QUINDOS Cylindrical Worm

Measurement of cylindrical worms on a CMM or a gear measuring machine.

Cylindrical worms of the type ZA, ZI, ZN, ZK and ZC (see DIN 3965) can be inspected on a precision 3D coordinate measuring machine with the option QUINDOS Cylindrical Worm. The worms might have single or multiple starts, with left or right hand leads.

The inspection of worms on a CMM equipped with QUINDOS software can be done in vertical as well as in horizontal position, without a rotary table. A significant advantage when measuring long worms, compared to a normal gear measuring machine using a rotary table.

The following features can be evaluated:
- The lead at any diameter
- The axial profile at any position
- The axial pitch
- The runout for a given sphere diameter
- The tooth thickness at the reference diameter or at any given distance
- Dimension over balls (pins)
- Topography (flank form)

Measurement of a Cylindrical Worm with a CMM and QUINDOS is as easy as with a dedicated gear measuring machine: after entering the worm parameters, QUINDOS generates automatically the moving path and all required probing points and scan lines, including start and stop points and probe changes for the 3D coordinate measuring machine (CMM).

Due to the usually tight tolerances of Worms, only high precision CMMs with a small probing error P and scanning capability (i.e. Leitz PMM-C) should be used for such measurements.

Gear measuring technology by Hexagon Metrology: fast, precise and cost-efficient!