VERTICAL MEASURING SYSTEM

# LASERULER®



Pratt & Whitney® Measurement Systems, Inc.

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## **LASERULER®**

Model VLM200

### **Features**

#### Frame

Rugged cast iron legs provide mechanical stability ensuring measurement repeatability and reproducibility.

#### Granite Surface Plate (optional)

Provides required stability to minimize influences on the integrity of the measurement system.

#### Vibration Isolation Stand (optional)

Specially designed active air isolation system works together with granite surface plate to provide a maximum of vibration control.

#### Keyboard & LED Display

Clearly marked keys and a bright LED display makes instrument operation a breeze.

#### Motorized Probe

Touch activated two-speed measurement control eliminates operator influence.

#### Digital Laser Interferometer

Wavelength of laser light used as basis for measuring. Operating principle insures maximum resolution, traceability and performance.

#### Two-Step Calibration

This advanced feature allows the LASERULER to be calibrated with two lab grade NIST traceable gage blocks. This two-step process takes only 30 seconds from start to finish.

#### Automatic Cycling

Programmable inspection cycle permits predetermined constant throughput rate. Operator need only position the part for automatic measurement, allow the probe to engage the specimen, and then remove. This simple procedure is repeated until the lot is complete.

#### Direct Reading or Comparator

Depending on your accuracy requirements, the instrument can easily be operated in either mode.

#### Go/No-Go Presets

Automatic go/no-go decisions from operator-entered tolerance limits and actual measured values.

#### Statistical Measurement

Summation of all measurements is stored on command. Stats display indicates computed mean value and one standard deviation.



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### **SPECIFICATIONS**

Instrument Uncertainty:1,2	5 + .5L Microinches (±2 std. dev.) .125 + .5L Microns (±2 std. dev.)		
Repeatability: <sup>1</sup>	1.6 Microinches (±2 std. dev.)	es (±2 std. dev.) .04 Microns (±2 std. dev.)	
Display Resolution:	0.1 Microinch	0.0025 Microns	
Measurement Range:	0-8.0 inches	203 mm	
Maximum Specimen Size (Cylindrical Shape):	15 inches x 8.3 inches high	381 x 210 mm	
Measurement Probe Contact Force, Standard:	0.5 oz*	14 grams*	
Measuring Probe Geometry:	Tungsten Carbide Flat (1/10 wave) Diamond Tip (standard 0.105"/2.67mm radius) Mounts with ADG #4-48 adapter		
LED Data Display:	16 Digit, Alpha-Numeric		
Electrical Requirements:	110/120 VAC 60 Hz (2 AMP) or 220/240 VAC 50 Hz (1 AMP)		
Printer Interface:	Centronics Compatible		
Serial Port:	RS-232C Compatible. Sends and receives ASCII characters.		
Dimensions (W x D x H):	20 x 16 x 26 inches	51 x 41 x 66 cm	
Shipping Weight:	150 lbs.	68 kgs.	
Laser Type:	Helium-Neon 632.8 nm (RED)		

- 1. Environmental conditions should be within +/- 0.5°F (0.25°C), +/- 0.05 in Hg (1.5mm Hg), and +/- 25% relative humidity between mastering and measuring. Simply re-master if variation exceeds these conditions. Re-mastering takes less than 1-minute.
- 2. Total measurement uncertainty will vary with grade of master and application.
- L = length

#### **NIST TRACEABLE!**

LASERULER'S exclusive Digital Interferometer-based sensor accurately measures length by comparing the measurement probe position to the absolute wavelength of the laser light source.

### **OPTIONAL ACCESSORIES (LABMASTER & LASERULER)**

U3025	593	.750" Lapped Cylinder	U305759	Isolation Stand
U3025	594	V-blocks (set of 3)	U305754	Remote Footswitch Control
3092	211	Probe Tip Adapter	**U305761	Thermal Printer (110-120 volt)
3059	901	Breath Shield	**U305930	Thermal Printer (220-240 volt)
* 3060	000	Serrated Stainless Steel Anvil	**D10065-007	Printer Paper
* 3060	)23	Small Part Anvil	**U305755	Specimen Anvil
*U3060	)53	.030" Backstop for Small Parts Anvil	**U305756	Saddle Anvil
*U3060	)52	.125" Backstop for Small Parts Anvil	** 305762	Carbide Anvil
* 3059	997	Serrated Tungsten Carbide Anvil	D10544-014	3-piece Master Gage Block Set
* 3060	)24	Serrated Large Parts Anvil	D10555-004	12 Assorted Probe Tips
*U3060	)27	Stainless Steel Saddle Anvil	D10555-066	Diamond Probe Tip
U3058	343	Tower Thermometer	U305758	Variable Force Kit
D1001	17-005	Line Regulator	U305753	Monochromatic Light (110-120volt)
U3059	917	24" x 24" Surface Plate	U305939	Monochromatic Light (220-240volt)
D1055	59-104	Stand with Castors	U305752	Optical Leveling Gage
D1055	59-016	Isolation Stand	*D10555-019	Corner Cube Probe Tip
U3057	763	24" x 36" Surface Plate	*U306114	Serrated Bump Anvil
U3059	970	Stand with Casters	*U306487	5-Point Positioner
			*U306274	Corner Cube Anvil
*Availab	ole for LABM	IASTER only.		

Note: Be sure and ask for an item not listed. We are always developing new accessories.

<sup>\*</sup>Contact factory for specific requirements

<sup>\*\*</sup>Available for LASERULER only.

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#### WARRANTY POLICY

Any part which, under normal operating conditions in the plant of the original purchaser, proves defective in material or workmanship within one (1) year from the date of shipment as determined by Pratt & Whitney's inspection, will be repaired free of charge, f.o.b. factory Bloomfield, Connecticut, provided that the product has been properly installed, maintained and operated within the limits of rated and normal usage.



For further information call or write:

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