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# Force and Torque Measurement Products



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# We make a measurable difference in force and torque

For more than 30 years, Mark-10 has been an innovative designer and manufacturer of force and torque measuring instruments. We serve a variety of industries around the world, including medical, pharmaceutical, automotive, textile, consumer products, aerospace, food and beverage, and more. Our product line consists of digital force and torque gauges, force and torque sensors, manual and motorized test stands, grips, and accessories.



## Automotive

- Ergonomics
- Airbag deployment
- Buttons & switches
- Torque tool calibration
- Switch testing
- Seat belt retractors
- Fastener torque testing
- Windshield wiper arm force



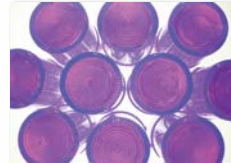
## General Manufacturing

- Spring testing
- Bearing torque testing
- Chain tension
- Stud pull testing
- Push-out force in drive shafts
- Wire feed load mechanism



## Medical / Pharmaceutical

- Blade sharpness
- Suture strength
- Catheter torque
- Stent strength
- Syringe insertion and extraction
- Pill crush testing
- Tube terminal pull strength
- Closure torque



## Plastics & Chemicals

- Film bond strength
- Foam compression
- Peel testing
- Ceramics and plastics bending
- Adhesion testing
- Elastomer elongation testing



## Electronics

- Crimp pull strength
- Peel strength
- Keypad testing
- Weld strength
- Wire terminal strength
- Component removal force
- Contact activation force
- Connector force



## Food & Beverage

- Fruit ripeness testing
- Package seal testing
- Bottle cap testing
- Food texture analysis
- Puncture testing
- Package burst testing



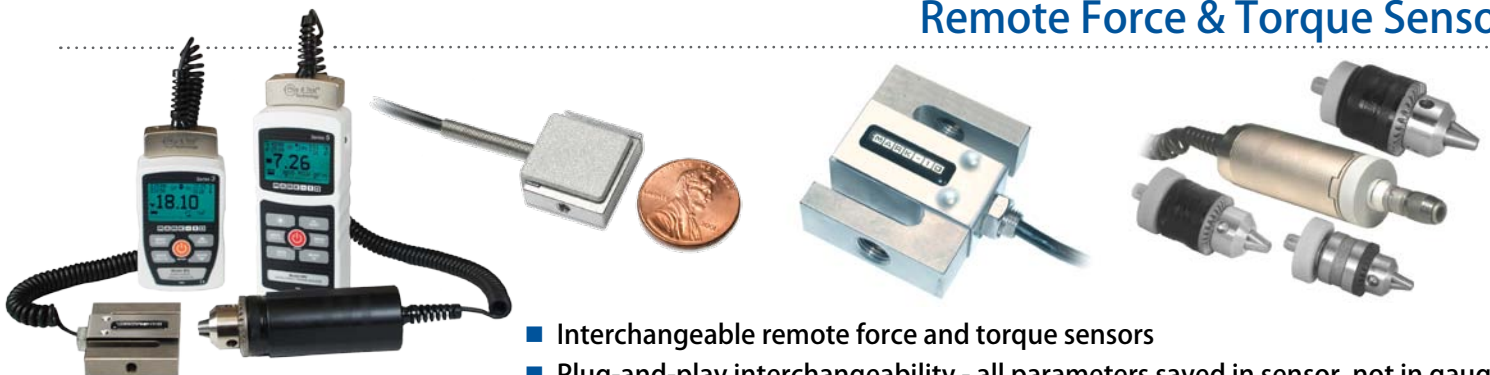
# Force measurement

## Digital Force & Torque Gauges



- Force capacities from 50 gF to 1000 lbF (0.5 N to 5 kN)
- Torque capacities from 10 ozFin to 100 lbFin (7 Ncm to 1150 Ncm)
- Selectable units of measurement
- Data outputs available (USB, RS-232, Mitutoyo, analog)
- Set point outputs available
- Averaging mode available
- Reversible housing for handheld or test stand use
- External trigger feature available

## Remote Force & Torque Sensors



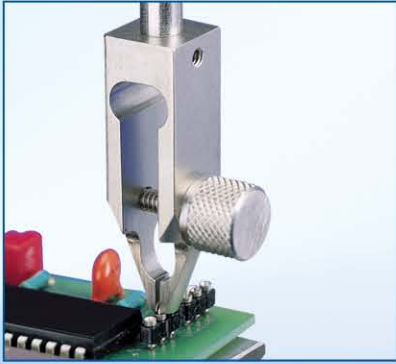
- Interchangeable remote force and torque sensors
- Plug-and-play interchangeability - all parameters saved in sensor, not in gauge
- Force capacities from 0.25 lbF to 10000 lbF (1 N to 50 kN)
- Torque capacities from 10 ozFin to 5000 lbFin (7 Ncm to 550 Nm)

## Manual & Motorized Test Stands



- Lever-operated, hand wheel-operated, and motorize models available
- Force capacities from 100 lbF to 1000 lbF (500 N to 5 kN)
- Torque capacities to 100 lbin (11.3 Nm)
- Many configurations for a wide variety of applications
- Modular design on most models
- Compatible with Mark-10 force and torque gauges
- Travel and angle displays available





## Applications are virtually limitless...

Mark-10 force and torque measurement instruments are used by quality control, engineering, and manufacturing professionals in virtually every industry around the world.



**We make a measurable difference in force and torque measurement.**

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