

Tensiometers

No long measurement times—
readings in 15 to 30 seconds

- Measure surface tension of oils, detergents, colloidal suspensions, and chemicals
- Easy measurements via direct-reading scale from 0 to 90 dyne/cm
- Don't second guess your readings—accurate to ± 0.05 dyne/cm

These meters are specified for determining interfacial tension of oil against water by the ring method in ASTM D971, solutions of surface-active agents in ASTM D1331, testing synthetic rubber lattices in ASTM D1417, and determining surface tension of industrial water/wastewater in ASTM D1590.

Model 59951-20 reads surface tension and upward interfacial tension.

Model 59951-25 measures both upward and downward forces on the measuring ring—great for testing two-phase liquids. Features graduated dial readings in both directions from 0 to 90 dyne/cm and a double vernier. Both the scales and the corresponding verniers have graduations and figures in different colors to indicate whether the force is in an upward or downward direction.



What's included: a 6-cm platinum-iridium measuring ring, three extra torsion wires, and a carrying case.

Type	Measuring range	Accuracy dyne/cm	Catalog number	Price
Upward direction	0 to 90 dyne/cm	± 0.05	GY-59951-20	
Upward/downward direction	0 to 90 dyne/cm	± 0.05	GY-59951-25	

[GY-59951-41](#) Replacement torsion ring for 059951-20

[GY-59951-42](#) Replacement torsion ring for 059951-25

Contact-Angle Micrometer

Get high-accuracy contact
angle measurement

- No standard surface needed—take readings on small, flat, curved, or cylindrical surfaces
- Test and grade surface treatments before bonding or applying

How it works: Place a droplet of test liquid on a substrate with the included syringe needle. The droplet attaches to the substrate surface and a shadow image of the droplet is projected. Projection screen micrometers use optical magnification to project the image onto a screen for measurement.

This projection screen micrometer features an adjustable specimen holder for vertical/axial alignment of the image; sliding screen provides horizontal adjustment. Locking knob holds the position of the projected droplet in place. To read droplet angle, align tangent line from the contact point of the corner of the image to the highest point of the image; measure with the specially calibrated protractor scale.

What's included: fiber-optic illuminator, light pipe, and syringe needle.



Specifications

Droplet size: adjustable, 0.5 μ L minimum
Syringe capacity: 0.2 mL
Specimen holder: 2" x 2" (5 x 5 cm)

Smallest tested surface: 0.007" (0.18 mm)
Magnification: 6:1

Measured angle range	Accuracy	Power (VAC, Hz)	Catalog number	Price
2 to 180°	$\pm 0.8^\circ$	110, 50/60	GY-59780-20	

[GY-07840-00](#) Replacement syringe. Holds 0.2 mL

Surface Tension Apparatus

Quick, easy surface tension measurements



- Determine surface tension based on height of liquid in capillary tube
- Clear, easy-to-read borosilicate glass capillary tube
- Included rubber stopper centers glass capillary tube in the outer cylinder

Apparatus is comprised of an engraved 250-mm borosilicate glass capillary tube (graduated from 0 to 10 cm in 1-mm divisions) and an outer tube. Capillary tube is positioned in the center of the outer tube by means of a rubber stopper. Outer tube accommodates a pipette bulb to expel air.

Description	Catalog number	Price
Surface tension apparatus	GY-59780-90	

[GY-59780-95](#) Replacement glass capillary tube with scale

[GY-24805-20](#) Optional silicone pipette filler