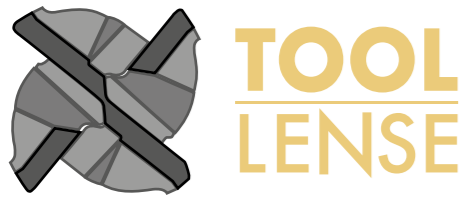


TOOL
LENSE

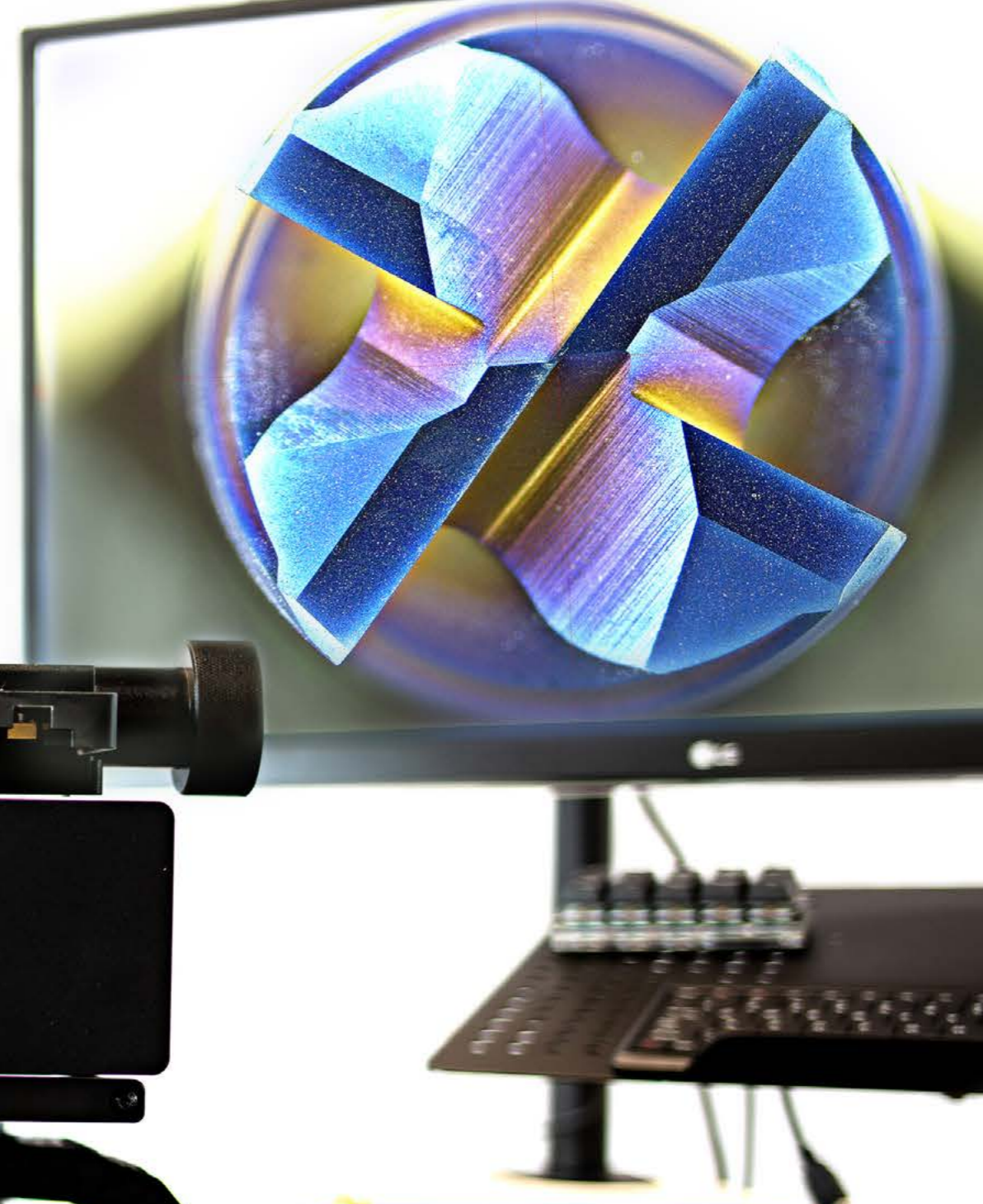
**Simply unbeatable
sharp:**



— Inspection Solutions
for Cutting Tools —



- world-leading 4K image quality
- magnify up to 300x
 optional up to 1000x (for Micro-tools)
- unique circle light
 axial adjustable
 4x90° switchable
- high-precision scanning of external contours
- ultra-precise edge detection
- innovative radius measurement
- EASY-Run-out & EASY-Diameter
 fast & simple measurements
- innovative DXF/image comparison measurement
- simple programming for frequent measurements



Inspection Solutions for Cutting Tools

Sharp: with world-leading imaging

The built-in 4K camera is worldwide the best available camera in the market and ensures the sharpest possible images to the screen. With the 300x optical magnification, you can inspect cutting tools from a diameter bigger than 0.8mm. For microtools, optional lenses with up to 1000x magnification are available to measure cutting tools in the micro range from a diameter starting at 0.05mm.



4K-Camera (inside)
with world-leading
image quality

Optical Magnification
standard bis 300x
(optional bis 1000x)

Sharp: with innovative & perfect illumination

Light is an extremely important factor in obtaining the best image quality. Only when getting sharp edges and perfect illumination precise edge detection will be possible. That's why ToolLens takes much care of innovative and perfect illumination. ToolLens offers an automatic backlighting which adjusts the brightness completely automated when changing the graduation. The ring light up-front is divided into 4 areas of 90 degrees. Each of 90 degrees can be switched on and off individually. The frontal ring light can be moved lengthwise and adjusted to the optimal position. Additionally, there is the freehand light - just in case there is a lack of light for your cutting tool somewhere.



Free-hand-light
infinitely variable

Back-light
- Automatic adjustment
to each magnification
- manual infinitely variable

Ring-light
- manual infinitely variable
- 4x90° Ein-/Ausschaltbar
- lengthways adjustable

Unbeatable Sharp = unbeatable Precision

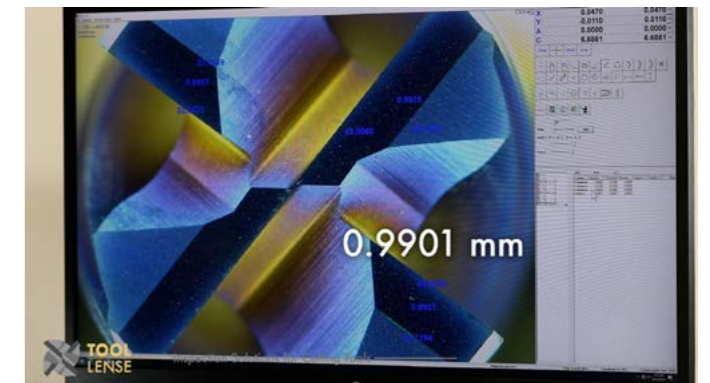
The extremely sharp image in combination with the perfect illumination enables highly precise measurements. Cutting tools can be measured manually and with high precision by using the axes via the crosshairs. Alternatively, ToolLens offers the possibility to perform measurements in the 0.001mm range with its innovative and highly precise edge detection. Angles, lengths, diameters, widths etc. of cutting tools such as end-mills or drills and so on can be measured quickly and easily.

Precision
with digital image-measuring

At min. magnif. = +/- 0.005 mm
At max. magnif. = +/- 0.001 mm

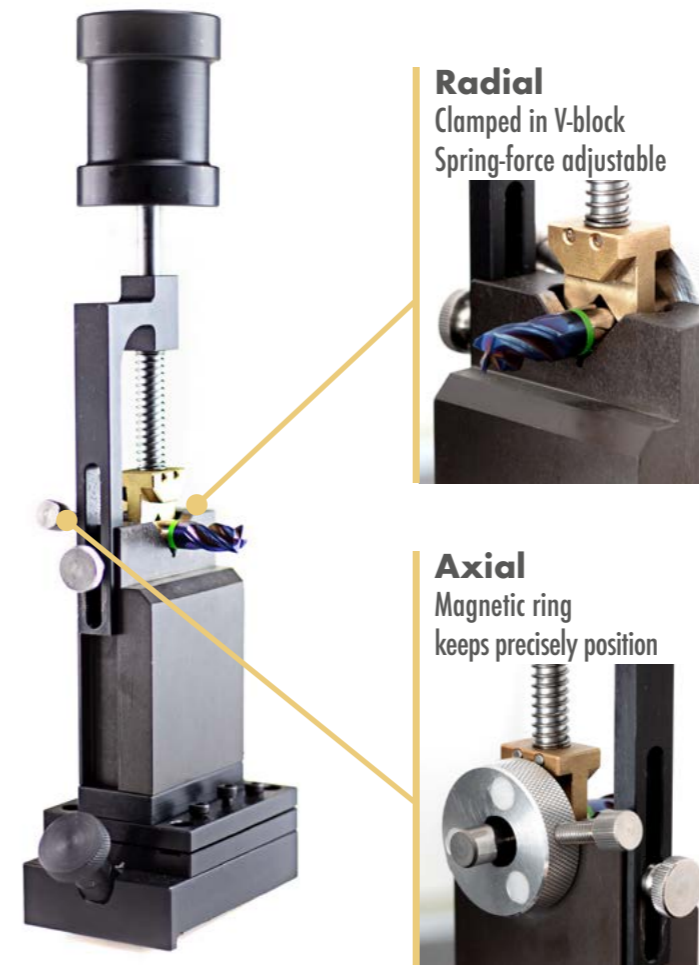
Precision
of the axis

X-Axis <= 0.005 mm
Y-Axis <= 0.005 mm
C-Axis <= 0.3 Grad



Precise: with innovative clamping

Clamp your cutting tools such as milling cutters, drills or similar in the prism support. The adjustable spring force ensures that the shank of your cutting tool rests exactly and precisely and runs perfectly round radially. With the magnetic ring, the cutting tool is positioned exactly axially, regardless of whether it is a milling cutter or drill, and does not change its position even when rotating.



Radial
Clamped in V-block
Spring-force adjustable

Axial
Magnetic ring
keeps precisely position

Alternative Roller clamp

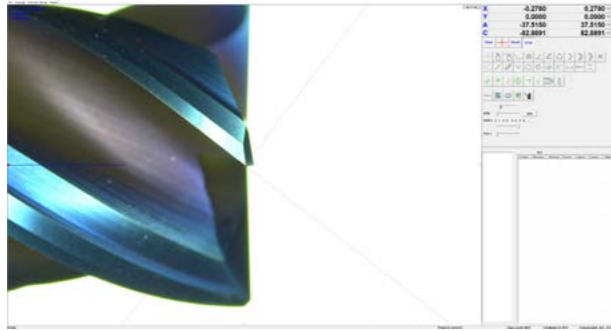


Alternative V-block



Application examples

<https://toollense.eu/en/video/>



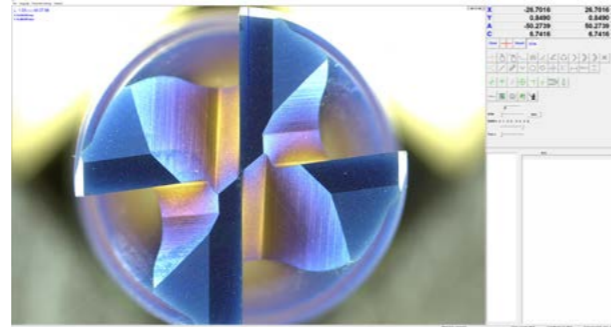
Manual measuring lengthwise with the reticle and the axis

- lengths, diameters
- angles, widths
- and so on ...



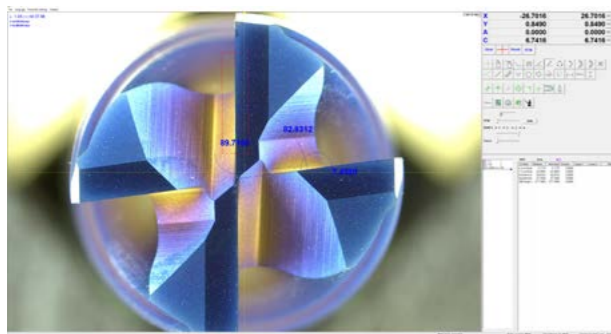
Manual measuring head-on with the reticle and the axis

- lengths, diameters
- angles, widths
- and so on ...



Digital measuring on screen with innovative edge detection

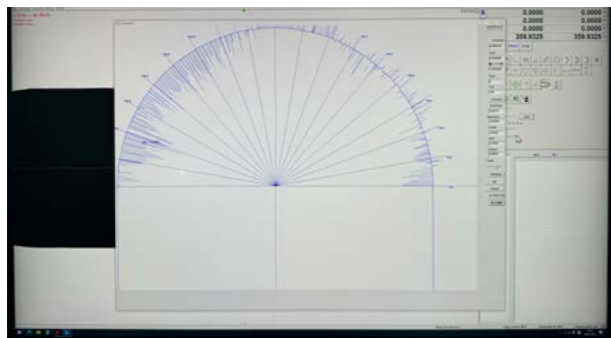
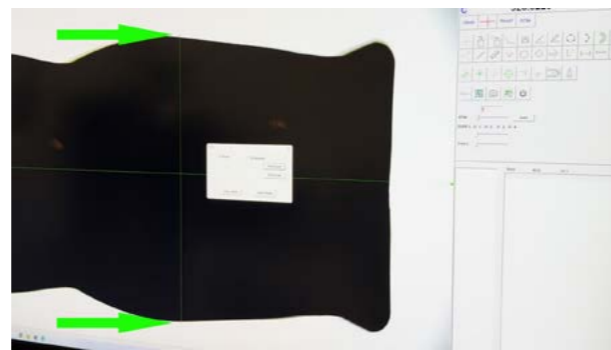
- lengths, diameters
- angles, widths
- and so on ...



**EASY Diameter
EASY Run-out**

Start scanning and rotate the tool. The software will scan the highest points above and below. With this process the diameter can be measured fast and simple.

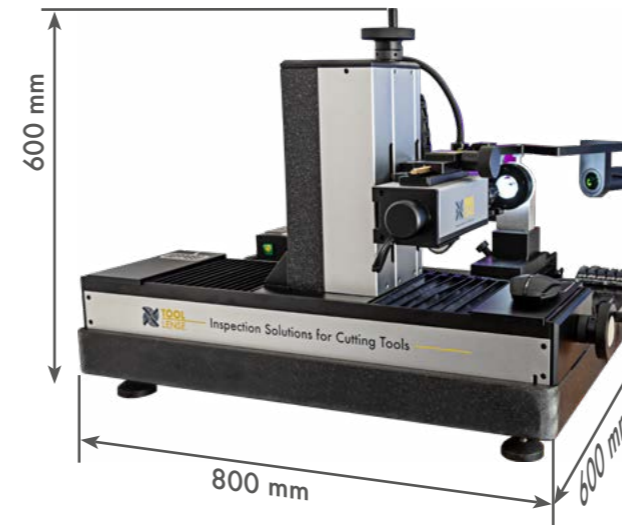
Run-out will be scanned on top only.



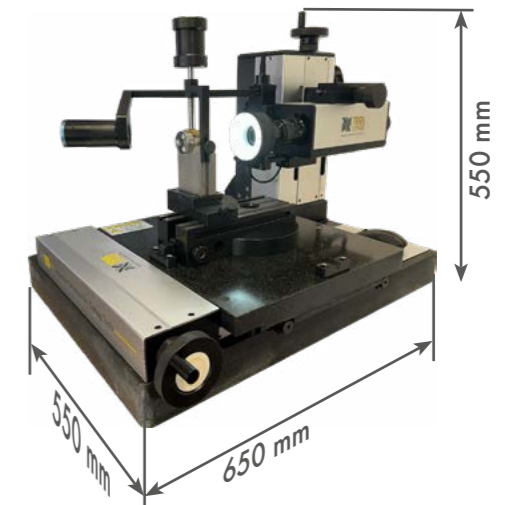
**Radius measurements
Innovative & highly precise**

digital measuring on screen
innovative radius-edge detection

TYPE E (ergonomic)



TYPE C (compact)



Senseful (possible) Tool dimension

Milling tools, drills and so on

up to max. $\varnothing 60$ mm

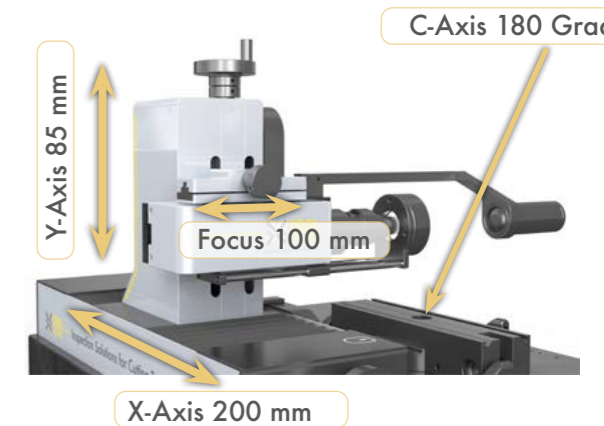
Saw blades, disc cutters etc.

up to max. $\varnothing 150$ mm

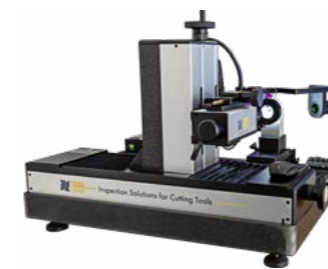
Micro tools

- > 300x magnification
- > 500x magnification
- > 750x magnification
- > 1000x magnification

down to min. 0.8 mm
down to min. 0,5 mm
down to min. 0,15 mm
down to min. 0,05 mm



Machine types and Accessories



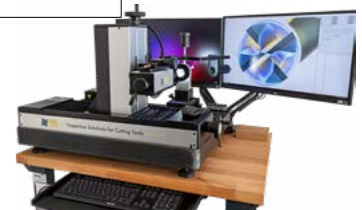
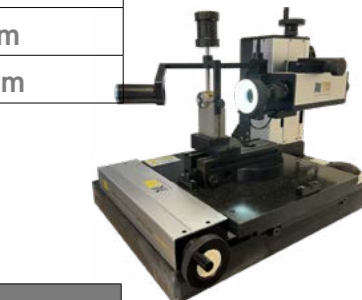
Ergonomic - Type	on Screen
TYPE E - max 300x (Standard)	0,8 mm - 16 mm
TYPE E - max 500x	0,5 mm - 10 mm
TYPE E - max 750x	0,15 mm - 6 mm
TYPE E - max 1000x	0,05 mm - 4 mm

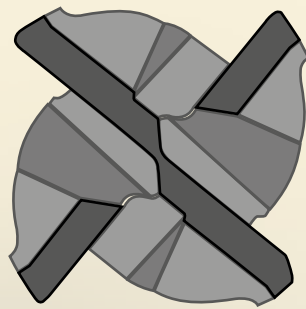
Compact - Type	on Screen
TYPE C - max 160x (Standard)	1,5 mm - 25 mm



V-block clamp
Expanding module $\varnothing 32$

Toollense - Table
For 1 Screen
For 2 Screens (incl. additional HD-Screen)





TOOL
LENSE

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