

# MARK-10

## TSA

- TENSION & COMPRESSION
- CAPACITY: 750 lbf/375 kgf/3750 N
- QUICK ACTION LEVER DRIVE
- DIGITAL FORCE & TRAVEL DISPLAY
- PRECISION RACK & PINION
- ADJUSTABLE TRAVEL STOPS
- HORIZONTAL VERSION AVAILABLE
- ECONOMICAL PRICE: \$995



**TSA**  
 Manual Lever Test Stand

Made in America, the TSA provides tension and compression testing to 750 lbf / 375 kgf / 3750 N with quick action lever and rack and pinion elevating mechanism. The TSA includes adjustable travel stops and a low force friction brake. Adjustable wear plates maintain smooth precise motion.

Force data is displayed by a selection of digital force gauges - basic and advanced - providing computer output and many other features.

Travel data is displayed by a digital travel display with computer and SPC printer output.

MESURgauge force testing software provides easy set up and user friendly data logging and graphing of force vs. distance for spring testing.

### CONSTRUCTION

- Extruded aluminum column and lever/rack and pinion drive.
- Column length of 17" [430 mm] standard, other lengths available.
- Adjustable upper and lower travel stops.
- Low force friction brake holds ram in position.
- Maximum vertical clearance: approx. 12" [300 mm] depending on gauge.
- Maximum vertical travel: 2.75" [70 mm] with stops: 6" [150 mm] no stops.
- Maximum horizontal clearance: 8.5" [215 mm].
- Travel rate: 3" [75 mm] per lever revolution.

### OPERATION

- Precise rack and pinion tension and compression testing.
- Compression testing with 2" [50 mm] diameter plate.
- Tension testing with force gauge and test stand hook.

### ACCESSORIES

- Travel stops, 2" [50 mm] diameter compression plate, medium and large hooks, force gauge mounting and tool kit.

### WEIGHT & DIMENSIONS

- 16 lb [7 kg]                      • 25" [650 mm] H x 6" [150 mm] W x 7" [180 mm] D

MODEL	DESCRIPTION	PRICE
TSA	Vertical Test stand - 750 lbf/375 kgf/3750 N	<b>\$995</b>
TSA001	Digital Travel Display - 6" X 0.0005" [150 mm x 0.01 mm]	<b>650</b>
MRS100A	Communication Adapter - TSA001 to PC	<b>265*</b>
TSA002	Horizontal/Wall Mounting Kit for TSA	<b>150</b>

\* Includes 09-1066, Cable, TSA001 to MRS100A.

MODEL	FORCE GAUGES	PRICE
M5-XXX	Mark-10 Digital Force Gauge 2 - 100 lbf/1 - 50 kgf/10 - 500 N	<b>\$995*</b>
M5-200	Mark-10 Digital Force Gauge 200 lbf/100 kgf/1000 N	<b>1145*</b>
M5-500	Mark-10 Digital Force Gauge 500 lbf/250 kgf/2500 N	<b>1145*</b>
09-1163	Cable, RS232, M5 to PC	<b>75</b>
09-1165	Cable, USB, M5 to PC - Replacement	<b>30**</b>
CG 1000	Digital Force Gauge 1,000 lbf/500 kgf/5000 N	<b>1495</b>
09-1048A	Cable, RS232, M5 to PC	<b>75</b>
RSU100	Cable, RS232 to USB	<b>125***</b>

\* Refer to force gauge pages for model numbers and specifications.

\*\* 09-1165 Cable included with all M5 Force Gauges.

\*\*\* Includes cable, driver and manual on a CD; converts RS232 to USB.

NOTE: CG1000/USB computer operation requires 09-1048A and RSU100.

MODEL	FORCE TESTING SOFTWARE	PRICE
15-1004	MESURgauge Force Testing Software	<b>\$495*</b>
FDIX/KI	Key Injector Software - PC Software Link	<b>50**</b>

\* Feature rich force testing software - force vs. distance analysis.

\*\* Links data received at PC port to operational software, e.g., Excel, etc.

Prices and specifications are subject to change without notice.

[www.wagnerinstruments.com](http://www.wagnerinstruments.com)

**CALL US TOLL FREE 800-345-4188**

