# Mituto y o





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### **Micrometers**

### Micrometres 0-25mm/0.1

### **LINEAR TOOLS**



- Satin-chrome thimble and sleeve
- Tungsten carbide measuring faces
- Enamel-finished frame and plastic holding plates
- Ratchet thimble stop and spindle lock lever
- Supplied in fitted wooden box
- Conforms to **BS 870** for accuracy Imperial graduated to 1" in 0.001" steps
- Metric graduated to 25mm in 0.01mm steps

						MAI	8
				Price	Each		
	Mftrs' List No.	Order Code	1+	3+	6+	12+	
Imperial	50-100-001	716-1219					
Metric	50-100-025	716-1220					

### Micrometers

### **Mituto**yo



- External micrometers with precision lapped tungsten carbide measuring faces
- Cast iron frames with a strong enamel finish
- Clear engraved black graduations
- Supplied in hard plastic case with spanner set and full instructions

						MA	112
Measurement range Metric	Graduations	Mftrs' List No.	Order Code	1+	Price Each 3+	6+	
0 to 25mm 0 to 25mm 25 to 50mm 50 to 75mm 75 to 100mm Imperial	0.01mm 0.001mm 0.01mm 0.01mm 0.01mm	103-137 193-111 103-138H 103-139H 103-140H	457-371 715-6406 457-383 715-6388 321-6214				
0 to 1" 1" to 2" 2" to 3"	0.001" 0.001" 0.001"	103-177 103-178H 103-179H	457-401 457-413 715-6390				

### Micrometers 0-25mm/0-1"

### **MOORE & WRIGHT**



0-25mm/0-1" external micrometers which comply with BS870, DIN863 Grade 1, ISO3611, Federal GGG-C-105b and Canadian 39-GP-18A

Tungsten carbide tipped and graduated 0.01mm or 0.001". Supplied with case.

mai13

	Mftrs.			Price Each		
	List No.	Order Code	1+	3+	6+	
Imperial 0 – 1"	1961	.443-098				
Metric 0 – 25mm	1961M	.443-104				

### **Micrometer Sets**



- Set of 6 micrometers
- Satin-chrome thimble and sleeve
- Tungsten carbide measuring faces
- Enamel-finished frame and plastic holding plates
- Ratchet thimble stop and spindle lock lever
- Supplied in fitted wooden box
  - Conforms to BS 870 for accuracy
- Imperial set graduated to  $6^{\prime\prime}$  in  $0.001^{\prime\prime}$  steps
- Metric set graduated to 150mm in 0.01mm
- Supplied with 5 setting rods and adjusting tools

**LINEAR TOOLS** 

**Price Each** Mftrs' List No. Order Code 3+ 6+ 12+ 50-200-006 Imperial 716-1268 Metric 50-200-150 716-1270

### **Digital Micrometer** 0-25mm/0-1

# **Mituto**yo



- Stainless steel spindle
- Large diameter pearl chrome thimbles for easy reading
- Every hundredth in metric (every thousandth in inches) is numbered for easy reading
- Measuring faces carbide-tipped for long instrument life
- Clear, crisp, black graduations and figures for easy reading against satin-chrome finish
- Ratchet stop for exact and repetitive reading
- Anvil and spindle hardened and precision ground with micro-lap finish on ends
- Spindle thread hardened, ground and lapped
- Quick and easy wear adjustment
- Positive-locking clamp ensures locking of spindle at any desired setting

0-25mm/0-1"

6-digit LCD with (-) sign and inch/mm Display

Resolution Function Switches

0.001mm/.00005"

Pre-set – To preset required valueIN/MM – to instantly convert from metric to

imperial 4000 hrs Battery life Weight Measuring force 290 gms 6-10N (6-10kgf)

MAI14

**Price Each** Mftrs, List No. **Order Code** 12+ 293-766 106-718

### **Digital Micrometers** 0-25mm/0.1"

### **Mituto**yo New Large LCD dis-



0-1"/0-25mm Range Resolution  $\begin{array}{c} 0.00005 \text{"}/0.001 mm \\ 106\text{-}718 :- 0.25 mm \pm \! 1 \mu m \end{array}$ Accuracy 321-6238 :- 0.25mm ±2μm

Inch metric

- conversion Tungsten carbide tipped measur-
- 321-6238 215g lightweight con-

			Price	Each		
Mftrs. List No.	Order Code	1+	3+	6+	12+	
293-766	106-718					
293-812	321-6238					

### Quickmike Micrometer

# Mituto vo

MAI136



- Offers very latest in high-speed digital measurement
- Covers 30mm range in only 3 thimble revolutions
- 16 times faster than conventional
- designs
- Absolute feature for error-free operation
- Ideal for production applications
- Can be connected to an SPC data processor
- Measuring force 5-10N

Resolution 0-30mm 0.001mm 0-1.2" 0.00005"

MAHR

MAHR

New

# **Measurement** & Inspection

**Price Each** Mftrs' List No. **Order Code** 1+ 293-676 715-6327

### **Micrometer Stand**

### Mituto vo



- Small but stable clamp base, will hold objects upto13mm thick
- Accommodates all Mitutoyo micrometers as well The jaws are rubber lined for grip and protection
- H = 48, W = 100, D = 85 Weight = 675g (1.49)

MAI15 **Price Each** Mftrs' List No **Order Code** 3+ 6+ 1+ 457-437 156-105

### **Inside Micrometer**

### Mituto vo



- Lightweight, well-balanced and rigid
- Satin chrome finish with hardened, ground and lapped measuring screw
- Supplied with convenient handle for reaching into deep holes
- 10 range identified measuring rods
- Includes spacing collar and a series of precision measuring rods
- Spacing collars are for compensating for the limited
- Clear, crisp, black graduations and figures for easy reading

Spacing Collar

- Each rod marked with length
- Easily reset adjustment positive and permanent
- Supplied with spanner wrench
- Available in metric and Imperial versions

50-300mm	0.01mm	13mm	1pc	12mm	715-6418		MAI58
				Price	e Each		
	rs' List No. <b>0</b> 1	rder Code /15-6418	1+	3+	6+	12+	

### **Depth Micrometer**

# **Mitutoy**o



- Measuring length per rod: 1"(25mm)
- Instrumental error: ±3µm
- Rod diameter 4mm
- Base size is 100mm x 16mm  $(4 \times 0.63")$
- Hardened tool-steel bases are ground and micro-lapped on all faces
- Rod diameters are adjustable in either direction for calibration and wear compensa-
- Satin chrome finish of the sleeve and thimble provide an excellent background for the crisp, clear, black graduations

						IVIAIOC
					Price Each	
Range	No of Rods	Mftrs' List No.	Order Code	1+	3+	6+
0-150mm	6	129-116	715-6698			
0-6"	6	129-132	321-6275			

### **Calipers**

### **Dial Calipers**

### **LINEAR TOOLS**



- Hardened stainless steel body 4-way measurement: outside,
- inside, depth and step Thumb roll for easy setting and
- adjustment
- Knurled locking screw
- Jaw depth of 1.6°
- Imperial caliper graduated to 6" in 0.001" steps
- Metric caliper graduated to 150mm in 0.02mm steps

						MAI	85
				Price	Each		
	Mftrs' List No.	Order Code	1+	3+	6+	12+	
Imperial Metric		716-0379 716-0380					

### **Dial Calipers**

Reading

0.02mm

0.001"

Large dial face with high contrast



- Satin-chrome finished line scale
- Shockproof movement
- Manufactured from stainless
- Locking screw
- Supplied in plastic case

(DIN 862) Order Code 0.03mm 324-1075 0.0012 324-1087

MAI12 6 **Price Each Order Code** 12+ Range 324-1075 150mm 324-1087

Error Limit

### **Dial Calipers**

Measuring Range

150mm

6"

### **Mituto**yo



- Dial zero adjustment and lock
- Knurled thumbwheel for fine dial pointer movement
- Jaw lock for repetitive 'go/no go'
- Quadri 4-way measurement (inside, outside, step and depth)
- Supplied in protective pouch

Range	Grduations	Order Cod
150mm	0.05mm	715-6121
6″	0.001"	715-6133

			Price	Each		
Range	Mftrs' List No.	Order Code	1+	3+	6+	12+
150mm	505-633-50	715-6121				
6″	505-626-50	715-6133				
6″	505-626-50	715-6133				

### **Vernier Calipers**

### **LINEAR TOOLS**

MAI56

- Hardened stainless steel body, satinchrome plated
- 4-way measurement: outside, inside, depth and step
- Complete with depth rod
- Sliding surfaces raised to prevent damage to scale
- Depth of jaws is 1.6"
- Imperial graduations of 0.001" and metric graduations of 0.02mm

•	Imperial graduations of 0.001° and metric graduations of 0.02mm						
1					Price	Each	
	Size	Mftrs' List No.	Order Code	1+	3+	6+	12+
	150mm/6"	52-059-016	716-1177				

### **Vernier Clippers**

Vernier and main scale with satin-chrome finish for glare

- free reading Slide and beam made of hardened stainless steel
- Locking screw on top
- Raised sliding surfaces for protection of the scale
- Measuring blades for inside measurement
- Step measuring function

Supplied in plastic case

150mm/6"	0.05mm/1/128"	0.05mm		MAI125
Order Cod 324-1063		Price Each 3+ 6	+ 12+	

### Calipers — continued

### **Vernier Calipers**



### **Mituto**//o

- Manufactured from
- high-quality, fully-hardened, stainless steel 14° vernier face angle provides easy read-
- Thumbwheel and lock nut in main slider
- Quadri 4-way measurement enabling inside, outside, step and depth measurement
- Supplied with protective pouch

6"/150mm 0.001"/0.02mm 715-6080 0.001"/0.02mm 12"/300mm 0.001"/0.02mm 321-6299

							IVIAIDE
$\bigcap$					Price	Each	
F	Range	Mftrs. List No.	Order Code	1+	3+	6+	12+
6	6″/150mm	530-312	715-6080				
	3″/200mm	530-118	715-6091				
1	12″/300mm	530-119	321-6299				

### **Vernier Calipers**

### **Mituto**yo



- Design accomodates external, internal, depth, and step measurements
- Range of high quality instruments with metric and imperial scales

Maximum Measurment	Mftrs. List No.	Order Code	1+	Price Each 3+	12+
130mm (5″) 150mm (6″)	532119 531128	105-622 715-5890			
180mm (7") 280mm (11")	532120 532121	457-358 457-360			

### Measuring Kit

### **LINEAR TOOLS**



- 3 piece measuring kit
- 5½" vernier calliper with fine adjustment
- 0-25mm micrometer
- 150mm satin chrome rule

					MAI132
		Price	Each		
Order Code	1+	3+	6+	12+	
312-6018					

### **Digital Calipers**

### MAHR



- Functions include ON/OFF, reset, mm/inch
- High contrast 7.5mm LCD display
- Slide and beam made of stainless steel, hardened
- Suitable for depth, inside and step measurement
- Locking screw
- Supplied in carry case
- Available with or without data output

Measuring Range	Resolution	Error limit (DIN862)
150 (6")	0.01 (0.0005")	0.03 (0.0015")

					MAI12 8
			Price	Each	
	Order Code	1+	3+	6+	12+
Caliper (No Data Ouptut)	324-1040				
Caliper (With data output)	324-1051				
Connecting cable RS232C	328-3550				
Connecting cable, Digimatic	328-3562				

### **Digital Calipers** Metric/Imperial

### **Mituto**//o

- The most advanced caliper vet
- ABSolute Zero setting function Zero point at any position, deviation from a nominal (±) can be read directly
- Non-contact linear measuring system unaffected by electrical or magnetic interfer-
- Manufactured from fully-hardened stainless steel
- Imperial/metric switchable
- Automatic wear compensation
- Fully portable
- Positive locking clamp
- Operating temp. range 0-40°C
- Oil and dust-resistant suitable for workshop use
- Data output, absolute and incremental operation modes incorporated into

This is the latest version of the digimatic calliper in the 500 series. It has all the features of its predecessor with the addition of absolute zero origin point set anywhere within the measuring range, larger clearer display, single chip electronics and a new slim profile. For outside, inside, depth and step measurements.

		Mftrs.	Order		Price Eac	h
Range	Resolution	List No.	Code	1+	6+	12+
	0.0005″/0.01mm 0.0005″/0.01mm					

### **Digital Caliper** Metric/Imperial

# **Mitutoy**o



- 7.7mm LCD digits for better visibility, on/zero switch, off switch, inch/mm operation and NO SPC output.
- Non-contact linear measurement system unaffected by electrical or magnectic interface
- Imperial/metric switchable
- Oil and dust resistant suitable for workshop use
- Zero point at any position, deviation from a nominal (±) can be read directly
- Manufactured from fully hardened stainless steel
- Automatic wear compensation

Range 150mm/6 Resolution 0.01mm/0.0005

Mftrs.			Price	Each		
List No.	Order Code	1+	3+	6+	12+	
500-133U	457-486					
	Mftrs. List No.	Mftrs. List No. <b>Order Code</b>	Mftrs. List No. <b>Order Code</b> 1+	Mftrs. Price List No. Order Code 1+ 3+	Mftrs. Price Each List No. Order Code 1+ 3+ 6+	Mftrs.         Price Each           List No.         Order Code         1+         3+         6+         12+

### **Water Resistant Caliper**

### **Mituto**yo

New

- IP54 water and dust resistance
- Inch/metric conversion
- Origin setting
- Auto power off
- Accuracy ±10.02mm

						MAI134
				Price	Each	
Range	Mftrs. List No.	Order Code	1+	3+	6+	12+
100mm/4"	500-327	321-6305				

### **Total Customer Care**

Our aim is to ensure you are 100% satisfied. If you ever have a query with your order, call us on (65) 788 0200

### **Height Gauges**

### Height Gauge, Vernier Scale

### Mituto yo



- Height gauge for use on surface plates
- Main scale to 305mm (12"), Vernier accurate to 0.02mm (0.001")
- Measuring/scribe point is carbide tipped with a maximum reach of 150mm

						249X
Mftrs.			Price	Each		
List No.	Order Code	1+	3+	6+	12+	
520-155	.457-462					

### Height Gauge, LCD Readout

### **Mituto**yo



- Precision instrument with maximum reading ability of 305mm (12"). Resolution is  $\pm 0.01$ mm (0.005"), accuracy is ±0.04mm (0.002").
- A fine adjustment mechanism and carbide
- scribe/measuring point.

  Is fitted with an SPC output for statistical analysis
- Allows measurements to be preset, held, incremented or decremented, readout in mm or inches.

			250
Mftrs List		Price Each	
No.	Order Code	1+	
570-245	457-474		

### Rules

### **Black Chrome Steel Rules**





- D-End style Imperial/metric rules
- Manufactured from British steel
- Hardened, tempered and black-chrome finish for easy reading
- Supplied in individual plastic wallets
- Flexible and rigid versions available in 150mm and 300mm lengths
   Imperial divisions subdivided to 64ths and 100ths of an inch
- Metric divisions subdivided to 0.5mm

Length	Style	Width	Thickness	Order Code
300mm/12"	Flexible	12.5	0.4	715-8580
150mm/6"	Rigid	19	0.4	715-8592
300mm/12"	Rigid	25	1	715-8609
150mm/6"	Flexible	12.5	0.4	715-8610

						IVIAIT
				Price	Each	
	Mftrs' List No.	Order Code	1+	3+	6+	12+
300mm flex	851-012FEZ	715-8580				
150mm	678-006FEZ	715-8592				
300mm	678-012FEZ	715-8609				
150mm flex	851-006FEZ	715-8610				

### **Square End Steel Rule**





- Square-end style Imperial/metric rules
- Manufactured from British steel
- Hardened, tempered and satin-chrome finished for non-glare reading
- Supplied in individual plastic wallets
- Flexible version available in 150mm length
- Imperial divisions subdivided to 64ths and 32nds of an inch
- Metric divisions subdivided to 0.5mm

Length	Width	Thickness	Order Code
150mm/6" (flexible)	19	0.4	715-8762
150mm/6"	19	1.0	715-8774
300mm/12"	25	1.0	715-8786
450mm/18"	29	1.0	715-8798
600mm/24"	29	1.0	715-8804
900mm/36"	32	1.0	715-8816

900mm/36	32	1.0	/15-8816			MAI73
				Price	Each	
	Mftrs' List No.	Order Code	1+	3+	6+	12+
150mm flex	262-006F	715-8762				
150mm	262-006	715-8774				
300mm	262-012	715-8786				
450mm	262-018	715-8798				
600mm	262-024	715-8804				
900mm	262-036	715-8816				

### **Steel Rules** Imperial/Metric



Double sided with hanging hole

Permanently etched graduations of cm, mm, 8ths", 16th", 32nds" and 64ths" of an

	Mftrs.	Order		Price	Each	
	List No.	Code	1+	4+	20+	30+
150mm (6") steel rule	59633	109-164				
300mm (12") steel rule	59641	109-165				

### **Steel Rules** Imperial & Metric





Chrome face, rustless steel rule

64R: Graduated in mm, ½mm, inches, 16ths, 32nds, 10ths, 20ths, 50ths, 100ths.

						mai	00
	Mftrs.	Order		Price	Each		
	List No.	Code	1+	4+	20+	30+	
300mm (12") steel rule	64R12	443-256					
150mm (6") steel rule	64R6	443-268					

### Straight Edge 1 metre





ting, measuring and marking

 Manufactured from anodised aluminium

Complete with strong plastic handle and hanging hole

MAI123 **Price Each Order Code** 12+ 24+ 6+ 328-0044

### **ABS Tape Measures**

### **DURATOOL** ABS cases and steel inserts

**Tapes and Measures** 



Metric and Imperial markings

Suitable for internal and external measurements

TFQ99

Supplied with belt clip

Blade Width Order Code 3m/10ft 12mm 313-3382 313-3394

			Price Each	
Size	Order Code	1+	5+	10+
30m/10ft	313-3382			
5m/16ft	313-3394			

### **Pocket Tapes** High Visibility



- High visibility, easy-to-find, yellow case
- Dual markings: metric and Imperial
- High-contrast, easy-to-read markings

							MAI111
			Price	Each			
Size	Order Code	1+	3+	6+	12+	24+	
3m / 10ft	717-0725						
5m / 16ft	717-0737						

### **Tape Measures**



- **DURATOOL**
- Chrome plated plastic tape measures
- Metric and Imperial markings Suitable for internal and external mea-
- surements Supplied with belt clip
- Blade width 23mm

			Price Each		
Size	Order Code	1+	5+	10+	
8m/27ft	312-7760				
10m/33ft	312-7771				

### **Powerlock Metal Case**



- Thumb operated blade lock and automatic power blade return
- Blade is heat treated and curved in cross section to ensure rigidity
- Mylar coated blade offers ten times life of lacur coated
- Tru-zero hook has three rivets to eliminate breakage

· Choice of imperial metric or metric only graduations

							mai22
Tuna	Blade	Mftrs.	Order	4.		Each	20.
Type	Width	List No.	Code	1+	4+	20+	30+
3M/10ft	13mm	0-33-203	628-815				
3.5M/12ft	13mm	0-33-215	628-827				
5M/16ft	20mm	0-33-158	628-839				
8M/26ft	20mm	0-33-428	628-840				
10M/33ft	25mm	0-33-443	628-852				
5M	20mm	0-33-194	628-876				

### Tape Rule 5m Tape Rule



Lufkin

- 19mm 5m metric/imperial tape in a light weight high strength case
- Toggle lock holds blade securely at any length
- Built in shock absorbers to cushion blade return and removable belt clip

**Price Each Order Code** 20+ 30+ 105-811

### **Digital Tape Measure**



- BOSCH
- Length of unit automatically taken into account when taking internal measurements
- Consecutive values can be added together
- Stainless steel tape can be rewound automatically
- Automatic cut off after 30 secs.

Measuring Unit m/cm, ft/inch	Measuring Accuracy 1mm, ¼6"		ing Range ı, 0-16ft		MAI121
Mftrs. List No DMB5	Order Code 328-7221	1+	Price Each 3+	6+	

### **Long length Tape Measures**



# **DURATOOL**

- PVC coated fibre glass tape
- Excellent resistance to moisture
- Long wearing material
- Easy to read markings
- 13mm wide for ease of reading
- 0.5mm thck
- Heat sealed markings for longer life
- Metric and Imperial markings

					TEQ98
Size 30m/100ft	Order Code 312-7758	1+	Price Each 5+	10+	

### **Long Measuring Tapes**



- PVC bonded steel case
- 13mm blade with high visibility markings for easy reading
- Metric and Imperial graduations
- 30m / 100πRing hook included

WAI	I

			Price	Each	
Туре	Order Code	1+	3+	6+	12+
Steel Yape Enamelled Tape	717-0830				
Fibreglass Tape PVC-Coated	717-0841				
1 VO Coulcu					

MAI89

12+

MAHR

### Ultrasonic Measure – Estimator





English and Metric reading options



Accurate to within 1%



					MAI200
Mftrs. List No. 0-39-032	Order Code 353-0670	1+	Price Each 6+	24+	

### **Metal Detector**



Makes drilling safer

Digital metal detector accurately locates iron, steel, and non ferrous metals

Detects live cables buried in walls

# **Measuring Wheel**



Accurately measures curved, vertical and horizontal surfaces

Ideal for quick estimating jobs

Resets to zero at the push of a button

The perfect tool for interior decorating, real estate & construction

Measures as fast as you walk

3 section handle telescopes up to 35" to let you measure without bend-

Handle telescopes down to 16" to fit into toolbox or standard briefcase

No. of digits Weight Graduated Metres & Decimetres



### **Measuring Wheel**



- 3 foot wheel
- Complete with kickstand
- 9999.9m maximum reading
- Heavy duty polycast wheel
- Curved telescopic handle adusts to your comfort level
- Measures curvilinear surface
- Ideal for outdoor use
- Push button reset

No. of Digits Weight Graduated Metres & Decimetres **Price Each** 

Mftrs' List No. Order Code RR3M 722-1241

### **Dial Indicators**

### **Dial Indicators**

# **LINEAR TOOLS**

Dial face diameter 60mm

Adjustable dial Bezel lock

- Tolerance pointers
- Lug back fitting
- Hardened and ground racks

Sound of the last				
-	Range	Reading	Stem $\varnothing$	Order Code
J.	0.5"	0.001"	3/8"	716-1281
	1"	0.001"	3/8"	716-1293
3	10mm	0.01mm	8mm	716-1300
	25mm	0.01mm	8mm	716-1311

		Price Each					
lftrs' List No.	Order Code	1+	3+	6+	12+		
DG-1/2S	716-1281						
DG-1S	716-1293						
DG-M	716-1300						
DG-25M	716-1311						

### **Dial Indicator**

Range

0.5" 10mm 25mm M



### **Mitutoy**o

Shock-proof mechanism

Hardened stainless steel spindle and stem Lightweight body

Low measuring force

Complete with back lug fixing and tolerance hand setting

								MAI64
Range	Graduations	Scale		Mftrs' List No.		1+	Price Each 3+	6+
10mm 0.4"	0.01mm 0.001"	0-100 0-100	1mm 0.1"		715-7058 715-7060			

### **Dial Indicator** Waterproof/Shockproof



 Shockproof and waterproof dial indicator

Sealed bezel and rubber bellows fitted to the plunger

Ideal for machine shops as it resists ingress of oil, dust and water

Adaptor bush for adapting mouting shank 8h6mm to inch bore 0.375

Mounting lug for mouting on mouting shank 8h6mm

Measuring Range 10mm Reading Over Travel 0.01mm 1mm Measuring Force IN

fe =  $15\mu m$ , fges =  $17\mu m$ , fu =  $3\mu m$ Accuracy

			Price	Each		
	Order Code	1+	3+	6+	12+	
Indicator	324-1180					
Adapter Bush	324-1105					
Mounting Lug	324-1117					

continued

### **Dial Indicators** — continued

### **Digimatic Indicators**



- Inch/metric conversion Zero/ABS
- Preset
- Tolerence setting
- Counting direction change
- On/off button
- Data output
- Bezel rotates 330°
- Large clear LCD for error-free reading

					MAI6
		Mftrs'	Order	Price	Each
Range	Resolution	List No.	Code	1+	3+
0-12.7mm/0.5"	0.01mm/0.0005"	543-271B	715-6789		
0-12.7mm/0.5"	0.001mm/0.00005"	543-251B	715-6790		
0.25mm/1"	0.001mm/0.00005'	543-451B	715-6807		

### Digital Display "Dial" Indicator

### **Mitutoy**o

**Mituto**yo



- IDS type Digimatic indicator is a plunger style comparative measuring gauge
- LCD readout and SPC connectability
- Splash proof construction with membrane sealed buttons
- Readout is metric or Imperial in the range 12.7mm (0.5") with a resolution of 0.01mm (0.0005")

					mai16
Mftrs.			<b>Price Each</b>		
List No.	Order Code	1+	3+	6+	
543-601-5	.457-449				

### **Digital Dial Indicator**

### MAHR



- Functions include: ON/OFF, zero setting, mm/inch, reversal of counting direction, preset
  - New
- High contrast LCD display

Measuring Range Resolution

- Protective housing IP51 protected
- Adaptor bush for adapting mounting shank 8h6mm to inch bore 0.375"
- Mounting log for mounting on mounting shack 8h6mm

Error, fe

Data output either RS232C or Digimatic

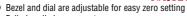
	12.5 (5-)	0.01 (0.0005-)	0.03 (0.0015)	U.7-1.1N MAI12 7
			Price Each	
	Order Code	1+	3+ 6+	12+
Indicator	324-1099			
Adaptor bush	324-1105			
Mounting Lug Data cable, RS232C	324-1117 328-3550			
Data cable, Digimatic	328-3562			

### **Dial Test Indicators**

### Mitutoyo

MAI65

Measuring force





- Automatic, reversible contact point is adjustable through
- Precision, miniature, pivot bearings give a frictionless movement of contact point
- One-piece bezel design ensures resistance to water and
- 38mm dial faces for ease of reading

			Mftrs'		P	rice Eac	h
Range	Graduations	Scale	List No.	Order Code	1+	3+	6+
0.8mm	0.01mm	0-40-0	513-404E	715-7071			
0.03"	0.0005'	0-15-0	513-402	715-7083			

### **Dial Comparator** 'Compramess'



- Shockproof movement
- Box-type housing
- Maximum protection against shock and damage
- Simple fine adjustment by way of a lockable
- Corrosion-proof stainless steel shank and spindle Adjustable tolerance markers facilitate setting and observation of tolerance limits
- Adaptor bush for adapting mouting shank 8h6mm ro inch bore 0.375
- Mounting lug for mouting on mounting shank

Imperial

Measuring Range	±0.13mm	±0.0050"
Readings	5μm	0.0005"
Over Travel	2.5mm	0.10"
Measuring Force	IN	IN
Accuracy	fe = $3\mu m$ , fyes = $40\mu m$ , fu = $10\mu m$	fe = 0.0035", Pges = 0.0004", Fu = 0.001
		MA

Metric

						MAI129
			Price	Each		
	Order Code	1+	3+	6+	12+	
Metric	324-1142					
Imperial	324-1178					
Adapter Bush	324-1105					
Mounting Bush	324-1117					

### **Dial Comparator** "Supramess"

### MAHR

MAHR

New



- Shockproof movement
  - Box-type housing
  - Maximum protection against shock and damage
  - Simple fine adjustment by way of a lockable screw
  - Corrosion-proof stainless steel shank and spindle
- Adjustable tolerance markers facilitate setting and observation of tolerance limits
- Adaptor bush for adapting mouting shank 8h6mm to inch bore 0.375"
- Mounting lug for mounting on mounting shank 8h6mm

	Metric	Imperial
Measuring Range	±25μm	±0.0010"
Readings	0.5µm	0.00002"
Over Travel	2.8mm	0.11"
Measuring Force	IN	IN
Accuracy	$fe = 0.5 \mu m, fges = 0.6 \mu m,$	fe = 0.00002", fges = 0.000025
	fu = 0.25um	fu = 0.00001um

			Price	Each	
	Order Code	1+	3+	6+	12+
Metric Imperial	324-1129 324-1154				
Adaptor bush	324-1105				
Mounting Lug	324-1117				

### **Pocket Thickness Gauge**

### **LINEAR TOOLS**



- Handy Lightweight pocket guage
- Weighs less than two ounces
- Ideal for measuring the thickness of paper, leather, sheet metal, rubber etc
- Available in two measuring ranges

TF080

					Price Eac	h	
Range	Grads.	Order Code	1+	3+	6+	12+	24+
0-10mm	0.01mm	724-5750					
0-0.5"	0.001"	724-5762					

### **Dial Thickness Gauge**



### Lightweight and easy to handle

Gauge is mounted in a hand contoured frame with a thumb release mechanism

**LINEAR TOOLS** 

TEQ81

- For fast direct measurement
- Used to measure thickness of paper, cellophane, plastic film and metal plates

Range	Grads.	Throat Depth	Top Anvil	Bottom Anvil
0-10mm	0.01mm	100mm	10mm	11mm

				Price Each		
Range	Order Code	1+	3+	6+	12+	24+
0-10mm	724-5774					

### **Thickness Gauge**



# **Mitutoy**o New

- Compact pocket sized Digimatic thickness gauge Inch/metric conversion
- Measuring faces are hardened, ground and lapped
- Ideal for measuring paper, leather, plastic, sheet metal and film

Resoluion	Range	Accuracy	Mfts. List No.
0.01mm	0-12mm	±0.02mm	700-118
0.00005"	0-05"	±0.001mm	

		Price	Each	
Order Code	1+	3+	6+	12+
321-6342				

### **Stands**

### **Dial Gauge Stand**



MAI138



- Gauge stand for dial indicators digimatic indicators, linear gauges
- Indicator can be stem or lug mounted
- 3/8" clamp stem

Fine adjustment

Optional reducing sleeve required for 8mm stems

100mm

1mm

						MAI1	
				Price	Each		
Mftrs. L	ist No.	Order Code	1+	3+	6+	12+	
Stand 200	03	321-6317					
Sleeve 2069	983	321-6329					

### **Magnetic Bases**

### **Magnetic Bases**





L = 140, W = 25, H = 125

- Sets include Nogaflex articulated arm with fine adjustment
- Can be locked in any position
- Includes lever dial test indicator
- Arm made from steel, polished and chrome plated
- Dial gauge clamp for dovetail and stem clamping up to
- Available with switchable or permanent base
- Supplied in plastic carry case

Lever Indicator

Dial  $\varnothing$ Graduation Reading Range Stylus Length 36 0.01 0-40-0 0-8 26.3 MAI91

				Price	Each	
	Mftrs. List No	. Order Code	1+	3+	6+	12+
Switchable	NF1200	716-1426				
Darmanant	NE1300	716-1/128				

### **Magnetic Base**

### **LINEAR TOOLS**

- Segmented snake arm can be locked in any position Provides clamping for plunger and lever indicators hetween 1/4" and 1/4" Ø
- Fitted with a powerful magnetic base which has 80 kg

Indicator supplied separately For indicators see page 1027

			Price	Each	
Mftrs' List No. MB-SX	Order Code 716-1384	1+	3+	6+	12+
INID-2V	710-1304				

### **Magnetic Stand**

### **Mituto**//o

MAI90

- Magnetic base stand
- suitable for most Mitutoyo dial indicators The indicator can be lug or stem mounted (stem 8mm dia.)
- Powerful magnetic base has an on/off lever preventing damage to delicate sur-



Mftrs.	Order		Price	Each		
List No.	Code	1+	3+	6+	12+	
7010S	457-450					

### Flexigrip Major

# **Mituto**yo

mai1

- A heavy-duty clamp fitted to a uni-joint arm for
- versatile gauging applications
  Detachable clamp can be used independently from arm
- Suitable for stands and workholding
- Holds stem sizes 8mm/¾ Ø

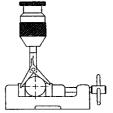
### Indicator sold separately

**Price Each** Mftrs' List No. **Order Code** 6+ 7019-001 715-7095

### **Centre Finders**

### **Edge and Centre Finder**





- Accurately and quickly locates centre of
- round bar work pieces %" shank fits into drill or collet chuck
- Align pointer on shank to obtain centre line of round bar up to 55mm

					MA	AI100
			Price	Each		
Mftrs' List No.	Order Code	1+	3+	6+	12+	
4200-100	716-2339					J

### Wiggler Set



- Used to find position of tool spindle in relation to work surface, layout lines, holes and slots, etc
- %" holder can be mounted in a drill chuck or collet

PEÇ

Contains chuck, ball attatchment 0.25"Ø, disc attachment 0.10"Ø, needle point and offset indicator

						VIAI99
		Price Each				
Mftrs' List No.	Order Code	1+	3+	6+	12+	
4100-004	716-2054					J

**Centre Finders** — continued

### **Bore Gauges**

### **Dial Bore Guages**



Range

50-150mm

- Two point contact system suitable for measurement of compo-
- Detects ovality and tapers in bores
- Instruments fitted with independent spring loaded centralising mechanisms which ensures measurements are taken across true diameter
- Supplied in box complete with extensions and tools
- Available in two measuring ranges

Stem Length

Order Code 724-5737	1+	<b>P</b> 1	rice Each 6+	12+	24+
50-150mm 2-6"	150mm 6"	0.01mm 0.0005"	724-5737 724-5749		

Grads.

# **Telescopic Gauge Sets**



Range

724-5749

**Mituto**//o

TEQ79

micrometer or calliper Supplied in protective pouch

Order Code

A set of telescoping gauges used for comparison measurement of bore diameters and groove widths. A springloaded plunger expands within the hole and a knurled clamp allows contacts to be held in position for measurement

Easy comparison measurement with

Range	No in set	Mftrs' List No.	Order Code	1+	Price Each 3+	6+	
Hange	NO III SCL	LIST IVO.	oouc	17	OΤ	UΤ	
5/6"-6	6	155-903	715-6704				
8-150mm	6	155-905	715-6716				

### **Small Hole Gauge Set**



- 4-piece set covers range of 3mm-
- Used to measure small holes, slots and grooves
- Split spherical end is adjustable either in the component or between micrometer anvils
- Supplied in plastic wallet

**Price Each** Mftrs' List No. **Order Code** 12+ **4S-4** 716-1475

### **Small Hole Gauges**



- Used with an outside micormeter for meauring the diameter of bores
- Extra long for gauging deeper-holes
- Gauging surface is fully hardened
- Set of 4 in a plastic wallet

	Mftrs.			Price	Each		MAII37
Range 0.125-0.5"	List No. 154-901	Order Code 321-6354	1+	3+	6+	12+	
3-13mm	154-902	321-6366					

### Telescopic Hole Gauge Set



- Set of 6 gauges covering range of 8mm-150mm
- Measuring plungers have equal spring loading
- Plungers locked in position with knurled knob on handle
- Tips are hardened and radius ground
- Supplied in a vinyl wallet

		N

**Mituto**yo

New

		Price Each				
Mftrs' List No.	Order Code	1+	3+	6+	12+	
3S-6	716-1542					

### **Depth Gauges**

### **Depth Gauges**



- Heads manufactured from hardened steel
- Ground top and bottom faces for use as datum faces
- Lower edge is 2" and upper edge is 1" in
- Blades are hardened and tempered stainless steel
- Imperial and metric graduations of 1/32" and 1.0mm
- Available in two blade lengths

Price	Fach	

				Price	Eacii	
Blade Length	Mftrs' List No.	Order Code	1+	3+	6+	12+
150mm/6"	7003/-150	716-0355				
300mm/12"	7003-300	716-0367				

### Depth Gauge. 0 - 150mm, Adjustable



### **MOORE & WRIGHT**

Adjustable metric depth gauges supplied with 6 rods 4mm in diameter in a protective box

Conforms to BS6468 (1984).

Mftrs.			Price	Each	
List No.	Order Code	1+	3+	6+	12+
891M-150	443-130				

# **Feeler Gauges**

### **Feeler Gauges**





Overall length: 108-342, 108-343 = 105 108-344 = 160 IMPERIAL 108-342 10 blades at 1.5, 2, 3, 4, 6, 8, 10, 12, 15, and 25 1/1000"

METRIC 108-343 10 blades at 5, 10, 15, 20, 30, 40, 50, 60, 70 and 80 1/100mm

COMBINED IMPERIAL/METRIC 108-344 10 blades at 1.5, 2, 3, 4, 6, 8, 10, 12, 15 and 25 1/1000"

8 blades at 5, 10, 15, 20, 25, 30, 40 and 50 1/100mm

						ı	cieii
	Mftrs.	Order		Price	Each		
	List No.	Code	1+	4+	20+	30+	
Imperial	4616	108-342					
Metric	4617	108-343					
Imperial/Metric	4618	108-344					J

### **Thread Gauges**

### **Screw Pitch Gauges**



- Narrow designed blades permits use for internal and external screw threads
- Locking device to secure all blades for storage or positioning
- Each blade clearly marked with thread size
- Blades are protected in a sturdy steel case

Type	No. of Blades	Contents	Order Code
Inch	28	4,6,8,10,11,11.5,12,13,16,20,32,40,56	724-5786
&		0.5,0.75,1,1.25,1.5,1.75,2	
Metric		2,2.5,3,3.5,4,4.5,5,6	
Metric	28	0.25,0.3,0.35,0.4,0.45,0.5,0.55	724-5798
		0.6,0.65,0.7,0.75,0.8,0.85,0.9	
		1,1.1,1.2,1.25,1.3,1.4,1.5,1.6,1.7,	
		1.75,1.8,1.9,2,2.5	
	28	4,5,6,7,8,9,10,11,12,13,14	724-5804
		16,18,20,	
		20,24,28,32,36,40,44,48	
		48,56,64,72,80	
		1511527	

		1.0,	11.0,27			TE	Q82
				Price Each	1		
Туре	Order Code	1+	3+	6+	12+	24+	
Inch/Metric	724-5786						
Metric	724-5798						П
Inch	724-5804						

### Wire Gauges

### **Wire Gauges**



- American standard wire gaug 6195) for non-ferrous metals
- U.S. standard wire gauge for uncoated iron based on weights in ounces per square foot
- Size range from 0 36 gauge for sheet, plate and wire
- Decimal equivalents in inches are shown on reverse

Mftrs. List No. 5056 = 312-6195, 5058 = 312-6444

					MAI201
	Order		Price	Each	
	Code	1+	3+	6+	12+
American Standard Wire					
Gauge	312-6195				
U.S. Standard Wire Gauge	312-6444				

### **Parallels**

### Adjustable Parallel Set



- Two angled, lockable, pieces dovetailed together; will slide on each other
- Can be set to size between micrometer anvils
- Supplied in fitted vinyl wallet
- Six-piece set covering range 9.5mm-

MAI94

			Price	Each	
Mftrs' List No.	Order Code	1+	3+	6+	12+
S-112-6	716-1578				

### **Parallel Set**



### **LINEAR TOOLS**

- 10 pairs of hardened and ground parallels
- Supplied in a plastic box
  - All parallels are 6" long by 1/8" thick
- Set includes ½, 5%, 34, 7%, 1,1 %, 1 ¼, 1 ¾, and 1 ½ "

			Price	Each	
Mftrs' List No.	Order Code	1+	3+	6+	12+
52-437-020	716-1621				

### **Surface Measuring**

### **Economy Roughness Comparactor**

**LINEAR TOOLS** 



 Range is 16-500 microinches Made from tough scratch-resistant ABS

Contains 18 (9 per side) exact surface reproductions

Machining method Grindina End milling Millina

Microinches (AA or Ra) 16, 32, 63, 125 and 250 63, 125, 250 and 500 63, 125, 250 and 500 Shape turning 63, 125, 250 and 500 Flame cutting 500

			Price	Eacn		
Mftrs' List No.	Order Code	1+	3+	6+	12+	
52-016-007	716-1852					

### **Composite Roughness Comparactor**

### **LINEAR TOOLS**



- Contains 30 electroformed solid nickel specimen plates
- Comprehensive range of microinch (AA) and micrometre (Ra) comparison surfaces

Machining method Flat lapping Reaming Grinding Horizontal milling Vertical milling Turning

Microinches (AA or Ra) 2, 4 and 8µ" AA 16, 32 and 63µ" AA 2, 4, 8, 16, 32 and 63µ" AA 16, 32, 63, 125, 250, and 500μ" AA 16, 32, 63, 125, 250, and 500μ" AA 16, 32, 63, 125, 250, and  $500\mu^{\prime\prime}$  AA

			Price	Each	
Mftrs' List No.	Order Code	1+	3+	6+	12+
52-016-008	716-2005				

### **Gauge Blocks**

### **Gauge Block Set**

### **LINEAR TOOLS**



- 87-piece metric gauge block sets
- Manufactured from age-hardened highquality alloy steel
- Supplied in mahogany box
- Available in works or inspection grade
- Each set supplied with calibration certificate

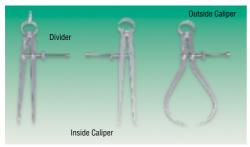
	Steps mm
1.001-1.009	0.001
1.01-1.49	0.01
0.50-9.50	0.05
10.0-100	10.00
	0.50-9.50

						MAI96
	Mftrs.			Price	Each	
	List No.	Order Code	1+	3+	6+	12+
Works set	53-670-087	716-1797				
Inspection set	53-671-087	716-1803				

### **Spring Calipers**

### **Calipers**

### **ECLIPSE**



- Bow spring dividers and calipers manufactured from high quality tool steel with a polished finish
- The divider points are finely ground and hardened

	Mftrs.			Price Each	
	List No.	Order Code	1+	3+	10+
Divider, 0 – 166mm	506	.443-207			
Inside calliper, 9 – 176mm	516	.443-219			
Outside calliper, 0 – 160mm	526	.443-220			

### **Hermaphrodite Calipers**



- High-quality firm-joint hermaphrodite calipers
- Locating point and hardened adjustable point
- Suitable for marking out of steel
- Available in two sizes



MAI83

				Price	Each		
Size	Mftrs' List No.	Order Code	1+	3+	6+	12+	
100mm/4"	8400-004	716-0290					
150mm/6"	8400-006	716-0306					

### **External Spring Calipers Quick-Nut**



- External quick-adjusting nut calipers
- Fast setting, but still allows fine adjust-
- Manufactured from high-quality carbon steel with a natural polished finish
- Fulcrum studs are hardened and ground
- Bow springs are hardened and tempered
- Available in three sizes

	Mftrs'			Price	Each		
Size	List No.	Order Code	1+	3+	6+	12+	
100mm/4"	8301-004	715-9845					
150mm/6"	8301-006	715-9857					
250mm/10"	8307-010	715-9869					

### **Internal Spring Calipers Quick-Nut**



- Internal quick-adjusting nut calipers
- Fast setting, but still allows fine adjustment Manufactured from high-quality carbon steel with a natural polished finish
- Fulcrum studs are hardened and ground Bow springs are hardened and tempered

	Available	in	throo	cizac	
•	Available	ш	uncc	31203	

	Mftrs'			Price	Each	
Size	List No.	Order Code	1+	3+	6+	12+
100mm/4"	8201-004	715-9936				
150mm/6" 250mm/10"	8201-006 8201-010	715-9948 715-9950				
,						

### **Spring Dividers Solid-Nut**



- Centrally-located adjustment screw
- Manufactured from high-quality carbon steel with a natural polished finish
- Fulcrum studs are hardened and ground
- Bow springs are hardened and tempered
- Available in three sizes



PEY

				Price	Each	
Size	Mftrs' List No.	Order Code	1+	3+	6+	12+
100mm/4"	8100-004	716-0136				
150mm/6"	8100-006	716-0148				
250mm/10"	8100-010	716-0150				

### **Spring Dividers Quick-Nut**



- Quick-adjusting spring dividers
- Fast setting, but still allows fine adjustment
- Manufactured from high-quality carbon steel with a natural polished finish
- Fulcrum studs are hardened and ground
- Bow springs are hardened and tempered
- Available in three sizes



MAI76

MAI82 **Price Each** Mftrs' List Size **Order Code** 12+ No. 3+ 100mm/4" 8101-004 716-0227 150MM/6" 8101-006 716-0239 250mm/10' 8101-010 716-0240

### **Protractors**

### **Protractors**



- Used for drawing radial lines, transferring angles and setting hevels
- Made from tempered steel with satin-chrome finish
- Measures angles from 0° 180°
- Features 6" arm and knurled thumb lock nut
- Head measures 3"x 2"
- Available with round or square end

				Price Each	
	Mftrs' List No.	Order Code	1+	3+	6+
Round end	5180	715-9547			
Square end	5170	715-9559			

### **Universal Precision Protractor**

### **LINEAR TOOLS**



- Special protractor for measuring internal and external angles
- Outer angle range is 0° 180°
- Inner angle range is 40° 180°
- Protractor scale graduated 320 x 1°
- Vernier scale reads to 2 minutes of arc
- Both scales are stainless steel with a satinchrome finish
- 6' blades are manufactured from alloy steel, hardened and ground
- Overall accuracy of the unit is ±2 minutes

						MAI/8
			Price	Each		
Mftrs' List No.	Order Code	1+	3+	6+	12+	
52-447-000	715-9602					

### **Protractor with Blades**

### **LINEAR TOOLS**



- Dial face and Vernier in satin-chrome finish
- Magnifier for easy reading of Vernier
- Protractor dial graduated 360 x 1°
- Vernier scale reads to 5 minutes of arc
- Blades bevelled at 45° on one end and 60° at other
- Supplied with 6" and 12" blades

					MAI7
			Price	Each	
Mftrs' List No.	Order Code	1+	3+	6+	12+
52-440-612	715-9596				

### **Bevel Protractor Set**

### **Mituto**yo



- A high-precision bevel protractor for accurate angular measurement
- Minimum reading 5°
- Maximum angular error ±5°
- Supplied with 12"/300mm rule, magnifier and holder

						MAI67
				Price Each		
Range	Mftrs' List No.	Order Code	1+	3+	6+	
12"/300mm	187-908	715-7575				

### **Combination Sets**



- Four-piece combination set: 300mm blade,
- square, centre and protractor head
   All items also available separately (plus 600mm blade)
- Imperial divisions subdivided to
   64ths and 32nds of an inch
- 64ths and 32nds of an inch

  Metric divisions subdivided to
- 0.5mm

				Price	Each	
	Mftrs' List No.	Order Code	1+	3+	6+	12+
Combination set	7127-012H	715-9031				
Square head	7121-012H	715-9043				
Centre head	7122A-012H	715-9055				
Protractor head	7119A-012H	715-9067				
300mm blade	7187-012	715-9079				
600mm blade	7187-024	715-9080				

### **Bevel Protractor Set**

# **Mituto**yo



- A high-precision bevel protractor for accurate angular measurement
- Minimum reading 5°
   Maximum angular array
- Maximum angular error ±5°
- Supplied with 6"/150mm blade, magnifier and holder

MAI68

# Price Each Range Mftrs' List No. Order Code 1+ 3+ 6+ 12+ 6"/150 187-907 **715-7654**

### **Squares**

### **Engineers' Try Squares**



Conforms to BSS 939: 1962 Grade B. DRAPER THE TOOL COMPAN

Working surfaces are precision ground to fine limits

	Mftrs.	Order		Price	Each	
	List No.	Code	1+	4+	20+	30+
122mm (413/16") blade	414"	108-345				
150 (6") blade	416"	108-346				
						J

### **Combination Try & Mitre Square**

### **RABONE**



 A 90° try square, 45° try square, height/depth gauge, spirit level, marking gauge and ruler

Mftrs.			Price	Each	
List No.	Order Code	1+	4+	20+	30+
1912	108-391				

### **Carpenters' Combination Square**



- Complete with square head and 12" blade
- Square head provides 90° and 45° angles
- Includes spirit level and scribing point
- Blade is 2mm thick and 25.5mm wide
- Graduated to 16ths and 32nds of an inch and to 1.0mm

			Price	Each	
Mftrs' List No.	Order Code	1+	3+	6+	12+
7111-012	715-9493				

### Levels

### Torpedo Level



- 9" torpedo level
- Made from strong ABS plastic
   Three vials level, plumb and 450
- Vee groove for conduit and pipe

		Price	Each	
Order Code 716-9000	1+	3+	6+	12+

### **Magnetic Torpedo Level**





- minium cast frame Tinted 360° vials for easy reading
- Large top-read vial window
- Magnetic strip allows hands-free operation on metal surfaces
- Ideal for pipe and conduit work

MAI102

C.K

**Price Each** Mftrs' List No. **Order Code** 6+ 12+ 0-42-465 716-8810

Levels — continued

### **Pocket Level**





- Multipurpose ABS plastic level with detachable line level
- Complete with horizontal vial, Vertical vial and magnetic base
- Detachable line level has a magnetic base

					MAI122
		Price	e Each		
Order Code	1+	5+	10+	20+	
328-0068					

### **Aluminium Box Level**



- Box section aluminium spirit level
- Two solid acrylic block vials
- 1mm/metre accuracy
- Shock-absorbing end caps

		Price	Each	
Order Code 716-8901	1+	3+	6+	12+

### **Engineers Levels**

### **Mitutoy**o

MAI103





- High precision longitudinal and traverse vials make it possible to check or level sur-
- Incorporates zero adjustment levels
- Vee slot in base

Sensitivity	Indicating error Graduation	Order Code
0.1mm/1m	0.1mm/1m	321-6391
0.05mm/1m	0.05mm/1m	321-6408
0.02mm/1m	0.02mm/1m	321-6410
	0.1mm/1m 0.05mm/1m	0.1mm/1m

						MA
			Price	Each		
Sensitivity	Order Code	1+	3+	6+	12+	
0.1mm/1m	321-6391					
0.05mm/1m	321-6408					
0.02mm/1m	321-6410					

### Laser Level





Laser Level Kit

Split Beam Lens

- 4" mini pocket laser level with 90° split beam and laser line lens options
- The laser level ultilises advanced micro electronics
- Hexagonal heavy metal case with centrally located horizontal green level bubble
- Laser emitts a beam of a maximum 6mm point up to a distance of 150m
- The holder also incorporates a horizontal green level bubble
- Laser Level Kit: Each kit is supplied with a 100mm laser level, laser level holder, tripod, calibration wrench and batteries.
- Split Beam Lens: This splits the laser beam prism in two, giving both a 0° and 90° laser output. This is ideal for verification of correct orientation of both the horizontal and vertical planes.
- Line Beam Lens: This deflects the laser beam to form a single projected line up to a distance of 5m. Ideal for alignment applications or providing a 3-D cutting line
- Laser Enhancement Glasses: These enhance the intensity of the projected laser dot or line in light or bright environmental conditions.
- Instument Tripod:Full size tripod with metal tipped rubber feet. Operating height: min. 430mm, max. 1220mm

### WARNING: Class 2 laser. Do not stare into beam.

						TEC	17
			ı	Price Eac	h		
	Order Code	1+	3+	6+	12+	24+	
Laser level kit	723-0588						
Split beam lens	723-0590						
Line beam lens	723-0606						
Enhancement glasses	723-0618						
Instrument tripod	723-0620						

### **Plastic Line Level**



- 3" line level made from strong ABS plastic
- Can be used as a small surface

			MA	AI105
	Price	Each		
1+	3+	6+	12+	
	1+		<b>Price Each</b> 1+ 3+ 6+	Price Each

### **Bull's-Eye Level**



- Levels in all directions in one easy reading
- Moulded from acrylic plastic with mounting holes
- 1 ¾" diameter

				TEQ	75
		Price	Each		
Order Code	1+	3+	6+	12+	
723-9324					

### **Cross Check Level**



- Reads in two directions at one time
- Compact size with screw holes for mounting
- Moulded from ABS plastic
- 2 1/4 " in length

				TEQ7
		Price	Each	
Order Code	1+	3+	6+	12+
723-9336				

### Post Level



- Levels in both planes Hands-free operation
- Strong ABS plastic

33



### **Chalk Line**

### **Chalk Line**





A chalk line ideal for conduit and pipe installation

	Mftrs.			Price Each	
	List No.	Order Code	1+	4+	20+
Chalk line	11528	202-010			
			1+	10+	40+
Chalk refill	13703	202-022			

### **Angle Meters**

### Angle Finder/Setter





- Suitable for finding or setting any angle
- Constructed steel from aluminium
- Can be used alone, with straight edge or placed
- over the section of a box section level

		Price	e Each		IVIAI 124
Order Code 328-0056	1+	6+	12+	24+	

### **Angle Locators**



- Ideal for obtaining or transferring any angle or pitch
- Measures angles instantly and accurately from 0 to 90° in any quadrant
- Manufactured from durable ABS plastic
- Typical applications include determining slope of electrical conduit, setting up machinery, determining rafter angles etc.
- The 700 has a permanent, ceramic magnetic base

						icui
	Mftrs'			Price	Each	
	List No.	Order Code	1+	3+	6+	12+
Magnetic, 4" Dia.	700	723-9403				
Standard, 27/8" Dia.	750	723-9415				
		List No. Magnetic, 4" Dia. 700	List No. Order Code Magnetic, 4" Dia. 700 723-9403	List No. <b>Order Code</b> 1+ Magnetic, 4" Dia. 700 <b>723-9403</b>	List No. <b>Order Code</b> 1+ 3+ Magnetic, 4" Dia. 700 <b>723-9403</b>	List No. <b>Order Code</b> 1+ 3+ 6+ Magnetic, 4" Dia. 700 <b>723-9403</b>

### Magnification

### **Standard Round Style**



- 75mm lightweight plastic
- Main lens is a x2 magnification with an inset giving x4 magnification

Mftrs.			Price	e Each		
List No.	Order Code	1+	4+	20+	30+	
M707	108-338					J

### High Power, Round



- 50mm 6 magnification bi-aspheric lens of exceptional
- Ideal for inspection of PCB soldering. Supplied with a protective pouch

L = 135, Lens dia. = 50

Mftrs.			Price	Each		
List No.	Order Code	1+	4+	20+	40+	
5206	267-259					

### **Focal Plane Magnifier**



- Magnifier for inspecting flat surfaces such as unpopulated PCBs, print quality or fabric
- The lens has 1.7 magnification and is a simple hemisphere made of acrylic

H = 30, Dia. = 50

Mftrs.			Price	e Each		
List No.	Order Code	1+	4+	20+	40+	
5850	267-260					

### Loupe Style



- 3 magnification Loupe style magnifier
- Designed to give optimum magnification, with low distortion at the focal



	H	= 57, W = 59,	D = 49			mai37
Mftrs.			Price	e Each		
List No.	Order Code	1+	4+	20+	30+	
M732	108-339					

### **Pocket Magnifier**



- 10 magnification pocket magnifier, housed in a protective metal case
- A clear crisp image and is ideal for general inspection purposes

Dimensions closed H = 16, W = 41, D = 24

				maio	Ċ				
Price Each									
Order Code	1+	4+	20+	30+					
201-923	60.00								

### **Eye Magnifiers**



- Inspection eye magnifiers Lens holder is made from a semi-rigid plastic
- Lens is made from a high quality scratch resistant optical grade polymer
- 7 and 4 magnification but can be piggy-backed to give 28

L = 32, Dia. = 43

	Mftrs.			Price	Each	
		Order Code	1+	4+	20+	40+
4	5404	201-870				
7	5408	201-881				

continued

COIL

### Magnification — continued

### Spectacle, Clip On Magnifier





- Magnifier is designed to clip onto a pair of spectacles
- Can be flipped up out of the line of sight
- Held in place on the spectacle lens by a pair of clips
- With soft plastic covers
- A high quality optical polymer which is scratch resistant

H = 50, W = 35, D = 11

	$\overline{}$							
1		Mftrs.		Price Each				
		List No.	Order Code	1+	4+	20+	40+	
	2.5	5328	.201-893					
	3.5	5329	.201-900					
	4.75	5330	.201-911					

### **Measuring Magnifier**



- A focusable 10 magnifier, equipped with a 1cm scale divided into 0.1mm graduations
- Suitable for measuring flat surface features

H = 40, W = 45, D = 35

	Price Each					
Order Code 201-960	1+	4+	20+	30+		

### Inspection/Measurement Magnifier



- An ideal inspection tool for quality control
- Eye lens can be focused to accommodate sight irregularities and the focus setting locked if desired
- Base allows light onto the inspection area
- The field of view is 25mm
- Graticules can be mounted in the base ring
- Two styles, 0 to 25mm and 0±12mm centre zero, each is divided down to 0.1mm

	Mftrs. List No.	Order Code	1+	Price Eac
Magnifier		/56-062	1+	<b>3</b> +

M6T1

M6T10

456-974

456-986

### **Pocket Magnifiers**

0 to 25mm graticule

0±12mm graticule



- Mitutoyo

  Handy instrument for
- localised magnification
   Ideal for use in the printing industry



MAI133

12+

GRATICULES

		Price Each				
Magnification	Order Code	1+	3+	6+	12+	
25 x (Slim type)	322-8629					
25 x	322-8630					
50 x	322-8642					

### **Volume Pricing**

If your requirements exceed the quantities in this catalogue, please ring us on (65) 788 0200.

### **Work Magnifier**



- Magnification of x 1.7 and can be adjusted to suit the user
- Made from optical grade acrylic

H = 205, W = 170, D = 18

Price Each							
Order Code 267-272	1+	4+	20+	40+			

### 3-D Magnifier

Mftrs.

List No.

5820



- Enlarges close work so that it can be seen clearly in 3 dimensions
- Adjusts to any head size comfortably
- Prevents squinting, saves time and increases accuracy
- Available in 3 different magnifications

						TEQ8		
		Price Each						
Lens Power 1 <sup>3</sup> / <sub>4</sub> X 2 <sup>1</sup> / <sub>4</sub> X 2 <sup>3</sup> / <sub>4</sub> X	Order Code 724-5816 724-5828 724-5830	1+	3+	6+	12+	24+		

### **Bench Magnifiers**

### **Magnifying Lamp**



- Practical and functional aid for the assembly of small compo-
- nents etc
  Semi-rimless 130mm dia 1.75x
  magnification lens gives uninter-
- rupted view of work

  Head is mounted on a spring balanced arm with friction control
- Fitted with a 60 watt daylight bulb and comes complete with table clamp & long power lead

	Mftrs.		Price Each	
	List No.	Order Code	1+	5+
White	D21000	352-1606		
Black	D21001	352-1618		
Screw Down Bracket, White	D90577	352-1620		
Wall Bracket, White	D90578	352-1679		

### Magnifying Lamp Standard Fluorescent



- Sturdy, all metal construction makes this ideal for fine assembly and inspection
- work in many applications

  120mm dia 3 dioptre 1.75x magnifica-
- tion lens

  Head is mounted on a spring balanced arm with friction control
- Fitted with 22 watt daylight tube and comes complete with table clamp & lens cover

MAI20

MAI202

Prices are in Singapore Dollars and exclusive of GST



GRATICULES

	Mftrs.		Price Each		
	List No.	Order Code	1+	5+	
Magnifier	D20257	352-1631			
Replacement Tube	D13610	352-1643			
5 Dioptre 2.2x mag lens	D90970	352-1655			
Screw Down Bracket, White	D90577	352-1620			
Wall Bracket, White	D90578	352-1679			

### Magnifying Lamp Classic Fluorescent



- Sturdy, all metal construction makes this ideal for fine assembly, inspection and quality control in industry
- 120mm dia 3 dioptre 1.75x magnification and 5 dioptre 2.2x magnification lenses
- Head is mounted on a spring balanced arm with friction control
- arm with friction control
   Fitted with 22 watt daylight tube & diffuser and comes complete with table clamp

1204

### **Microscopes**

### **Monocular Measurement Microscope**



- x20 magnification monocular measuring microscope
- 4mm measuring eye piece divided into 0.02mm
- Light weight but robust construction make it ideal for inspection and measurement
- Works well in normal lighting, but fitted with a penlight torch illumination

Mftrs.			Price	Each		
List No.	Order Code	1+	3+	6+	12+	
P821	456-949					

### **Monocular Measurement Microscope**

### PEAK

GRATICULES



- Lightweight microscope capable of measuring linear and depth dimensions
- Fitted with a measuring graticule for linear dimensions and the focusing mechanism is graduated for depth measurement
- The microscope is supported on a transparent perspex skirt

H = 125. W = 40. D = 40

Magnification	Linear Measurement	Depth Measurement	Mftrs. List No.	Order Code	
25	0.05mm	0.1mm	2008-25	201-935	
50	0.02mm	0.1mm	2008-50	201-947	

		Price Each		1111110
		FIIGE Eagli		
Order Code	1+	3+	6+	
5 <b>201-935</b>				
0 <b>201-947</b>				

### **PCB Through Hole Inspection**



- Maxta PCB through-hole microscope for critical inspection of plated through holes in printed circuit boards
- Inspector has a view of the complete hole, the image is distorted to a bucket (truncated cone) shape
- Should be used in conjunction with a light box
- Faults can be quickly identified such as voids, drill damage, burrs, de-wetting etc.
- Suitable for use on holes 0.5 to 3mm in diameter on boards up to 3mm thick

H = 215, Dia = 50

					mai47
Mftrs. List No.	Order Code	1+	Price Each 3+	6+	
P875	456-950				

### Stereo Microscopes



 High quality stereo microscopes for surface inspection

### Stereo Standard

- Supplied with 2x and 4x objectives and 10x eye piece, top illumination
- Objectives are mounted on a revolving turret with a positive click stop
- Adjustable eyepieces are set at 45°
- positive rack and pinion focussing

### Stereo Deluxe

- As above with top, bottom or both lighting options
- Eyepiece turret rotates through 360°

### Stereo Zoom

- 10x magnification lens, 0.65-4.5x stereo objective gives 6.5x45x variable magnification
- Incidental and transmitted light, working distance 95mm

mai

Mftrs.			Price	Each	
List No.	Order Code	1+	3+	6+	12+
Stereo Standard 59-020-040	722-2294				
Stereo Deluxe 59-020-060	722-2300				
Stereo Zoom 59-020-200	722-2312				
Replacement 6W Bulb	321-5088				
12V 10W Halogen	321-5090				
240V 5W Bulb	321-5118				
6V 15W Bulb	321-5120				

### Stereo Long Reach Microscope



- Ideal for viewing the surface of items that will not fit onto a conventional microscope plate
- Top swivelling light source 12v lamp 220v supply
- supply

  x10 eyepieces with adjustable centres and
- rubber caps
   x2 objective lens giving x20 magnification
- Positive rack and pinion focussing, overall column height 290mm
- Articulated 290mm extension arm

nai114

Mftrs.	Order		Price	Each	
List No.	Code	1+	3+	6+	12+
59-020-100	722-2324				
Replacement 2W Bulb	321-5106				
Replacement 10W Halogen Bulb	344-0977				

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### Microscopes — continued

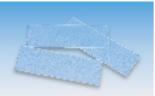
### Microscope Accessories

Range of lenses suitable for use with the microscopes listed above

Description	Mftrs. List No.	Suitable For	Order Code
Eyepiece 15x	59-020-041	722-2294 722-2300 722-2324	722-2336
Eyepiece 20x	59-020-042	722-2294 722-2300 722-2324	722-2348
Eyepiece 10x metric scale	59-020-045	722-2294 722-2300 722-2324	722-2350
Magnification lens 16x	59-020-046	722-2312	722-2361
Magnification lens 20x	59-020-047	722-2312	722-2373
Magnification 25x	59-020-048	722-2312	722-2385
Objective lens 0.5x	59-020-050	722-2312	722-2397
Objective lens 0.75x	59-020-051	722-2312	722-2403
Objective lens 1.5x	59-020-052	722-2312	722-2415
Objective lens 2x	59-020-053	722-2312	722-2427
Long reach Stand	59-020-210	722-2312	722-2439

					mai115
Mftrs.			Price	Each	
List No.	Order Code	1+	3+	6+	12+
59-020-041	722-2336				
59-020-042	722-2348				
59-020-045	722-2350				
59-020-046	722-2361				
59-020-047	722-2373				
59-020-048	722-2385				
59-020-050	722-2397				
59-020-051	722-2403				
59-020-052	722-2415				
59-020-053	722-2427				
59-020-210	722-2439				

### **Clear Microscope Slides**



- 1-1.2mm thickness
- Supplied in packs of 50
- Dimensions of 76x26 mm

					LIN184
50 Per Pack		Price	e Each		
Order Code	1+	5+	15+	20+	
724-0296					

### Marking

### **Disposable Etching Pen**

### **LINEAR TOOLS**

**ECLIPSE** 222: Length = 190, Dia. = 7

Closed length = 88.9, Dia. = 10



- Suitable for etching codes, sizes and identification references
- For use on all steel and copper surfaces Ideal for identification of workshop tools, instruments and machines

						MAI/1	
		Price Each					
Mftrs' List No.	Order Code	1+	3+	6+	12+		
52-730-005	715-8543						

### **Scribers**



- A professional scriber with straight and 90° hardened scribe points
- Pocket scriber with pearl chrome plated body and knurled chuck
- ●The scriber point which is made from tungsten carbide can be reversed in the body

						1181408
	Mftrs.			Price	Each	
	List No.	Order Code	1+	4+	20+	40+
Scriber	222	.425-357				
Pocket scriber	225	425-369				
Spare point	22502	425-370				

### **Square Head Centre Punches**



Square head prevents the punch rolling off the bench

	Mftrs.	Order	Price Each			
	List No.	Code	1+	4+	20+	40+
Point dia. 3.2mm, body dia.8.73mm Point dia. 4.76mm, body dia. 8.73mm	351A	.443-037				
	351C	.443-049				

### **Adjustable Automatic Centre Punch**

### **ECLIPSE**

**ECLIPSE** 



- For marking and indenting a work piece prior to drilling
- Automatic mechanism delivers a punch when hard pressure is applied
- No hammering required, operating pressure can be adjusted

1	Mftrs.			Price Each	
	List No.	Order Code	1+	4+	20+
	171	.443-050			

### **Hardened Sets**





- Number punches supplied as set of 9 in tough plastic case
- Manufactured from specially-selected steel, correctly hardened and tempered
- Letter punches supplied as set of 27, A to Z plus the & symbol, in tough plastic

Figure Size 3mm/1/8" 6mm/1/4" Letter Size	Length 65mm/2 1/2″ 75mm/3″	Mftrs, List No. T3301 12 T3301 25	Order Code 105-247 709-7372
3mm/1/8"	65mm/2 1/2"	T3303 12	105-246
6mm/1/4"	75mm/3"	T3303 25	709-7396
12.5mm/1/2"	80mm/3 1/8"	T3303 50	709-7402

12.311111/1/2	0011111/3 1/0	13303 30	103-1-	102	HAT101
	Price Each				
Order Code 105-247 709-7372 105-246 709-7396 709-7402	1+	4+	20+	40+	