

Broach

MTW-510-BRO-001

Inspection of Broaches on a Leitz high precision Coordinate Measuring Machine or a Gear Inspection System.

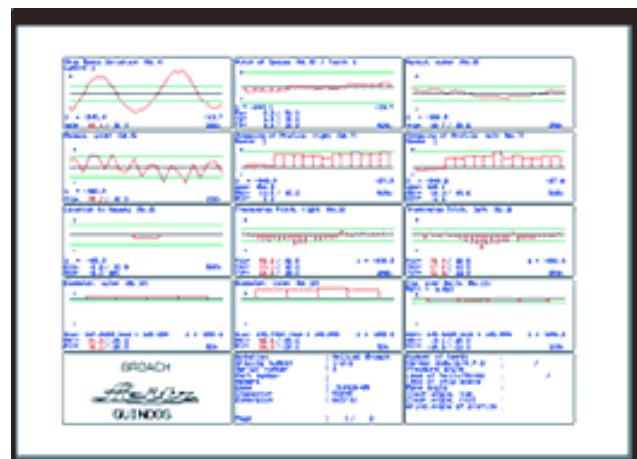
Measurement of broaches and broach shells, used in the manufacture of internal gears, on a Leitz high precision coordinate measuring machine or a gear inspection system.

Broach shells with ring type spaces as well as helical chip spaces can be inspected with the option QUINDOS Broach. The gearing may be straight or helical with left hand or right hand lead.

Tools for hard broaching with negative face angles can also be inspected.

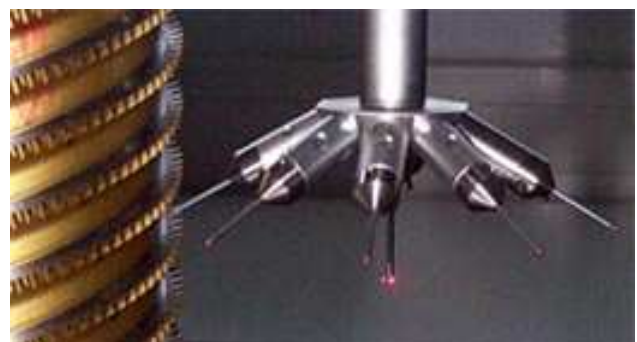
Among others, the following features are evaluated:

- Lead deviation of chip spaces
- Axial runout of cutting face
- Pitch of the chip spaces
- Stepping of profile over length
- Transverse pitch in finishing area
- Dimension over balls
- Face angle in normal plane
- Back off angles at different diameters
- Transverse tooth profile
- Form of tooth tip



The measurement of broaches with QUINDOS software is as easy as the measurement of normal gears: after entering the broach parameters the travel path of the CMM as well as all probing and scan lines required for the inspection are generated automatically.

The measurement is done using a star probe cluster with 30° inclination (Order-No.: M00-694-086-000). A rotary table is not required. Inspection of several broaches fixed on pallets is therefore possible, which leads to a tremendous increase of throughput compared to a conventional gear inspection system.



Due to the tight tolerances of broaches, only high precision Coordinate Measuring Machines with a very small probing error P and

continuous scanning capability (i.e. Leitz PMM-C) should be used for such measurements.

Leitz gear inspection technology: fast, precise and cost-efficient!