OLYMPUS®
Your Vision, Our Future

Precision Thickness Gage

Magna-Mike® 8600

The New Magna-Mike
Thickness Measurements Made Easier

NEW

- Thickness gage for nonferrous materials
- Measures up to 1 in. (25.4 mm)
- Straight and right angle probes with replaceable wear caps
- Min Scan with 60 Hz capture rate
- Hall Effect technology

The New Magna-Mike

The Magna-Mike® 8600 is a portable thickness gage that uses a simple magnetic method to make reliable and repeatable measurements on nonferrous materials. Operation of the Magna-Mike is very simple. Measurements are made when its magnetic probe is held or scanned on one side of the test material and a small target ball (or Disk or Wire) is placed on the opposite side or dropped inside a container. The probe's Hall Effect sensor measures the distance between the probe tip and target ball. The measurements are instantly displayed as an easy-to-read digital thickness reading.

Two New Probe Design with Replaceable Wear Caps

The Magna-Mike is available with both straight and angled magnetic probes that feature replaceable wear caps to extend the probe's durability and reduce replacement costs.

Removable Standard Wear Cap

Removable Chisel Tip Wear Cap

New Features:

- Two new durable probe designs:
  - Straight and Right Angle
- Replaceable Wear Caps
  - Standard and Chisel tip
- Expanded target selection
  - 3/16 and 1/4 in. magnetic target balls
  - Wire target
- Expanded thickness range up to 25.4 mm (1.00 in.)
- Larger Color VGA display
- RS-232, USB and VGA outputs
- Fast Measurement update rate 60 Hz
- Programmable instrument lock with password
- Designed for IP67 rating
- Expanded alphanumeric data logger
- Save and Recall stored calibration files
- New bench style case with improved gage stand
- Ability to export file to MicroSD card in .txt and CSV formats
- New accessory kits (Calibration kits)
  - Standard up to 9.1 mm (0.360 in.)
  - Extended range up to 25.4 mm (1 in.)
  - Disk kit
  - Wire target kit
- Strip Chart view

Strip chart view with statistics

Measures from 0.001 mm (0.0001 in.) to 25.4 mm (1 in.)

The Magna-Mike offers an expanded list of target options (six different target balls, two target disks and a wire target) to greatly extend its measurement capability.

Targets	Min Thickness	Max Thickness	Accuracy	
			Basic Calibration	Multipoint
1/16 in. (1.58 mm) ball (80TB1)	0.0001 in. (0.001 mm)	0.080 in. (2.03 mm)	4%	3%
1/8 in. (3.17 mm) ball (80TB2)	0.0001 in. (0.001 mm)	0.240 in. (6.1 mm)	4%	2%
3/16 in. (4.76 mm) ball (80TB3)	0.0001 in. (0.001 mm)	0.360 in. (9.1 mm)	3%	1%
1/4 in. (6.35 mm) ball (80TB4)	0.0001 in. (0.001 mm)	0.360 in. (9.1 mm)	3%	1%
New 3/16 in. (4.76 mm) magnetic ball (86TBM3)	0.160 in. (4.06 mm)	0.750 in. (19.05 mm)	3%	1%
New 1/4 in. (6.35 mm) magnetic ball (86TBM4)	0.160 in. (4.06 mm)	1.00 in. (25.4 mm)	3%	1%
0.500 in. (12.7 mm) flat disk (80TD1)	0.0001 in. (0.001 mm)	0.360 in. (9.1 mm)	3%	2%
0.250 in. (6.35 mm) V-edge disk (80TD2)	0.0001 in. (0.001 mm)	0.240 in. (6.1 mm)	3%	2%
New 0.045 in. (1.14 mm) dia. wire (86TW1)	0.0001 in. (0.001 mm)	0.500 in. (12.7 mm)	3%	2%

Note: Measurement tolerance = +/– [(accuracy x thickness) +0.0001 in.]
Measurement tolerance = +/– [(accuracy x thickness) +0.003 mm]

Applications

Plastic and Glass Bottles and Packaging

In applications such as plastic containers, simply drop the small target ball inside the container. The magnetic probe held on the outside of the container attracts the target ball. When scanning the probe along the surface or critical corners, the small steel target ball will follow. In the Minimum Mode feature, the gage continually displays both the actual thickness and the lowest thickness reading.

Automotive Tear Seams

The standard probe along with one of the two target disks and a replaceable chisel wear cap makes the Magna-Mike 8600 ideally suited for most automotive tear seam applications where measurements need to made in a thin channel or groove.

Aerospace and Other Applications

The Magna-Mike has been successfully integrated into quality control programs to measure aerospace parts made of composites and nonferrous materials. The wire targets can be inserted into cooling holes in turbine blades and the larger magnetic target balls can be used to measure jet engine parts up to 25.4 mm (1.00 in.) thick.

Measurement of a 24.1 mm (0.950 in.) aerospace casting

Data Logger

Internal Alphanumeric Data Logger

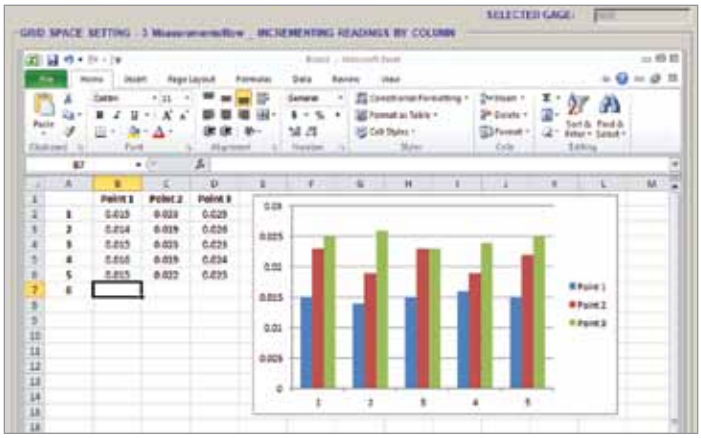
The Magna-Mike® has an extensive file-based alphanumeric data logger that is designed to easily store and transfer thickness readings.

You have the ability to store thickness readings in one of four standard file formats: Incremental, Sequential, Sequential with Custom Point and 2-D Grid.

- Single Send or File Send directly to an Excel spread sheet using WINXL
- Send data to other SPC program
- Both USB and RS-232 outputs
- Export files to a removable MicroSD card in .txt and CSV formats
- Generate on-board reports

Direct Interface to Excel Spread Sheets

The Magna-Mike 8600 has RS-232 and USB outputs that enable the instrument to directly send data to an Excel spread sheet. The included WINXL interface program enables you to single send or file send thickness readings.



WINXL interface program

Measurement of a turbine blade using the wire target

Magna-Mike® 8600 Specifications*

GENERAL

Overall dimension	236 mm x 167 mm x 70 mm (9.3 in. x 6.57 in. x 2.76 in.)
Weight	1.68 kg (3.72 lb), including lithium-ion battery
Keypad	English, Japanese, Chinese, International
Languages	English, Spanish, French, German, Japanese, Chinese, Portuguese, Swedish, Norwegian, Dutch, Polish, Russian, Hungarian, Czech, Italian
Data storage	Onboard and removable 2 GB MicroSD card
Battery life (Optional)	12 h to 13 h (lithium-ion),
Power requirements	AC Mains: 100 VAC to120 VAC, 200 VAC to 240 VAC
Display type	Full VGA (640 x 480 pixels) transflective color LCD
Display dimensions (W x H, Diag.)	117 mm x 89 mm, 146 mm (4.62 in. x 3.49 in., 5.76 in.)
Min/Max capture mode	Captured at 60 Hz measurement rate
Display update rate	4, 8, 16 and 20 Hz
Alarm	High and Low alarms
Resolution	0.1 mm (0.01 in.), 0.01 mm (0.001 in.), 0.001 mm (0.0001 in.) (depending on thickness range)
Data logger	Internal file-based alphanumeric data logger

PROBES

86PR-1	Standard straight probe 82.30 mm (3.24 in.) long and 18.62 mm (0.733 in.) dia.
86PR-2	Right angle probe head 58.84 mm x 18.62 mm, length 178.57 mm (2.32 in. x 0.733 in. dia., length 7.030 in.)

ENVIRONMENTAL TESTING

Vibration	MIL-STD-810G, Method 514.6, Procedure I
Drop	MIL-STD-810G, Method 516.6, Procedure IV
Shock	MIL-STD-810G, Method 516.6, Procedure I
Designed for IP67	Yes

INPUTS/OUTPUTS

USB	USB 2.0 peripheral port
RS-232	Yes
Memory card	Maximum capacity: 2 GB removable MicroSD memory card
Video output	VGA output standard
Foot switch (optional)	Programmable (Save, Send, Meas or Q-Cal)
Operation temperature	–10 °C to 50 °C (14 °F to 122 °F)

Standard Inclusions

Select probe and stand (straight or right angle):

- **86PR-1 (U8470020):** Straight probe includes **86PRS1 (U8771043):** Two-part probe stand
- **86PR-2 (U8470028):** Right angle probe includes **86PRS2 (U8771044):** Two-part right angle probe stand
- **86PC (U8801410):** Probe cable for 86PR-1 and 86PR-2
- **WinXL (U8774010):** Interface program to Excel

Select one from:

- **86ACC-KIT (U8771068):** Standard calibration kit or **86ACC-ER-KIT (U8771069):** Extended range calibration kit
- **EP-MCA:** External power supply with charger
- **8600-MAN-CD (U8778535):** CD with manual (all languages)
- **600-TC (U8780294):** Plastic carry case

Select one from:

- **600-C-RS232-5 (U8780299):** RS-232 cable
- **EPLTC-C-USB-A-6 (U8840031):** USB cable

Standard inclusions may vary depending on your location. Contact your local distributor.

Optional Accessories

- **600-C-VGA-5 (U8780298):** VGA output cable
- **600-BAT-L (U8760056):** Rechargeable lithium-ion battery
- **85FSW (U8780127):** Remote footswitch
- **86PR-2 (U8470028):** Right angle probe
- **86PRS2 (U8771044):** Two-part probe stand for 86PR-2
- **86PCC (U8780323):** Coiled cable for 86PR-1 and 86PR-2
- **86PR1-WC (U8780324):** Replaceable wear cap for 86PR-1 and 86PR-2 probes
- **86PR1-CWC (U8780326):** Chisel tip wear cap for 86PR-1 and 86PR-2 probes
- **80TB1 (U8771030):** Target balls 1.58 mm (1/16 in.)
- **80TB2 (U8771031):** Target balls 3.17 mm (1/8 in.)
- **80TB3 (U8771032):** Target balls 4.76 mm (3/16 in.)
- **80TB4 (U8771022):** Target balls 6.35 mm (1/4 in.)
- **80TD1 (U8771034):** Target disk Flat edge
- **80TD2 (U8771035):** Target disk V-edge
- **86TBM3 (U8771039):** Magnetic target balls 4.76 mm (3/16 in.)
- **86TBM4 (U8771040):** Magnetic target balls 6.35 mm (1/4 in.)
- **86TW1 (U8771041):** Wire target 1.14 mm (0.045 in.)
- **86ACC-ER-KIT (U8771069):** Extended calibration kit
- **86ACC-W-KIT (U8771070):** Wire target calibration kit
- **86ACC-D-KIT (U8771071):** Target disk calibration kit
- **80CAL-NIS (U8771011):** NIST-traced calibration standards (set of six)

OLYMPUS NDT INC. is ISO 9001 and 14001 certified

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OLYMPUS®

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