QUINDOS Gear

The option QUINDOS Gear extends the capability of a high precision coordinate measuring machine, enabling it to measure parts usually inspected on gear testers.

Measurement of Helical Gears

The moving path, probing points and scan lines for the measuring machine are automatically generated by QUINDOS according to the nominal gear parameters (No of teeth, module etc.). Pitch and runout can be measured by self-centering, scanning or single point probing.

The quality class of the gear is determined based on the DIN, ISO, JIS, AGMA or CNOMO quality charts. The individual pitch error can be evaluated as well as the cumulative pitch error, with or without eccentricity.

In contrast to conventional gear testers, a coordinate measuring machine with QUINDOS software does not require a rotary table for the measurement of gears.

This means:

• higher accuracy (only 3 axis instead of 4)
• significantly higher throughput and CMM utilization using pallet measurement
• easy set up, no centering required
• significantly reduced inspection costs

The QUINDOS Gear package allows individual modifications of the profile and the flank line, using radii, straights, polynomials and parabolas or a combination of it. Various evaluation formats can be selected so the results can be compared with those of conventional gear testers.

Measurement of Serrated Gears

Included in this package is the measurement of Serrated Gears, both internal and external, with straight and involute profile, according to DIN 5481. The gearing can be evaluated with and without eccentricity.

Measurement of Involute Splines

Involute Splines according DIN 5482 resp ANSI 092.1-150 can also be measured and evaluated high precision 3D measuring machine with the QUINDOS Gear package.

Measurement of Clutch Gears

Note: For the evaluation of Clutch gears also QUINDOS Curves is required.

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