

Function: Measuring gauge for HSK tool holder taper drive key slots according to ISO 12164-1 (comparison measurement).

Use: For checking the size and radii of drive key slots for HSK tool tapers with oversize and finished size slots. The basis for the measurement is a driving piece which has the minimum size of the permissible tolerance of 0.08 mm in the groove width and of 0.1 mm in the groove radii. The position of the groove radii is according to the maximum size of the permissible tolerance.

Measuring the groove width and center offset directly as symmetry of the HSK tool shanks

When mounting dial indicators ensure that the dial indicator has a pre-load of approx 0.1 mm to cover the full tolerance zone.

Clean the flange contact surface of the gauge ring.

Clean the taper and flange of the tool holder.

Insert the HSK taper in the gauge. (Pay attention to the position of the drive key slots). The HSK taper must lie flat.

Move the HSK taper in the direction of the dial gauge 1 and set the dial gauge to zero.

By moving the HSK taper away from the dial gauge, the whole tolerance deviation is displayed (permissible tolerance 0.08 mm).

Then rotate the HSK taper by 180 degrees. By moving the HSK taper towards dial gauge 1, the symmetry position is displayed (permissible tolerance 0.05 mm).

Measuring the radii and the symmetry of the HSK taper

Clean the flange contact surface of the gauge ring.

Clean the taper and flange of the tool holder.

Insert the HSK taper in the gauge. (Pay attention to the position of the drive key slots). The HSK taper must lie flat.

Move the HSK taper in direction of the dial gauge 2 and set the dial gauge to zero.

By moving the HSK taper away from the dial gauge 2, the whole tolerance deviation is displayed (permissible tolerance 0.1).

Then rotate the HSK taper by 180 degrees. By moving the HSK taper towards the dial gauge 2, the symmetry position is displayed.

