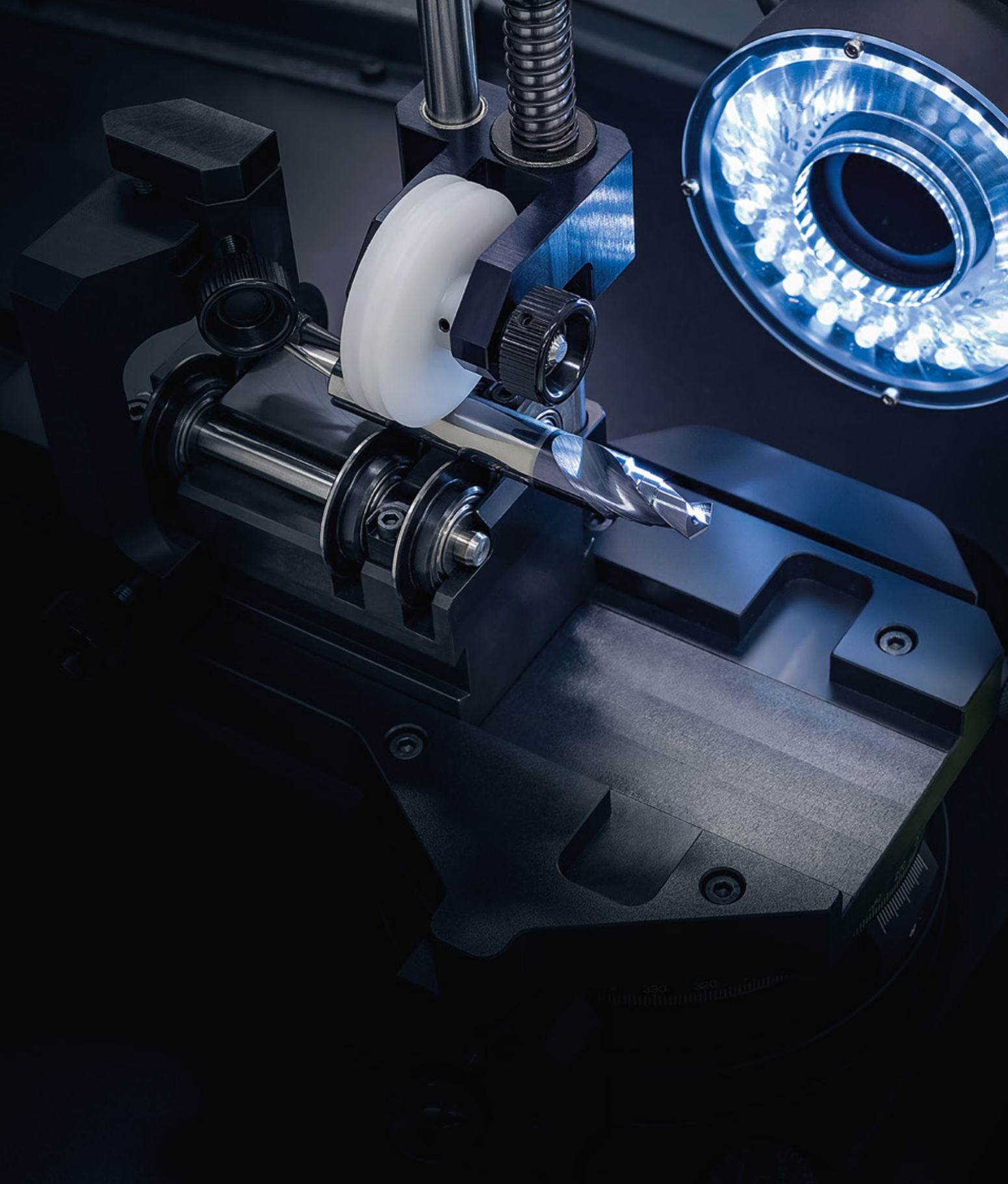
ZOLLER
INSPECTION SOLUTIONS

Flexible Compact Solutions for Tool Inspection

pomBasic | pomBasicMicro

ZOLLER
expect great measures®



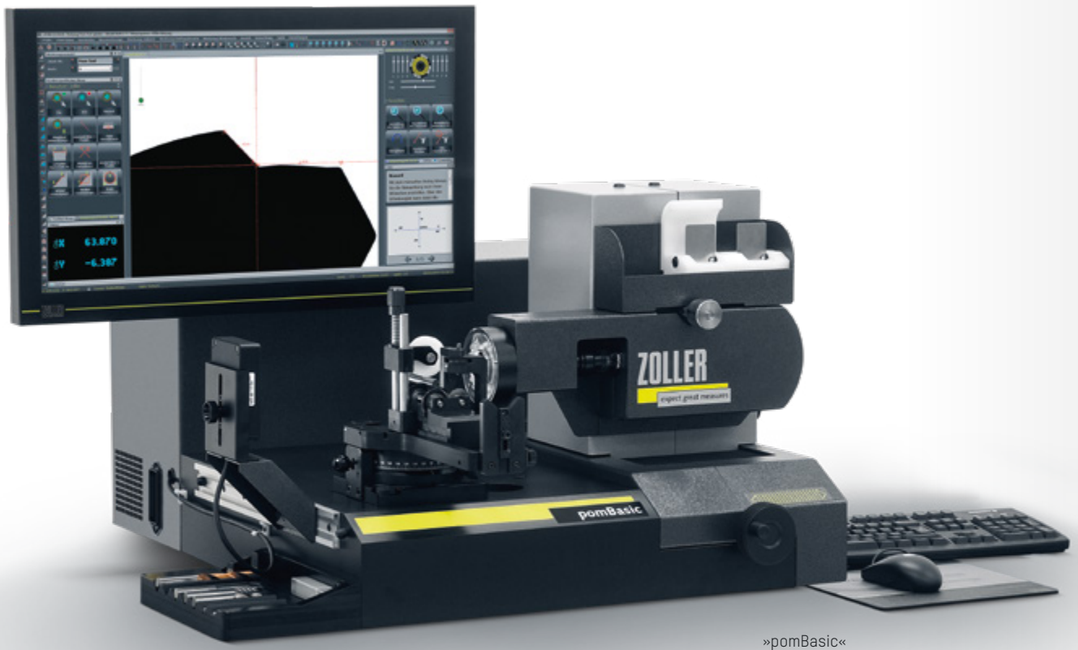
The Basis for Efficient Processes

Do you want to speed up your work processes? Then take the advantage of tool measuring and inspecting! With their compact design, the ZOLLER inspection machines »pomBasic« and »pomBasicMicro« can be placed anywhere in the production area — for example directly next to the CNC grinding machine, in incoming tool inspection, or in final inspection department.
This saves you unnecessary travel to the measuring room, and you will profit from efficient processes and precise results in record time.

»pomBasic«
»pomBasicMicro«

»pomBasic«

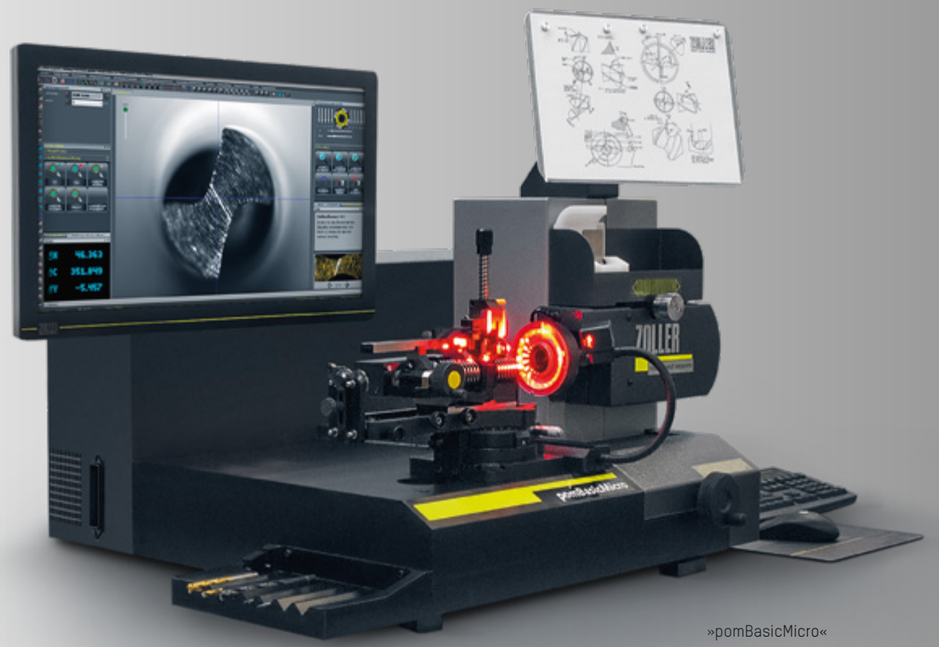
Insert the tool, start, inspect, and done! It's so easy and quick with the »pomBasic« and »pomBasicMicro« to test almost all round shank tools. With the automatic edge detection, a high level of accuracy is guaranteed.



»pomBasic«

»pomBasicMicro«

Assistant-controlled measuring processes, macros for automated measuring sequences and test protocols at the push of a button ensure efficient production processes and maximum quality.



»pomBasicMicro«

Highlights of »pomBasic« and »pomBasicMicro«:

Incident light measurement | Non-contact measurement | Ergonomic | Transmitted light measurement* | Central ZOLLER tool database

* Optional

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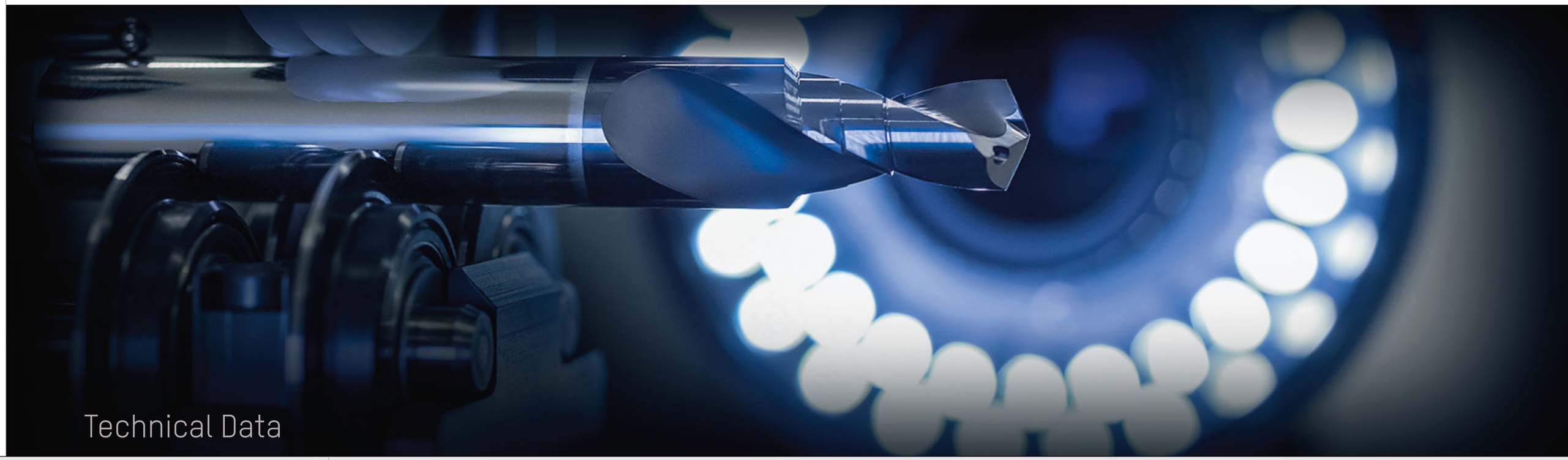
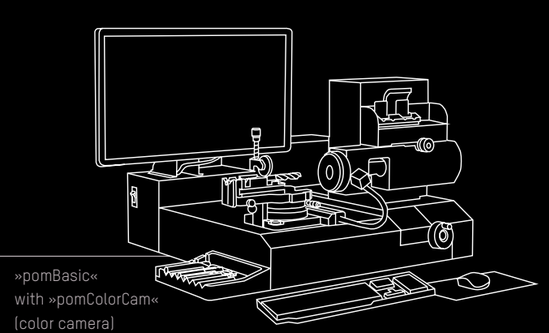
All-around Sophisticated and Compact Design

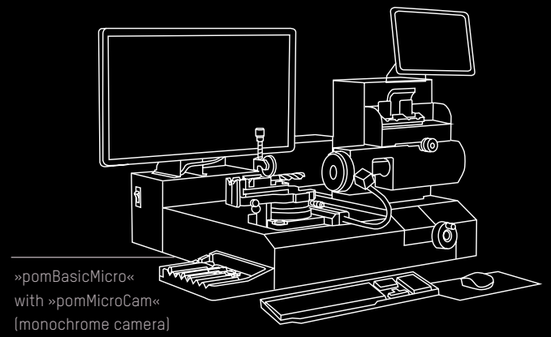


Technical Data

	X-axis	Y-axis	Z-axis (Incident Light Camera)	Measurable and Clampable Shank Diameter	Zoom Lens	Working Distance	Measuring Window W x H
»pomBasic«	180 mm	55 mm	±50 mm	0.5–50 mm (depending on tool holder)	Video microscope system color with 6.5-times optical enlargement	90 mm	3 mm x 2.5 mm – 20 mm x 16 mm
»pomBasicMicro«	180 mm	55 mm	±50 mm	0.5–50 mm (depending on tool holder)	Video microscope system monochrome with 12-times optical enlargement	50 mm	0.6 mm x 0.5 mm – 7 mm x 5.8 mm



»pomBasic«
with »pomColorCam«
(color camera)

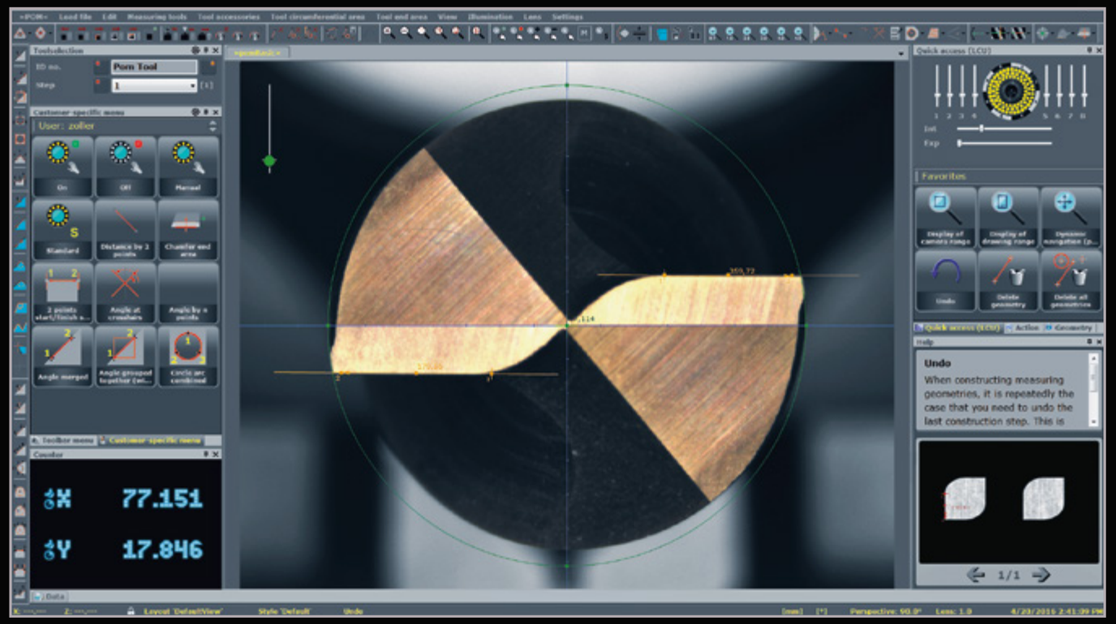


»pomBasicMicro«
with »pomMicroCam«
(monochrome camera)

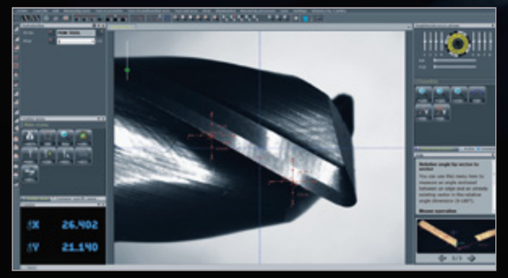
- Typically ZOLLER — maximum precision and user friendly
- Universal design with easy, quick, and intuitive controls
- Ergonomic, compact, and stable construction with high-quality brand components
- Automatic light controls for optimum and high-contrast illumination
- Manual, non-contact measurements, within seconds, and with direct output of results (PDF reports, Excel file, etc.)
- Manual axis adjustment (Z, X, and Y) with an axis resolution of 0.001 mm
- Designed for the shop floor directly next to the CNC grinding machine —or for use in the measuring room

Simply Better Inspection with ZOLLER »pomSoft«

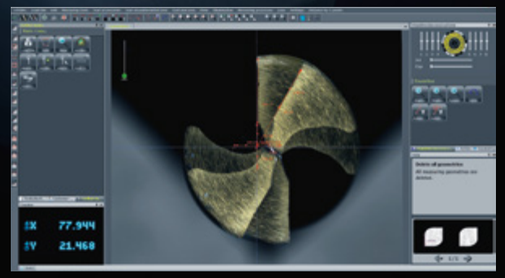
Whether in incident light or transmitted light, the ZOLLER »pomBasic« and »pomBasicMicro« with »pomSoft«, ensures precise results quickly and easily. The software for process-oriented testing is based on the globally proven ZOLLER image processing »pilot 3.0«. It is fitted with numerous evaluation algorithms for grinding and sharpening companies, as well as for tool manufacturers. In addition, every function can be set up and saved individually for the respective inspection tasks and tool versions in the customer-specific menu. This makes its use user-independent and clear, without great training costs.



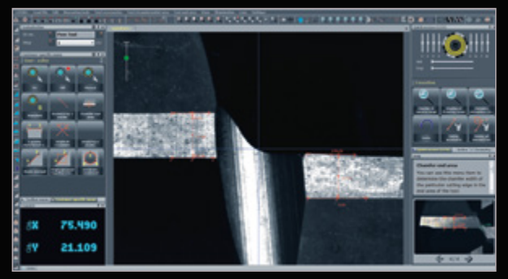
Intuitive controls with a clear software interface for quick and easy testing at the push of a button — and without great training costs.



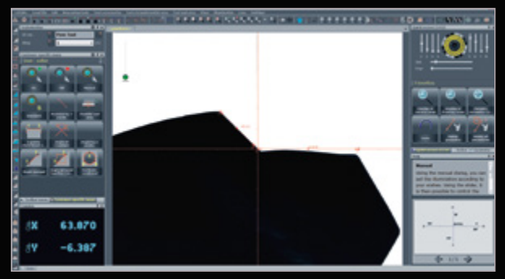
Inspects the tool end and circumferential area (see above) in a matter of seconds, including an automatic and user-independent edge detection for confident and reproducible results.



Direct comparison of the target and actual contour by overlaying saved master images with the live image of the new tool.



High-resolution camera systems with large zoom levels facilitate the analysis of the smallest surface details or the µm-accurate inspection of micro-geometries.

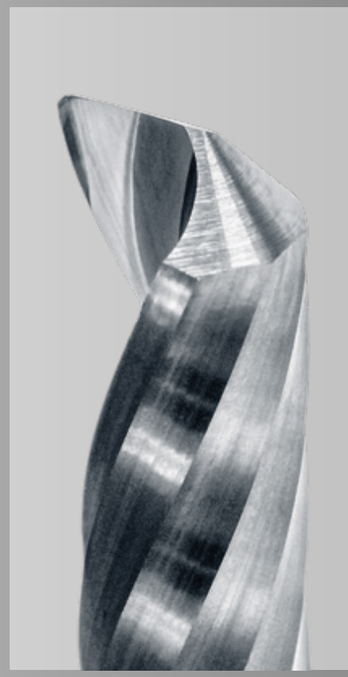


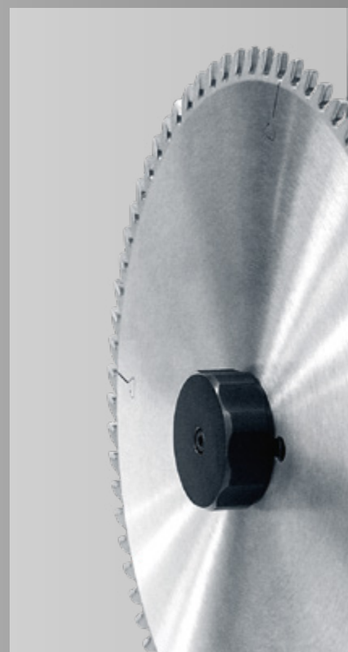
Fast and µm- precise transmitted light measurements in the circumferential area through the optional diffuser (LED flat light).

Test and Document More Than 70 Parameters Precisely

Angles, radii, circles, distances, cutting edge quality, and grinding pattern — »pomBasic« and »pomBasicMicro« measure parameters of all kinds of cutting tools, for example drills, end mills, saw blades, form tools, and cutting inserts in incident light. By using a diffuser* as well (LED flat light) the area of use for measurements in transmitted light is expanded flexibly. For example, outer contours, step lengths, point angles and much more can be calculated in seconds and documented specifically to the tool.

Highlights, such as savable measurement arrangements or the overlaying of master images or DXF profiles for live image target-actual comparisons, simplify use as well.





Seamless Documentation

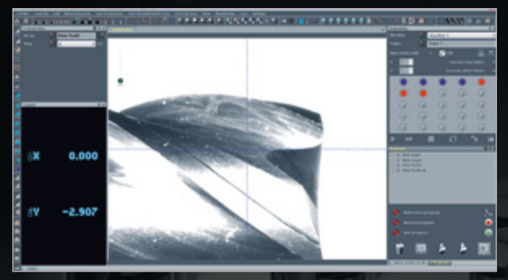
All results are continuously documented and if necessary can be issued as a test report — ideally as evidence of the actual data for customers.

* Optional

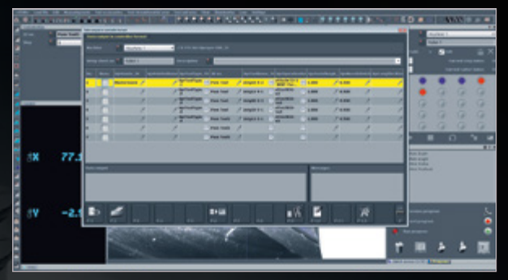
Guaranteed Sharp — »reGrind«

With the new ZOLLER »reGrind« software module, »pomBasic« and »pomBasicMicro« become electronic caliper gages for all cutting tool wear measurements.

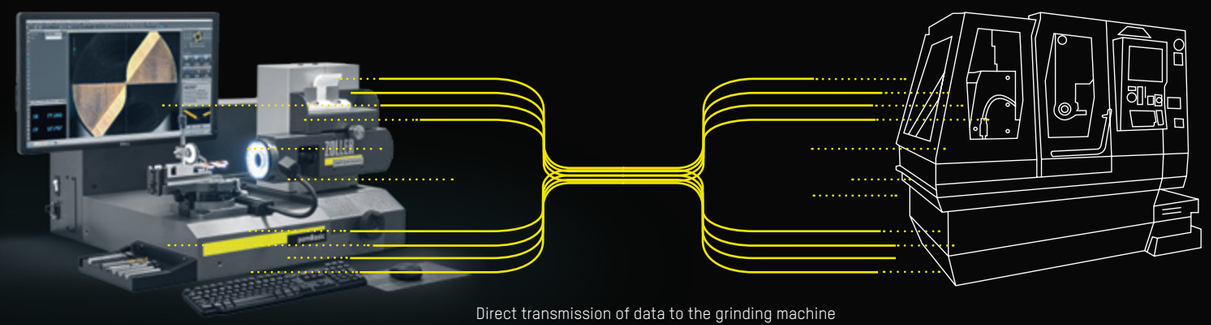
Economic re-sharpening is very easy with »reGrind«. The wear features are recorded during the measurements with »pomBasic« or »pomBasicMicro« and are assigned to the corresponding virtual pallet place. They form the geometric basis in the subsequent sharpening process. Before grinding, the data is transmitted via post processor directly and without error to the grinding machine. The result: Re-grinding is only performed in size of the actual wear, time and costs are saved by preparing pallets operator independent beforehand, while the tools are preserved.



Cutting tools can be tested for wear quickly, with µm-precision independently of the user, then measurements are systematically allocated to the pallet.



The measured wear features are transmitted control-specifically to the respective grinding machine at the push of a button.



Direct transmission of data to the grinding machine

ZOLLER
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Insert, Tighten and You're Ready to Go.

Ergonomic and quickly changeable
Easiest alignment and positioning
Stable construction for measuring processes

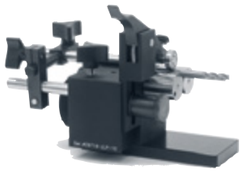
For »pomBasic« and »pomBasicMicro« there are besides the universal tool holder special tool fixtures available. Almost every round shank tool can be inserted and measured using these inspection machines.

Shank tools Ø 2-50 mm
(depending on tool holder)

Collet chuck adapter
D32 mm BabyChuck with
additional collet chuck
D0.5 mm – D8 mm*

Premium Reversible Cutting Insert
Holder*

Fixator holder with inner or
outer clamping*



»pomRoll«-RP lite* tool holding fixture
for »pomBasic«
direct clampable shank diameter: 4 – 25 mm,
concentricity 0,004 mm

»pomPrisma« tool holding fixture* (3 model options),
for »pomBasic« and »pomBasicMicro«,
direct clampable shank diameter: 2 – 50 mm

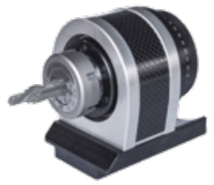
»pomRoll«-RP lite* tool holding fixture
for »pomBasic« and »pomBasicMicro«,
direct clampable shank diameter: 3 – 19 mm,
concentricity 0,004 mm

Shank tools Ø 1 – 6 mm

Tool holding fixture »pomPrisma«-Basic*,
for shank diameter: 1 – 6 mm,
max. tool length: 100 mm

Shank tools Ø 1.5 – 16 mm

Collet chuck »pomRoto«
D1.5 – D16 mm*



»pomRoto« rotation unit*,
clampable shank diameter as a result of collet chuck: 1.5 – 16 mm,
max. tool length: 400 mm, rotation accuracy: 0.006 mm

Attachment holder, adapter and tools not included in the delivery.

*Optional

Swiveling Table

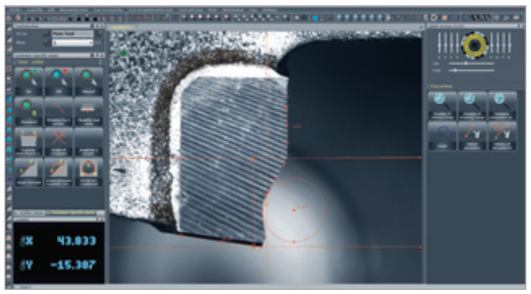
The manual swiveling table enables universal clamping of the various »pomBasic« and »pomBasicMicro« tool holders. Fitted with a 3 x 90° indexing, the circular positioning can be variably adjusted to measure at the OD and the end of the tools (± 120 ° including nonius). The position is held precisely as a result of the clamping (index position for -90°/0°/+90°). There is an optional table version for very long tools with lengths up to 330 mm.

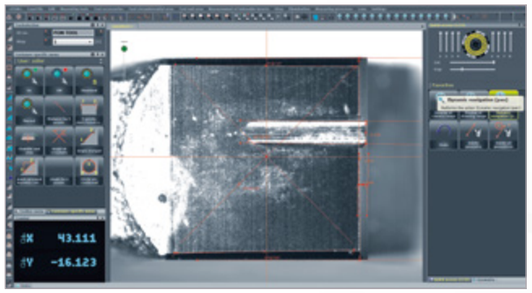
Rotary Encoder (ROD)*

The rotary encoder (ROD) can optionally be integrated into the swiveling table. The angle information is provided digitally in counter mode (C-axis). The angle display allows fast positioning of the table to nominal angle, for example, in relation to the required angle in »pomSoft« image processing.

Cut Better –
with the Saw Blade Holder
for »pomBasic«

The modular saw blade holder further expands the application spectrum of »pomBasic«.
Blades with a diameter of 150 mm to 600 mm can be clamped with various bushings.
A large number of tooth parameters and geometries can be measured axially and radially with »pomSoft« image processing in incident light.



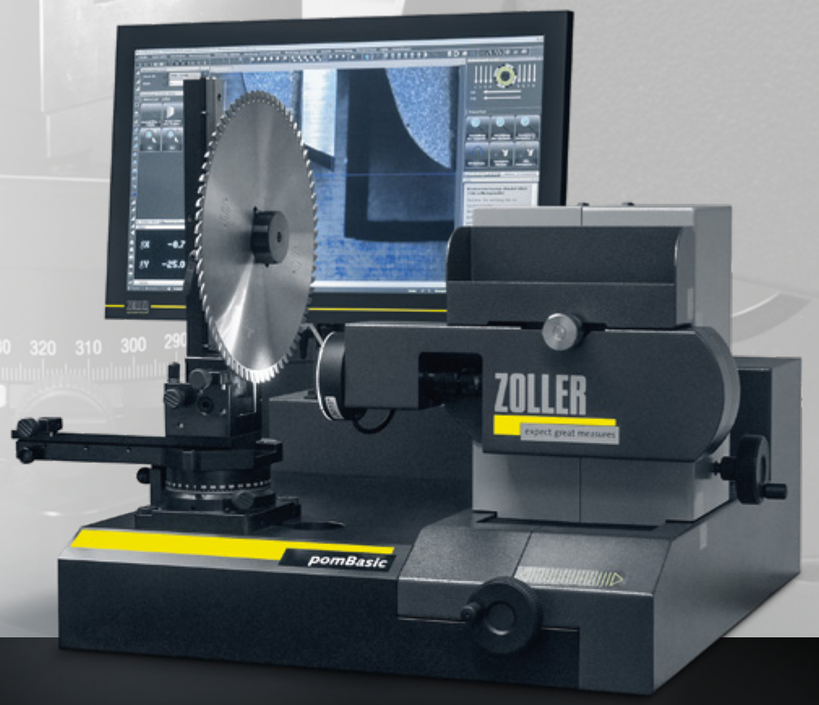


Axial Measurement

Measurable parameters, e.g. in the axial position:
Clearance angle, hook angle, groove shape, groove depth, cutting length, eccentricity, tooth quality

Radial Measurement

Measurable parameters, e.g. in the radial position:
Tooth quality, blade thickness, clearance angle top / bottom, tooth width

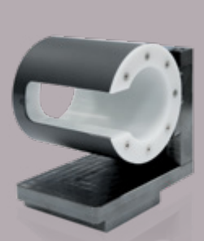


ZOLLER blade holding fixture for the »pomBasic« inspection machine

Accessories and Options

»pom« Base Table

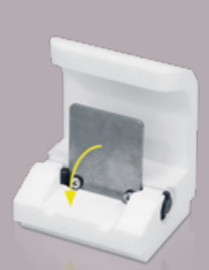
Dimensionally stable and reliable positioning of the »pomBasic« and »pomBasicMicro« inspection units as a stand or seat workstation. Including extendible board for mouse and keyboard.



LED Illumination tube (White / Red LEDs)

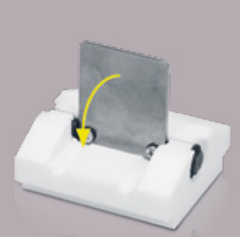
Height adjustable additional lighting for high-contrast illumination of even small surfaces at the cutting edge - radial as well as auch axial in incident light.

_ White LED for »pomBasic«
_ Red LED for »pomBasicMicro«



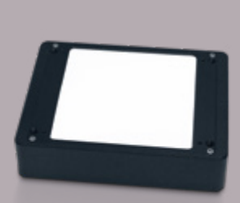
Reflector

Using a reflector allows you to simulate a transmitted light measurement. To this end, it reflects the light (LED illumination) from the thermoplastic plate back into the camera system. Furthermore, the reflector has a tool stop made of stainless steel.



Stop

The stop serves to position the tool tip to the spindle center. Repeated measurements of identical tools can be executed faster.



Diffuser (white/red)

The diffuser enables transmitted light measurement at the radial area OD (Outer Diameter) of the tool. The diffuser (LED flat light) is positioned opposite to the video microscope system. This enables measurement of maximum outer contours, step lengths, point angles, radii etc, without helical influences.

_ White diffuser for »pomBasic«
_ Red diffuser for »pomBasicMicro«

Tool / Accessory Tray

The tool / accessory tray enables storage of tools with shank diameters of up to D50 mm. Reduction sleeves for fast tool change can also be stored. It is mounted on the left side of »pomBasic«.

Drawing Holder

The drawing holder is ideal for displaying drawings in close proximity to the measurement. Magnets and the magnetic ball joint allow drawings, model plates or similar useful items to be held in place easily. It is mounted on the right front side of »pomBasic«.

Color Laser Printer

The color laser printer for report and list printing has a memory of 128 MB (upgraded to 640 MB), a printing speed up to 20 pages/minute, a maximum resolution of 1,200 x 1,200 dpi, and a universal paper cassette for 250 pages (A4 and smaller).

ZOLLER Service

Faster, more flexible, more operationally reliable – your goal is to achieve maximum efficiency in your production operations. Our goal is to help you with this by providing well-conceived system solutions. We also provide comprehensive service and support that may involve an on-site consultation or development of made-to-measure solutions to suit individual requirements. Choosing ZOLLER means choosing superlative products and unique manufacturing expertise. Needless to say, you have access at all times to experts that will answer your questions – for the entire lifetime of your ZOLLER products. Use ZOLLER know-how to optimize your production operations.

Alexander Zoller | Christoph Zoller

ZOLLER Solutions

From us, you get more than superior products. You obtain individual system solutions for every aspect of your tools. To achieve this for you, we combine hardware, software, and service support. All from a single source. All for your success. We call that ZOLLER Solutions.

At Home in Germany – There for You Around the World

ZOLLER quality is "made in Germany" – and there for you, anywhere in the world.

Our company has its own operations and branches in 58 countries, guaranteeing we are close to customers and can provide first-class, personal customer service support in local markets.

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ZOLLER solutions

PRESETTING & MEASURING

TOOL MANAGEMENT

INSPECTION & MEASURING

AUTOMATION

ZOLLER Solutions are synonymous with comprehensive optimization of your manufacturing operations. ZOLLER combines hardware, software and services to customized system solutions to improve quality, efficiency, and productivity. As a ZOLLER customer you benefit not only from our know-how as market leader in the field of tool measurement technology, but equally from our claim as a family-run business, guaranteeing you sustainable competitive advantages and thus making a measurable contribution to your success.

Subject to technical modifications. The depicted machines may include options, accessories, and control variants. BRPB.02-EN 05/2019
Concept & design: www.absicht.ag

Quality Management ISO 9001 DEKRA certified

Quality Management VDA 6.4 DEKRA certified

Environmental Management ISO 14001 DEKRA certified

www.zoller.info

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expect great measures