



# TTL TECHNOLOGY

Your partner in swiss and european precision machining products

## Gear-, Tool-, Internal-, External-, Thread-, Centreless-, Surface-, Profile- and Universal- Grinding Solutions



Gear grinding machines, diamond & CBN grinding tools, dressing wheels and fixtures. Fully automatic solutions with integrated handling system for measuring and automatic loading / unloading.



Combined CNC turning and grinding machines for hard turning up to 65HRC with grinding possibility.



External & internal grinding machines, non-circular internal grinding machines. Fully automatic solutions with integrated handling system for measuring and automatic loading / unloading.



Individual cylindrical grinders, deployment of complete processing solutions and innovative machine concepts for the production of transmission shafts, crankshafts and camshafts



CNC 5-axes tool grinding machine for re-sharpening and the production of small series.



Worm & thread grinding machines. Honing & polishing machines for medical heads and inserts (implants) as well for hydraulic, pneumatic and optical industries. Special grinding machines for tooth drills.



Cylindrical wheel- and table moving external and internal grinding machines for small, complex as well as very big work pieces up to 12'000mm part length!



High precision tool grinding machines for rotating tools from Ø 0.01mm up to 32mm, individual insert design, ultra-long drills, cylindrical grinding, flute & relief grinders. Dressing machines. Laser machining with simultaneous 5-axis interpolation for ultra-hard materials such as PCD, CVD, MD and natural diamond.



CNC worm, thread and gear hob grinding machines and technology. In addition to the core business of thread grinding machines, the product range includes relief measurement machines, profiling machines as well as relieving lathes.



High tech CNC grinding and laser machining centres for indexable tungsten carbide tools and insert.



Reliable, customer focused and technically and commercially intelligent CNC Centerless Grinding Machines for the production of high precision mechanical components.



Precision grinding machines that are set-up friendly, integrated compact systems with highly dynamic automation options as 'turnkey solutions' for high-volume serial manufacturing of high-precision components.

## Horizontal-, Vertical- & Swiss Type Turning



Conventional high precision and CNC production lathes with exceptional characteristics.



Metal cutting technologies and high performance machine tools for vertical turning, gear milling & hobbing and laser welding.



Automatic, cam and CNC driven, coil and bar fed turning centres for small parts up to Ø 8mm.



Latest generation high performance and multi turret CNC lathes. Designed for maximum reliability and productivity.



CNC horizontal turning centres as well as conventional and CNC heavy duty precision lathe.

### SWISS TURN LATHES

- Single-spindle numerical controlled sliding headstock machines
- Multispindle numerical controlled turning machines with 6 or 8 spindles
- Multispindle cam-controlled machines with programmable automated controller



Conventional and CNC driven horizontal precision lathes.

**Gear-, Turbine Blade-, Impeller-, Blisk-, Universal- Milling Machines & Vertical- and Horizontal Machining Centers**



Vertical high precision milling machines & centres.



Metal cutting technologies and high performance machine tools for vertical turning, gear milling & hobbing and laser welding.



Gear hobbing and worm milling and whirling machines.



Manual & CNC operated milling machines and machining centres.



5-axes CNC machining centres for high precision flow profiles like turbine blades, impellers, blisks and universal machining.

- Machines for high precision milling, machining centres, bar milling machines.

**Material Handling and Testing Systems, Measuring-, Process- & Quality Control Equipment**



Bar feeding solutions, chip and coolant management systems.



Industrial cleaning equipment and systems.



System solutions for parts clamping, measuring, robotics and process controlling.



Parts handling technology, deburring and finishing systems.

**Tooling Solutions & Accessories**



Precision clamping systems und clamping tool solutions.



Manufacturer of high quality hole machining and innovative tooling systems for multi-task and lathes. Swisstools offers solutions that are optimally matched to the respective machine and guarantee sustainable profitability.



Custom-made and standard high-precision and high-performance technology, abrasives and cutting tools.



Manufacturer of micrometrical expandable diamond honing tools and the production of manual honing apparatus and automatic honing machines.

**Special Machining, Laser Processing, Deburring, Super- & Micro- Finishing, Coating**



Spring making and working machines.



Micro machining solutions with dedicated milling processes, laser ultra-short pulse FEMTO technology, water jet guided laser solutions and spark assisted chemical engraving for mass production.



Machines for precise deburring, edge rounding and polishing. Gerber AG is one of the world's leading specialists in the field of micro-preparation of the cutting edges of machining and stamping tools.



Turnkey Coating Systems.



Complete solutions and equipment for heat treatment, induction hardening, induction brazing and induction precious alloy melting.



Precision controlled semi-auto and production honing with wide capability for low to high volumes.

## Contacts

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