External Measurement

PRECISION MEASUREMENT

Precision measurement requires the use of micrometers. In 1848, the first measuring tool of this type was patented by the French inventor Jean Laurent Palmer as «calibre à vis et à vernier circulaire» (screw calliper with a circular vernier). Today, we continue to make external micrometers with these typical features.

The introduction of the micrometer to the mechanical world came about by the visit of the two american engineers Joseph R. Brown and Lucian Sharpe to the Paris Exhibition in 1867. At that time, their attention was called to the Palmer's invention, which greatly interested them. After some improvements of the Palmer design, the product was manufactured on a large scale and marketed successfully by the two partners.

The story repeated in the past as TESA SA decided to manufacture external micrometers making them the first products produced by the company.

Yet no matter what you measure – internal or external dimensions – all TESA and ETALON micrometers are world-class products in design and quality.

With a very few exceptions (e.g. external micrometers for gear tooth measurements), our micrometers respect the Abbe principle, i.e. the comparator's one (also read in the General Information). Their spindle are ground on modern grinding machines and the profile of the screw is accurately restored with negligible pitch deviations. Such manufacturing conditions are the guarantee for very low measurement uncertainties.

The micrometers of both TESA and ETALON premium brands are robust with ergonomic design.

Besides external micrometers in standard or special versions, we also offer micrometer heads, depth micrometers, full micrometer sets as well as a wide number of accessories plus all what you need for your calibrations. Each model provides either an analogue or a digital indication according to the execution. The models with electrical measuring system also include an RS 232 digital interface.

Max. permissible errors

Measuring range/mm	Max. perm. errors*/µm	Number of interference fringes or rings	µm
0 ÷ 25	4	6	2
25 ÷ 50	4	6	2
50 ÷ 75	5	10	3
75 ÷ 100	5	10	3
100 ÷ 125	6		3
125 ÷ 150	6		3
150 ÷ 175	7		4
175 ÷ 200	7		4
200 ÷ 225	8		4
225 ÷ 250	8		4
250 ÷ 275	9		5
275 ÷ 300	9		5
300 ÷ 325	10		5
325 ÷ 350	10		5
350 ÷ 375	11		6
375 ÷ 400	11		6
400 ÷ 425	12		6
425 ÷ 450	12		6
450 ÷ 475	13		7
475 ÷ 500	13		7

* The max. perm. errors include the errors of the measuring element as well as any deviations in flatness and parallelism of the measuring faces plus the errors due to the flexure of the frame.

✓
DIN 863 T1
0,001 mm
0.00005 in
Metric/Inch conversion
Tungsten carbide tipped
≤100 mm: Ø 6,5 mm
> 100 mm: Ø 8 mm
0,5 mm
Max. 10 N
LCD, digit height: 7 mm
Floating zero
Display lock (except for model EASY)
RS 232 interface, opto-coupled
3V lithium battery
1 to 2 a (≈ 2000 h/a)
Automatic shut-down after 10 min. Display setting is maintained as long as power supply remains stable.
10°C to 40°C
–10°C to 60°C
80%, non-condensing
✓
Protection as per IEC 60529: IP40 (also valid with used RS data output) or IP54
Plastic case
Identification number
Measuring range 0 to 100: with SCS calibration certificate
Measuring range over 100 mm: inspection report along with a declaration of conformity

TESA MICROMASTER
Electronic Micrometers with Digital Display

With patented TESA capa µ system

- Measuring span of 30 mm or 25 mm.
- Large easy-to-read digital display.
- Models: – EASY with a single function key.
  – IP54 with water spray protection as well as IP54 RS with added RS 232 interface.

No	mm	mm	in	in		
MICROMASTER EASY						
06030010	0 ÷ 30	0 ÷ 30	*0 ÷ 1.2*	*0 ÷ 1.2*	IP40	–
MICROMASTER IP54						
06030020	0 ÷ 30	0 ÷ 30	*0 ÷ 1.2*	*0 ÷ 1.2*	IP54	–
06030021	25 ÷ 50	23 ÷ 53	*1 ÷ 2*	*0.9 ÷ 2.1*	IP54	–
06030022	50 ÷ 75	48 ÷ 78	*2 ÷ 3*	*1.9 ÷ 3.1*	IP54	–
06030023	75 ÷ 100	74 ÷ 104	*3 ÷ 4*	*2.9 ÷ 4.1*	IP54	–
MICROMASTER IP54 RS						
06030030	0 ÷ 30	0 ÷ 30	*0 ÷ 1.2*	*0 ÷ 1.2*	IP54	RS 232
06030031	25 ÷ 50	23 ÷ 53	*1 ÷ 2*	*0.9 ÷ 2.1*	IP54	RS 232
06030032	50 ÷ 75	48 ÷ 78	*2 ÷ 3*	*1.9 ÷ 3.1*	IP54	RS 232
06030033	75 ÷ 100	74 ÷ 104	*3 ÷ 4*	*2.9 ÷ 4.1*	IP54	RS 232
06030071	100 ÷ 125	98 ÷ 127	*4 ÷ 5*	*3.9 ÷ 5.01*	IP54	RS 232
06030072	125 ÷ 150	123 ÷ 152	*5 ÷ 6*	*4.9 ÷ 6.01*	IP54	RS 232
06030073	150 ÷ 175	149 ÷ 178	*6 ÷ 7*	*5.9 ÷ 7.01*	IP54	RS 232
06030074	175 ÷ 200	174 ÷ 203	*7 ÷ 8*	*6.9 ÷ 8.01*	IP54	RS 232
06030075	200 ÷ 225	199 ÷ 229	*8 ÷ 9*	*7.9 ÷ 9.01*	IP54	RS 232
06030076	225 ÷ 250	224 ÷ 254	*9 ÷ 10*	*8.9 ÷ 10.01*	IP54	RS 232
06030077	250 ÷ 275	250 ÷ 279	*10 ÷ 11*	*9.9 ÷ 11.01*	IP54	RS 232
06030078	275 ÷ 300	275 ÷ 304	*11 ÷ 12*	*10.9 ÷ 12.01*	IP54	RS 232

MICROMASTER Set

No		
06030029	Micromaster Set IP54 RS	0 ÷ 75

Consisting of:

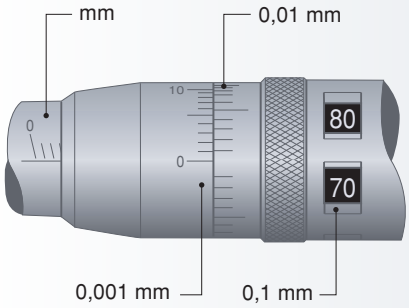
No		mm		
06030030	Micromaster IP54, RS	0 ÷ 30	IP54	RS232
06030031	Micromaster IP54, RS	25 ÷ 50	IP54	RS232
06030032	Micromaster IP54, RS	50 ÷ 75	IP54	RS232
02119021	Setting standard, 50 mm			

Optional Accessory

01961000	1 Lithium battery 3 V, 190 mAh, type CR 2032 – Connecting cables etc., see chapter A.

TESAMASTER Precision Micrometers with Digital Counter to 0,1 mm

Analogue indication of the full millimetres, hundredths and fractions of hundredth – Accurate, fast reading of the tenths of millimetres – Parallax-free reading of the thousandths of millimetres on vernier.



No	mm	µm	µm
00310001	0 ÷ 25	2	1
00310002	25 ÷ 50	2	1,5
00310003	50 ÷ 75	3	1,5
00310004	75 ÷ 100	3	1,5
00310005	100 ÷ 125	4	2
00310006	125 ÷ 150	4	2,5
00310007	150 ÷ 175	5	3
00310008	175 ÷ 200	5	3
00310009	200 ÷ 225	6	3,5
00310010	225 ÷ 250	6	3,5

No	*in*	µm	µm
00320001	*0 ÷ 1*	2	1

✓
DIN 863 T1
NF E 11-095
Vernier reading to 0,001 mm or 0.0001 in
Scale division : 0,1 mm or 0.005 in
Tungsten carbide tipped
≤100 mm: Ø 6,5 mm
> 100 mm: Ø 8 mm
0,5 mm
Max. 10 N
Plastic case
Identification number
Measuring range 0 to 100 mm with inspection report and declaration of conformity
Measuring range smaller than 100 mm with a declaration of conformity

ETALON MICRORAPID 226 with 1 mm Revolution

High precision micrometers – Fast, accurate reading – No reading error of the half millimetres – Barrel with pitch to 1 mm – Thimble with 100 graduations – Vernier reading to 0,001 mm.

No	mm	µm	µm
072116406	0 ÷ 25	2	1
072116407	25 ÷ 50	2	1,5
072116408	50 ÷ 75	3	1,5
072116409	75 ÷ 100	3	1,5

✓
DIN 863 T1
NF E 11-095
Parallax-free vernier reading to 0,001mm
Tungsten carbide tipped
Ø 6,5 mm
1 mm
Max. 10 N
Plastic case
Identification number
Inspection report with a declaration of conformity

✓

DIN 863 T1
NF E 11-095

0 to 100 mm
resp. 0 to 4 in
with vernier

Tungsten carbide
tipped

≤ 100 mm:
Ø 6,5 mm,
> 100 ≤ 200 mm:
Ø 8 mm

0,5 mm

Max. 10 N

Plastic case

Identification
number

Measuring
range
0 to 100 mm
with inspection report and
declaration of conformity

Measuring
range smaller
than 100 mm
with a declaration of
conformity

ETALON 260
Standard Models with Analogue Indication

The knurled sleeve only needs to be reversed to render the friction drive built into the thimble inactive.

№	mm	mm	µm	µm
071115887	0 ÷ 25	0,002	2	2
071115888	25 ÷ 50	0,002	2	2
071115889	50 ÷ 75	0,002	3	3
071115890	75 ÷ 100	0,002	3	3
071115891	100 ÷ 125	0,01	4	3
071115892	125 ÷ 150	0,01	4	3
071115893	150 ÷ 175	0,01	5	4
071115894	175 ÷ 200	0,01	5	4

№	*in*	*in*	µm	µm
071115899	*0 ÷ 1*	*0.0001*	2	2
071115900	*1 ÷ 2*	*0.0001*	2	2
071115901	*2 ÷ 3*	*0.0001*	3	3
071115902	*3 ÷ 4*	*0.0001*	3	3

ETALON Basic to 0,01 mm

№	mm
00119046	0 ÷ 25
00119047	25 ÷ 50
00119048	50 ÷ 75
00119049	75 ÷ 100

✓

DIN 863 T1
NF E 11-095

0,01 mm

Tungsten carbide
tipped

Ø 6,5 mm

0,5 mm

Max. 10 N

Plastic case

Identification
number

Inspection report
with a declaration
of conformity

Set of 4 ETALON Basic to 0,01 mm

№	mm
00119050	0 ÷ 100

TESA ISOMASTER
Standard Models with Analogue Indication

Slanted full millimetres on the barrel are set apart from the straight half millimetres to virtually eliminate reading errors.

The knurled sleeve needs only be reversed to render the friction drive built into the thimble inactive.

No	mm	mm
00110101	0 ÷ 25	0,01
00110102	25 ÷ 50	0,01
00110103	50 ÷ 75	0,01
00110104	75 ÷ 100	0,01
00110105	100 ÷ 125	0,01
00110106	125 ÷ 150	0,01
00110107	150 ÷ 175	0,01
00110108	175 ÷ 200	0,01
00110109	200 ÷ 225	0,01
00110110	225 ÷ 250	0,01
00110111	250 ÷ 275	0,01
00110112	275 ÷ 300	0,01
	in	*in*
00120101	*0 ÷ 1*	*0.0001*

✓
DIN 863 T1
NF E 11-095
Tungsten carbide tipped
≤ 100 mm: Ø 6,5 mm
> 100 ≤ 300 mm: Ø 8 mm
0,5 mm
Max. 10 N
Plastic case
Identification number
Measuring range 0 to 100 mm with inspection report and declaration of conformity
Measuring range smaller than 100 mm with a declaration of conformity

Set of 4 TESA ISOMASTER

Same execution as above.

The models covering the application range 0 to 100 mm provide the quality that you need at competitive prices.

No	mm
00110113	0 ÷ 100

✓
Plastic case

✓

DIN 863 T3 (Style D16)

0,001 mm 0.00005 in

Metric/Inch conversion

30 mm measuring span

0 ≤ 500 mm: malleable cast iron.
> 500 ≤ 1000 mm: steel tube with insulating grips. Max. flexure of the frame under a measuring force of 10 N: see the table opposite

Tungsten carbide tipped

Ø 8 mm

0,5 mm

Max. 10 N

LCD, digit height: 7 mm

RS 232

Additional technical data: see page C-3

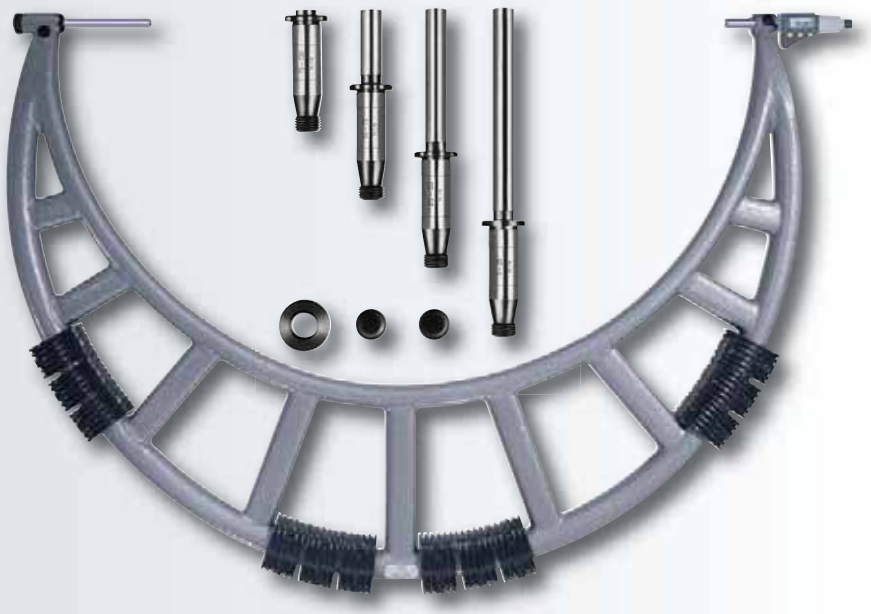
Wooden case

Identification number

Inspection report with a declaration of conformity

MICROMASTER with interchangeable Anvils

All sets include 4 interchangeable anvils with increasing length in steps of 25 mm. Anvils are adjusted (and numbered) in sets, thus rendering the correction of the indication unnecessary whenever an anvil is exchanged.



№	mm	in	µm	µm
06030047	0 ÷ 100	*0 ÷ 3.94*	6	3
06030048	100 ÷ 200	*3.94 ÷ 7.87*	7	4,5
06030049	200 ÷ 300	*7.87 ÷ 11.81*	8	7
06030050	300 ÷ 400	*11.81 ÷ 15.75*	9	9
06030051	400 ÷ 500	*15.75 ÷ 19.69*	10	9
06030052	500 ÷ 600	*19.69 ÷ 23.62*	11	9
06030053	600 ÷ 700	*23.62 ÷ 27.56*	12	10
06030054	700 ÷ 800	*27.56 ÷ 31.50*	13	12
06030055	800 ÷ 900	*31.50 ÷ 35.43*	14	12
06030056	900 ÷ 1000	*35.43 ÷ 39.37*	15	16

Measuring range up to 1500 mm also available upon request.

Dial Gauge Element for MICROMASTER

Can replace the interchangeable anvils on AB series micrometers. Make finding the culmination point easier. Ensures a constant measuring force.

Supplied as standard accessory with the ABY series micrometers.

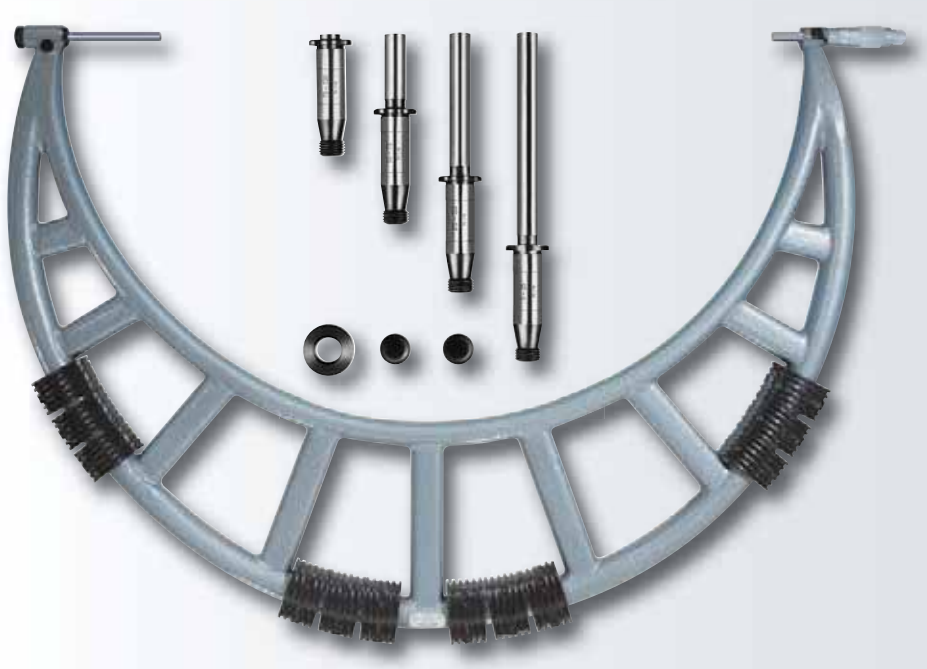
№
00140301

✓

See next page

ISOMASTER AB with interchangeable Anvils

Lightweight, but rugged anvil micrometers. Set No. 00140101 includes 4 interchangeable anvils with increasing length in steps of 25 mm. Anvils are adjusted (and numbered) in pairs, thus rendering any correction of the indication unnecessary whenever an anvil is exchanged.



No			
	mm	µm	µm
00111901	0 ÷ 100	6	3
00111902	100 ÷ 200	7	4,5
00111903	200 ÷ 300	8	7
00111904	300 ÷ 400	9	9
00111905	400 ÷ 500	10	9
00111906	500 ÷ 600	11	9
00111907	600 ÷ 700	12	10
00111908	700 ÷ 800	13	12
00111909	800 ÷ 900	14	12
00111910	900 ÷ 1000	15	16

Measuring range up to 1500 mm also available upon request.

- ✓
- DIN 863 T3 (Style D16) NF E 11-090
- 0,01 mm
- 0 ≤ 500 mm: malleable cast iron; 500 ≤ 1000 mm: steel tube with insulating grips. Max. flexure of the frame under a measuring force of 10 N: see the table opposite
- Tungsten carbide tipped
- 8 mm dia.
- 0,5 mm
- Max. 10 N
- Wooden case
- Identification number
- Declaration of conformity

Dial Gauge Element for AB Series Micrometers

Can replace the interchangeable anvils on these micrometers. Make finding the culmination point easier. Ensures a constant measuring force.

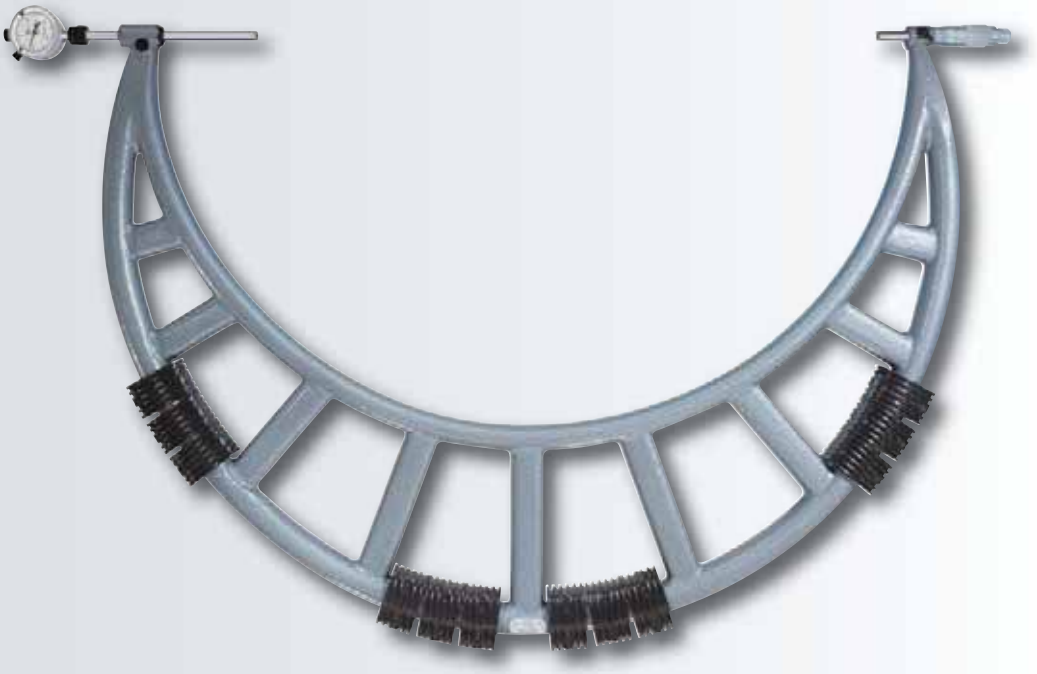
Supplied as standard accessory with the ABY series micrometers.

No
00140301

- ✓
- ± 1,5 mm
- 0,01 mm
- Tungsten carbide tipped
- 8 mm dia.
- Max. 10 N
- Meas. element: 11 mm dia., 100 mm long. Dial gauge No. 01410211: 40 mm dial diameter, two-way dial reading.
- Identification number
- With dial gauge and clamp
- Declaration of conformity

Series ABY ISOMASTER with Adjustable Dial Gauge Element

Similar to the AB series micrometers, but equipped with the adjustable dial gauge element No. 00140301 that helps you to find the culmination point easier with a constant measuring force.



- ✓
- DIN 863 T3 (Style D15) NF E 11-090
- 0,01 mm
- 0 ≤ 500 mm: malleable cast iron; > 500 ≤ 800 mm: steel tube with insulating grips. Max. flexure of the frame under a measuring force of 10 N: see the table opposite
- Tungsten carbide tipped
- 8 mm dia.
- 0,5 mm
- Max. 10 N
- Dial gauge: see on page C-8
- Wooden case
- Identification number
- Declaration of conformity

№			
	mm	µm	µm
00112001	0 ÷ 100	6	3
00112002	100 ÷ 200	7	4,5
00112003	200 ÷ 300	8	7
00112004	300 ÷ 400	9	9
00112005	400 ÷ 500	10	9
00112006	500 ÷ 600	11	9
00112007	600 ÷ 700	12	10
00112008	700 ÷ 800	13	12

Measuring range up to 1500 mm also available upon request.

Interchangeable Anvils for ABY Series ISOMASTER

Set of 4 interchangeable anvils with increasing length in steps of 25 mm. The anvils are adjusted and numbered in pairs, thus eliminating the need for resetting the indication when exchanging either of them.

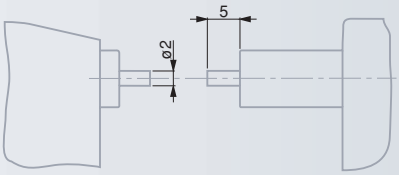
Supplied as standard accessories with the AB series micrometers.

№
00140101

- ✓
- DIN 863 T3 (Style D16) NF E 11-090
- Tungsten carbide tipped
- 8 mm dia.
- Set includes 2 guard plates for the frame as well as 1 clamping nut
- Identification number

MICRO-ETALON 225
Micrometers with a Dial Indicator

Feature a mobile anvil along with a built-in dial indicator – Ideal for comparative measurements on small part series – Nominal dimension is set on the micrometer while deviations are read on the dial indicator – Retractable anvil by means of a push-button – Rotating dial for fine adjustment, also with adjustable tolerance markers.



Nº		
Dial indicators to 0,001 mm	mm
072108669	0 ÷ 25
072108691	25 ÷ 50
Model with small measuring faces	
072108722	0 ÷ 20

✓

DIN 863 T3 (Style D13)

Tungsten carbide tipped

6,5 mm dia. Model with small measuring faces: 2 mm dia., 5 mm long.

0,5 mm

Anvil: 4,5 to 5,5 N

Micrometer with vernier reading to 0,002 mm. Dial indicator: 0,001 mm.

Dial indicator: ± 0,025 mm

Micrometer: max. perm. error of 2 µm. Dial indicator: 1 µm.

Dial indicator: repeatability limit of 0,5 µm.

Plastic case

Declaration of conformity

Protective Cover

Made in transparent plastic – Can be mounted on the bezel – Protects the indicator against dust particles and liquids – Prevents both tolerance markers from being accidentally displaced.

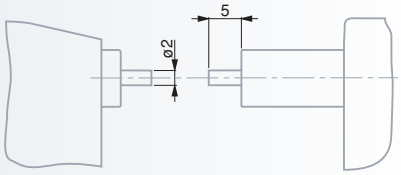
Nº
072110978

ETALON MICROSPEL 280

These micrometers have a mobile anvil along with a 8 mm diameter clamping bore for mounting a sensor with linear action such as the TESA GT 21/22 electronic probe (also refer to section O).

Specially designed for batch inspection of small precision parts.

- ✓
- DIN 863 T3 (Style D14) NF E 11-090
- Vernier reading to 0,002 mm
- Tungsten carbide tipped
- 6,5 mm dia. Models with small measuring faces: 2 mm dia., 5 mm long.
- 0,5 mm
- Anvil: 2 up to 8 N, adjustable
- Meas. element: max. perm. error of 2 µm
- Mobile anvil: repeatability limit of 0,5 µm.
- Adjustable part support (except model with small measuring faces).
- Plastic case
- Declaration of conformity



	mm
072110816	0 ÷ 25
Model with small measuring faces	
072110853	0 ÷ 20

Important

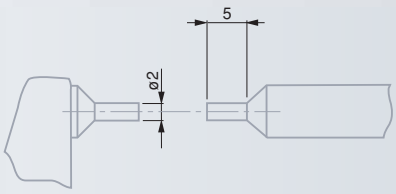
Electronic probe and micrometer stand are not part of the delivery scope and must be ordered separately.

Micrometers with Small Measuring Faces

For measuring grooves, feather grooves, splines and other difficult to reach locations – Small measuring faces specially made to check precision workpieces.

Models MICROMASTER

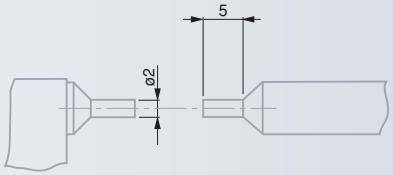
No	mm	in
06030034	0 ÷ 30	*0 ÷ 1.2*
06030035	30 ÷ 60	*1.2 ÷ 2.3*
06030036	60 ÷ 90	*2.3 ÷ 3.5*
06030037	90 ÷ 120	*3.5 ÷ 4.7*
Optional Accessory		
01961000	1 Lithium battery 3 V, 190 mAh, type CR 2032. For information on cables etc., see section A.	



- ✓
- DIN 863 T3 (Style D3)
- 0,001 mm 0.00005 in
- Metric/Inch conversion
- Fixed measuring faces: tungsten carbide.
- Max. 10 N
- RS 232 interface, opto-coupled.
- Degree of protection (IEC 60529): IP54 or IP40 with use of the digital output
- For additional technical data: see page C-3.
- Plastic case
- Identification number
- Measuring range 0 to 100: with a SCS calibration certificate.
- Measuring range > 100 mm: inspection report with a declaration of conformity.

Models ISOMASTER AD

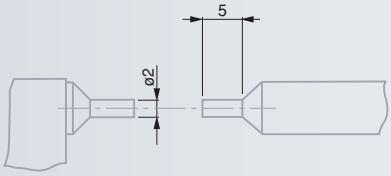
No	mm
00210101	0 ÷ 25
00210102	25 ÷ 50



- ✓
- DIN 863 T3 (Style D3) NF E 11-090
- 0,01 mm
- Fixed measuring faces: tungsten carbide.
- Max. 10 N
- Plastic case
- Identification number
- Inspection report with a declaration of conformity

Model TESAMASTER AD

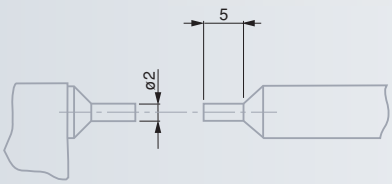
- ✓
- DIN 863 T3 (Style D3) NF E 11-090
- Vernier reading to 0,001 mm
- Scale division 0,1 mm
- Fixed measuring faces: tungsten carbide
- Max. 10 N
- Plastic case
- Identification number
- Inspection report with a declaration of conformity



№	mm
00311301	0 ÷ 25

Model MICRORAPID

- ✓
- DIN 863 T3 (Style D3) NF E 11-090
- 0,001 mm. Parallax-free reading on vernier
- 100 divisions
- Fixed measuring faces: tungsten carbide.
- 1 mm
- Max. 10 N
- Plastic case
- Identification number
- Inspection report with a declaration of conformity



№	mm
072116410	0 ÷ 20

Micrometers with One Spherical Measuring Face

Measure wall thickness of tubing.

Models MICROMASTER

No	mm	in
06030079	0 ÷ 30	*0 ÷ 1.2*
06030080	25 ÷ 50	*1 ÷ 2*

Model ETALON

No	mm
071115940	0 ÷ 25

✓
DIN 863 T3 (Style D1)
MICROMASTER: 0,001 mm or 0.00005 in
ETALON: 0,002 mm
Anvil: tungsten carbide (MICROMASTER) or titanium carbide hard-coating (ETALON). Tungsten carbide spindle.
Anvil with a 3,5 mm spherical face (MICROMASTER) or a 3,25 mm one (ETALON). Spindle with a flat measuring face.
Max. 10 N
RS 232 on MICROMASTER
Other technical data on MICROMASTER: see page C-3.
Plastic case
Identification number
Inspection report with a declaration of conformity

Micrometers with Two Spherical Measuring Faces

Rounded Measuring faces on anvil and spindle for measuring concave surfaces of workpieces, e.g. ball-bearing guides or walls of tubing.

Models MICROMASTER

No	mm	in
06030081	0 ÷ 25	*0 ÷ 1*
06030082	20 ÷ 50	*0.8 ÷ 1.9*
06030083	45 ÷ 75	*1.8 ÷ 2.9*
06030084	70 ÷ 100	*2.8 ÷ 3.9*

✓
DIN 863 T3 (Style D1)
0,001 mm 0.00005 in
Tungsten carbide
Spherical, 3,5 mm radius.
Max. 10 N
Additional technical data: see page C-3.
Plastic case
Identification number
Inspection report with a declaration of conformity

Series AAS ISOMASTER

Rounded measuring faces for checking concave surfaces such as ball-bearing guides and tubing walls.

- ✓
- DIN 863 T3 (Style D1) NF E 11-090
- 0,01 mm
- Measuring faces rounded to 3,25 mm
- Titanium carbide coated for model No. 00112106. Hardened steel for other models.
- 0,5 mm
- Max. 10 N
- Plastic case
- Identification number
- Inspection report with a declaration of conformity

№	mm
00112106	0 ÷ 25 (TiC)
00110901	0 ÷ 25
00110902	25 ÷ 50
00110903	50 ÷ 75
00110904	75 ÷ 100

Spherical Element for External Micrometers

Holder with a ball tip that fits on measuring faces having a 6,5 mm diameter – Serve to measure tubing wall thickness or workpieces with concave surfaces and the like.

- ✓
- Steel ball tip, hardened and lapped. Dull-chrome brass retainer.

№	Ball tip
072103522	5 mm

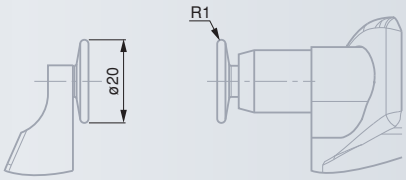
Micrometers for Soft Materials

With two large, round-edge measuring faces – Measure the thickness of materials such as paper and plastic sheets, felt, cloth and other soft materials.

Model MICROMASTER

Non-rotating measuring spindle – Without spindle lock.

№	mm	in
06030085	0 ÷ 30	*0 ÷ 1.2*



- ✓
- DIN 863 T3 (Style D6)
- 0,001 mm 0.00005 in
- Metric/Inch conversion
- Hardened steel
- Non-rotating, 20 mm dia.
- Flatness tolerance: 3 µm
- Tolerance in Parallelism: 6 µm
- Max. perm. error: 4 µm
- Max. 10 N
- RS 232
- Additional technical data: see page C-3.
- Plastic case
- Identification number
- Inspection report with a declaration of conformity

Model ISOMASTER AF

№	mm
00210301	0 ÷ 25

- ✓
- DIN 863 T3 (Style D6)
- 0,01 mm
- Hardened steel
- Ø 15 mm
- Flatness tolerance: 3 µm
- Tolerance in Parallelism: 6 µm
- Max. 10 N
- Plastic case
- Identification number
- Inspection report with a declaration of conformity

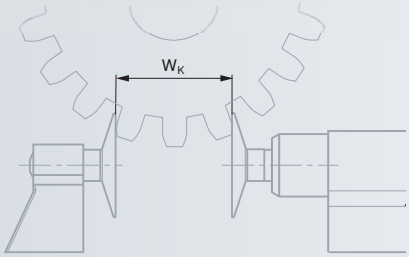
Micrometers for Gear Pitch Measurement

Flanges with ring-shaped measuring faces for root tangent lengths Wk on gear pitches, distance between grooves and slots as well as other hard-to-reach locations.

✓
DIN 863 T3 (Style D7)
0,001 mm 0.00005 in
Metric/Inch conversion
Hardened steel
Non-rotating spindle ≤85 mm: 25 mm dia. > 85 ≤ 115 mm: 30 mm dia.
Suitable from module 0,5
Max. 10 N
RS 232
Additional technical data: see page C-3.
Plastic case
Identification number
Inspection report with a declaration of conformity

Models MICROMASTER

Non-rotating measuring spindle – Without spindle lock.



№	mm	in
06030041	0 ÷ 30	*0 ÷ 1.2*
06030042	25 ÷ 55	*1 ÷ 2.1*
06030043	55 ÷ 85	*2.1 ÷ 3.35*
06030044	85 ÷ 115	*3.35 ÷ 4.5*

Models ISOMASTER AE

✓
DIN 863 T3 (Style D7) NF E 11-090
0,01 mm
Hardened steel
≤ 100 mm: 25 mm dia. > 100 ≤ 150 mm: 32 mm dia.
Suitable from module 0,6
Max. 10 N
Plastic case
Identification number
Inspection report with a declaration of conformity

№	mm
00210201	0 ÷ 25
00210202	25 ÷ 50
00210203	50 ÷ 75
00210204	75 ÷ 100
00210205	100 ÷ 125
00210206	125 ÷ 150

Micrometers for Gear Tooth Measurement

	Max. perm. error* with partial contact of the measuring face µm	Max. perm. error with full contact of the measuring face (DIN 863-T1) µm	Flatness µm	Parallelism µm	Max. flexure of the frame µm
0 ÷ 30	10	4	2	5	2
25 ÷ 55	10	4	2	5	2
55 ÷ 85	11	5	2	5	3
85 ÷ 115	12	5	2	6	4

* Disregarding a rim of 1 mm as the measuring faces are being inspected.
For enhanced accuracy, the micrometer should be calibrated in the position of use.

MICROMASTER with 7 Pairs of Interchangeable Measuring Inserts

Non-rotating spindle – Without spindle lock.

№	mm	in
06030045	0 ÷ 30	*0 ÷ 1.2*

✓

0,001 mm
0.00005 in

Metric/Inch conversion

Micrometer element with a max. perm. error of 4 µm

7,5 mm dia., non-rotating spindle.
With a fixing bore for a measuring insert.
Adjustable attachment on anvil for a measuring insert, with lock.

Hardened steel

Max. 10 N

RS 232

Additional technical data on page C-3

Plastic case

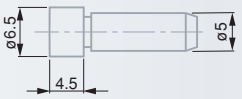
Identification number

Inspection report with a declaration of conformity

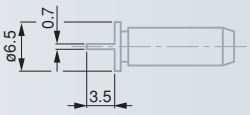
Components of a Full Micrometer

№		mm	in
Single Micrometer			
06030099		0 ÷ 30	*0 ÷ 1.2*
Full set of measuring inserts			
00269027			
Includes one pair of the following inserts			
№			mm
00269020	flat		Ø 6,5
00269021	small, flat		Ø 2
00269022	spherical		R = 5
00269023	large, flat		Ø 12
00269024	narrow, flat		0,7
00269025	cone-shaped		Ø 0,3/60°
00269026	knife-edged		0,3/60°

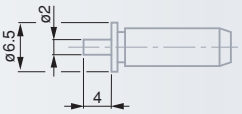
Specially designed measuring faces also available upon request.



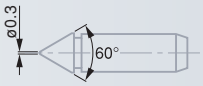
00269020



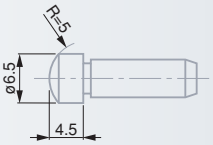
00269024



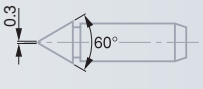
00269021



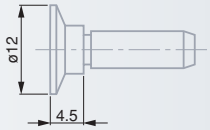
00269025



00269022



00269026

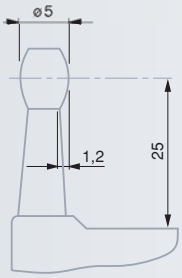


00269023

ETALON Basic for Tube Wall Thickness Measurement

Barrel-shaped anvil for measuring the tube wall thickness and other curved workpieces.

- ✓
- DIN 863 T3 (Style D12) NF E 11-090
- 0,01 mm
- Hardened steel anvil. Tungsten carbide spindle
- 5 mm dia. on anvil. 6,5 mm dia. on spindle
- 0,5 mm
- Max. 10 N
- Plastic case
- Identification number
- Inspection report with a declaration of conformity

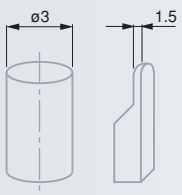


№	mm
00219066	0 ÷ 25

ETALON Basic with Two Interchangeable Anvils

Universal micrometer for assembly – Anvils have either a flat or a cylindrical measuring face.

- ✓
- Vernier reading to 0,002 mm
- Hardened steel anvils. Tungsten carbide spindle.
- Anvils: see drawing. Spindle: 6,5 mm dia.
- 0,5 mm
- Max. 10 N
- Plastic case
- Identification number
- Inspection report with a declaration of conformity



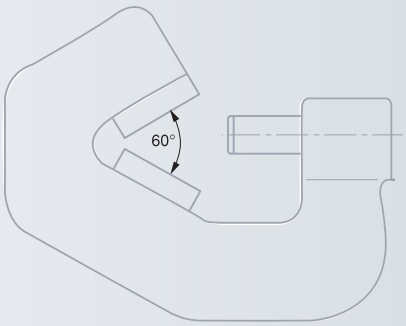
№	mm
00219067	0 ÷ 25

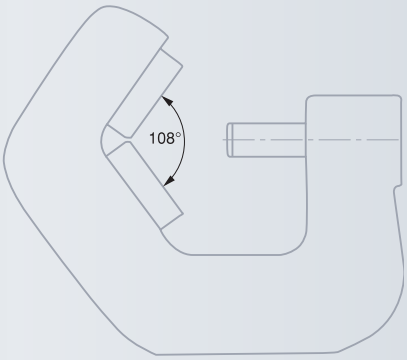
Micrometers with Prismatic Measuring Faces

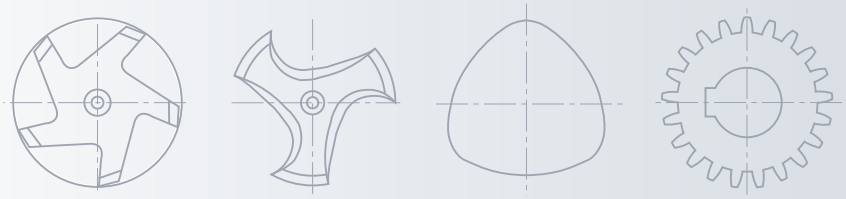
Measure test pieces with uneven number of grooves such as milling cutters, taps, drills and spline shafts as well as odd polygons. Determine roundness errors on cylindrical surfaces. Angle of the prism aperture is designed for workpieces having a number of 3 or 5 flutes.

Models MICROMASTER

№	mm	in
3-flute test pieces (60°)		
06030087	1 ÷ 7	*0.04 ÷ 0.27*
06030088	5 ÷ 20	*0.20 ÷ 0.80*
06030089	20 ÷ 35	*0.80 ÷ 1.38*
06030090	35 ÷ 50	*1.38 ÷ 1.97*
06030091	50 ÷ 65	*1.97 ÷ 2.56*
06030092	65 ÷ 80	*2.56 ÷ 3.15*
5-flute test pieces (108°)		
06030093	1 ÷ 7	*0.04 ÷ 0.27*
06030094	5 ÷ 25	*0.20 ÷ 0.98*
06030095	25 ÷ 45	*0.98 ÷ 1.77*
06030096	45 ÷ 65	*1.77 ÷ 2.56*
06030097	65 ÷ 85	*2.56 ÷ 3.35*







✓ DIN 863 T3 (Style D 10)

0,001 mm 0.00005 in

Metric/Inch conversion

Tungsten carbide tipped

Angle of the prism aperture: 60° for 3-flute test pieces or 108° for 5-flute test pieces.

0,75 mm for 3-flute test pieces or 0,559 mm for 5-flute test pieces.

Max. 10 N

RS 232

Additional technical data on page C-3

Plastic case

Identification number

Inspection report with a declaration of conformity

Models ISOMASTER AS

✓

DIN 863 T3 (Style D 10) NF E 11-090

0,01 mm

Tungsten carbide tipped

Angle of the prism aperture: 60° for 3-flute test pieces or 108° for 5-flute test pieces.

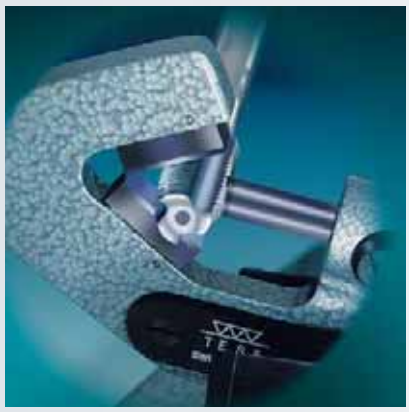
0,75 mm for 3-flute test pieces or 0,559 mm for 5-flute test pieces.

Max. 10 N

Plastic case

Identification number

Declaration of conformity



N°	mm
3-flute test pieces (60°)	
00410001	1 ÷ 7
00410002	5 ÷ 20
00410003	20 ÷ 35
00410004	35 ÷ 50
00410005	50 ÷ 65
5-flute test pieces (108°)	
00410102	5 ÷ 25

Cylindrical Setting Standards

✓

Hardened steel

Fitted with plastic guard plates from nominal dimension of 20 mm.
Actual size engraved on the top face

Identification number

Declaration of conformity

N°	Ø mm	// µm	α µm
00440001	5	0,5	–
00440002	20	0,7	1
00440003	25	0,7	1
00440004	35	1	1
00440005	45	1,2	1,5
00440006	50	1,2	1,5
00440007	65	1,5	1,5

Micrometers for Thread Measurement

Used for pitch diameter inspection – Anvil with adjustable holder for mounting a measuring insert with prismatic faces – Fine screw adjustment and locking device – Spindle has a fixing bore for a cone-shaped measuring insert.

- ✓
- DIN 863 T3 (Style D18)
- 0,001 mm 0.00005 in
- Metric/Inch conversion
- 30 mm measuring span
- Max. 10 N
- RS 232
- Additional technical data on page C-3
- Plastic case
- Identification number
- Inspection report with a declaration of conformity

Models MICROMASTER AC

N°	mm	in
06030062	0 ÷ 25	*0 ÷ 1*
06030063	25 ÷ 50	*1 ÷ 2*
06030064	50 ÷ 75	*2 ÷ 3*
06030065	75 ÷ 100	*3 ÷ 4*
06030066	100 ÷ 125	*4 ÷ 5*
06030067	125 ÷ 150	*5 ÷ 6*

Important

Measuring Inserts and setting standards must be ordered separately.

Models ISOMASTER AC

N°	mm
00210001	0 ÷ 25
00210002	25 ÷ 50
00210003	50 ÷ 75
00210004	75 ÷ 100

Important

Measuring Inserts and setting standards must be ordered separately.

- ✓
- DIN 863 T3 (Style D 18) NF E 11-090
- 0,01 mm
- 0,5 mm
- Max. 10 N
- Plastic case
- Identification number
- Declaration of conformity

Interchangeable Thread Inserts for TESA Micrometers Series AC

With measuring faces specially designed for checking pitch diameters.

- ✓
- Hardened steel
- Fixing rod: 3,5 mm dia., 15,5 mm long
- Supplied in sets or pairs

№	Pitch in mm	№	Threads per in	№	Threads per in
ISO metric threads 60° flank angle		*Whitworth threads 55° flank angle*		*Unified inch-treads UN, UNC, UNF... 60° flank angle*	
00240000	0,4 ÷ 0,5	***00250100***	*60 ÷ 48*	***00250000***	*64 ÷ 42*
00240001	0,5 ÷ 0,6	***00250101***	*48 ÷ 40*	***00250001***	*42 ÷ 25*
00240002	0,6 ÷ 0,8	***00250102***	*40 ÷ 32*	***00250002***	*25 ÷ 17*
00240003	0,8 ÷ 1,0	***00250103***	*32 ÷ 24*	***00250003***	*17 ÷ 10*
00240004	1,0 ÷ 1,25	***00250104***	*24 ÷ 18*	***00250004***	*10 ÷ 6.5*
00240005	1,25 ÷ 1,5	***00250105***	*18 ÷ 14*	***00250005***	*6.5 ÷ 4*
00240006	1,5 ÷ 2,0	***00250106***	*14 ÷ 10*	***00250006***	*4 ÷ 2.5*
00240007	2,0 ÷ 2,5	***00250107***	*10 ÷ 7*		
00240008	2,5 ÷ 3,0	***00250108***	*7 ÷ 4.5*		
00240009	3,0 ÷ 4,0	***00250109***	*4.5 ÷ 3*		
00240010	4,0 ÷ 5,0				
00240011	5,0 ÷ 6,0				
Set of 12 pairs		*Set of 10 pairs*		*Set of 7 pairs*	
00240015	0,4 ÷ 6,0	***00250115***	*60 ÷ 3*	***00250015***	*64 ÷ 2.5*

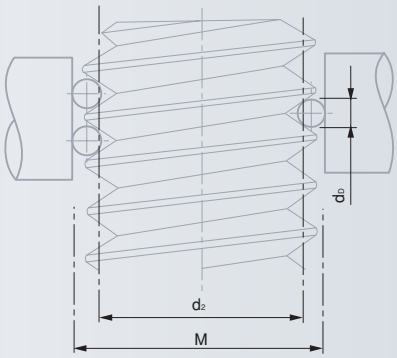
Setting Standards for Screw Thread Micrometers

- ✓
- Hardened steel
- Insulating sleeve marked with actual size
- Identification number
- Declaration of conformity

№	mm	№	in
60° flank angle			
00240501	25	***00250501***	*1*
00240502	50	***00250502***	*2*
00240503	75	***00250503***	*3*
00240504	100	***00250504***	*4*
00240505	125	***00250505***	*5*
55° flank angle			
00240601	25		
00240602	50		
00240603	75		

XB Wires for Screw Threads

For measuring pitch diameter of threads using the three-wire method. Actual flank diameter d_2 can either be determined arithmetically or with the aid of the relevant tables based on the measured actual size M – Suitable for all standard micrometers with a measuring insert having a 6,5 mm diameter.



- ✓
- Steel wires, hardened
- Wires are mounted on holders: 2-wire holder rests on anvil while the single wire holder is used on spindle side
- Single pairs are supplied in a plastic box, full set in a wooden case
- Declaration of conformity

No	Wires diameter	ISO metric threads	Whitworth threads	Unified inch-threads UN, UNC, UNF …
	d_D mm	Pitch in mm	*Number of threads per in*	*Number of threads per in*
00240701	0,17	0,25/0,3	–	–
00240702	0,22	0,35	–	*72*
00240703	0,25	0,4	*60*	*64*
00240704	0,29	0,45/0,5	–	*56*
00240705	0,335	0,6	*48/40*	*48/44*
00240706	0,455	0,7 ÷ 0,8	–	*32*
00240707	0,53	0,9	*32/28*	*28*
00240708	0,62	1,0	*26/24*	*24*
00240709	0,725	1,25	*22 ÷ 19*	*20*
00240710	0,895	1,5	*18/16*	*18/16*
00240711	1,10	1,75	*14*	*14/13*
00240712	1,35	2,0	*12/11*	*12/11*
00240713	1,65	2,5	*10/9*	*10/9*
00240714	2,05	3,0/3,5	*8/7*	*8/7*
00240715	2,55	4,0/4,5	*6*	*6*
00240716	3,20	5,0/5,5	*5/4.5*	*5/4.5*
Set of 16 pairs				
00240700	0,17 ÷ 3,20			

Micrometer Stands

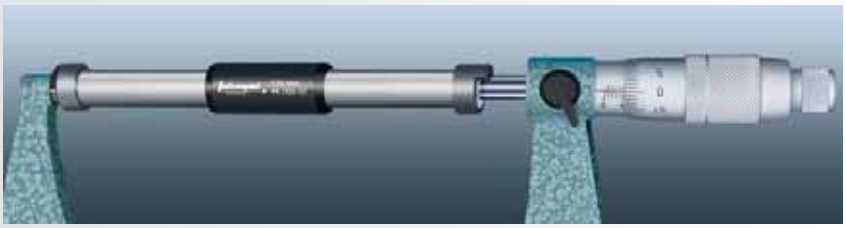
For micrometers up to 300 mm as well as many other hand-held tools.

No	
TESA	
00160201	
ETALON	
072110123	

- ✓
- Clamp aperture: 16 mm (TESA) or 20 mm (ETALON)
- Lacquered cast iron base
- Tilt can be locked using a single bolt.

INTERAPID Setting Standards

- ✓
- Hardened steel
- Two flat and parallel measuring faces
- Cylindrical gauge block with plastic insulating grip and dull-chrome shaft
- With lengths: ≤ 175 mm= 10 mm. ≥ 200 mm = 13 mm.
- Max. perm. error over the length: ± (1 + L/100) µm, L in mm
- Identification number
- Inspection report with actual measured length
- Declaration of conformity



№	mm	№	mm
02140001	25	**02140021**	525
02140002	50	**02140022**	550
02140003	75	**02140023**	575
02140004	100	**02140024**	600
02140005	125	**02140025**	625
02140006	150	**02140026**	650
02140007	175	**02140027**	675
02140008	200	**02140028**	700
02140009	225	**02140029**	725
02140010	250	**02140030**	750
02140011	275	**02140031**	775
02140012	300	**02140032**	800
02140013	325	**02140033**	825
02140014	350	**02140034**	850
02140015	375	**02140035**	875
02140016	400	**02140036**	900
02140017	425	**02140037**	925
02140018	450	**02140038**	950
02140019	475	**02140039**	975
02140020	500	**02140040**	1000

Guide Collars

Make the positioning of INTERAPID setting standards fast and easy.

№	mm	mm
02140103	100 ÷ 175	8
02140108	200 ÷ 1475	8

ETALON Cylindrical Step Gauges

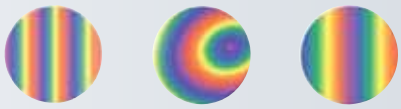
For display setting and calibration.

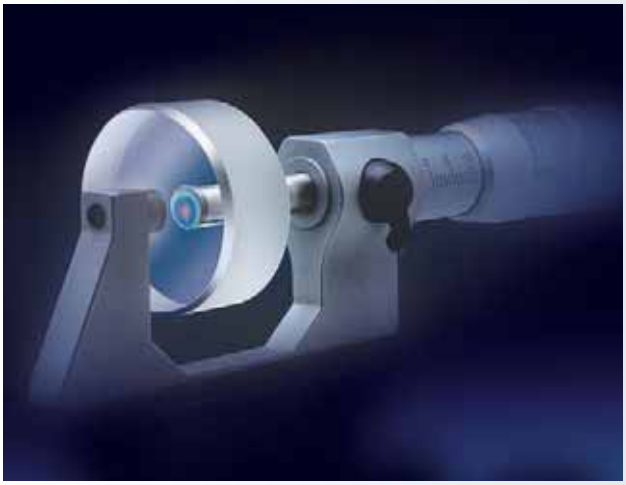
№	Ø mm
072112020	5 ÷ 100
072112021	5 ÷ 150

- ✓
- Alloyed steel, hardened
- Diameters in step of 5 mm (≤ 50 mm) or 10 mm (> 50 mm).
- Max. perm. errors for nominal diameters:
  ≤ 80 mm = 1,5 µm
  ≥ 90 ≤ 120 mm = 2,0 µm
  ≥ 130 mm = 2,5 µm
- Mounted on a wood base. Supplied with dust cover.
- Declaration of conformity

Optical Flats with Two Parallel Faces

Used for examining the flatness and parallelism of the measuring faces on external micrometers as well as other similar measuring instruments.
The difference in length of the optical flats within a set matches a quarter or a third of the spindle pitch of 0,5 mm.





№	mm
02510001	12,00
02510000	12,00 ÷ 12,375
02510101	27,00
02510100	27,00 ÷ 27,335
02510200	52,00 ÷ 52,335
02510300	77,00 ÷ 77,335

- ✓
- 31 mm
- Length tolerance with reference to the nominal dimension: ± 100 µm
- Flatness tolerances for optical parallels with lengths:
  ≤ 27,335 mm = 0,15 µm
  ≥ 52,00 ÷ 77,335 mm = 0,2 µm
- Tolerances in parallelism for optical parallels with lengths:
  ≤ 27,335 mm = 0,4 µm
  ≥ 52,00 ÷ 77,335 mm = 0,5 µm
- Each set is supplied in a wooden case
- Declaration of conformity

✓
DIN 863 T2 (Style E)
0,001 mm 0.00005 in
Metric/Inch conversion
Tungsten carbide tipped
6,5 mm dia.
0,5 mm
Max. perm. error of 4 µm
Max. 10 N
Additional technical data on page C-3
RS 232 interface, opto-coupled
Identification number
Inspection report with a declaration of conformity

Micrometer Heads

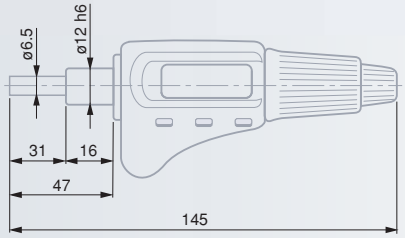
Components commonly used for checking the various displacements on measuring fixtures, coordinate tables, microscopes, machines as well as other special appliances. Mounted on the cylindrical coupling shaft.

Models MICROMASTER

Without spindle lock.

06030038/39

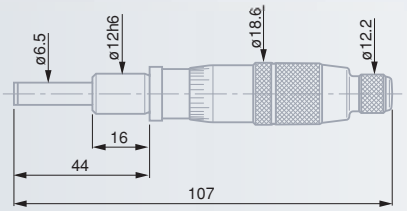
06030040



№	mm	mm
06030038	0 ÷ 30	12h6
06030039	30 ÷ 0	12h6
06030040	30 ÷ 0	12h6

Model ISOMASTER AR

Without spindle lock.

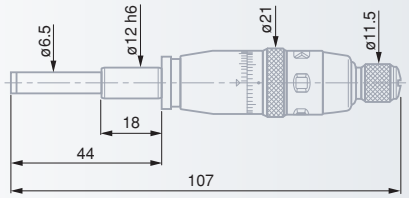


№	mm	mm
00211201	0 ÷ 25	12h6

✓
DIN 863 T2 (Style E) NF E 11-090
0,01 mm
Tungsten carbide tipped
6,5 mm dia.
0,5 mm
Max. perm. error of 3 µm
Max. 10 N
Identification number
Declaration of conformity

Model TESAMASTER AR

Without spindle lock.

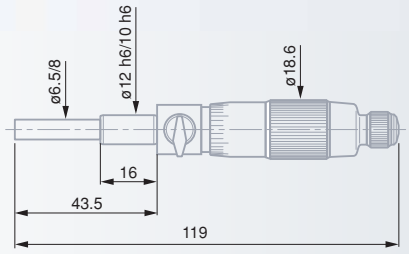


№	mm	mm
00312301	0 ÷ 25	12h6

✓
DIN 863 T2 (Style E)
Vernier reading to 0,001 mm
Scale division to 0,1 mm
Tungsten carbide tipped
6,5 mm dia
0,5 mm
Max. perm. error of 2 µm
Max. 10 N
Identification number
Declaration of conformity

ETALON 266 Micrometer Heads

With or without spindle lock.



№	mm	**D** mm	mm	Spindle lock
072115942	0 ÷ 25	Ø 6,5	12h6	–
072115943	0 ÷ 25	Ø 8	12h6	●
072116258	0 ÷ 25	Ø 6,5	10h6	●

✓
DIN 863 T2 (Style E) NF E 11-090
Vernier reading to 0,002 mm
Tungsten carbide tipped
0,5 mm
Max. perm. error of 3 µm
Identification number
Declaration of conformity

Depth Micrometers

With interchangeable measuring rods provided in sets. The rods are adjusted in steps, each with a step length of 30 or 25 mm, thus eliminating the need for a new display setting when rods are exchanged.

- ✓
- DIN 863 T2 (Style T)
- 0,001 mm 0.00005 in
- Metric/Inch conversion
- Non-rotating spindle
- Measuring rods with hardened steel ends
- 3 mm dia. measuring rods
- 30 mm
- RS 232 data output
- 0,5 mm
- Max. perm. error (meas. element): 3 µm
- Plastic case
- Identification number
- Inspection report with a declaration of conformity

Models MICROMASTER

Non-rotating measuring rod. Sets with a step length of 30 mm.

№	mm	*in*	mm
06030069	0 ÷ 90	*0 ÷ 3.5*	50 x 15
06030070	0 ÷ 180	*0 ÷ 7*	100 x 15

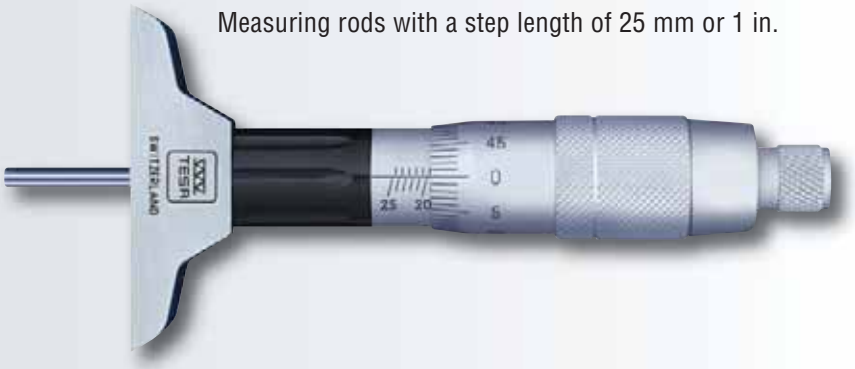
Optional Accessories

06060021	6 pieces rod set	0 ÷ 180 mm

- ✓
- DIN 863 T2 (Style T) NF E 11-097
- 0,01 mm
- Measuring rods with hardened steel ends
- 3 mm dia. measuring rods. Measuring face on the base: see table
- 0,5 mm
- Max. perm. error of the measuring element: 3 µm
- Plastic case
- Identification number
- Declaration of conformity

Models ISOMASTER AQ

Measuring rods with a step length of 25 mm or 1 in.



№	mm	mm
00211002	0 ÷ 75	50 x 15
00211003	0 ÷ 150	50 x 15
00211004	0 ÷ 75	100 x 15
00211005	0 ÷ 150	100 x 15

Tool Sets

TESA Swiss Tool Set

№			
00510033	**TESA Swiss Tool Set**		
Consisting of:			
		mm	mm
00510041	1 Vernier caliper TESA SWISSCAL 2	0 ÷ 150	0,02
00560013	1 Depth foot		
00110101	1 External micrometer TESA ISOMASTER	0 ÷ 25	0,01
00560031	1 Suited plastic case		

✓

Caliper

DIN 862

Stainless steel, hardened

Technical data on page B-8

Depth foot

Stainless steel, hardened.

75 x 6 mm measuring faces

Micrometer

DIN 863 T1 NF E-11095

Tungsten carbide tipped

Technical data on page C-6

Additional data

Inspection report with a declaration of conformity

✓

Caliper
DIN 862
Stainless steel, hardened
Technical data on page B-5

Depth foot
Stainless steel, hardened
75 x 6 mm measuring face

Micrometer
DIN 863 T1 NF E 11-095
Tungsten carbide tipped
Technical data on page C-6

Additional data
Inspection report with a declaration of conformity

TESA Duo-Set 1

N°	=			
00530020	**TESA Duo-Set 1**			
Consisting of:				
N°	=		mm	mm
00510008	1 Dial caliper TESA CCMA-M		0 ÷ 150	0,02
00560013	1 Depth foot			
00110101	1 External micrometer TESA ISOMASTER		0 ÷ 25	0,01
00560031	1 Suited plastic case			

✓

Caliper
DIN 862
Stainless steel, hardened
Technical data on page B-5

Depth foot
Stainless steel, hardened
75 x 6 mm measuring face

Micrometer
DIN 863 T1 NF E 11-095
Tungsten carbide tipped
Technical data on page C-4

Additional data
Inspection report with a declaration of conformity

TESA Duo-Set 2

N°	=			
00530021	**TESA Duo-Set 2**			
Consisting of:				
N°	=		mm	mm
00510008	1 Dial caliper TESA CCMA-M		0 ÷ 150	0,02
00560013	1 Depth foot			
00310001	1 External micrometer TESAMASTER		0 ÷ 25	0,001
00560031	1 Suited plastic case			

TESA Duo-Set 8

№	=
00531101	**TESA Duo-Set 8**

Consisting of:

№	=	mm	mm
00530090	1 Caliper TESA Shop-Cal capa µ system	0 ÷ 150	0,01
00560013	1 Depth foot		
00110101	1 External micrometer TESA ISOMASTER	0 ÷ 25	0,01
00560031	1 Suited plastic case		

✓

Caliper
DIN 862
Stainless steel, hardened
Technical data on page B-4

Depth foot
Stainless steel, hardened.
75 x 6 mm measuring face

Micrometer
DIN 863 T1 NF E 11-095
Tungsten carbide tipped
Technical data on page C-6

Additional data
Inspection report with a declaration of conformity

TESA Duo-Set 9

№	=
00531102	**TESA Duo-Set 9**

Consisting of:

№	=	mm	mm
00530090	1 Caliper TESA TESA Shop-Cal capa µ system	0 ÷ 150	0,01
00560013	1 Depth foot		
00310001	1 External micrometer TESAMASTER	0 ÷ 25	0,001
00560031	1 Suited plastic case		

✓

Caliper
DIN 862
Stainless steel, hardened
Technical data on page B-4

Depth foot
Stainless steel, hardened
75 x 6 mm measuring face

Micrometer
DIN 863 T1 NF E 11-095
Tungsten carbide tipped
Technical data on page C-4

Additional data
Inspection report with a declaration of conformity

✓

Caliper

DIN 862

Stainless steel, hardened.

Technical data on page B-4

Inspection report with a declaration of conformity

Depth foot

Stainless steel, hardened.

75 x 6 mm measuring face

Micrometer

DIN 863 T1 NF E 11-095

Tungsten carbide tipped

Technical data on page C-3

SCS calibration certificate

TESA Duo-Set 16

00531007 TESA Duo-Set 16

Consisting of:

		mm	mm
00530090	1 Caliper TESA Shop-Cal capa µ system	0 ÷ 150	0,01
00560013	1 Depth foot		
06030010	1 External micrometer TESA MICROMASTER EASY	0 ÷ 30	0,001
00560090	1 Suited plastic case		

✓

Caliper

DIN 862

Stainless steel, hardened.

Technical data on page B-3

Inspection report with a declaration of conformity

Depth foot

Stainless steel, hardened.

75 x 6 mm measuring face

Micrometer

DIN 863 T1 NF E 11-095

Tungsten carbide tipped

Technical data on page C-3

SCS calibration certificate

TESA Duo-Set 13

00531004 TESA Duo-Set 13

Consisting of:

		mm	mm
00530300	1 Caliper TESA-Cal IP67	0 ÷ 150	0,01
00560013	1 Depth foot		
06030020	1 External micrometer TESA MICROMASTER IP54	0 ÷ 30	0,001
00560090	1 Suited plastic case		

TESA Duo-Set 14

№	=		
00531005	**TESA Duo-Set 14**		

Consisting of:

№	=	mm	mm
00530300	1 Caliper TESA-Cal IP67	0 ÷ 150	0,01
00560013	1 Depth foot		
06030010	1 External micrometer TESA MICROMASTER EASY	0 ÷ 30	0,001
00560090	1 Suited plastic case		

✓

Caliper

DIN 862

Stainless steel, hardened.

Technical data listed on page B-4

Inspection report with a declaration of conformity

Depth foot

Stainless steel, hardened.

75 x 6 mm measuring face

Micrometer

DIN 863 T1, NF E 11-095

Tungsten carbide tipped

Technical data listed on page C-3

SCS calibration certificate

TESA Duo-Set 15

№	=		
00531006	**TESA Duo-Set 15**		

Consisting of:

№	=	mm	mm
00530311	1 Caliper TESA-Cal IP67, RS	0 ÷ 150	0,01
00560013	1 Depth foot		
06030030	1 External micrometer MICROMASTER IP54, RS	0 ÷ 30	0,001
00560090	1 Suited plastic case		

✓

Caliper

DIN 862

Stainless steel, hardened.

Technical data listed on page B-3

Inspection report with a declaration of conformity

Depth foot

Stainless steel, hardened.

75 x 6 mm measuring face

Micrometer

DIN 863 T1, NF E 11-095

Tungsten carbide tipped

Technical data listed on page C-3

SCS calibration certificate