

MIKROKATOR

The Mikrokator is an instrument for measuring differences in length. The Mikrokator principle greatly magnifies any deviation in size so that even small deviations produce large deflections of the pointer over the scale. The transference of movement from the measuring tip to the pointer is mechanical, completely frictionless and free from backlash.

The CE Johansson Mikrokator was introduced in 1938 and is still today the finest mechanical comparator in the world. A wide range of models are available, which gives graduations varying between .0001" (.005 mm) and .00002" (.0001 mm). The unique "Twisted Strip" principle on which all Mikrokators are based, provides many features which are not available on any other measure instrument.



MIKROKATOR 510



MIKROKATOR 509



MIKROKATOR 500A

STANDARD MIKROKATORS

CE Johansson Mikrokators are available in both metric and imperial type.

MIKROKATOR METRIC TYPE

No.	Shank Ø mm	Scale Range µm	Scale Division µm	Mean measuring ca. gr approx. gr	Variation of measuring pressure approx. gr
500A-2	8	400	5	100	70
500A-3	8	200	2	75	40
500A-4	8	100	1	75	35
500A-5	8	50	0,5	75	25
500A-7	8	30	0,2	75	25
509-4	30	200	1	250	100
509-7	30	40	0,2	250	55
510-3	30	100	2	250	45
510-4	30	60	1	250	35
510-5	30	36	0,5	250	30
510-7	30	20	0,2	250	30
510-9	30	6	0,1	250	30

MIKROKATOR IMPERIAL TYPE

No.	Shank Ø mm	Scale Range µm	Scale Division µm	Mean measuring ca. gr approx. gr	Variation of measuring pressure approx. gr
500EA-2	8	,0160	,0002	100	70
500EA-3	8	,0080	,0001	75	40
500EA-4	8	,0040	,00005	75	35
500EA-5	8	,0020	,00002	75	25
500EA-6	8	,0012	,00001	75	25
509E-4	30	,0100	,0005	250	100
509E-55	30	,0020	,0002	250	55
510E-2	30	,0060	,0001	250	80
510E-4	30	,0024	,00005	250	35
510E-5	30	,0014	,00002	250	30
510E-6	30	,0008	,00001	250	30
510E-8	30	,0002	,000002	250	30

MIKROKATOR METRIC TYPE	CEJ ART.NO
500A-2	8300-02102
500A-3	8300-02103
500A-4	8300-02104
500A-5	8300-02105
500A-7	8300-02107
509-4	8307-05004
509-7	8307-05007
510-3	8308-05003
510-4	8308-05004
510-5	8308-05005
510-7	8308-05007
510-9	8308-05109

MIKROKATOR IMPERIAL TYPE	CEJ ART.NO
500EA-2	8300-52002
500EA-3	8300-52003
500EA-4	8300-52004
500EA-5	8300-52105
500EA-6	8300-52106
509E-4	8307-55004
509E-55	8307-55005
510E-2	8308-55002
510E-4	8308-55004
510E-5	8308-55005
510E-6	8308-55006
510E-8	8308-55008

MIKROKATORS - SPECIAL FEATURES

To obtain the best possible measuring results it is often desirable to use instruments having special features. The Mikrokator can be provided with a wide variety of special arrangements indicated by the prefix letters listed below. These prefix letters should be used when ordering.

F Overtravel

- 1.0mm on 500
- 0.5mm on 510 and 509
- Standard on all 500 and 510-9
- Supplied as optional extra on all other Mikrokators

Z Zero-Adjusting Screw

- Standard on all 500
- Supplied as optional extra on all 509 and 510

P Adjustable measuring pressure 0-1200g

- Supplied as optional extra on all 509 and 510

7V Adjustable measuring pressure 30g – 1200g

- Only available for Mikrokator 509-7, 509E-55 and 510-4 to 510-9 with visible scale on shaft.

C 3/8" Shaft

- Only available for Mikrokator 500(E) serie.

When measurements are being taken on fragile materials a low measuring pressure is essential to avoid damage or indentations. The above special features has been developed for this purpose.

MIKROKATOR STANDS

High Precision Comparator Stands, very robust to provide required stability. Rapid and convenient fine adjustment with extreme sensitivity. Chrome-plated and ground column. Base of cast iron.

For Mikrokator 509 and 510

With measuring arm suitable for instruments with shank diameter 30 mm.
Supplied with measuring table 8321-01013.
Max. measuring height between table and measuring tip 180 mm.
Max. measuring depth 80 mm.



8318-01003

For Mikrokator 500

With measuring arm suitable for instruments with shank diameter 8 mm.
Supplied with measuring table 8321-01013.
Max. measuring height between table and measuring tip 190 mm.
Max. measuring depth 80 mm.



8318-01004

EXTREMELY STABLE MIKROKATOR STANDS

Extremely stable and robust high precision comparator stands, to provide required stability. Rapid and convenient fine adjustment with extreme sensitivity. Chrome-plated and ground column. Base of cast iron.

For Mikrokator 500, 509 och 510

With measuring arm suitable for instruments with shank diameter 8 mm and 30 mm. Supplied with measuring table 8321-01013.
Max. measuring height between table and measuring tip 180 mm.
Max. measuring depth 80 mm.

Stand with with measuring arm 8 mm

- 8317-20012 Extremely stable Mikrokator stand
- 8317-20013 Extremely stable Mikrokator stand with height adjustment

Stand with measuring arm 30 mm

- 8317-20001 Extremely stable Mikrokator stand
- 8317-20002 Extremely stable Mikrokator stand with height adjustment

Accessories

- 8317-20003 Measuring arm 30 mm (509 och 510)
- 8317-20004 Measuring arm 8 mm (500)
- 8321-01014 Holder for measuring table
- 8321-01015 Adjustable holder



8317-20001



8317-20002

MIKROKATOR ACCESSORIES

Height Adjustment Adapter

For quick and accurate height adjustments. The adapter also prevents the measuring arm from turning round the column during the height traverse which is very important during differential measurements. The adapter reduces the actual measuring height of the stand by approximately 25 mm.



Adjustable Measuring Support

To be attached to the column of the stand to provide a backstop, e.g. when measuring cylindrical workpieces. Dimensions of support plate 80x16 mm. Adjustment range 0-50 mm behind the centre line of the measuring tip.



Lift arm for Mikrokator 509 and 510

Mount on the Mikrokator shaft to lift the measuring tip.

8316-05001



Measuring Table 35x90x30mm

Provided with two measuring surfaces. One surface is plain and the other is grooved with bars 0,6 mm wide. Flatness of measuring surfaces 0,002 mm. Material – steel, hardened and stress relieved. Black oxidised finish with lapped measuring surfaces.



Adjustable holder

For tables 8321-01013 and 8321-01003.

8321-01015



Measuring Table 90x90x30mm

Provided with one measuring surface grooved with bars 0,6 mm wide. Flatness of measuring surfaces 0,002 mm. Material – steel, hardened and stress relieved. Black oxidised finish with lapped measuring surfaces.



Adapter 30-8 mm

Frictionless adapter without backlash. Used to substitute an instrument with 30 mm shaft with an instrument with 8 mm shaft. Suitable for all stands with 30 mm measuring arm and all measuring tips for 509 and 510 Mikrokators. *Measuring tip not included.*



Measuring Table for three point measuring

For holder 8321-01014.
For stands in 8317 serie.



MIKROKATOR MEASURING TIPS

For Mikrokator 500



Carbide tip Ø4 mm
8315

-**32005** – length 5 mm
-**32010** – length 10 mm
-**32015** – length 15 mm
-**32020** – length 20 mm

Ruby tip Ø4 mm
8315

-**02005** – length 5 mm
-**02010** – length 10 mm
-**02015** – length 15 mm
-**02020** – length 20 mm

For Mikrokator 509 and 510

Spherical Ø5 mm

8317

-**31001** – Carbide ball
-**31002** – Ruby ball



Flat Ø10 mm

8317-32003

– Carbide



Flat Ø3 mm

8317-32001

– Carbide



Holder for needle

8317-01003

Needle, spherical
point Ø1,5 mm

8317-01004



Flat adjustable Ø10 mm

8343-01004

– Carbide

