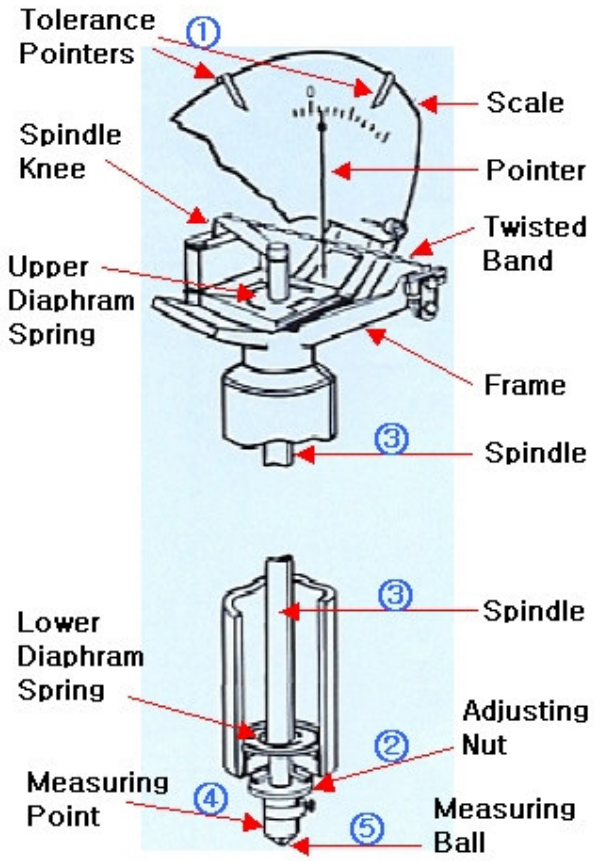
Directions for use of Mikrokator

(Also in appropriate parts for other Mikrokators)

Before using the Mikrokator a suitable measuring point (4) must be selected and attached to the measuring spindle (3). The standard point supplied with the instrument has a 5 mm ball (5). Care should be taken that the spindle enters right to the bottom of the cup in which the point is mounted, then fix the locking screw firmly.

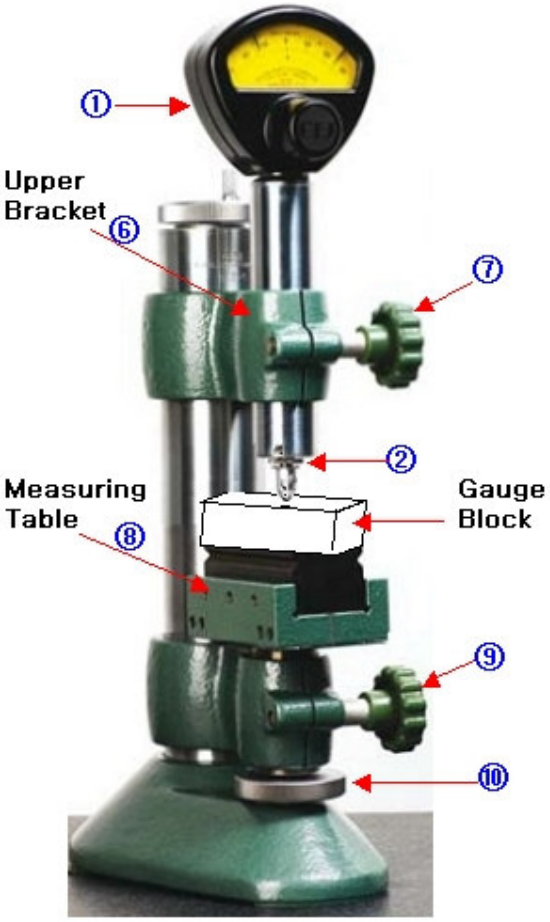


If a point sticks to the spindle, do not try to loosen it by rotating, as this will damage the instrument, it is better to loosen it by inserting a screwdriver between the top flange of the point and the adjusting nut (2).

Do not clean the glass, protecting the scale, with a dry rag as this may electrically charge the parts and the pointer may stick to the glass or the scale. This danger is avoided if a damp rag is used. If the pointer has stuck, the electricity can usually be discharged by breathing on the glass.

The Mikrokator is inserted in the upper bracket (6) of the stand which is provided with a clamping ring. This ring retains the instrument, so that it cannot fall down due to its own weight.

The two tolerance pointers are positioned by finger grips (1) at the back of the instrument. The Mikrokator is provided with an adjusting nut (2) at the lower end of the shank. By this adjusting nut the pointer of the Mikrokator is set to a suitable place on the scale.



A combination of well cleaned guage blocks, representing the size to be checked, is now placed on the measuring table (8) and the Mikrokator lowered until the point stands about one mm above the guage block combination. The Mikrokator is then locked by the screw (7), the table (8) is freed by unscrewing the screw (9) and the table raised by the screw (10) until the pointer shows minus some thousandths of a mm. The table is then locked and the pointer finally brought on zero by the screw (10).

The Mikrokator is now ready for use, but it is necessary to frequently check the setting, particularly at the beginning, as the heat of the hands in the above procedure takes some time to disperse and may affect the reading.

For very accurate checking, neither check gauges nor parts to be checked should be handled except by tweezers of some other suitable indirect means.

It is necessary when accurately checking large parts to ascertain that these are of the same temperature as the check gauges. This is most easily done by placing all parts, including the instrument, on a large surface table, leaving them there several hours before measuring.

If parts under 1 mm (say 0.32 mm) are to be measured place them on a guage block (say 1.08 mm) and set the instrument with another guage block (1.40 mm), representing the combined size of the two.

The measuring pressure is important when checking such thin parts, and it is advisable to use, for this purpose, an instrument with variable measuring pressure and to ascertain by trail which pressure is the most suitable.

For very accurate checking a grooved measuring plate and a lifting lever No. 511 should be used.

Edited by Technodata