ZOLLER
PRESETTING SOLUTIONS

The Measuring Machine for Crankshaft Cutters with Internal Tool Cutting Edges

aralon

ZOLLER
expect great measures®

Precise Presetting of Crankshaft Cutters, Fast and Simple

»aralon«

fast and precise
uncomplicated
cost-effective

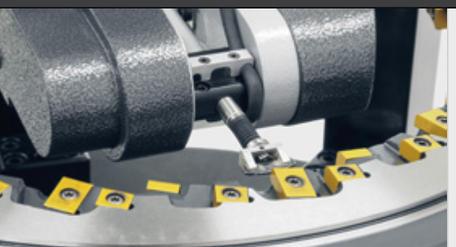
Increasing demands on quality and high tool life require precisely preset and inspected tools. Crankshaft cutters with internal cutting edges are positioned, automatically measured and documented easily and without requiring major training on the ZOLLER »aralon« presetting and measuring machine. The measuring procedure is fast and uncomplicated, and documentation is included. This makes »aralon« the perfect solution for the precise and economic measurement of crankshaft cutters, for the security of the production, and the quality of your machined parts.

»aralon 800« – fully automated over 4 axes

- Intuitive ZOLLER software interface
- High-performance, CNC driven measuring technology
- Flexible, as a result of modular design and upgradeable software
- Ergonomic functional design
- Robust & shop-floor compliant through special alloys and its optimized thermal design
- Maximum process reliability and safety standards
- Economic, due to best price-performance ratio
- Eco-friendly due to use of recyclable materials and compliance with the RoHS standards

Top Performance Through High-quality Components

Heidenhain Measuring Sensors



Bosch Pneumatics

Heidenhain Measuring System

THK Recirculating Linear Ball Bearing Guide

Uhing Drives

Joystick

Customer-specific Measuring Technology for Crankshaft Cutters

Tailor-made

fully automated
unique
operator-independent

»aralon« is the ZOLLER solution for fully automated, tactile measurement of crankshaft cutters with internal tool cutting edges. The CNC-controlled electronic sensor can be rotated 180° degrees and positioned automatically to access all cutting edges, regardless of their position.

The ZOLLER »aralon« is equipped with four CNC-driven axes and an automatic measuring sensor head. The fully automated measuring procedure is started as soon as the crankshaft cutter has been accepted in the tool post and the measuring procedure with nominal values has been determined. It is able to record the concentricity and run-out errors of the cutter body and to compensate for this during the measurement of the cutting inserts.

Special tool posts are available for the exact positioning of crankshaft cutters.

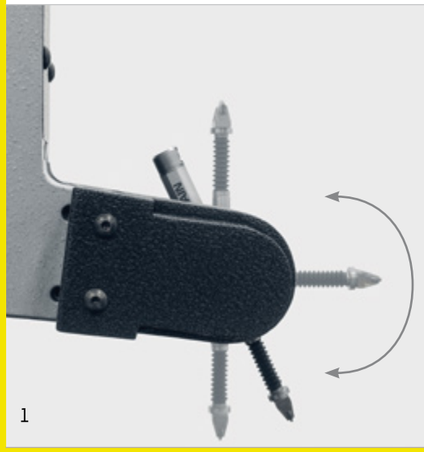
Holding crankshaft cutters accurately is decisive for smooth and micro-precise measurement. Accurate and shop floor-compliant tool posts with customer-specific centering collets are available for machine-compliant holding of crankshaft cutters. The crankshaft cutters and centering collets are self-centered in the ZOLLER tool posts. In addition, »aralon« allows automatic compensation of concentricity and run-out in as far as appropriate hub diameters are available on the milling cutters.

Tool

Centering collet

Tool post

On the »aralon« the crankshaft cutter is automatically positioned accurately in the tool holder via the quick-change holding fixture. The centering collet is designed tool-specific.



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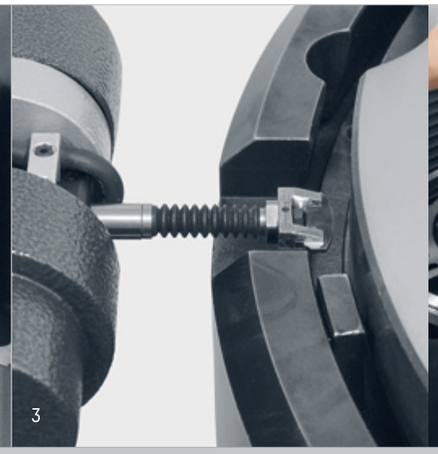

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micro-precise measurement results in seconds

1__ The probe, which can be swiveled from -90 to +90 degree, allows measurement of cutting edges in any position.
2__ Fully automated calibration of the measuring probe at the zero point of the tool post no longer requires separate zero gauges. The process is independent of the operator, secure and fast.
3__ Fully automated tactile measurement of concentricity at the hub diameter, including compensation.

Technical Specification	Travel Range Z-axis	Travel Range X-axis	Internal Diameter	Maximum Outer Diameter	Maximum Width of Cutting Edge	Maximum Tool Width
»aralon« – Standard	800 mm	800 mm	220–350 mm	620 mm	70 mm	90 mm
»aralon« – Option	800 mm	800 mm	185–350 mm	620 mm	40 mm	90 mm

Subject to technical modifications. The depicted machines may include options, accessories and control variants.

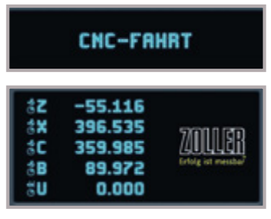
ZOLLER »aralon« with »pilot 3.0« Image Processing

Easy to operate.
For every user.

The »pilot 3.0« graphic user interface of »aralon« is equipped with a clear, analog display dial gauge. The intuitively operated software takes the user through the current measuring task quickly and easily.

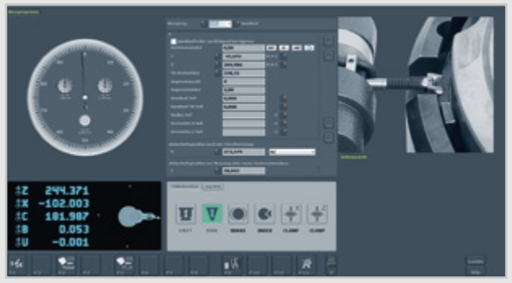
intuitive operation
for use in measuring room or production
seamless documentation

Fully Automated Tool Presetting and Measuring Procedures



Fully automated measuring procedure:
Operator-independent, fast and fully automated measurement of the crankshaft cutter through 180° variable swiveling sensor. Clear and explicit information via digital counter and “analog“ dial gauge

Measuring Programs

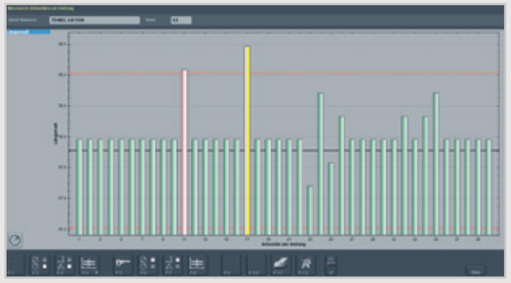


Measurement and compensation of concentricity and run-out at the hub diameters of the tool.

Zero Point Calibration

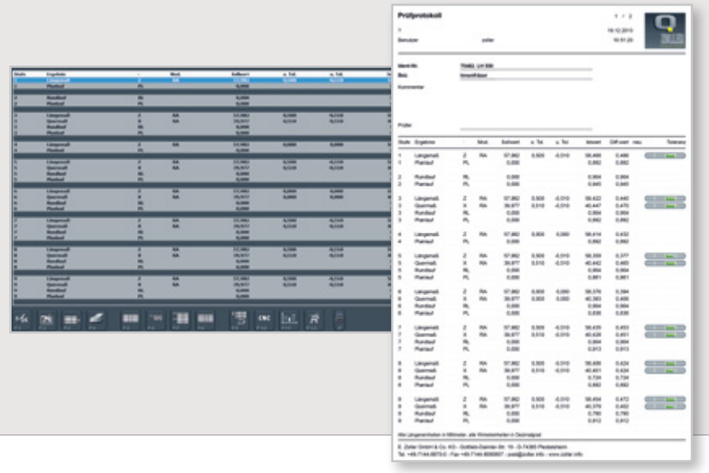
Entry of freely definable parking and safety positions to optimize measuring procedures for maximum safety.

Evaluations with Test Reports



Automatic tolerance monitoring of the measured cutting edges including graphic display of the upper and lower tolerances.

Automatic second measurement of individual cutting edges.



These can be analyzed automatically, displayed clearly and be output as PDF or printed test report to provide seamless documentation of the extensive measurements. Protocol language can be selected individually.

For more extensive, customized documentation, the »apus« editable inspection protocol can, for example, be used to rename individual tool data or nominal values.

ZOLLER solutions

PRESETTING SOLUTIONS
Presetting & measuring

SOFTWARE SOLUTIONS
Managing tools

INSPECTION SOLUTIONS
Inspection & measuring

BUSINESS SOLUTIONS
from A-Z

ZOLLER solutions - comprehensive optimization of your manufacturing operations. We combine machines, software and services to individual system solutions to improve quality, efficiency and productivity. As a customer of ZOLLER you not only benefit from our know-how as a market leader in the field of tool measurement technology, but equally from our claim as a family-run business. We guarantee you a sustainable and competitive advantage and a measurable contribution to your success.

www.zoller.info

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ZOLLER®
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