## Miltutoyo



## SPRING PROMO 2016 PRECISION TOOLS \& INSTRUMENTS

Effective May 1 through July 29, 2016

## COOLANT PROOF"

COOLANT PROOF is the universal term of Mitutoyo Digimatic Small Tool Instruments that are free from measurement error and physical deterioration due to routine exposure to water, cutting oil or coolant. This high performance is achieved by using encoders that are inherently immune to contamination, where exposure is inevitable, combined with comprehensive sealing techniques and extremely oil-resistant materials to guarantee a long working life under normal operating conditions.


## Dear Valued Customers,

We wanted to take this opportunity to personally thank the companies and individuals who partner with us, for their continued support and commitment.

The Spring Promotion is our first largescale Precision Tools \& Instruments Promotion of 2016 and will be effective from May 1, through July 29, 2016.

Please check our website at www.mitutoyo.com to watch for other new products, promotions and events during 2016.

Sincerely,


Shigeyuki Sasaki
President, Mitutoyo America Corporation

## Mitutoyo Quality



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ABSOLUTE Coolant-Proof Calipers


| Order No. | Range | List | Promo |
| :---: | :---: | :---: | :---: |
| Non-Output Style |  |  |  |
| 500-752-10 | $0-6 " / 0-150 \mathrm{~mm}$ | \$209.00 | \$198.55 |
| 500-753-10 | $0-8 " / 0-200 \mathrm{~mm}$ | \$280.00 | \$266.00 |
| 500-754-10* | 0-12"/0-300mm | \$484.00 | \$459.80 |
| SPC Output Style |  |  |  |
| 500-762-10 | 0-6"/0-150mm | \$248.00 | \$235.60 |
| 500-763-20 | 0-8"/0-200mm | \$312.00 | \$296.40 |
| 500-764-10* | 0-12"/0-300mm | \$537.00 | \$510.15 |

## Features

- Its sealed housing is IP-67 rated, meaning it's immune to the coolants, dirt, grit and chips found in many manufacturing environments.
- . 0005 " $/ 0.01 \mathrm{~mm}$ resolution with $\pm .001 "$ accuracy.
- Certificate of inspection provided
* $\pm .0015^{\prime \prime}$ accuracy


## Super Solar Calipers

## Features

- Absolute Encoder Technology
- No battery needed
- Works in low lighting conditions above 60 luxes
- Super capacitor power back-up
- $0.0005^{\prime \prime} / 0.01 \mathrm{~mm}$ resolution
- Certificate of inspection provided
- RoHS compliant



## COOLANT PROOF ${ }^{[1 "}{ }^{\text {© }}$ (107

| Order No. | Range | Description | List | Promo |
| :--- | :--- | :--- | :---: | :---: |
| $\mathbf{5 0 0 - 7 8 4}$ | $0-6$ " $/ 0-150 \mathrm{~mm}$ | no output | $\$ 239.00$ | $\$ 227.05$ |
| $\mathbf{5 0 0 - 7 8 5}$ | $0-8 \prime / 0-200 \mathrm{~mm}$ | no output | $\$ 306.00$ | $\$ 290.70$ |
| $\mathbf{5 0 0 - 7 8 6}$ | $0-6$ " $/ 0-150 \mathrm{~mm}$ | w/SPC output | $\$ 267.00$ | $\$ 253.65$ |
| $\mathbf{5 0 0 - 7 8 7}$ | $0-8 \mathbf{8}^{\prime \prime} / 0-200 \mathrm{~mm}$ | w/SPC output | $\$ 330.00$ | $\$ 313.50$ |

ABSOLUTE
Absolute System Patented by MITUTOYO

## SPC Cables

| Order No. | Description | List | Promo |
| :--- | :--- | :---: | :---: |
| 05CZA624 | $40^{\prime \prime}$ SPC Cable | $\$ 93.90$ | $\$ 89.20$ |
| 05CZA625 | $80^{\prime \prime}$ SPC Cable | $\$ 95.35$ | $\$ 90.60$ |



## ABSOLUTE Digimatic Calipers

## AOS* Absolute Digimatic Calipers

A new series of digimatic calipers derived from 30 years of accumulated Mitutoyo technologies. The patented Advanced Onsite Sensor (AOS) offers improved measurements dependability by increasing resistance to harsh workshop conditions.

## Features

- Electromagnetic inductive sensor improves environmental resistance against dirt, water and oil.
- A battery life of approximately 3.5 years has been achieved under normal use through the adoption of Mitutoyo's ABSOLUTE scale.
- The slider configuration features an ergonomic, thumb-friendly shape.
- Step-measurement capable.
- The data output function allows integration into statistical process control and measurement systems.
- Display character height: 9mm
-     * AOS applies to 4", 6" and 8" models

w.mitutoyo.com/aos VIDEO DEMO


| Order No. | Range | Remarks | List | Promo |
| :--- | :--- | :--- | :--- | :---: |
| No SPC Output Style |  |  |  |  |
| $\mathbf{5 0 0 - 1 9 5 - 3 0}$ | $0-4 " / 0-100 \mathrm{~mm}$ | $.075^{\prime \prime}$ Round depth bar | $\$ 144.00$ | $\$ 136.80$ |
| $\mathbf{5 0 0 - 1 9 6 - 3 0}$ | $0-6 " / 0-150 \mathrm{~mm}$ |  | $\$ 156.00$ | $\$ 148.20$ |
| $\mathbf{5 0 0 - 1 9 7 - 3 0}$ | $0-8 \mathbf{8}^{\prime \prime} / 0-200 \mathrm{~mm}$ |  | $\$ 224.00$ | $\$ 212.80$ |
| $\mathbf{5 0 0 - 1 9 3}$ | $0-12^{\prime \prime} / 0-300 \mathrm{~mm}$ |  | $\$ 450.00$ | $\$ 427.50$ |
|  |  |  |  |  |
| With SPC Output Style |  |  |  |  |


| Order No. | Description | List | Promo |
| :--- | :--- | :---: | :---: |
| $\mathbf{9 5 9 1 4 9}$ | 40 " SPC Cable | $\$ 49.25$ | $\$ 46.80$ |
| $\mathbf{9 5 9 1 5 0}$ | $80^{\prime \prime}$ SPC Cable | $\$ 55.20$ | $\$ 52.45$ |


| $\mathbf{5 0 0 - 1 7 0 - 3 0}$ | $0-\mathbf{4}^{\prime \prime} / 0-100 \mathrm{~mm}$ | $.075^{\prime \prime}$ Round depth bar | $\$ 172.00$ | $\$ 163.40$ |
| :--- | :--- | :--- | :--- | :---: |
| $\mathbf{5 0 0 - 1 7 1 - 3 0}$ | $0-6 / 0-150 \mathrm{~mm}$ |  | $\$ 183.00$ | $\$ 173.85$ |
| $\mathbf{5 0 0 - 1 7 2 - 3 0}$ | $0-8 / / 0-200 \mathrm{~mm}$ |  | $\$ 241.00$ | $\$ 228.95$ |
| $\mathbf{5 0 0 - 1 7 3}$ | $0-12^{\prime \prime} / 0-300 \mathrm{~mm}$ |  | $\$ 525.00$ | $\$ 498.75$ |
| $\mathbf{5 0 0 - 5 0 5 - 1 0}$ | $0-18^{\prime \prime} / 0-450 \mathrm{~mm}$ | Without Thumb Roller | $\$ 819.00$ | $\$ 778.05$ |
| $\mathbf{5 0 0 - 5 0 6 - 1 0}$ | $0-24^{\prime \prime} / 0-600 \mathrm{~mm}$ | Without Thumb Roller | $\$ 900.00$ | $\$ 855.00$ |
| $\mathbf{5 0 0 - 5 0 7 - 1 0}$ | $0-40 " / 0-1000 \mathrm{~mm}$ | Without Thumb Roller | $\$ 1,740.00$ | $\$ 1,653.00$ |

## Dial Calipers



505-746

Features

- Newly designed dial movement for ultra smooth sliding and high shock protection.
- Stainless steel.
- . 001 " graduations.
- Lock screw for dial bezel and for holding the sliding jaw position.
- Can measure OD, ID, depth and steps.
- Models available with carbide-tipped OD and ID jaws.


## Vernier Calipers

## Features

- Can measure OD, ID, depth and steps.
- The small vernier face angle ( $14^{\circ}$ ) provides easy-reading.
- Dual reading scales on vernier.
- Lock screw for holding the sliding jaw position.
- Carbide-tipped jaw type calipers are also available.


| Order No. | Range | Vernier Graduation |  | Remarks | List | Promo |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: |
|  |  | Upper Scale |  |  |  |  |
| $\mathbf{5 3 0 - 1 0 4}$ | $0-150 \mathrm{~mm} / 0-6^{\prime \prime}$ | 0.05 mm | $1 / 128^{\prime \prime}$ |  | $\$ 105.00$ | $\$ 99.75$ |
| $\mathbf{5 3 0 - 3 1 2}$ | $0-150 \mathrm{~mm} / 0-6^{\prime \prime}$ | 0.02 mm | $.001^{\prime \prime}$ | High-accuracy model | $\$ 124.00$ | $\$ 117.80$ |
| $\mathbf{5 3 0 - 1 1 4}$ | $0-200 \mathrm{~mm} / 0-8^{\prime \prime}$ | 0.05 mm | $1 / 128^{\prime \prime}$ |  | $\$ 124.00$ | $\$ 117.80$ |
| $\mathbf{5 3 0 - 1 1 8}$ | $0-200 \mathrm{~mm} / 0-8^{\prime \prime}$ | 0.02 mm | $.001^{\prime \prime}$ | High-accuracy model | $\$ 1122^{\prime \prime}$ |  |
| $\mathbf{5 3 0 - 1 1 5}$ | $0-300 \mathrm{~mm} / 0-12^{\prime \prime}$ | 0.05 mm | $1 / 128^{\prime \prime}$ |  | $\$ 237.00$ | $\$ 225.15$ |
| $\mathbf{5 3 0 - 1 1 9}$ | $0-300 \mathrm{~mm} / 0-12^{\prime \prime}$ | 0.02 mm | $.001^{\prime \prime}$ | High-accuracy model | $\$ 232.00$ | $\$ 220.40$ |

## MDC Micrometers

## COOLANT PROOF"

Features

- New electromagnetic ABSOLUTE sensor - Improved resistance to environmental conditions such as dirt, oil and water that can cause false readings.
- New ratchet thimble models improve one-hand operability.
- New Anti-slip finish for improved grip while taking measurements.
- Long battery life -2.4 years under normal operation.
- Fully compatible with existing Mitutoyo Digimatic peripherals (SPC Cables, U-Wave wireless transmitters, DP1-VR, etc.) - SPC output-enabled IP65 models.
- Function-lock system prevents inadvertent setting changes.
- Certificate of inspection provided.

| Order No. | Range | Resolution | Remarks | List | Promo |
| :---: | :---: | :---: | :---: | :---: | :---: |
| IP65 - With SPC Output |  |  |  |  |  |
| 293-330-30 | 0-1"/0-25.4mm | . $000055^{\prime \prime} / 0.001 \mathrm{~mm}$ | Ratchet Stop | \$240.00 | \$228.00 |
| 293-331-30 | 1-2"/25.4-50.8mm | . 00005 "/0.001mm | Ratchet Stop w/Standard | \$283.00 | \$268.85 |
| IP65 - Non-SPC Output |  |  |  |  |  |
| 293-340-30 | 0-1"/0-25.4mm | . 00005 "/0.001mm | Ratchet Stop | \$187.00 | \$177.65 |
| 293-344-30 | 0-1"/0-25.4mm | . 00005 "/0.001mm | Ratchet Thimble | \$187.00 | \$177.65 |
| 293-348-30 | 0-1"/0-25.4mm | .00005"/0.001mm | Friction Thimble | \$187.00 | \$177.65 |
| 293-349-30 | 0-1"/0-25.4mm | . 0001 " $/ 0.001 \mathrm{~mm}$ | Ratchet Thimble | \$187.00 | \$177.65 |
| 293-341-30 | 1-2"/25.4-50.8mm | . $000055^{\prime \prime} / 0.001 \mathrm{~mm}$ | Ratchet Stop w/Standard | \$243.00 | \$230.85 |
| 293-345-30 | 1-2"/25.4-50.8mm | . 00005 "/0.001mm | Ratchet Thimble w/Standard | \$243.00 | \$230.85 |



| Order No. | Description | List | Promo |
| :--- | :--- | :---: | :---: |
| 05CZA662 | $40^{\prime \prime}$ SPC Cable | $\$ 83.80$ | $\$ 79.60$ |
| 05CZA663 | $80^{\prime \prime}$ SPC Cable | $\$ 92.45$ | $\$ 87.85$ |



Improved operability with one hand

## Outside Micrometers — Inch Models

Features

- Carbide measuring faces.
- Hammertone, baked enamel-finished frame.
- With a standard bar except for 0-1" model.
- Certificate of inspection provided (0-1" ",-2" models only).


| Order No. | Range | Graduations | Remarks | List | Promo |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 103-260 | 0-1" | .0001" | Ratchet Stop | \$118.00 | \$106.20 |
| 103-262 | 1-2" | .0001" | Ratchet Stop | \$138.00 | \$124.20 |
| 103-132 | 1-2" | .0001" | Ratchet Stop | \$122.00 | \$109.80 |
| 103-217 | 2-3" | .0001" | Ratchet Stop | \$154.00 | \$138.60 |
| 103-218 | 3-4" | .0001" | Ratchet Stop | \$177.00 | \$159.30 |
| 103-219 | 4-5" | .0001" | Ratchet Stop | \$192.00 | \$172.80 |
| 103-220 | 5-6" | .0001" | Ratchet Stop | \$213.00 | \$191.70 |
| 103-221 | 6-7" | .0001" | Ratchet Stop | \$241.00 | \$216.90 |
| 103-222 | 7-8" | .0001" | Ratchet Stop | \$254.00 | \$228.60 |
| 103-223 | 8-9" | .0001" | Ratchet Stop | \$282.00 | \$253.80 |
| 103-224 | 9-10" | .0001" | Ratchet Stop | \$292.00 | \$262.80 |
| 103-225 | 10-11" | .0001" | Ratchet Stop | \$306.00 | \$275.40 |
| 103-226 | 11-12" | .0001" | Ratchet Stop | \$319.00 | \$287.10 |
| Micrometer Sets |  |  |  |  |  |
| 103-922 | 0-3" | $3 \mathrm{pcs} /$ set includes 103-217, 2pcs. | : 103-135, 103-136, icrometer Standards | \$431.00 | \$387.90 |

## QuantuMike Micrometer

## 4X Faster Spindle Travel



## Features

- Faster measurement with 2 mm travel per revolution instead of the standard 0.5 mm .
- A patented ratchet thimble mechanism helps ensure repeatability.
- A Function lock helps prevent error.
- IP-65 protection level.
- Certificate of inspection provided.


## Significant reduction in positioning time




Ratchet-induced microvibrations along the spindle help ensure repeatable measurements

| Order No. | Range | Resolution | List | Promo |
| :---: | :--- | :--- | :---: | :---: |
| 293-180* | $0-\mathbf{1}^{\prime \prime} / 0-25 \mathrm{~mm}$ | $.00005^{\prime \prime} / 0.001 \mathrm{~mm}$ | $\$ 262.00$ | $\$ 248.90$ |
| 293-181* | $1-\mathbf{2}^{\prime \prime} / 25-50 \mathrm{~mm}$ | $.00005^{\prime \prime} / 0.001 \mathrm{~mm}$ | $\$ 300.00$ | $\$ 285.00$ |
| $\mathbf{2 9 3 - 1 8 5}$ | $0-\mathbf{1}^{\prime \prime} / 0-25 \mathrm{~mm}$ | $.00005^{\prime \prime} / 0.001 \mathrm{~mm}$ | $\$ 226.00$ | $\$ 214.70$ |
| $\mathbf{2 9 3 - 1 8 6}$ | $1-\mathbf{2}^{\prime \prime} / 25-50 \mathrm{~mm}$ | $.00005^{\prime \prime} / 0.001 \mathrm{~mm}$ | $\$ 258.00$ | $\$ 245.10$ |
| $\mathbf{2 9 3 - 1 8 2 *}$ | $2-3^{\prime \prime} / 50.8-76.2 \mathrm{~mm}$ | $.00005^{\prime \prime} / 0.001 \mathrm{~mm}$ | $\$ 358.00$ | $\$ 340.10$ |
| $\mathbf{2 9 3 - 1 8 7}$ | $2-3^{\prime \prime} / 50.8-76.2 \mathrm{~mm}$ | $.00005^{\prime \prime} / 0.001 \mathrm{~mm}$ | $\$ 310.00$ | $\$ 294.50$ |
| $\mathbf{2 9 3 - 1 8 3 *}$ | $3-\mathbf{4}^{\prime \prime} / 76.2-101.6 \mathrm{~mm}$ | $.00005^{\prime \prime} / 0.001 \mathrm{~mm}$ | $\$ 385.00$ | $\$ 365.75$ |
| $\mathbf{2 9 3 - 1 8 8}$ | $3-\mathbf{4}^{\prime \prime} / 76.2-101.6 \mathrm{~mm}$ | $.00005^{\prime \prime} / 0.001 \mathrm{~mm}$ | $\$ 372.00$ | $\$ 353.40$ |

*with SPC Output

| Order No. | Description | List | Promo |
| :--- | :--- | :---: | :---: |
| 05CZA662 | $40^{\prime \prime}$ SPC Cable | $\$ 83.80$ | $\$ 79.60$ |
| 05CZA663 | $80^{\prime \prime}$ SPC Cable | $\$ 92.45$ | $\$ 87.85$ |

## MDH Micrometer

High-Accuracy Sub-Micron Digimatic Micrometer


## Features

- Enabling $.000005^{\prime \prime} / 0.1 \mu \mathrm{~m}$ resolution measurement, this micrometer is ideal for customers who need to make highly accurate measurements with a handheld tool.
- The ABS (absolute) rotary sensor also eliminates the need to perform origin setting each time the power is turned on, letting you start measuring right away. With no possibility of overspeed errors, the High-Accuracy Digimatic Micrometer also delivers a higher level of reliability.
- Certificate of inspection provided.




## Micrometer Stand

The micrometer stand is designed to provide the convenience of a benchtop tool with hand micrometers or other gages.


| Order No. | Description | List | Promo |
| :--- | :--- | :---: | :---: |
| 156-101-10 | Micrometer Stand | $\$ 110.00$ | $\$ 99.00$ |

## INDICATORS / THICKNESS

## IDC Digimatic Indicators

Features

- Absolute Encoder ensures all settings and readings maintained for the life of the battery (even when the power is turned off).
- Preset, Zero-Set, inch/mm, +/- direction and go/no-go functions.
- Face rotates $330^{\circ}$ for use at various angles.
- Stem diameter: .375"
- Immune to overspeed error.
- SPC output provided.
- Average battery life 7,000 hours using SR-44 battery (541980).

| Order No. | Range | Remarks | List | Promo |
| :---: | :---: | :---: | :---: | :---: |
| . 0005 "/0.01mm Resolution |  |  |  |  |
| 543-402 | . 500 "/12.7mm | Lug Back | \$310.00 | \$294.50 |
| 543-402B | . 500 "/12.7mm | Flat Back | \$310.00 | \$294.50 |
| 543-476B | 1 "/25mm | Flat Back | \$454.00 | \$431.30 |
| 543-496B | 2"/50mm | Flat Back | \$597.00 | \$567.15 |
| . 00005 "/ $/ 0001$ " $/ .0005$ " $/ 0.001 \mathrm{~mm} / 0.01 \mathrm{~mm}$ Resolution* |  |  |  |  |
| 543-392 | . 500 " $/ 12.7 \mathrm{~mm}$ | Lug Back | \$424.00 | \$402.80 |
| 543-392B | . 500 "/12.7mm | Flat Back | \$424.00 | \$402.80 |
| 543-472B | 1 "/25mm | Flat Back | \$568.00 | \$539.60 |
| 543-492B | 2"/50mm | Flat Back | \$713.00 | \$677.35 |

- Three large buttons

The popular three-large button design, which is used in products such as the ABS coolantproof Digimatic indicators ID-N/B, makes buttons easier to press and operations easier to perform.


- Power switch
- Data output
(when connected to an external device)
- Data hold
(when no external device is connected)
Switches between the ABS (preset) and INC (zeroset) measurement modes

Count direction switching, tolerance judgment setting, resolution
switching, scale factor setting, and function lock setting

- inch/mm conversion (inch/mm models)


## - $330^{\circ}$ rotary display

The display can be rotated $330^{\circ}$, allowing use at a position where you can easily read the measurement value.


## Digimatic Thickness Gages

The Thickness Gages offer a quick and efficient means of inspection with their convenient grip handle, thumb trigger and spring-loaded spindle. The various models cover a wide range of applications.

| Order No. | Range | Resolution | List | Promo |
| :--- | :--- | :--- | :--- | :--- |
| 547-400S | $0-.47 " 0-12 \mathrm{~mm}$ | $.00005^{\prime \prime} / 0.001 \mathrm{~mm}$ | $\$ 831.00$ | $\$ 789.45$ |
| $\mathbf{5 4 7 - 5 2 0 S}$ | $0-.47 " 0-12 \mathrm{~mm}$ | $.0005^{\prime \prime} / 0.01 \mathrm{~mm}$ | $\$ 304.00$ | $\$ 288.80$ |



Prices effective May 1 through July 29, 2016

## Series One Dial Indicators

Mitutoyo's Dial Indicators now offer users more stability and longer life, thanks to advances to the inner workings of the rack and pinion gear system. Shock resistance is increased with a more robust gear train, while contamination resistance has been dramatically increased over other indicators of this type with a tighter seal around the bezel and frame, and the elimination of a lifting lever screw.


| Order No. | Graduation | Range | Accuracy | Dial Face | List | Promo |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| $\mathbf{1 4 1 0 S}$ | $.001^{\prime \prime}$ | $.25^{\prime \prime}$ | $\pm .001^{\prime \prime}$ | $0-100$ | $\$ 108.00$ | $\$ 97.20$ |
| 1410S-10** | $.001^{\prime \prime}$ | $.25^{\prime \prime}$ | $\pm .001^{\prime \prime}$ | $0-100$ | $\$ 112.00$ | $\$ 100.80$ |
| 1410SB* | $.001^{\prime \prime}$ | $.25^{\prime \prime}$ | $\pm .001^{\prime \prime}$ | $0-100$ | $\$ 108.00$ | $\$ 97.20$ |
| $\mathbf{1 5 0 6 S}$ | $.0005^{\prime \prime}$ | $.125^{\prime \prime}$ | $\pm .0005^{\prime \prime}$ | $0-50$ | $\$ 99.80$ | $\$ 89.80$ |
| $\mathbf{1 5 0 7 S}$ | $.0005^{\prime \prime}$ | $.125^{\prime \prime}$ | $\pm .0005^{\prime \prime}$ | $0-25-0$ | $\$ 99.80$ | $\$ 89.80$ |

* with flat back ** jeweled


## Series Two Dial Indicators

| Order No. | Graduation | Range/Rev | Type | Dial Reading | Accuracy First 2.5 <br> Rev/Overall | Force | List | Promo |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| $\mathbf{2 7 7 6 S}$ | $.0005^{\prime \prime}$ | $1^{\prime \prime} / .05^{\prime \prime}$ | w/lug | $0-50$ | $.0005 / .002$ | 2.5 N or less | $\$ 142.00$ | $\$ 127.80$ |



## "Quick-Set" Test Indicators

The most direct gear train design ever applied to test indicators means higher levels of sensitivity, reliability, repeatability and accuracy throughout tool life.

## Features

- Anti-magnetic
- Jeweled bearings
- No-clutch structure
- Water- and dust-resistant
- Glare-free crystal with scratch-resistant coating
- Metric dial faces in yellow
- Measuring force 0.3 N or less

| Order No. | Graduation | Range | Dial Face | Remarks | List | Promo |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: |
| $\mathbf{5 1 3 - 4 0 2}$ | $.0005^{\prime \prime}$ | $.030^{\prime \prime}$ | $0-15-0$ | Anti Magnet, <br> Jeweled | $\$ 130.00$ | $\$ 123.50$ |
| $\mathbf{5 1 3 - 4 0 2 T}$ | $.0005^{\prime \prime}$ | $.030^{\prime \prime}$ | $0-15-0$ | Anti Magnet, <br> Jeweled Set | $\$ 154.00$ | $\$ 146.30$ |
| $\mathbf{5 1 3 - 4 1 2}$ | $.0005^{\prime \prime}$ | $.030^{\prime \prime}$ | $0-15-0$ | Long Point | $\$ 186.00$ | $\$ 176.70$ |
| $\mathbf{5 1 3 - 4 1 2 T}$ | $.0005^{\prime \prime}$ | $.030^{\prime \prime}$ | $0-15-0$ | Long Point Set | $\$ 215.00$ | $\$ 204.25$ |
| $\mathbf{5 1 3 - 4 0 3}$ | $.0001^{\prime \prime}$ | $.008^{\prime \prime}$ | $0-4-0$ | Anti Magnet, <br> Jeweled | $\$ 169.00$ | $\$ 160.55$ |
| $\mathbf{5 1 3 - 4 0 3 T}$ | $.0001^{\prime \prime}$ | $.008^{\prime \prime}$ | $0-4-0$ | Anti Magnet, <br> Jeweled Set | $\$ 198.00$ | $\$ 188.10$ |



513-412

## Dial Gage Stands

| Order No. | Max. Ht. <br> Capacity | Anvil Type | List | Promo |
| :--- | :---: | :---: | :---: | :---: |
| $\mathbf{7 0 0 7 - 1 0}$ | $3.54^{\prime \prime}$ | Square Serrated Anvil | $\$ 554.00$ | $\$ 526.30$ |
| $7001-10$ | $4.0^{\prime \prime}$ | Round Serrated Anvil | $\$ 554.00$ | $\$ 526.30$ |
| $7002-10$ | $4.0^{\prime \prime}$ | Round Flat Anvil | $\$ 554.00$ | $\$ 526.30$ |

The compact and versatile Dial Gage Stands are commonly used general-purpose stands for comparison measurements, 4" maximum height capacity. They feature a wide fine adjusting range for zero-setting gage heads.


Now with two resolutions (. $\left.0002^{\prime \prime} / .0005^{\prime \prime}\right)$, two value preset memory and increased character height for easier viewing.

## Features

- Highly versatile, multi-function type.
- Carbide-tipped long scriber is provided.
- Rigid construction ensures repeatable measurement.
- Switchable resolution.
- Coarse/fine feed switching.
- With SPC data output.
- Two preset reference height.

Functions include:

- Zero/ABS setting (ABS and INC modes)
- Two-value preset memory
- Data/hold
- $\pm$ Counting
- Inch/mm conversion


| Order No. | Range | Resolution | Accuracy | List | Promo |
| :--- | :--- | :---: | :---: | :---: | :---: |
| 192-670-10 | $0-12^{\prime \prime} / 0-300 \mathrm{~mm}$ |  | $.0005^{\prime \prime}(0.01 \mathrm{~mm})$ | $\pm 001^{\prime \prime}$ | $\$ 1,770.00$ |$\$ \$ 1,593.00$


| Order No. | Description | List | Promo |
| :--- | :--- | :---: | :---: |
| $\mathbf{9 0 5 3 3 8}$ | $40^{\prime \prime}$ SPC Cable | $\$ 40.05$ | $\$ 38.05$ |
| $\mathbf{9 0 5 4 0 9}$ | $80^{\prime \prime}$ SPC Cable | $\$ 47.75$ | $\$ 45.35$ |

## Dial Height Gages

Double-column structure ensures high measuring accuracy. Coarse/Fine Feed switching. Carbide-tipped scriber.


| Order No. | Range | Graduation | List | Promo |
| :--- | :--- | :--- | :---: | :---: |
| $\mathbf{1 9 2 - 1 5 0}$ | $0-12^{\prime \prime}$ | $.001^{\prime \prime}$ | $\$ 1,010.00$ | $\$ 909.00$ |
| $192-151$ | $0-18^{\prime \prime}$ | $.001^{\prime \prime}$ | $\$ 1,400.00$ | $\$ 1,260.00$ |
| $192-152$ | $0-24^{\prime \prime}$ | $.001^{\prime \prime}$ | $\$ 1,820.00$ | $\$ 1,638.00$ |

## Rectangular Steel Gage Block Sets



516-902-26

| Order No. | Blocks per Set | Grade | Size | Step | Qty | List | Promo |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 516-902-26 | 81 | 0 | .1001-.1009" | .0001" | 9 | \$1,970.00 | \$1,773.00 |
|  |  |  | . 101 - .149" | .001" | 49 |  |  |
|  |  |  | . 05 - .95" | .05" | 19 |  |  |
|  |  |  | 1-4" | $1^{\prime \prime}$ | 4 |  |  |
| 516-903-26 | 81 | AS-1 | .1001-.1009" | .0001" | 9 | \$1,710.00 | \$1,539.00 |
|  |  |  | .101-.149" | .001" | 49 |  |  |
|  |  |  | .05-.95" | .05" | 19 |  |  |
|  |  |  | 1-4" | 1" | 4 |  |  |
| 516-904-26 | 81 | AS-2 | .1001-.1009" | .0001" | 9 | \$1,550.00 | \$1,395.00 |
|  |  |  | .101-.149" | .001" | 49 |  |  |
|  |  |  | .05-.95" | .05" | 19 |  |  |
|  |  |  | 1-4" | 1 " | 4 |  |  |
| 516-914-26 | 35 | 0 | .10005" |  | 1 | \$1,040.00 | \$936.00 |
|  |  |  | .1001-.1009" | .0001" | 9 |  |  |
|  |  |  | .101-.149" | .001" | 9 |  |  |
|  |  |  | .11-.19" | .01" | 9 |  |  |
|  |  |  | .1-.3" | .1" | 3 |  |  |
|  |  |  | .5, 1, 2, 4" |  | 4 |  |  |
| 516-947-26 | 87 | AS-1 | $1.001-1.009 \mathrm{~mm}$ | 0.001 mm | 9 | \$2,460.00 | \$2,214.00 |
|  |  |  | $1.01-1.49 \mathrm{~mm}$ | 0.01 mm | 49 |  |  |
|  |  |  | $0.5-9.5 \mathrm{~mm}$ | 0.5 mm | 19 |  |  |
|  |  |  | 10-100mm | 10 | 10 |  |  |


| Order No. | Blocks per Set | Grade | Blocks Incl. In Set | Remarks | List | Promo |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 516-930-26 | 9 | 0 | $\left\lvert\, \begin{gathered} .0625^{\prime \prime}, 100^{\prime \prime}, .125^{\prime \prime \prime} \\ .200^{\prime \prime}, 250^{\prime \prime}, .300^{\prime \prime} \\ .500^{\prime \prime}, 2^{\prime \prime} \end{gathered}\right.$ | Opticalparallel parallel$\left(t=.5^{\prime \prime}\right)$ | \$360.00 | \$324.00 |
| 516-931-26 | 9 | AS-1 |  |  | \$314.00 | \$282.60 |
| 516-935-26 | 9 | AS-1 | $\begin{aligned} & .0625^{\prime \prime}, 100^{\prime \prime}, 125^{\prime \prime}, \\ & .200,, 250^{\prime \prime}, 300^{\prime \prime} . \\ & .500^{\prime \prime}, 1^{\prime \prime}, 2^{\prime \prime} \end{aligned}$ |  | \$242.00 | \$217.80 |

## Digimatic Holtest

## Features

- TiN-coated measuring contact points provide excellent durability and impact resistance and allow the instrument to measure close to the bottom of blind holes ( up to $100 \mathrm{~mm} / 4^{\prime \prime}$ models).
- Large LCD readout.
- Functions available: Presetting, Zero/ABS, Auto power On/Off, Data hold, Data output, Error alarm, Battery replacement alarm.
- With Ratchet Stop for constant force.
- Can measure deep holes by attaching an extension rod (optional).
- Setting rings are included in sets, but optional for individual gages.
- Supplied in fitted plastic case up to $100 \mathrm{~mm} / 4^{\prime \prime}$. Over $100 \mathrm{~mm} / 4^{\prime \prime}$ supplied in wooden case.
- Resolution: . 00005 " $/ 0.001 \mathrm{~mm}$ (over 4" models: .0001 " $/ 0.001 \mathrm{~mm}$ )


468-261


20\%

www.mitutoyo.com/dholtes VIDEO DEMO

| Order No | Range | Accuracy | List | Promo |
| :---: | :---: | :---: | :---: | :---: |
| Individual Gages |  |  |  |  |
| 468-261 | . $275-.35^{\prime \prime} / 6.925-8.89 \mathrm{~mm}$ | $\pm .0001 "$ | \$1,110.00 | \$888.00 |
| 468-262 | . $35-.425^{\prime \prime} / 8.89-10.795 \mathrm{~mm}$ | $\pm .0001 "$ | \$1,110.00 | \$888.00 |
| 468-263 | . $425-.5^{\prime \prime} / 10.795-12.7 \mathrm{~mm}$ | $\pm .0001{ }^{\prime \prime}$ | \$1,120.00 | \$896.00 |
| 468-264 | . $5-.65$ " / 12.7-16.51mm | $\pm .0001{ }^{\prime \prime}$ | \$1,220.00 | \$976.00 |
| 468-265 | . $65-.8$ / / 16.51-20.32mm | $\pm .0001{ }^{\prime \prime}$ | \$1,220.00 | \$976.00 |
| 468-266 | . $8-1^{\prime \prime} / 20.32-25.4 \mathrm{~mm}$ | $\pm .00015^{\prime \prime}$ | \$1,250.00 | \$1,000.00 |
| 468-267 | 1-1.2" / 25.4-30.48mm | $\pm .00015^{\prime \prime}$ | \$1,250.00 | \$1,000.00 |

Optional Accessories
04AZB157: Mounting plate for stand
156-101-10: Stand
952322: Extension rod $100 \mathrm{~mm} / 3.94^{\prime \prime}$ For range $6-12 \mathrm{~mm} / .275-.5^{\prime \prime}$ models
952621: Extension rod $150 \mathrm{~mm} / 5.9^{\prime \prime}$
For range $12-20 \mathrm{~mm} / .5^{\prime \prime}-.8^{\prime \prime}$ models
952622: Extension rod $150 \mathrm{~mm} / 5.9^{\prime \prime}$ For range 20-50mm / .8" - 2" models
952623: Extension rod $150 \mathrm{~mm} / 5.9^{\prime \prime}$ For range $50-300 \mathrm{~mm} / 2^{\prime \prime}-12^{\prime \prime}$ models


| Order No. | Description | List | Promo |
| :--- | :--- | :---: | :---: |
| 05CZA662 | 40 " SPC Cable | $\$ 83.80$ | $\$ 79.60$ |
| 05CZA663 | $80^{\prime \prime}$ SPC Cable | $\$ 92.45$ | $\$ 87.85$ |

## Quill Kit with Absolute Encoder

Easy Installation, Fits Most Vertical Knee Mills

## Features

- Easy-to-read LCD with resolution of $.0005^{\prime \prime} / 0.01 \mathrm{~mm} .0-6$ " travel.
- Push button controls for inch/mm, Zero-Set and On/Off.
- Powered by a single SR-44 Battery which lasts about 1 year with normal use.
- SPC Output for data transmission to Data Processors or a Remote Display.

| Order No. | Description | List | Promo |
| :--- | :--- | :---: | :---: |
| 053906B | Digimatic Quill Kit complete with brackets <br> \& scale for Bridgeport Type machines. | $\$ 310.00$ | $\$ 279.00$ |



The Mitutoyo Quill Kit mounted on a vertical mill.
ABSOLUTE

## ABSOLUTE Digimatic Scale Units

## Features

- The ORIGIN key allows setting of an absolute zero point to be used as reference in subsequent measurements. Once set, the ABS Digimatic Scale Unit is ready to show its true position whenever turned on, rather than 0.00 " as with standard models.
- The ZERO/ABS key allows the display to be zero-set at any slider position along the beam for incremental comparison measurements. This key will also allow return to the absolute coordinate with a display of the true position from the origin point.
- No rack, no pinion, no glass scale. Digimatic Scale Unit is safely embedded in the hardened stainless steel blade.
- Horizontal or vertical face according to the scale mounting direction.
- Multi-function types with diameter displaying function are also available (contact Mitutoyo) for lathes.
- All units come with two mounting brackets, each located at either end of the scale.
- With SPC data output.

| Order No | Model | Range | Accuracy | Resolution | Type | List | Promo |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| $\mathbf{5 7 2 - 2 1 0 - 2 0}$ | SD-4"DX | $0-\mathbf{4}^{\prime \prime} / 0-100 \mathrm{~mm}$ | $.001^{\prime \prime} / 0.03 \mathrm{~mm}$ | $.0005^{\prime \prime} / 0.01 \mathrm{~mm}$ | Horizontal single-function | $\$ 235.00$ | $\$ 223.25$ |
| $\mathbf{5 7 2 - 2 1 1 - 2 0}$ | SD-6"DX | $0-6^{\prime \prime} / 0-150 \mathrm{~mm}$ | $.001^{\prime \prime} / 0.03 \mathrm{~mm}$ | $.0005^{\prime \prime} / 0.01 \mathrm{~mm}$ | Horizontal single-function | $\$ 249.00$ | $\$ 236.55$ |
| $\mathbf{5 7 2 - 2 1 2 - 2 0}$ | SD-8"DX | $0-8 \mathbf{8}^{\prime \prime} / 0-200 \mathrm{~mm}$ | $.001^{\prime \prime} / 0.03 \mathrm{~mm}$ | $.0005^{\prime \prime} / 0.01 \mathrm{~mm}$ | Horizontal single-function | $\$ 290.00$ | $\$ 275.50$ |
| $\mathbf{5 7 2 - 2 1 3 - 1 0}$ | SD-12"D | $0-12^{\prime \prime} / 0-300 \mathrm{~mm}$ | $.002^{\prime \prime} / 0.04 \mathrm{~mm}$ | $.0005^{\prime \prime} / 0.01 \mathrm{~mm}$ | Horizontal single-function | $\$ 559.00$ | $\$ 531.05$ |
| $\mathbf{5 7 2 - 3 1 0 - 1 0}$ | SD-6"D | $0-\mathbf{4}^{\prime \prime} / 0-100 \mathrm{~mm}$ | $.001^{\prime \prime} / 0.03 \mathrm{~mm}$ | $.0005^{\prime \prime} / 0.01 \mathrm{~mm}$ | Vertical single function | $\$ 260.00$ | $\$ 247.00$ |
| $\mathbf{5 7 2 - 3 1 1 - 1 0}$ | SD-6"D | $0-66^{\prime \prime} / 0-150 \mathrm{~mm}$ | $.001^{\prime \prime} / 0.03 \mathrm{~mm}$ | $.0005^{\prime \prime} / 0.01 \mathrm{~mm}$ | Vertical single-function | $\$ 276.00$ | $\$ 262.20$ |
| $\mathbf{5 7 2 - 3 1 2 - 1 0}$ | SD-8"D | $0-8^{\prime \prime} / 0-200 \mathrm{~mm}$ | $.001^{\prime \prime} / 0.03 \mathrm{~mm}$ | $.0005^{\prime \prime} / 0.01 \mathrm{~mm}$ | Vertical single function | $\$ 320.00$ | $\$ 304.00$ |
| $\mathbf{5 7 2 - 3 1 3 - 1 0}$ | SD-12"D | $0-12^{\prime \prime} / 0-300 \mathrm{~mm}$ | $.002^{\prime \prime} / 0.04 \mathrm{~mm}$ | $.0005^{\prime \prime} / 0.01 \mathrm{~mm}$ | Vertical single function | $\$ 616.00$ | $\$ 585.20$ |



## Applications



Drilling machine stroke position


Focus setting on optical


## Special Applications

As a measurement jig for outdoor use (SD-G)


## Detector head mechanism



Prices effective May 1 through July 29, 2016

## Litematic and Litematic Head

High-resolution Measuring Unit

## Features

- The Litematic is designed for measuring any component, but especially easily-deformed workpieces and high-precision parts such as thin-wall bearings, plastic parts, and springs.
- Extra-low measuring force of 0.01 N (1gf).
- Hands-free operation with optional foot switch.
- Ceramic anvil is free from corrosion and has superior wear-resistance.
- The Litematic Head unit can be mounted onto fixtures or an optional stand to allow flexibility of use.
- With SPC output.
- The motorized spindle automatically stops when it contacts the workpiece.

| Order No. | Resolution | Range | Accuracy (at $20^{\circ} \mathrm{C}$ ) | List | Promo |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 318-221A | $\begin{aligned} & .0000005^{\prime \prime}, \\ & .000005{ }^{\prime \prime} .00005{ }^{\prime \prime}, \\ & 0.01 \mu \mathrm{~m}, 0.1 \mu \mathrm{~m}, \\ & 1 \mu \mathrm{~m} \end{aligned}$ | $\begin{aligned} & 0-2^{\prime \prime} \\ & (50 \mathrm{~mm}) \end{aligned}$ | $\begin{aligned} & (0.5+\mathrm{L} / 100) \mu \mathrm{m} \\ & \mathrm{~L}=\text { Measured length }(\mathrm{mm}) \end{aligned}$ | \$8,480.00 | \$7,632.00 |
| 318-226A |  | $\begin{array}{\|l\|} \hline 0-2^{\prime \prime} \\ (50 \mathrm{~mm}) \end{array}$ | $\begin{aligned} & (0.5+\mathrm{L} / 100) \mathrm{um} \\ & \mathrm{~L}=\text { Measured length }(\mathrm{mm}) \end{aligned}$ | \$8,480.00 | \$7,632.00 |
| 957460 | Dedicated Stand for Model 318-226A* |  |  | \$4,370.00 | \$3,930.00 |



## TM Toolmakers' Microscopes

## Features

- Angle measurement is performed easily by turning the angle scale disc to align the cross-hair reticle with the workpiece image.
- Illumination intensity can be adjusted.
- Included standard accessories create an overall magnification of 30X. Magnifications can be changed from 20-200X by using optional objectives and/or eyepieces.
- Newly designed LED illuminators provide enhanced observation for higher accuracy and resolution.


| Model No. |  | TM-505B | TM-A505B | TM-1005B | TM-A1005B |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Order No. |  | 176-818A | 176-820A | 176-819A | 176-821A |
| Eyepiece |  | Standard accessory: 15X (field number: 13), Options: 10X, 20X |  |  |  |
| Objective lens |  | Standard accessory: 2X, Options: 5X, 10X |  |  |  |
| Microscope head | Maximum height of workpiece | 4.53" / 115mm |  | 4.21" / 107mm |  |
| Illumination unit | Transmitted illumination | Stepless brightness adjustment, White LED light source, With green filter |  |  |  |
|  | Surface illumination | Oblique single-source type, Stepless brightness adjustment, White LED light source |  |  |  |
| Cross-travel stage | Measuring range | $2 " \times 2$ / $50 \times 50 \mathrm{~mm}$ |  | 4" $\times 2$ " / 100×50mm <br> (An optional 2"/50mm gauge block is required to cover <br> full range. A CERA block is recommended.) |  |
|  | Usable area of the stage glass | 3.8 " $\times 3.8$ " / 96x96mm |  | $6 " \times 3.8$ " / 154x96mm |  |
|  | Maximum stage glass loading | 11 lbs. / 5kg |  |  |  |
| Linear measurement method |  | Micrometer heads optional | Micrometer heads included | Micrometer heads optional | Micrometer heads included |
| List |  | \$3,790.00 | \$5,590.00 | \$5,490.00 | \$7,290.00 |
|  | Promo | \$3,411.00 | \$5,031.00 | \$4,941.00 | \$6,561.00 |

## Ultra－High Accuracy

## Laser Scan Micrometer LSM－902／6900

## Features

－High－accuracy inspection of pin and plug gages and other tight－tolerance parts such as medical and aerospace．
－Ultra－high accuracy：Linearity of $\pm 0.5 \mu \mathrm{~m}$ for entire range．
－Statistical calculation mode．
－Ultra－high repeatability of $\pm 0.05 \mu \mathrm{~m}$ ．
－RS－232C output，I／0 interface are standard．


## Bench Top

## Laser Scan Micrometer LSM－9506

## Features

－Integrated display and measuring unit into one unit．
－Statistical calculation mode．
－RS－232C output，I／0 interface，and SPC output interface are standard．


| Order Number | Range | Resolution | List | Promo |
| :---: | :---: | :---: | :---: | :---: |
| 544－496A | $.004^{\prime \prime}-1.0^{\prime \prime} / 0.1 \mathrm{~mm}-25 \mathrm{~mm}$ | $.000001^{\prime \prime}-.0005^{\prime \prime} / 0.00001-0.01 \mathrm{~mm}$ | $\$ 12,200.00$ | $\$ 10,980.00$ |
| $544-116-1 \mathrm{~A}$ | $.020^{\prime \prime}-2.36^{\prime \prime} / 0.5 \mathrm{~mm}-60 \mathrm{~mm}$ | $.000002^{\prime \prime}-.005^{\prime \prime} / 0.00005-0.1 \mathrm{~mm}$ | $\$ 8,940.00$ | $\$ 8,046.00$ |

Includes Quicktool，a free software package that makes operation of LSM setting simple and easy．For use with

## High－Accuracy Non－Contact Measuring Systems

## Features

－Excellent linearity：down to + － 0.3 microns．
－High speed scanning capable： 3200 scans per second．
－Various ranges available for selecting the best laser for your application
－Statistical calculation mode．
－Includes Quicktool＊，a free software package that makes operation of LSM setting simple and easy．
－Its memory function has been increased to allow storage of up to 100 programs．
＊For use with customer supplied PC and RS－232C cable．

## LSM－6200 Display Unit Included



| Order No | Model | Range Inch | Range mm | Repeatability | Linearity | Scanning Rate | List | Promo |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: |
| 64PKA117 | LSM－500S | $.0002^{\prime \prime}-.08^{\prime \prime}$ | $0.005 \sim 2 \mathrm{~mm}$ | $\pm 0.03 \mu \mathrm{~m}$ | $\pm 0.3 \mu \mathrm{~m}$ | $3,200 \mathrm{scans} / \mathrm{sec}$ | $\$ 10,370.00$ | $\$ 7,090.00$ |
| 64PKA118 | LSM－501S | $.002^{\prime \prime}-4^{\prime \prime}$ | $0.05 \sim 10 \mathrm{~mm}$ | $\pm 0.04 \mu \mathrm{~m}$ | $\pm 0.5 \mu \mathrm{~m}^{+}$ | $3,200 \mathrm{scans} / \mathrm{sec}$ | $\$ 9,330.00$ | $\$ 6,050.00$ |
| 64PKA119 | LSM－503S | $.012^{\prime \prime}-1.18^{\prime \prime}$ | $0.3 \sim 30 \mathrm{~mm}$ | $\pm 0.11 \mu \mathrm{~m}$ | $\pm 1.0 \mu \mathrm{~m}^{+}$ | $3,200 \mathrm{scans} / \mathrm{sec}$ | $\$ 10,110.00$ | $\$ 6,830.00$ |
| 64PKA120 | LSM－506S | $.04^{\prime \prime}-2.36^{\prime \prime}$ | $1 \sim 60 \mathrm{~mm}$ | $\pm 0.36 \mu \mathrm{~m}$ | $\pm 3 \mu \mathrm{~m}^{\dagger}$ | $3,200 \mathrm{scans} / \mathrm{sec}$ | $\$ 11,480.00$ | $\$ 8,200.00$ |
| 64PKA121 | LSM－512S | $.04^{\prime \prime}-4.72^{\prime \prime}$ | $1 \sim 120 \mathrm{~mm}$ | $\pm 0.85 \mu \mathrm{~m}$ | $\pm 6 \mu \mathrm{~m}^{\dagger}$ | $3,200 \mathrm{scans} / \mathrm{sec}$ | $\$ 17,680.00$ | $\$ 14,400.00$ |
| 64PKA122 | LSM－516S | $.04^{\prime \prime}-6.30^{\prime \prime}$ | $1 \sim 160 \mathrm{~mm}$ | $\pm 1.4 \mu \mathrm{~m}$ | $\pm 7 \mu \mathrm{~m}^{\dagger}$ | $3,200 \mathrm{scans} / \mathrm{sec}$ | $\$ 28,480.00$ | $\$ 25,200.00$ |

${ }^{\dagger}$ Linearity over entire range．Higher accuracies are possible over smaller ranges．


Prices effective May 1 through July 29， 2016

## PROFILE PROJECTORS

## PH-3515F Horizontal Profile Projector

## Features

- Heavy-duty, bench-top model with horizontal optical system.
- Erect image on day-bright screen.
- $14^{\prime \prime}(356 \mathrm{~mm})$ dia. protractor screen with crosshair line for easy alignment
- 10 " $\times 6$ " floating-type workstage incorporates linear scales for fast, accurate measurement.
- Suitable for thread pitch measurements - free from blurred or distorted images when the workpiece is angled.
- Robust workstage provides high accuracy and can handle a workload up to 100 lbs .

| Order No. | Description | List | Package Price |
| :--- | :--- | :---: | :---: |
| 64PKA088A | PH-3515F Profile Projector w/QM Data (Arm Mount) | $\$ 13,500.00$ | $\$ 12,825.00$ |
| 64PKA089B | PH-3515F Profile Projector w/KA counter \& tray | $\$ 11,600.00$ | $\$ 11,020.00$ |
| 64AAB176 | PH-3515 Stand (optional) | $\$ 687.00$ | $\$ 618.50$ |



## PJ-A3000 Vertical Profile Projector



PJ-A3010F-200

## Features

- A series of midssize profile projectors featuring bright, 12.40 " ( 315 mm ) diameter screens and easy-to-operate XY measurement tables.
- A floating table makes measuring quicker and easier.
- Built-in, easy-to-read digital counters are located near the projection screen, thereby minimizing strain associated with excessive movement.
- For edge-sensing capabilities, order the Optoeye-200, part number 332-151.

| Order No. | Description | XY Range | List | Promo |
| :--- | :--- | :--- | :---: | :---: |
| 302-701A | PJ-A3010F-200 | $8^{\prime \prime} \times 4^{\prime \prime}$ | $\$ 13,600.00$ | $\$ 12,920.00$ |
| 302-703A | PJ-A3010F-100 | $4^{\prime \prime} \times 4^{\prime \prime}$ | $\$ 10,800.00$ | $\$ 10,260.00$ |

## Optional Accessories

| Order No. | Description | List | Promo |
| :--- | :--- | :---: | :---: |
| 264-156A | QM-Data 200 | $\$ 2,720.00$ | $\$ 2,584.00$ |
| 332-151 | Optoeye 200 | $\$ 1,650.00$ | $\$ 1,485.00$ |
| 64PMI167 | Stand for PJ-A3000 | $\$ 688.00$ | $\$ 653.60$ |
| 12AAA807 | RS-232C Cable | $\$ 54.30$ | $\$ 51.60$ |
| 12AAE671 | Attachment board (A) | $\$ 40.80$ | $\$ 38.80$ |

## PH-A14 Horizontal Profile Projector

## Features

- Mitutoyo's lens technology and workmanship combine to provide a bright, crisp image for error-free inspection.
- $8^{\prime \prime} \times 4$ " floating-type workstage incorporates linear scales for fast, accurate measurement.
- The workstage provides high accuracy and can handle a workload of up to 100 lbs .
- 10x objective lens and fiber illuminator are standard accessories.


| Order No. | Description | List | Promo |
| :--- | :--- | :---: | :---: |
| 64PKA087 | PH-A14 Profile Projector w/QM <br> Data (Arm Mount) | $\$ 8,290.00$ | $\$ 7,875.00$ |
| 64PKA086A | PH-A14 Profile Projector w/KA <br> counter \& tray | $\$ 6,380.00$ | $\$ 6,061.00$ |
| 64AAA129B | PHA14 Stand (optional) | $\$ 707.00$ | $\$ 636.30$ |
| 174-183A | KA-200 Counter | $\$ 587.00$ | $\$ 528.30$ |

## HARDNESS TESTERS

## Rockwell Hardness Testers

The features-packed yet economical Rockwell and Rockwell Superficial Hardness Testers cover a large range of testing applications. These testers meet the current international requirements such as ASTM E18 and are designed for years of accurate results.

## SAVE UP TO 20\%



Model: HR-320MS

- Rockwell/Rockwell Superficial
- Motorized test force control
- Test force selection manual by weight

| Model Order No. | $\begin{gathered} \text { HR-320MS } \\ 963-231-10 \mathrm{~A} \end{gathered}$ | $\begin{gathered} \text { HR-430-MR } \\ 963-240-10 \mathrm{~A} \end{gathered}$ | $\begin{gathered} \text { HR-430MS } \\ 963-241-10 \mathrm{~A} \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Rockwell | $+$ | + | $+$ |
| Rockwell Superficial | + | - | + |
| Light Force Brinell | Optional | Optional | Optional |
| Display Unit | Digital: Hardness value, Scale display, Timer setting, Conversion, go/no-go judgment, Offset setting |  |  |
| Data Output | RS-232C SPC (Digimatic) |  |  |
| Dial a Weight | - | $+$ | $+$ |
| Motorized Test Force Control | $+$ | $+$ | + |
| Automatic Brake/Start | - | + | $+$ |
| List | \$8,740.00 | \$9,000.00 | \$10,000.00 |
| Promo | \$6,990.00 | \$7,990.00 | \$8,990.00 |



Model: HR-430MR

- Rockwell
- Motorized test force control
- Dial a weight test force selection
- Auto brake/start

Model: HR-430MS

- Rockwel//Rockwell Superficial
- Motorized test force control
- Dial a weight test force selection
- Auto brake/start



## Durometers (Digital and Analog)

For Rubber and Plastics Hardness Testing
Durometers are suitable for testing natural rubber, neoprene, polyesters, P.V.C., leather, Thiokol, nitril, wax, vinyl, cellulose acetates, glass, polystyrol and other materials.


| Order No | Model | Scale | Display | Graduation | Range | Indenter | List | Promo |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 811-335-10 | HH-335 | Shore A | Analog | 1.0 | 10~90 | Blunt Taper | \$599.00 | \$569.05 |
| 811-336-10 | HH-336 | Shore A | Digital | 0.5 | 10~90 | Blunt Taper | \$1,280.00 | \$1,216.00 |
| 811-337-10 | HH-337 | Shore D | Analog | 1.0 | 20~90 | Sharp Point | \$599.00 | \$569.05 |
| 811-338-10 | HH-338 | Shore D | Digital | 0.5 | 20~90 | Sharp Point | \$1,280.00 | \$1,216.00 |
| 64AAA964 |  | Test Block Set (Shore A Scale) |  |  |  |  | \$188.00 | \$178.60 |
| 64AAA590 |  | Test Block Set (Shore D Scale) |  |  |  |  | \$188.00 | \$178.60 |
| 64AAA962 |  | "A" Scale Durometer Stand |  |  |  |  | \$959.00 | \$911.05 |
| 64AAA796 |  | "D" Scale Durometer Stand |  |  |  |  | \$2,500.00 | \$2,375.00 |



## Multiplexers - MIG-8USB, MIG-4USB

## Features

- A measurement data transfer device, multiplexer MIG-8USB and MIG-4USB converts digimatic output measurement data to USB or RS-232C and outputs it to an external device such as PC.
- Data can be sent directly into spreadsheets.


## MeasurLink ${ }^{\circ}$ ENABLIED

Data Management Software by Mitutoyo


64AAB386
Front view


64AAB386
Back view

| Model No. | MIG-8USB | MIG-4USB |
| :--- | :---: | :---: |
| Order No. | 64AAB386 | 64 AAB387 |
| Gage Capacity | 8 | 4 |
| Dimension (mm) W $\times$ D $\times$ H | $146 \times 150 \times 45$ | $146 \times 150 \times 70$ |
| Mass (g) | 540 | 710 |
|  | List | $\$ 1,340.00$ |
| $\$ 830.00$ |  |  |
| Promo | $\$ 1,206.00$ | $\$ 747.00$ |

## Digimatic Mini-Processor Printer

## Features

- This is a palm-sized printer used to print measurement data from the digimatic gage or to perform statistical analysis.
- This printer offers excellent functionality. You can use it not only to print measurement data, perform a variety of statistical analyses, and draw a histogram or $D$ chart but also to perform complicated operations for X-R control chart.
- Equipped with RS-232C output and go/no-go judgment output as standard functions, this processor ensures high reliability as an advanced quality inspection machine.
- The line thermal printer enables fast and quiet printing.


| Order No. | Description | List | Promo |
| :---: | :---: | :---: | :---: |
| $\mathbf{2 6 4 - 5 0 4 - 5 A}$ | DP - 1VR | $\$ 506.00$ | $\$ 480.70$ |

## Mitutoyo Quality

## Mitutoyo SPC Cables

Mitutoyo SPC cables for tools with Mitutoyo Digimatic SPC output.


| Order No. | Length | Pins | For Use With | List | Promo |
| :---: | :---: | :---: | :---: | :---: | :---: |
| With Data Out Switch |  |  |  |  |  |
| 05CZA624 | 40" | - | IP66/67 Calipers | \$93.90 | \$89.20 |
| 05CZA625 | 80" | - | IP66/67 Calipers | \$95.35 | \$90.60 |
| 05CZA662 | 40 " | - | IP65 Micrometers | \$83.80 | \$79.60 |
| 05CZA663 | 80" | - | IP65 Micrometers | \$92.45 | \$87.85 |
| 959149 | 40" | - | Height Gage 570 Series, Digimatic Indicator 543 and 575 Series, Digimatic Scale Unit 572 Series, Digimatic Absolute Calipers | \$49.25 | \$46.80 |
| 959150 | 80" | - | Height Gage 570 Series, Digimatic Indicator 543 and 575 Series, Digimatic Scale Unit 572 Series, Digimatic Absolute Calipers | \$55.20 | \$52.45 |
| Without Data Out Switch |  |  |  |  |  |
| 937387 | 40" | 6 | Borematic 568 Series | \$50.85 | \$48.30 |
| 965013 | 80" | 6 | Borematic 568 Series | \$60.10 | \$57.10 |
| 905338 | 40" | - | Height Gage 570 Series, Digimatic Indicator 543 and 575 Series, Digimatic Scale Unit 572 Series | \$40.05 | \$38.05 |
| 905409 | 80" | - | Height Gage 570 Series, Digimatic Indicator 543 and 575 Series, Digimatic Scale Unit 572 Series | \$47.75 | \$45.35 |

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Mitutoyo is not only a manufacturer of top-quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.


Find additional product literature and our product catalog
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## Mitutoyo

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