MAHR SPOTLIGHTS

All Products Available For Fast Delivery**!**

MID-YEAR PROMOTION

PROMOTION PRICES
EFFECTIVE 5/1/2014 THROUGH 8/31/2014

Free
16 ER Caliper

– 0 +

Mahr

EXACTLY

Scan for
PDF version

MarConnect Integrated Wireless

►| With Integrated Wireless, you have a new Integrated Wireless data transmission system from Mahr for the price of a cable. Data acquisition with digital calipers and indicators is now even easier: Simply transmit your measuring data, without being tangled up between cables, directly into Microsoft Office Excel® or via a keyboard code into any other Windows program. |◄

Inexpensive

With the Integrated Wireless receiver, up to 8 measuring instruments can be connected per i-stick, therefore expensive transmitters or interface boxes are no longer required.
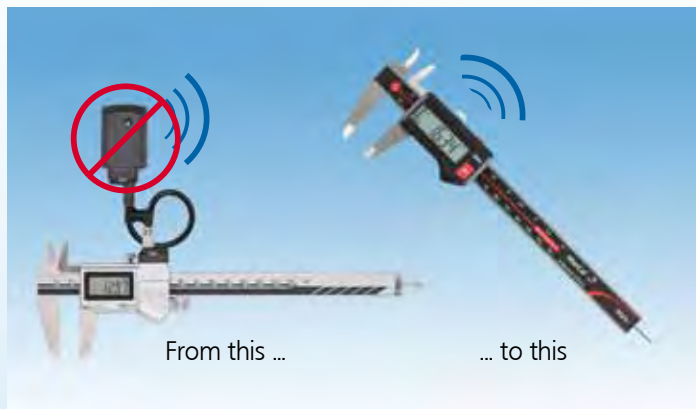When just attaching a measuring instrument with the Integrated Wireless function, you already have a wireless data transmission for the price of a data cable.

Secure data transmission

When using Integrated Wireless, your data is transferred from the digital measuring instrument to the i-stick into the computer. This is confirmed with a message in the display of the measuring instrument.
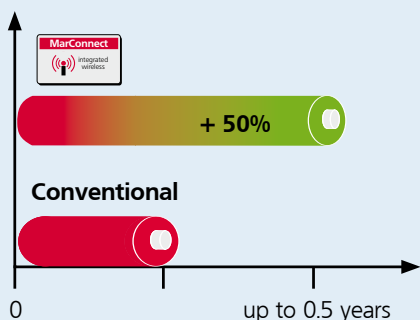
Long battery life-span

As the wireless interface is integrated in the digital measuring instruments, these are extremely energy efficient. No additional battery is needed for the typical wireless transmitter.

+ 50%

Conventional

0   up to 0.5 years

An Indus
Calipers and Indicators
Eliminate Costly Ex
And Reduce Yo

From this …   … to this

Expensive External Transmitters Are Eliminated

Wireless Bore Gaging on the Shop Floor

Significant Savings Compared to "Add-On" Wireless Solutions!

...stry First

...with Built-In Transmitters
...ternal Transmitters
...ur Costs > 50%

- Integrated Wireless - Transmitter is built-in:
  no antenna, cable, or separate module required, just
  a receiver
- Economical - Significant savings compared to typical
  add-on wireless solutions
- Secure - Visual verification of transmitted data
- Simple Data Transmissions - Transfer measurements
  wirelessly to the PC and any Windows® applications

No Cables or Interface Boxes Needed

Simple data transmission

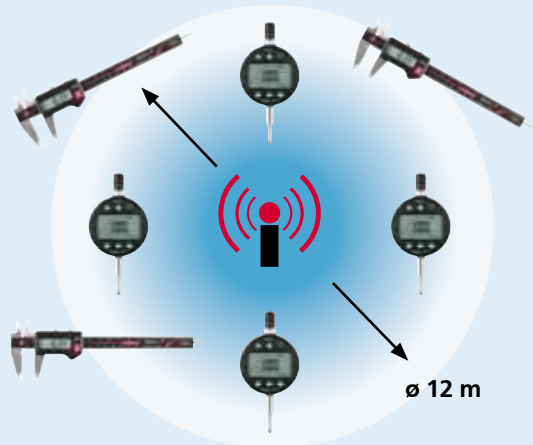**MarConnect** (((•))) integrated wireless

With the i-stick you can simply **transfer your measured values via the Integrated Wireless to the PC**. The measured values are sent directly (as with a data cable) via the MarCom software to Microsoft Office Excel® or by a keyboard code into any other Windows program.

Large transmission range

MarConnect (((•))) integrated wireless

Integrated Wireless offers you considerably more **freedom of movement**. Whether at a measuring station, or measuring on or at the machine or with large workpieces, you are not obstructed by any cables.

ø 12 m

Excellent ergonomics

MarConnect (((•))) integrated wireless

Conduct measurements without additional modules. Compared to a bulky conventional radio transmission which requires a large external transmitter with a separate battery, the Integrated Wireless transmitter is integrated in the measuring instrument.

Digital Caliper MarCal 16 EWRi

REFERENCE

MarConnect
((i)) integrated wireless

IP67

Original size

← 11 mm →

Large high-contrast display.

Scan for more information

Features

Functions:
ON/OFF
RESET (Set display to zero)
mm/inch
Reference Lock/Unlock
Auto-ON/OFF
Hold
DATA

- Integrated Wireless data transmission

- Immediate measurement due to the Reference system

- Excellent resistance against dust, coolants and lubricants, protection class IP67

- Dirt wipers are integrated in the slide

- Life of the battery up to 3 years

- Max measuring speed 2.5 m/s (100"/s)

- High contrast LCD with 11 mm high digits

- Lapped guideway

- Slide and beam made of hardened stainless steel

- Measuring blades for inside measurement

- Step measuring function

- Locking screw

- Supplied with: Case, battery, operating instructions

Technical Data

Measuring range mm	(inch)	Resolution mm/inch	Error limit G mm	/ inch	DIN 862	Depth rod		Friction wheel	Order no.	Introductory price
150	(6")	0.01/ .0005"	0.03	/ .001"	●	●			4103400	$214.00
150	(6")	0.01/ .0005"	0.03	/ .001"	●	●		●	4103401	$214.00
150	(6")	0.01/ .0005"	0.03	/ .001"	●		●		4103402	$214.00
150	(6")	0.01/ .0005"	0.03	/ .001"	●		●	●	4103403	$214.00
200	(8")	0.01/ .0005"	0.03	/ .001"	●		●		4103404	$248.00
200	(8")	0.01/ .0005"	0.03	/ .001"	●		●	●	4103405	$248.00
300	(12")	0.01/ .0005"	0.04	/ .0015"					4103406	$371.00
300	(12")	0.01/ .0005"	0.04	/ .0015"				●	4103407	$371.00

Technical Data
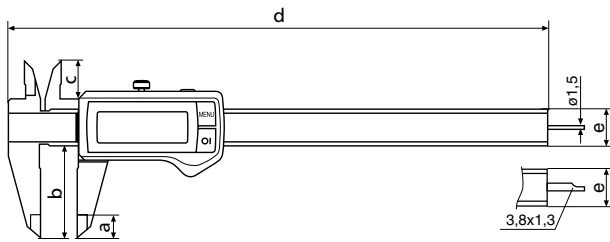
Dimensions							
mm	a	b	c	d	e		
150	10	40	16	235	16	x	3
200	10	50	19	285	16	x	3.5
300	14	64	19	388	16	x	4

Accessories for Creating your Wireless Data Collection System
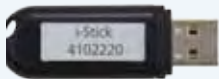
		Order no.	List Price
	i-Stick wireless receiver with MarCom Standard Allows for 8 wireless devices per stick and 68 wired devices when used with Marcom Professional	**4102220**	**$154.00**
	Software MarCom Professional 4.0 Allows for up to 4 i-Sticks per computer	**4102552**	**$394.00**
	Software MarCom Standard 3.1	**4102551**	**$115.00**

Create Your Personal Data Collection Network

Basic - MarCom Standard

Wireless Caliper
or
Digital Indicator

+

i-Stick with
MarCom Standard

=

One wireless
and one
wired network

Advanced - MarCom Professional

Wireless Caliper
or
Digital Indicator

+

i-Stick

+

MarCom Professional 4.0

=

8 wireless
and
68 of
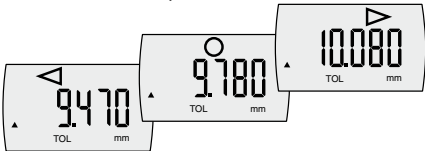wired devices
per i-Stick

MarCator 1086 Ri

► I The new Digital Indicator **MarCator** 1086 Ri. With the large display and the integrated tolerance function, your measurement results are clearly visual.   I ◄
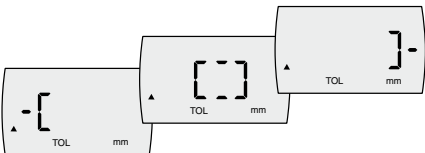
Clear display
Tolerance indication with the displayed value
Displayed is the actual measured value and the tolerance zone position

Tolerance indication without the value in the display.
In and Out of tolerance will be indicated in the display as a symbol.

Error-free operation
Lock function: This prevents unintentional activation of an operating button. Either all the operating buttons or only certain individual buttons can be locked. If a locked operating button is pressed, the "LOC" symbol appears in the display.

Universal Data-Interface
MarConnect integrated wireless

- **Integrated Wireless**
  The wireless interface for the price of a data cable

- **USB**
  No interface box is required! Simple and inexpensive way to set up a multiple measuring instruments via a USB hub

- **Digimatic**
  To connect a Digimatic compatible evaluation instrument

- **Mahr Opto RS232C**
 For direct connection to a COM port on a PC

IP Protection class IP54 (optional)
- Protection cap is sealed
- Rubber bellows for the measuring spindle (see accessories)
- Sealed battery compartment

Absolute function:
Digital Indicator can be set in any position to 0.000 without losing the reference to the preset value.

Code Initial	IP	International Protection
First Numeral	5	Dust protected
Second Numeral	4	Protection against splash water in all directions

Scan for more information

Battery service life is 3 years

The new Reference system is extremely energy efficient when the indicator is in standby mode, almost no power is required, thus **extending the life of the battery up to 3 years***.

REFERENCE - System
+ 2 Years

Conventional

1 Year   2 Years   3 Years
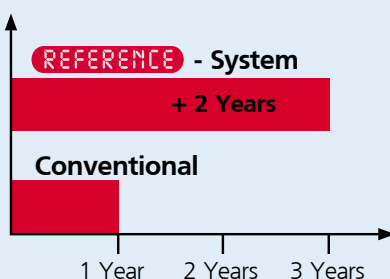
* When Integrated Wireless is deactivated

Just set once to zero

REFERENCE The new Digital Indicators 1086 Ri are equipped with the innovative Reference system. The zero position only has to be set one time: once it is set, the zero remains stored for all further measurements. Therefore, when the indicator is switched ON or the measuring spindle is moved, the indicator is immediately ready for measurement; thus the need to reset as with a conventional indicator is now obsolete.

Digital Indicators MarCator 1086 Ri Resolution 0.01mm / 0.00005"

ABS **IP42** **0 TOL** 🔒 **MarConnect** USB RS232C Digimatic **MarConnect** integrated wireless
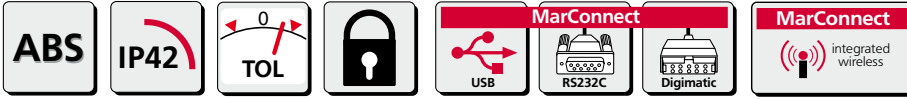
REFERENCE

List Price From
$617.00
Promo Price From
$560.00

OVER 10% SAVINGS

4337124
12.5mm

4337134
12.5mm

Features

Functions:
- ON/OFF
- RESET (Set display to zero)
- mm/inch
- Reversal of the counting direction
- PRESET (Allows the entry of any value using set buttons)
- TOL (Enter tolerance limit values)
- ABS (Display can be set to zero, without losing the reference to the Preset value)
- <0> (Tolerance GO / NO GO display mode)
- DATA (when connected with a data connection cable)
- Factor (adjustable)
- Immediate measurement due to the Reference system
- Individual buttons can be locked - Lock Function
- Operating and display unit (bezel) can be rotated 280°
- High contrast LCD with 11 mm high digits
- Operating time approx. 3 years (2000 work. hrs/year)
- Maximum measuring speed 1.5 m/s (60"/s)
- Lifter protection cap on the measuring spindle
- MarConnect data output, choose either:
  - USB
  - OPTO RS232C
  - Digimatic
  - Integrated Wireless
- Operating temperature 10 - 40°C
- Class of protection IP42 in accordance to IEC 60529

Supplied with:
Battery,
Operating instructions

1086 b

Dimensions

Meas. range		a	b	c
mm	(inch)	mm	mm	mm
12.5	(.5")	126.3	23	13.5
25	(1")	153.4	26.8	26.5

Technical Data

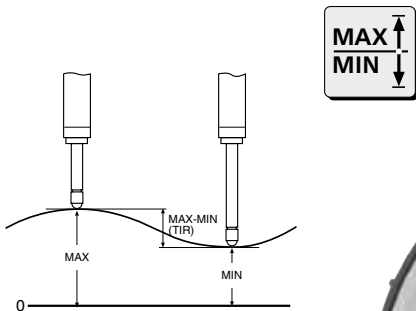| Measuring range		Resolution		Span of error*	MarConnect integrated wireless	Measuring force			Weight	Mounting shank	Order no.	List price	Promo price
mm	(inch)	mm /	inch	mm			N		g				
12.5	(.5")	0.001 /	.00005"	0.005	●	0.65	-	0.90	130	8h6	**4337124P**	$720.00	**$650.00**
25	(1")	0.001 /	.00005"	0.005	●	0.65	-	1.15	140	8h6	**4337125P**	$781.00	**$700.00**
50	(2")	0.001 /	.00005"	0.008	●	1.25	-	2.70	190	8h6	**4337126P**	$1,200.00	**$1,080.00**
100	(4")	0.001 /	.00005"	0.009	●	1.60	-	3.50	235	8h6	**4337127P**	$1,500.00	**$1,350.00**
12.5	(.5")	0.01 /	.0005"	0.02	●	0.65	-	0.90	130	8h6	**4337134P**	$617.00	**$560.00**
25	(1")	0.01 /	.0005"	0.02	●	0.65	-	1.15	140	8h6	**4337135P**	$699.00	**$630.00**

*   in any zero point

MarCator 1087 Ri

▶ | The new Digital Indicator **MarCator** 1087 Ri. The multi-functional Digital Indicator with a combined analog and digital display as well as tolerance and dynamic measuring functions. | ◀
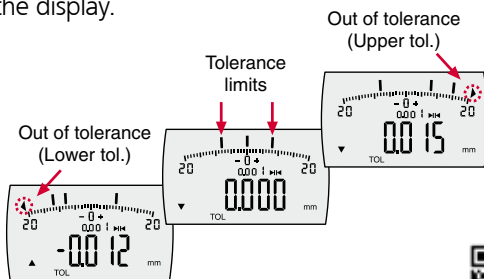
Dynamic measuring functions

- **MAX-MIN**-Function ideal for testing flatness and concentricity
- **MAX** and / or **MIN** for searching the reversal point

Universal Data-Interface

MarConnect — integrated wireless

- **Integrated Wireless**
  The wireless interface for the price of a data cable

- **USB**
  No interface box is required! Simple and inexpensive way to set up a multiple measuring instrument via a USB hub

- **Digimatic**
  To connect a Digimatic compatible evaluation instruments

- **Mahr Opto RS232C**
 For direct connection to a COM port on a PC

Clear display Tolerance indication

The Integrated bar graph visualizes the tolerance deviation. Out of tolerance; above the upper or below the lower tolerance limit is represented by arrows shown in the display.

ABS — **Absolute function:** Digital Indicator can be set in any position to 0.000 without losing the reference to the preset value

Out of tolerance (Lower tol.)

Tolerance limits

Out of tolerance (Upper tol.)

Scan for more information

Just set once to zero

REFERENCE The new Digital Indicators 1087 Ri are equipped with the innovative Reference system. The zero position only has to be set one time: once it is set, the zero remains stored for all further measurements. Therefore, when the indicator is switched ON or the measuring spindle is moved, the indicator is immediately ready for measurement; thus the need to reset as with a conventional indicator is now obsolete.

Battery service life is 3 years

The new Reference system is extremely energy efficient when the caliper is in standby mode, almost no power is required, thus **extending the life of the battery up to 3 years*.**

REFERENCE - System
+ 2 Years

Conventional

1 Years   2 Years   3 Years
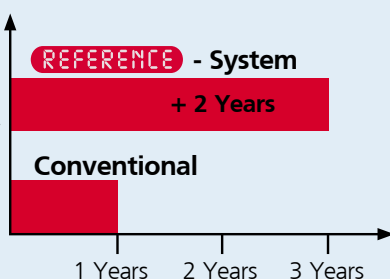
* When Integrated Wireless is deactivated

Error-free operation

Lock function: This prevents unintentional activation of an operating button. Either all the operating buttons or only certain individual buttons can be locked. If a locked operating button is pressed the "LOC" symbol appears in the display.

Digital Indicators MarCator 1087 Ri with analog display

| ABS | MAX/MIN | IP42 | 0 TOL | 🔒 | MarConnect: USB / RS232C / Digimatic | MarConnect: integrated wireless |

REFERENCE

List Price From
$823.00

Promo Price From
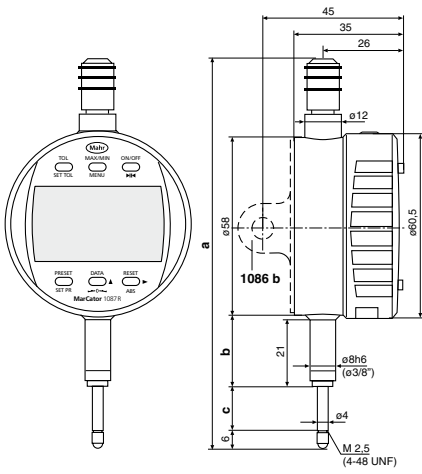**$740.00**

OVER 10% SAVINGS

Features

Functions:
- ON/OFF
- RESET (Set display to zero)
- mm/inch
- Reverse the counting direction
- PRESET (Allows the entry of any value using set buttons)
- TOL (Enter tolerance limit values)
- Tolerance band max. 1.6 mm
- MAX/MIN memory, ideal for searching the reversal point
- TIR (MAX-MIN) ideal for testing concentricity and flatness
- ABS (Display can be set to zero, without losing the reference to the Preset value)
- 0 (Set analog display to zero)
- DATA (when connected with a data connection cable)
- Factor (adjustable)
- Immediate measurement due to the Reference system
- Individual buttons can be locked - Lock Function
- Operating and display unit (bezel) can be rotated 280°
- High contrast LCD with 8.5 mm high digits
- Operating time approx. 3 years (2000 work. hrs/year)
- Maximum measuring speed 1.5 m/s (60"/s)
- MarConnect data output, choose either:
  - USB
  - OPTO RS232C
  - Digimatic
  - Integrated Wireless
- Operating temperature 10 - 40°C
- Class of protection IP42 in accordance to IEC 60529

Supplied with:
Battery,
Operating instructions

Dimensions

Meas. range		a	b	c
mm	(inch)	mm	mm	mm
12.5	(.5")	126.3	23	13.5

Analog display

Readings			Display range		
mm	/	inch	mm	/	inch
0.001	/	.00005	± 0.02	/	± .001
0.002	/	.0001	± 0.04	/	± .002
0.004	/	.0005	± 0.08	/	± .01
0.01	/	.001	± 0.2	/	± .02

Technical Data

Measuring range		Resolution		Span of error*	MarConnect integrated wireless	Measuring force	Weight	Mounting shank	Order no.	List Price	Promo Price
mm	(inch)	mm / inch		mm		N	g				
12.5	(.5")	0.001 / .00005"		0.005	●	0.65 - 0.90	140	8h6	4337163P	$823.00	**$740.00**
25	(1")	0.001 / .00005"		0.005	●	0.65 - 1.15	150	8h6	4337165P	$879.00	**$790.00**

* in any zero point

Digital Indicator MarCator 1087 BRi for 2 point inside measurement

| ABS | MAX / MIN | IP42 | TOL | 🔒 | MarConnect USB | RS232C | Digimatic | MarConnect integrated wireless |

REFERENCE

Features

Functions:
- ON/OFF
- RESET (Set the display to zero)
- mm/inch
- Reversal of the counting direction
- PRESET (Allows the entry of any value using set buttons)
- TOL (Enter tolerance limit values)
- Tolerance band max. 1.6 mm
- START/STOP for searching the reversal point
- MAX/MIN memory, ideal for searching the reversal point
- ABS (Display can be set to zero, without losing the reference to the Preset value)
- 0 (Set analog display to zero)
- DATA (when connected with a data connection cable)
- Factor (adjustable)
- Immediate measurement due to the Reference system
- Individual buttons can be locked - Lock Function
- Operating and display unit (bezel) can be rotated 280°
- High contrast LCD with 8.5 mm high digits
- Operating time approx. 3 years (2000 work. hrs/year)
- Max. meas. speed 1.5 m/s (60"/s)
- Sealed protection cap
- MarConnect data output, choose:
  - USB
  - OPTO RS232C
  - Digimatic
  - Integrated Wireless
- Operating temperature 10 - 40°C
- Class of protection IP42 in accordance to IEC 60529
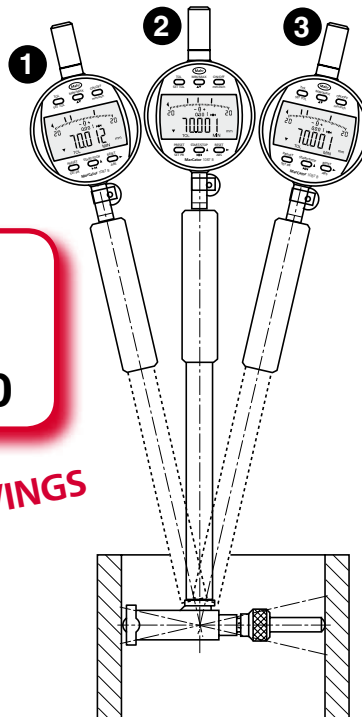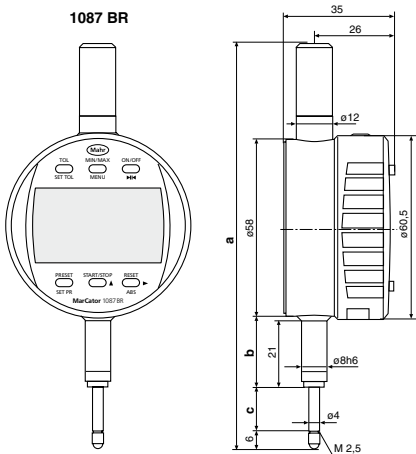- Supplied with: Battery, Operating instructions

List Price
$875.00

Promo Price
$790.00

OVER 10% SAVINGS

Example of application

❶ ❷ ❸

With a 2 point inside measuring instrument, the point of reversal is automatically determined through rocking back and forth. The actual value is detected and stored by the MIN function and indicated in the display (3).

1087 BR

Dimensions

Meas. range		a	b	c
mm	(inch)	mm	mm	mm
12.5	(.5")	126.3	23	13.5

Analog display

Readings			Display range		
mm	/	inch	mm	/	inch
0.001	/	.00005	± 0.02	/	± .001
0.002	/	.0001	± 0.04	/	± .002
0.004	/	.0005	± 0.08	/	± .01
0.01	/	.001	± 0.2	/	± .02

Technical Data

Measuring range		Resolution		Span of error*	MarConnect integrated wireless	Measuring force	Weight	Mounting shank	Order no.	List Price	Promo Price
mm	*(inch)*	mm / *inch*		mm		N	g				
12.5	*(.5")*	0.001	/ *.00005"*	0.005	●	0.65 - 0.90	140	8h6	**4337164P**	$875.00	**$790.00**

* *in any zero point*

Accessories for MarCator

Accessories for 1086 Ri, 1087 Ri and 1087 BRi

		Order no.
Battery 3V, Type CR 2450		4884464
Mounting Lug	1086 b	4337421
Cable Release for measuring ranges 12.5 and 25 mm	1085 a	4336311
Pneumatic Lifter for measuring ranges 12.5 and 25 mm	1082 p	4336237
Rubber Bellows for 12.5mm		4337472
Rubber Bellows for 25mm		4337474

Additional Accessories		Catalog page
Contact Points	901-913	5-52
Special Holder	941	5-53
Sensor Lever	943	5-53

1085 a

1086 b

ø6,5

19

1082 p (12,5/25)

ø4/2 L=2 m
ø6/4 L=2 m
3 - 6 bar
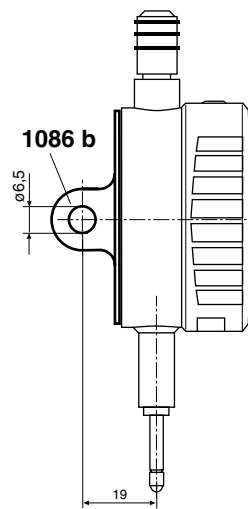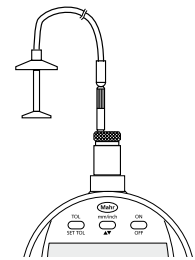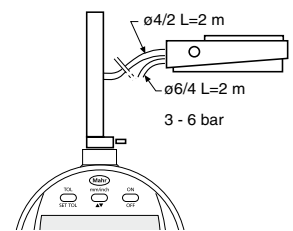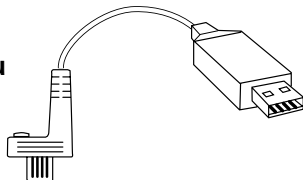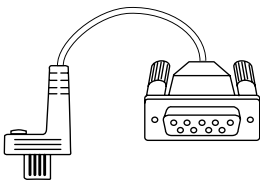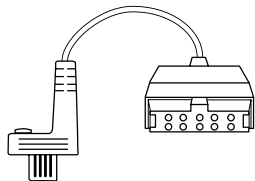
Accessories for Creating your Data Collection System

			Order no.	List price
16 EXu		**Data Connection Cable** USB (2 m) incl. MarCom Standard	**16 EXu** 4102357	$136.00
16 EXr		**Data Connection Cable** Opto RS232C (2 m), with SUB-D jack 9-pin	**16 EXr** 4102410	$80.00
16 EXd		**Data Connection Cable** Digimatic (2 m), Flat plug 10-pin	**16 EXd** 4102411	$84.50
		i-Stick wireless receiver with MarCom Standard Allows for 8 wireless devices per i-Stick and 68 wired devices when used with Marcom Professional	4102220	$154.00
		Software MarCom Professional 4.0 Allows for up to 4 i-Sticks per computer	4102552	$394.00
		Software MarCom Standard 3.1	4102551	$115.00

*Accessories for Data Processing, see Dimensional Metrology Catalog Chapter 11*

MarCal. The new Generation of digital calipers with the Reference System
### WATERPROOF CALIPERS

Lapped guideways for superior performance

Only MarCal calipers have lapped guideway surfaces, which guarantee an even and sensitive run of the slide. Additionally, the service life of the caliper increases compared to a ground guideway due to the greater contact area on the guideway surface.
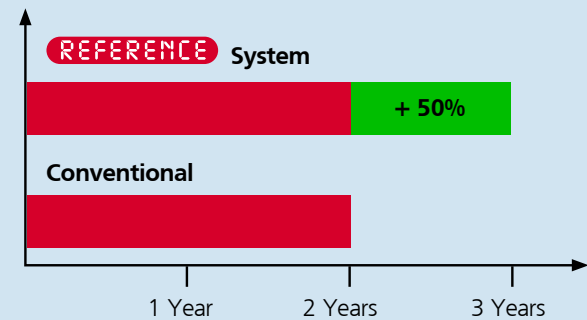
Surface of the guideway

Mahr
Lapped guideway

Competitor A
Ground guideway
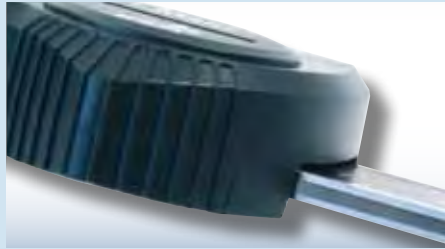
Competitor B
Ground guideway
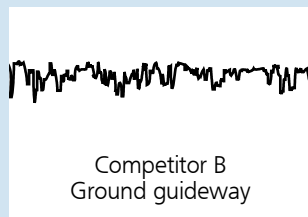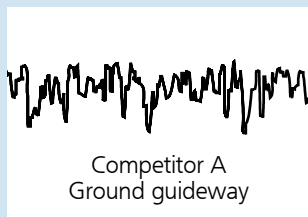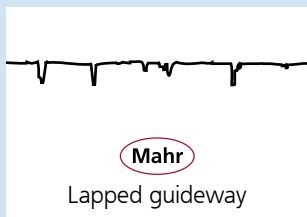
50% longer battery lifetime

The new Reference system is extremely energy efficient when the caliper is in standby mode, almost no power is required, thus extending the life of the battery to up to 50%.

REFERENCE System

+ 50%

Conventional

1 Year   2 Years   3 Years

Security due to the Reference Lock function

• Zero position is secured
• Operating error is not possible

The Digital Caliper MarCal 16 EWR Reference is equipped with a LOCK function. With this key lock, the zero position is secured and operating error is avoided.

Complete Li...
Full Feature Dig...
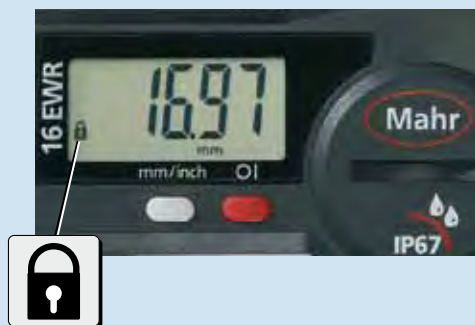
MarCal - The innovative Reference System

Just set reference once
All Mahr digital calipers with this logo **REFERENCE** are equipped w...
zero position just has to be set once; after setting the zero position, the zero re...
Therefore, once the caliper is switched ON or the slide is moved, the caliper i...
need to reset to zero with a conventional caliper once the caliper is switched...

REFERENCE System

① Switch ON
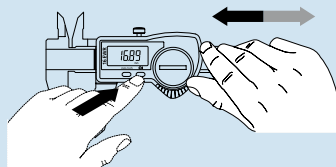
REFERENCE

...ne of ...ital Calipers

The only one with a universal MarConnect interface

Regardless of which evaluation device you are using, with a MarConnect interface you always have the optimal connection.

marconnect
USB ready

USB ready: For direct connection to a PC when using our MarCom software, you can transfer your measured values directly into MS Excel or with a keyboard code into any application.
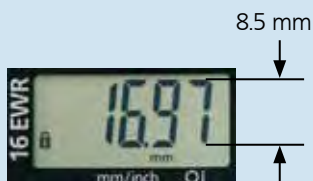
Digimatic

Digimatic: To connect to Digimatic compatible evaluation devices.

RS232C

Mahr Opto RS232: To connect to the COM interface on a PC.

List Price
$179.00
Promo Price
$135.00

Ergonomic Design

The handy non-slip thumb support of the MarCal 16 EWR ensures trouble-free handling and reliable measuring results even in contaminated working conditions.

8.5 mm

The high-contrast display with 8.5 mm high digits enables accurate, fatigue-free reading of the measurement results.

Excellent resistance against dust, coolant and lubricants

IP67

Due to the outstanding protection against dust and water, the Digital Caliper MarCal 16 EWR Reference delivers precise and secure results even in the most difficult workshop conditions.

...with the innovative Reference system. The ...emains stored for all further measurements. ...s immediately ready for measurement. The ...d on has now become obsolete.

② Result of measurement
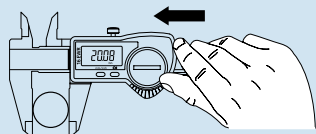
Code Initials	**IP**	International Protection
First digit	**6**	Dust-tight
Second digit	**7**	Protected against temporary immersion in water

How to Receive Your Free Caliper

►I   This promotional brochure contains products carrying a **Free Caliper Symbol** as seen below. When you order a product with the Free Caliper Symbol from this brochure - by the special order number specified, you will also receive one free **16 ER** - our newest and performance packed caliper, order number **4103000**.

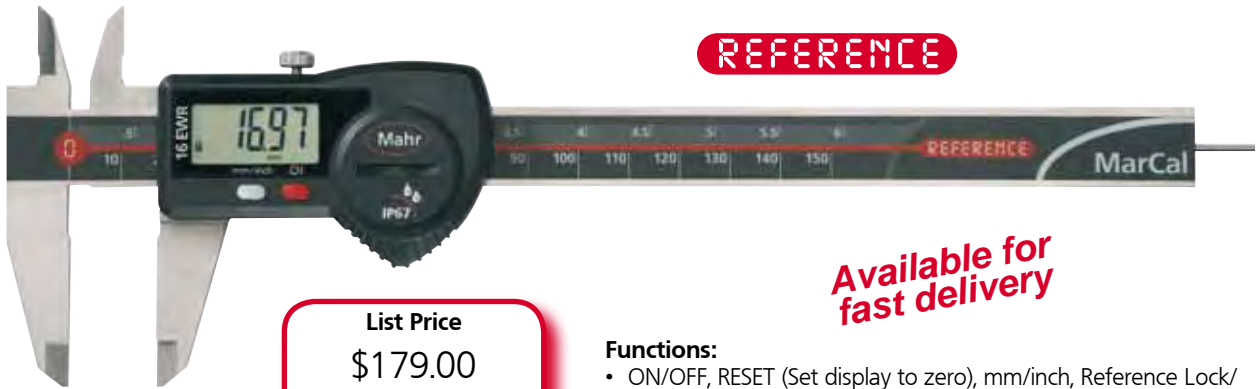The values in this brochure are hot, but when combined with the free 16 ER they are untouchable!

Order yours today.   I◄

Look For This

f**ree**
16 ER Caliper
List Price: $129.00

MarCal Digital Caliper 16 EWR with Reference System, Protection Class IP67, no output

IP67

DIN 862

REFERENCE

Available for fast delivery

List Price
$179.00
Promo Price
$140.00

Functions:
• ON/OFF, RESET (Set display to zero), mm/inch, Reference Lock/Unlock, Auto-ON/OFF
• Immediate measurement due to the **Reference system**
• Excellent resistance against dust, coolants and lubricants, **Protection Class IP67**
• Life of the battery up to **3 years**
• High contrast Liquid Crystal Display with 8.5 mm high digits
• Lapped guideway

For further detailed information see:
www.mahr.com
WebCode 13526-11250

	Measuring range		Resolution	Error Limit G	Depth rod		Friction Wheel	Order no.	List price	Promo price
	mm	(inch)	mm / inch	mm						
16 EWR	150	(6")	0.01 /0.0005"	0.03	●			4103060P	$179.00	**$140.00**
16 EWR	150	(6")	0.01 /0.0005"	0.03		●		4103062P	$179.00	**$140.00**
16 EWR	150	(6")	0.01 /0.0005"	0.03	●		●	4103061P	$179.00	**$140.00**
16 EWR	150	(6")	0.01 /0.0005"	0.03		●	●	4103063P	$17900	**$140.00**

MarCal Digital Caliper 16 EWR with Reference System, Protection Class IP67, with output

List Price From
$214.00

Promo Price From
$165.00
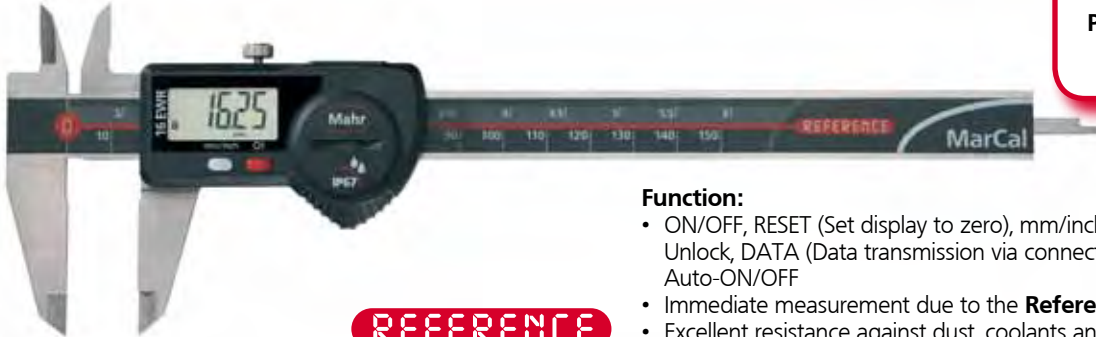
Function:
- ON/OFF, RESET (Set display to zero), mm/inch, Reference Lock/Unlock, DATA (Data transmission via connection cable), Auto-ON/OFF
- Immediate measurement due to the **Reference system**
- Excellent resistance against dust, coolants and lubricants, **protection class IP67**
- **MarConnect** data output, choose alternatively: USB, OPTO RS232C or Digimatic
- Life of the battery up to **3 years**
- High contrast Liquid Crystal Display with 8.5 mm high digits
- Measuring blades for inside measurement

For further detailed information see:
www.mahr.com
WebCode 2553

	Measuring Range mm	(inch)	Resolution mm / inch	Error Limit G mm / inch	Depth Rod ⌀1.5	Depth Rod	Friction Wheel	Order no.	List price	Promo price
16 EWR	150	(6")	0.01 / 0.0005"	0.03 / 0.001"	●			4103064P	$214.00	**$165.00**
16 EWR	150	(6")	0.01 / 0.0005"	0.03 / 0.001"		●		4103066P	$214.00	**$165.00**
16 EWR	150	(6")	0.01 / 0.0005"	0.03 / 0.001"	●		●	4103065P	$214.00	**$165.00**
16 EWR	150	(6")	0.01 / 0.0005"	0.03 / 0.001"		●	●	4103067P	$214.00	**$165.00**
16 EWR	200	(8")	0.01 / 0.0005"	0.03 / 0.001"		●	●	4103068P	$248.00	**$191.00**
16 EWR	200	(8")	0.01 / 0.0005"	0.03 / 0.001"		●	●	4103069P	$248.00	**$191.00**
16 EWR	300	(12")	0.01 / 0.0005"	0.04 / 0.0015"				4103070P	$371.00	**$286.00**
16 EWR	300	(12")	0.01 / 0.0005"	0.04 / 0.0015"			●	4103071P	$371.00	**$286.00**

MarCal. Digital Caliper 16 ER with Reference system and output

List Price From
$155.00

Promo Price From
$118.00

Functions:
- ON/OFF, RESET (Set display to zero), mm/inch, Reference-Lock/Unlock, Auto-ON/OFF
- Immediate measurement due to the **Reference system**
- **MarConnect** data output, choose alternatively: USB, OPTO RS232C or Digimatic
- Life of the battery up to **3 years**
- High contrast Liquid Crystal Display with 8.5 mm high digits
- Beam and crossbeam are made of hardened stainless steel

For further detailed information see:
www.mahr.com
WebCode 2184

	Measuring range mm	(inch)	Resolution mm / inch	Error limit G mm / inch	Depth Rod ⌀1.5	Depth Rod	Order no.	List price	Promo price
16 ER	150	(6")	0.01 / 0.0005"	0.03 / 0.001"	●		4103002P	$155.00	**$118.00**
16 ER	150	(6")	0.01 / 0.0005"	0.03 / 0.001"		●	4103003P	$155.00	**$118.00**
16 ER	200	(8")	0.01 / 0.0005"	0.03 / 0.001"		●	4103004P	$210.00	**$147.00**
16 ER	300	(12")	0.01 / 0.0005"	0.04 / 0.0015"			4103005P	$330.00	**$229.00**

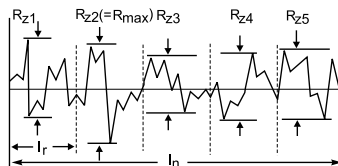## Pocket Surf® The portable surface roughness gage

List Price From
$2,310.00
Promo Price From
$1,899.00

- Pocket-sized economically priced, completely portable instrument
- Solidly built, with a durable cast aluminum housing, to provide years of accurate, reliable surface finish gaging
- Can be used to measure any one of four, switch-selectable, parameters: R_a, R_{max}/R_y, R_z

- Selectable traverse length 1, 3 or 5 cut-offs of 0.8 mm/.030"
- Operates in any position – horizontal, vertical, and upside down
- Four switchable probe positions – axial (folded) or at 90°, 180° or 270°
- Even difficult-to-reach surfaces such as inside and outside diameters are accessible
- Integrated data output for SPC-processing
- Easy-to-read LCD readout presents the measured roughness value, in microinches or micrometers

Technical Data

Probing and Traverse Lengths

Parameters	Traverse Length (Nominal)	Evaluation Length	Number of Cutoffs/ Switch Position
R_a/R_y	2.0 mm/ .075" 3.5 mm/ .135"	0.8 mm/ .030" 2.4 mm/ .090"	1 3
$R_a/R_z/R_{max}$	5.0 mm/ .195"	4.0 mm/ .150"	5

Traverse Speed	5.08 mm/ .2" per second
Cutoff	.08 mm/ .030" ASME 2 RC-filter
Probe Type	Piezoelectric
Maximum Stylus Force	15.0 mN / 1500 mgf
Power	Consumer-type alkaline battery, 9 Volt
Battery Capacity	Approx. 2500 measurements, depending on frequency of use and output option
Operating Temperature	10° to 45°C / 50° to 113° F
Storage Temperature	-20° to 65°C / -4° to 149° F

Made in USA
Available for fast delivery

Scan for more information

Pocket Surf Sets

Order no.			List Price	Promo Price
EMD-1500-311P	**EGH-1019**	Probe, 90°, 10 µm radius, PMD-90101 Certified Specimen, incl. Test Certificate	$2,310.00	**$1,975.00**
EMD-1500-312P	**EGH-1019**	Probe, 90°, 10 µm radius, EMD-90010 Precision Specimen	$2,230.00	**$1,899.00**
EMD-1500-321P	**EGH-1026**	Probe, 90°, 5 µm radius, PMD-90101 Certified Specimen, incl. Test Certificate	$2,310.00	**$1,975.00**
EMD-1500-322P	**EGH-1026**	Probe, 90°, 5 µm radius, EMD-90010 Precision Specimen	$2,230.00	**$1,899.00**

A Pocket Surf kit is furnished complete in a fitted case, and includes a Pocket Surf unit with a General Purpose Probe** and a 3.2 µm/125 µinch (nominal) Reference Specimen**, 9 Volt battery, Riser Plate and Screwdriver.

** *Part Numbers listed in table above.*

MarSurf. Mobile Roughness Measurement M 300

NEW

List Price
$5,270.00
Promo Price
$4,800.00

free
16 ER Caliper

Scan for more information

- Cable-free connection with Bluetooth
- Automatic selection of filter and traversing length conforming to standards
- Integrated thermal graphics printer of high print quality
- Data transfer of results and profiles via USB-interface to your PC
- Dynamic calibration function
- Evaluation of the common parameters as per ISO/JIS as well as characteristic curves, parameter lists (i. e. material ratio)
- Integrated memory for the results and measurements
- Tolerance monitoring in display and measuring record
- Printing of R-profile (ISO/ASME/JIS), P-profile (MOTIF), material ratio curve, measuring record
- 15 languages
- Units of measurement (µm/µinch) and standards (ISO/JIS/ASME/MOTIF) are selectable
- Number of sampling lengths selectable from 1 to 5

- Locking and/or password protection for instrument settings
- Plug-in power pack with three mains plugs, for input voltages from 90 V to 264 V
- Output of date and/or time of the measurements

Order no.	List price	Promo price
6910401+Cal	$5,270.00	$4,800.00

For further detailed information see:
www.mahr.com
WebCode 13279

Digimar. Height Measuring Instrument Digimar 817 CLM Quick Height - 2D

Digimar 817 CLM Quick Height. 350 / 600 / 1000 mm: The new Height Measuring Instrument with the innovative Quick Mode. Highly accurate rapid measurements, a wide range of measuring and evaluation possibilities and excellent operator comfort.

Fast measurement . . .

... by hand with "Quick-Mode" (patented)

QUICK MODE

Scan for more information

Display

Comfort to operate all measurement functions with the function keys

List Price From
$9,020.00

Promo Price From
$8,100.00

817 CLM - 2D 0 - 350 mm

817 CLM - 2D 0 - 600 mm   **817 CLM - 2D** 0 - 1000 mm

ℹ️ For further detailed information see:
www.mahr.com
WebCode 12369-8298

Free
16 ER Caliper
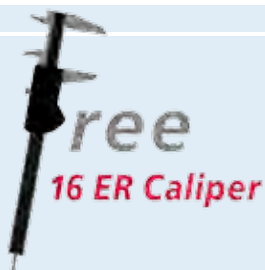
		2D		
Measuring range	mm / in	0-350 / 14"	0-600 / 24"	0-1000 / 40"
Application range	mm /in	520 / 20.47	770 / 30.31	1170 / 46.0
Resolution	mm	0.01 / 0.005 / 0.001 / 0.0005 / 0.0001		
	in	0.001" / 0.005" / 0.0001" / 0.00005" / 0.00001"		
Measuring error*	μm	1.8+L/600 (L in mm)		
Quick Mode		●	●	●
2-D		●	●	●
Motorized measuring carriage		●	●	●
Bore diameter		●	●	●
Max-Min		●	●	●
Tolerance monitoring		●	●	●
Perpendicularity / Straightness measurement		●	●	●
Measuring programs		40	40	40
Temperature compensation		●	●	●
Air bearings		●	●	●
Integrated USB memory		●	●	●
Data interface		RS232	RS232	RS232
USB printer interface		●	●	●
Order no.		**4429010+CAL**	**4429011+CAL**	**4429012+CAL**
List price		$9,020.00	$9,860.00	$16,150.00
Promo price		**$8,100.00**	**$8,880.00**	**$14,500.00**

*   At 20°C in conjunction with a base plate in accordance to DIN 876/0 and a standard probe K6/51

Digimar. Height Measuring Instrument Digimar 817 CLM Quick Height

Easy to operate . . .

. . . all functions can be operated via the speed keys

Operating and display unit with back-lit display

Measuring program . . .

. . . for repetitive measurements / serial components
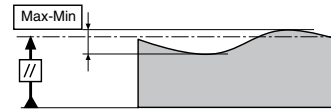
PROG

Perpendicularity (with optional probes*) . . .

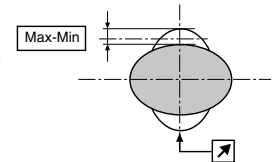. . . and straightness measurements

* Check with Mahr Federal Inc. for available electronic probe options

Dynamic measuring functions

Determine MAX, MIN, MAX-MIN with just one measurement

Max-Min

Max-Min

• Parallel deviation

• Roundness deviation

Digimar. Probe Accessory Sets for 817 CLM / 816 CL

Probe Set 817 ts1 consists of:		Shaft length mm	Mount dia. mm
817 h2	Carrier for probes	100	—
S15/31.2	Disc probe	31.2	6
Z10/31.2	Cylindrical probe	31.2	6
MKe 30	Taper probe	38.2	6
TMT 120	Depth probe incl. carrier	120	—
KM 2	Probe for M2 incl. probe 800 ts	31.7	6
817 h4	Carrier for probes	—	8
K4/30	Spherical probe	31	8
K6/40	Spherical probe	31	8
K10/60	Spherical probe	62	8
K10/100	Spherical probe	103	8
	Carrying case		
Probe Set 817 ts2 consists of:		**Shaft length** mm	**Mount dia.** mm
817 h2	Carrier for probes	100	—
S15/31.2	Disc probe	31.2	6
Z10/31.2	Cylindrical probe	31.2	6
MKe 30	Taper probe	38.2	6
TMT 120	Depth probe incl. carrier	120	—
KM 2	Probe for M2 incl. probe 800 ts	31.7	6
	Carrying case		

From
$972.00

817 ts1

For further detailed information see:
www.mahr.com
WebCode 12369-8298

Probe Set	Order no.	List Price	Promo Price
817 ts1	**4429019P**	$1,570.00	**$1,413.00**
817 ts2	**4429018P**	$1,080.00	**$972.00**

Precision Gages
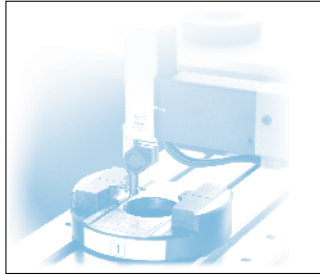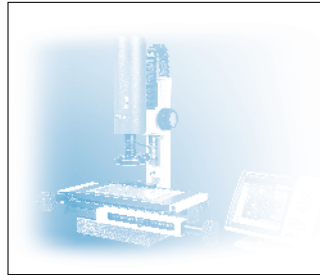
Precimar.
Precision Length Metrology
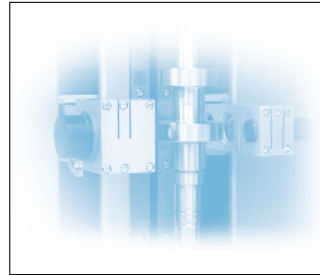
MarSurf.
Surface Metrology

MarForm.
Form Metrology

MarGear.
Gear Metrology

MarVision.
Optical Metrology

MarShaft.
Shaft Metrology

Services

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– O +

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E X A C T L Y

A-425 0414 14M