

toolex®

END MILL - DRILL - REAMER



ABOUT US

PIKSAN CNC Metal Processing Ltd. was established in 1976 and began manufacturing carbide cutting tools under the **TOOLEX** brand in 2004.

Since then, the company has continued its operations in the design, production, marketing, and sales of precision cutting tools. Our product range includes **milling cutters, drill bits, reamers, and custom-designed tools.**

Standard tools are produced according to catalog specifications and maintained in stock, while **special tools are manufactured to order**, based on **customer-specific requirements.**

RAW MATERIALS

Carbide Rod:

Toolex meets the raw material requirements from Hartmetall AG.

Hartmetall Estech AG offers 32 different quality raw material options and Toolex realizes the selection of raw materials that will ensure customer satisfaction in the best way. Toolex uses 3 different quality raw materials as standard.;

- MG-10(%10 Co)-NG < 52 HRC for materials*
- MG-07(%07 Co)-NG For aluminum and cast parts*
- MG-12(%12 Co)-NG for > 52 HRC for materials*



PRODUCTION ACTIVITIES

Swiss and German origin CNC machines, production tools and control devices (Strausak, Rollomatic, Schütte brand sharpening machines, Gabus SA Brand Diamond, PWB, Zoller Genius 3m, Microtool brand measuring devices and Ionbond, Eifeler and Inan Coating brand coatings) are used in production processes. .

Our company is able to offer its customers fast and accurate products by shaping customer special requests in a very short time by shaping them with 3-D Dialogue Fast Technical Drawing Program Compatible with ERP Program.

PRODUCTION WORKS

All offer, order, purchase, production, inventory management, invoicing, quality, customer relations and so on. processes with ERP Enterprise Resource Planning Program. With this program, complete material and production traceability, effective process control, efficiency measurement, precision cost calculation and so on. activities.

In order to subject our newly designed cutting tools as well as customer-specific eager tools to the performance test, we realize the application on our CNC Milling machines in our field of machining.

TOOLEX GRINDING DEPARTMENT MACHINE PARK

- 5 Strausak Fleximat 5 Axis Cnc Grinder Machine
- 1 Strausak Promat 5 Axis Cnc Grinder Machine
- 3 Rollomatic 620 XS 6 Axis Cnc Grinder Machine
- 1 Rollomatic NP4 4 Axis Cnc Grinder Machine
- 2 Schütte WU305 5 Axis Robot Cnc Grinder Machine
- 5 Anca 5 Axis Cnc Grinder Machine
- 1 Corner Rounding Machine
- 1 Aeurolab Polishing machine
- 1 Sodick Erosion Machine



TOOLEX GRINDING DEPARTMENT MACHINE PARK

- 1 Myford Cnc Cylindrical Grinding Machine
- 3 Studer Manual Cylindrical Grinding Machine
- 1 Kellenberger 3 Axis Grinding Machine
- 2 Chia Lern Co CH-CM01-5 Cnc Cutting Machine
- 1 Chia Lern Co CH- CM 202 Cnc Chamfering Machine
- 1 Palmary Cnc Centreless Grinding Machine
- 1 GP Italy Manual Centreless Grinding Machine
- 1 Reinecker Manual Grinding Machine



LASER MARKING MACHINES

- 1 Tampoprint Laser Marking
- 1 3T Laser&Robotic Laser Marking

MEASURING MACHINES

- 3 PWB Aster 250
- 1 Trimo Optima Measuring Machine
- 1 Microtool Measuring Machine
- 1 Nikon Profile Projector Measuring Machine
- 1 Zoller Genius 3m 5Axis Measuring Machine
- 1 Zoller Smile 400 Measuring Machine



Grinding Machines

Strausak Fleximat AG Cnc Grinding machine

The 6 axis grinding machine is designed for the manufacture and sharpening of cutting tools. The Numroto control unit and the automatic wheels changer can be equipped with a maximum of 6 wheel sets, making it easy to program the manufacturing and sharpening of complex special tools.

It can process materials from Ø 2 to 100 mm.



Grinding Machine Types

ROLLOMATIC GRINDSMART 620 XS

- Sharpening ranges from Ø 0.1 to 16 mm
- Shaft ranges from Ø1.0 to 16 mm
- Automatic loading in lengths from 30 to 300 mm
- 0.002 mm precision production



Grinding Machine Types

Rollomatic ShapeSmart NP4

Precision Cylindrical Grinding Machine

- Sharpening range from 0.025 mm to 16 mm (0.001 " to 5/8 ")
- Shaft Ø 1 mm-16 mm (0.40 " - 5/8 ")
- Maximum grinding length 330 mm (13 ")
- Mass production precision 0.002 mm



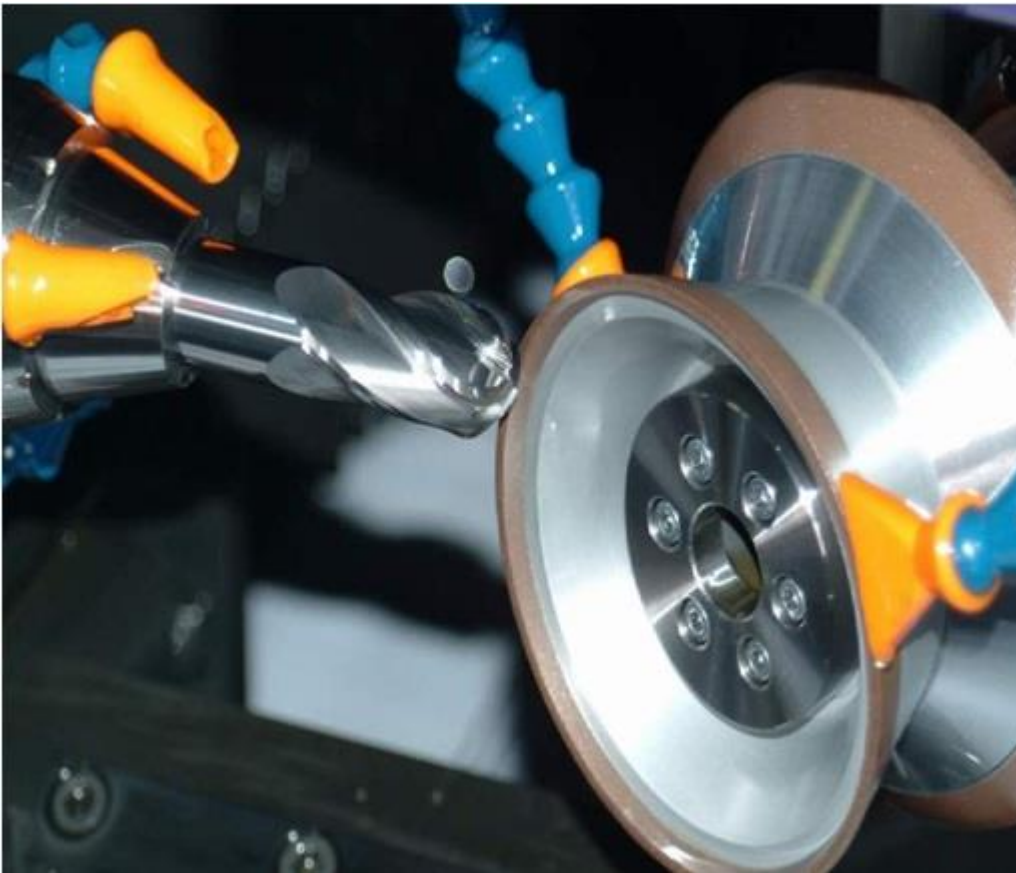
Grinding Machine Types

Schütte WU 305

- Sharpening range from Ø1 mm to 25 mm varies
- Shaft Distance Ø2 mm - 25 mm
- Robot using range between 30 mm
- 300 mm with automatic loading



Grinding Wheels



- *The high-quality grinding wheels we use ensure good surface quality and dimensional accuracy for the tools.*
- *C Cad programs are used.*
- *In this way, precise and pre-confirmed results can be obtained by knowing the wheels dimensions and precise measurements can be obtained.*

toolex END MILL - DRILL - REAMER

Measuring Machines

PWB Measuring Machine

Computerized imaging system:
Computerized and camera-capable,
is used to determine the dimensions
of the angles of the cutting tools.



Measuring Machines

Zoller Genius 3m Measuring Machine

Zoller -genius 3m- enables quick control of the outer contour of cutting tools, such as rake angle, relief angles, helix angle, core diameter, and so on. is a 5-axis universal measuring device, which automatically measures under the light with the help of a camera that features 500 X optic zoom.



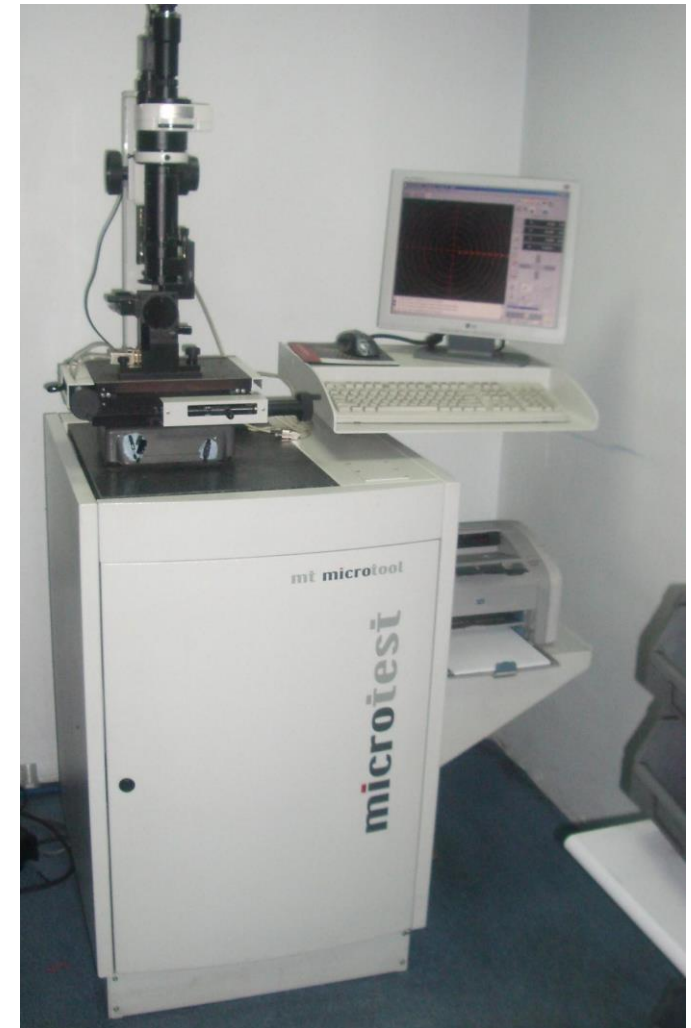
Measuring Machines

MT Microtool

Allows micro tools with a diameter range of $\varnothing 0.1 - \varnothing 6 \text{ mm}$ up to $0.2 \text{ }\mu\text{m}$

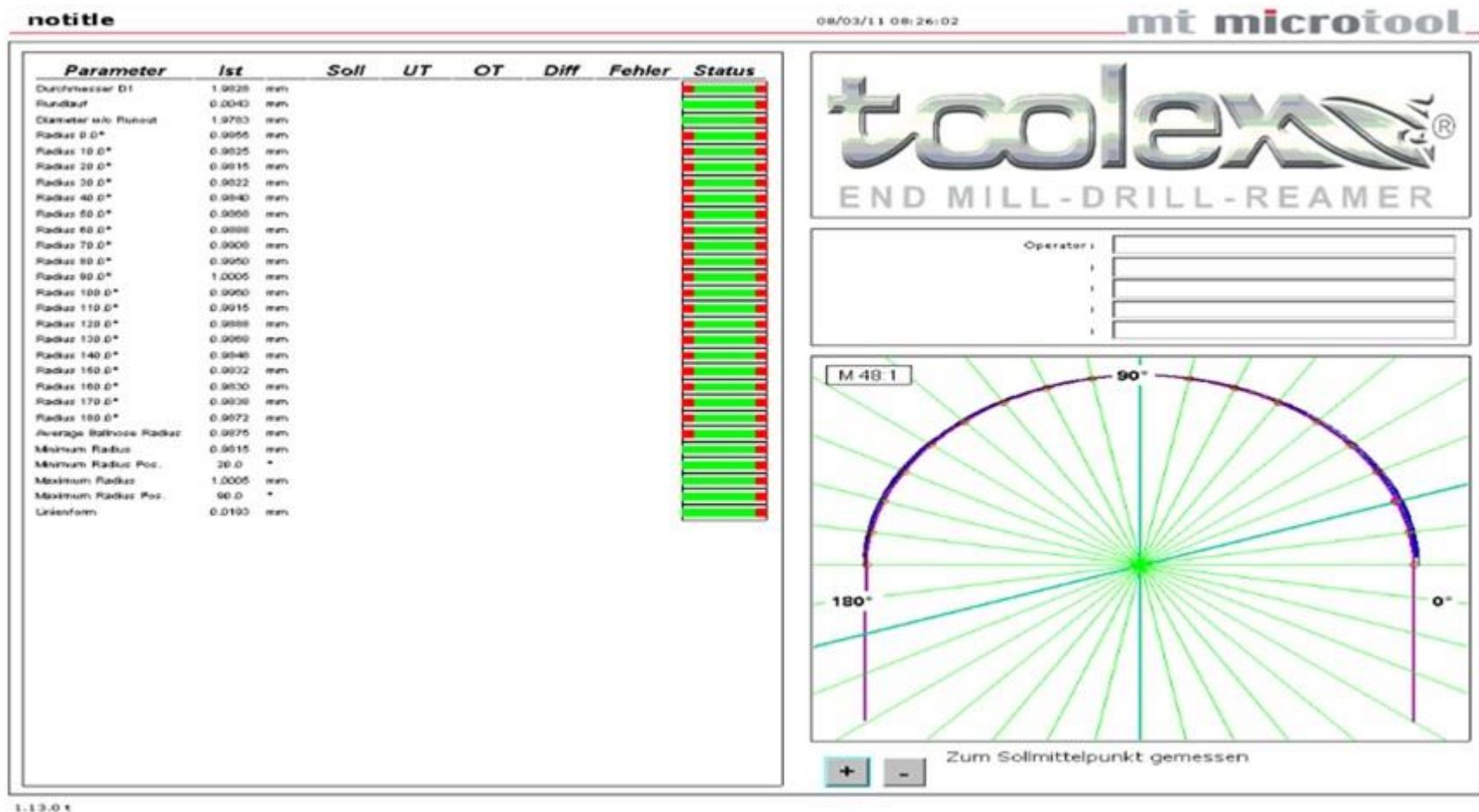
It can measure external diameters with backlighting and measurement of front and side geometry with upper illumination up to $0.1 \text{ }\mu\text{m}$.

With CCD Camera with Stereo Microscope, it can perform up to 1100 times magnification with 12 caliber zoom levels. One of the most important details in this measuring tool is the ability to measure the precision required from the tool immediately.



MT Microtool

One of the most important features of this measuring tool is the ability to measure and report the accuracy required from the tool. The report shown below shows the changes in mouth diameter in the tool produced by rotating the spherical tool 0° - 180° .



Measuring Machines

The Optima Trimo Measurement System

- The best results are obtained for the dimensions and angle of diamond wheels
- The geometry of diamond wheels can be measured in the range of ~ 0.001 mm.

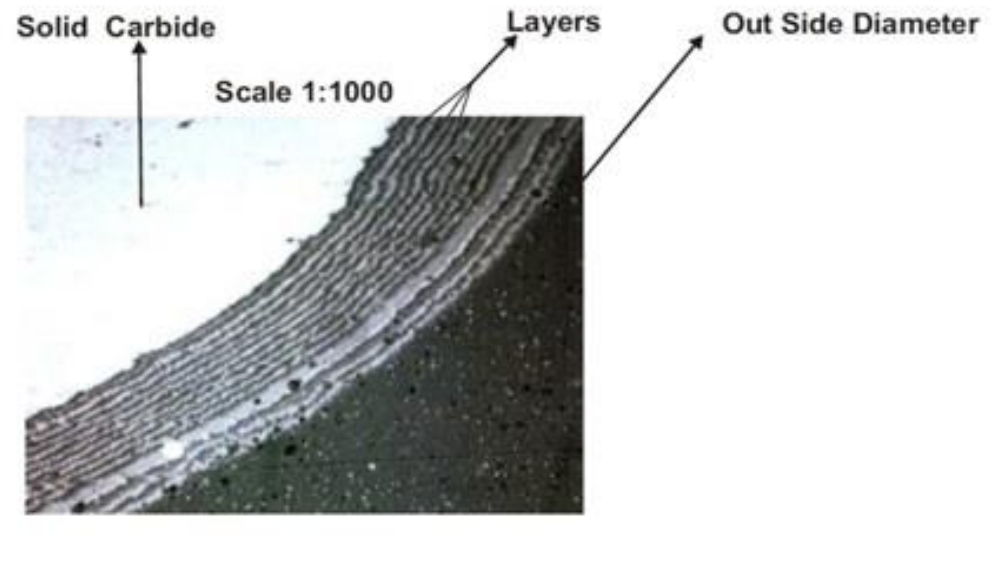
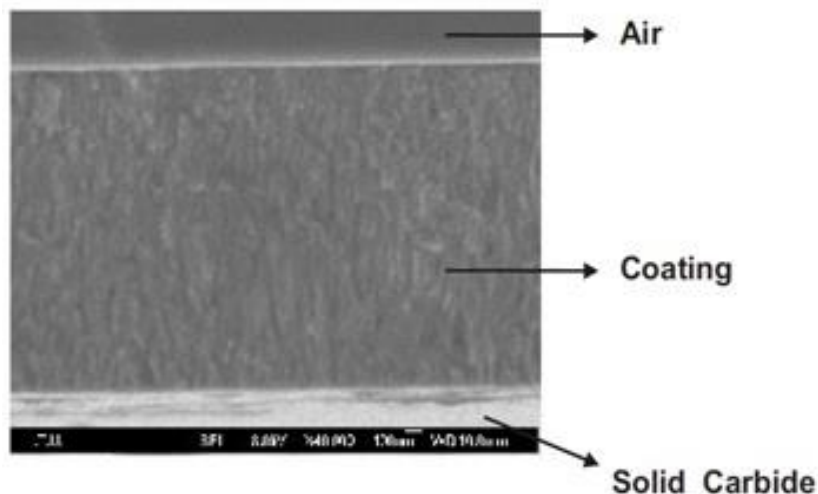


Coating

PVD Coating

- Multi-layer AlTiN and nACo coatings in coating types
- - Excellent hardness values (50 - 45 HRC)
- - High oxidation temperatures (1200 ° C - 1100 ° C)
- - Different coating options according to customer requirements
- AlCrSiN, Drycut, AlTiN, TiAlN, TiCN, TiN

Coating Thickness



Marking and Labeling

Laser Marking TampoPrint Machine

It is not affected by oil, air, water and other external influences.

-Written company code and product traceability information



Packaging

- Rose Plastic Packaging (Germany)
- We always choose the most durable packaging management for the safety of the tools.





Exterior View of Our New Factory Building

Our new factory was built in the new and most modern Organized Industrial Zone in Dilovası / GEBZE of IMES Industrial Site. In our 4500 m² factory, we were able to increase our current production capacity by at least 4 times.

Thank you for your patience.

PIKSAN MANAGEMENT