibration Intervals** - Calibration intervals can be set to any interval requested, determined by the customer.

**Payment Terms** - Invoices are payable within thirty (30) days from invoice date unless otherwise agreed upon in writing, in advance. Finance charges of 1.5% monthly may be added if not paid when due.

**Sales Taxes** - Sales tax will be collected on work shipped to an Ohio location, unless an exemption is on file.

**Transportation and Risk of Loss** - Unless otherwise stated by TTL, delivery of products shall be F.O.B. point of shipment and transportation expenses shall be paid by the Customer. Risk of loss passes to the Customer at the point of shipment.

**Warranty** - TTL warrants all repairs & calibration, to be free from defects in material or workmanship under normal use and service for a period of ninety (90) days from the date of invoice. TTL will repair or calibrate equipment at no charge if item is returned to TTL at the Customer's expense.

**Limitation of Warranty and Liability** - Liability of TTL (except as to title) shall not exceed the cost of correcting defects in products or calibrations. TTL assumes no liability for the consequences of misuse of products by the Customer. The foregoing is TTL's only obligation and the Customer's only remedy for breach of warranty. Except for gross negligence, willful misconduct, and remedies permitted under any other clause of these Terms and Conditions, the foregoing is the Customer's only remedy hereunder by way of breach of contract, negligence or other tort, or otherwise. In no event shall the Customer be entitled to incidental, special or consequential damages.

**Discrepancies in Shipment and Damage to Merchandise** - Products distributed by TTL are carefully packed and thoroughly inspected before leaving TTL's facility. Any claim for discrepancies will be honored only if reported within fifteen (15) days from receipt of shipment. TTL is not responsible for items after leaving TTL possession, such as drift, transportation effects, and improper handling.

**Acceptance of Terms and Conditions** - Acceptance of the terms and conditions herein is an essential prerequisite to any contract of sale made by the seller. No condition stated by the Customer in its offer or acceptance shall be binding upon the seller if in conflict with, inconsistent with, or in addition to the terms and conditions contained herein. Acceptance of any good or service manufactured and /or delivered hereunder shall constitute purchaser's agreement to said terms and conditions.

**Safety** - TTL will refuse any work, which, in TTL's opinion, would be hazardous to personnel or equipment.

**Storage** - Any item(s) not picked-up, shipped or delivered within 30 days after invoicing and advising the tools are ready for shipping or pickup, will have a storage fee invoiced monthly. The fee is calculated at \$5.00 per Sq. Ft. of storage space, for every month or partial month of storage.

**Storage Cont.**- Item(s) held over 1 year are considered abandoned and become the property of TTL and may be offered for sale.

Any customer item(s) that TTL has requested and not received approval to repair, certify or ship back within 30 days after receipt, and advising customer that more information is needed, will have a storage fee invoiced monthly. The fee shall be calculated at \$5.00 per square foot of storage space, for every week or partial week that TTL is storing customer items. Item(s) held over 1 year are considered abandoned and will become the property of Tool Testing Laboratory, Inc. and may be offered for sale

### PRICING, TURNAROUND AND RETURN TIMES

TTL reserves the right, with documented evidence, to modify pricing quoted in error, or where the requirements of the work have necessitated a substantial change in manpower or equipment requirements.

Equipment may be added at any time during the duration of the contract or deleted from the agreement with written notice, prior to the date of calibration under the agreement.

**Equipment Evaluation** - If a unit is sent in for tool calibration but is found to need repair and is beyond economical repair, TTL offers a no charge evaluation. If TTL is unable to repair and certify the tool, and a complete fail report including data is required, there will be a report charge.

**Repairs** are an additional charge.

**Flat Rate Per Tool** - cost covers adjustment, certification and complete test data information. This is the cost in advance, without waiting on time consuming quotes or receiving a higher dollar invoice than expected.

**5 WORKING DAYS** - Typical tools received in the TTL lab, that are not damaged and/or require repair, will be certified within that timeframe or the customer will not be charged for the certification.

### EXPEDITE SERVICES

**While You Wait Services** - Expediting a certification has an additional 100% surcharge

**Same Day Services** - Expediting a certification has an additional 50% surcharge

**Next Day Services** - Expediting a certification has an additional 25% surcharge

**Weekend or Holiday Services** - Expediting a certification has an additional 100% surcharge

### ON-SITE SERVICES AND PRICING

**On-Site Work Flow** - When work is performed at a Customer's site, it is the responsibility of the Customer to have instruments available to facilitate steady workflow. TTL requests the Customer's cooperation in providing the on-site technician(s) with an environmentally controlled area to perform calibrations and to stage instruments. This area must have proper lighting and electrical service as well as adequate space to set up equipment and computer(s).

**On-Site Laboratory Work Flow** - When work is performed at a Customer's site, it is the Customer responsibility to have instruments available for steady workflow.

Technicians are trained to ascertain times on-site and to keep schedules current and on track for TTL customers. When tools for calibration require disassembly of the equipment to disengage, that responsibility lies with the customer. The TTL technician does not assemble/disassemble facility machinery or provide maintenance and repair services when onsite for a scheduled calibration visit. Those services are provided when specific instruction and/or requests are documented and approved and will be agreed with and charged to the customer accordingly.

"We strive for exceptional customer service and precision calibration."

If **unplanned downtime** due to situations out of TTL's control, such as tools not being readily available for calibration, etc., the site contact will be notified, and that time will be billed at \$150/hr. in 0.25-hour increments.

When on-site, calibration certificates are subject to a review process before submitting to the customer. If special circumstance warrants the calibration certificate to be provided at the same time of the service, that certificate will be considered by the customer as a non-reviewed certificate that is still subject to review.

**On-Site Pricing** - Signed agreement required prior to scheduling on-site work. A dedicated work area within the site location is required depending on the type of equipment. A parking area is required if the TTL mobile laboratory vehicles are mobilized.

The minimum on-site charge is \$500 plus travel charges, and if travel and labor time exceeds 10 hours, overnight stay is required; lodging (at cost) and a daily per diem of \$50/technician will be charged. Travel expense is based on a round trip zone charge from our laboratory in Tipp City, Ohio. Travel time on weekends will be at 150% of the zone charge.

**Tools certified after an 8-hr. workday and weekends, will be charged at 150% of the standard flat rate charge.**

### STANDARDS AND PRACTICES

The service level, with data and uncertainties, is to be determined on a per item basis. A calibration certificate with traceability information will be provided. Work will be performed in accordance with TTL's 17025 Accredited Scope of Services and TTL's Quality System. All calibration standards will be traceable to SI units through NIST, or other recognized national or international bodies or physical constants.

All calibration has a minimum of 4:1 Test Uncertainty Ratio (TUR). If less than 4:1, actual TUR will be noted.

TTL technicians are trained and monitored for competency.

TTL will report the environmental conditions under which calibration is performed (temperature and humidity).

Batteries will be replaced if under the stated voltage.

If repairs are required prior to performing the calibration, an estimate of time and cost will be provided.

The tool will be cleaned and given a sticker that will include the calibration date, due date (if agreed upon with the customer), and initials of the technician. Tamper-resistant seals will be applied where appropriate.

A certificate of calibration will be supplied for each calibrated instrument.

For items received in an out-of-tolerance condition, a separate out-of-tolerance notification will be provided. The report will identify the instrument, and data for parameters found in an out-of-tolerance condition.

Calibration recall notification will be provided for each device prior to the calibration due date.

*For additional information please check the web site at*

*[www.ttlcal.com](http://www.ttlcal.com) or call 937-898-5696.*

# List it & Ship it

Help us process your tools fast by providing the following info:

- P.O. number or name
- Contact info (new customer form is on our website)
- Return address
- Email (for tool notifications)
- Method of shipping (ground, next day air, ect.)
- Shipping account number (if applicable)
- List tools or indicate how many (we will verify that they match)
- Please note "expedite" if applicable (same day or next day service)
- Note repair concerns

Accepted  
Payment Terms:  
Wire Transfer  
Credit Card  
Check  
Cash



**No RMA required.**



ORDERED BY:  
TOOL TESTING LAB, INC.  
11801 N. DUPUE DR.  
TIFFIN CITY, OH 45151

**PURCHASE  
ORDER**

Ship to:  
EXAMPLE CO  
12345 EXAMPLE DR  
EXAMPLE, NY 12345

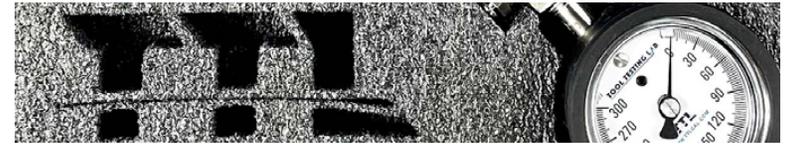
Account No.

Description  
1" DIAL INDICATOR S&T TOP90A  
PLEASE CALIBRATE THE ABOVE TOOL  
UNIT IS "STICKING" - PLEASE QUOTE  
REPAIR BEFORE PROCEEDING.  
RETURN ON UPS GROUND AC  
PLEASE RUSH- SAME DAY  
ANY QUESTIONS, CONTACT  
@ 555-555-5555 OR EMAIL  
JOHN.DOE@EXAMPLE.COM



**VISIT US ONLINE!**  
**WWW.TTLCAL.COM**  
Come tour our facility!

Call us to schedule a tour of our lab and meet our technicians who  
calibrate your tools.



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