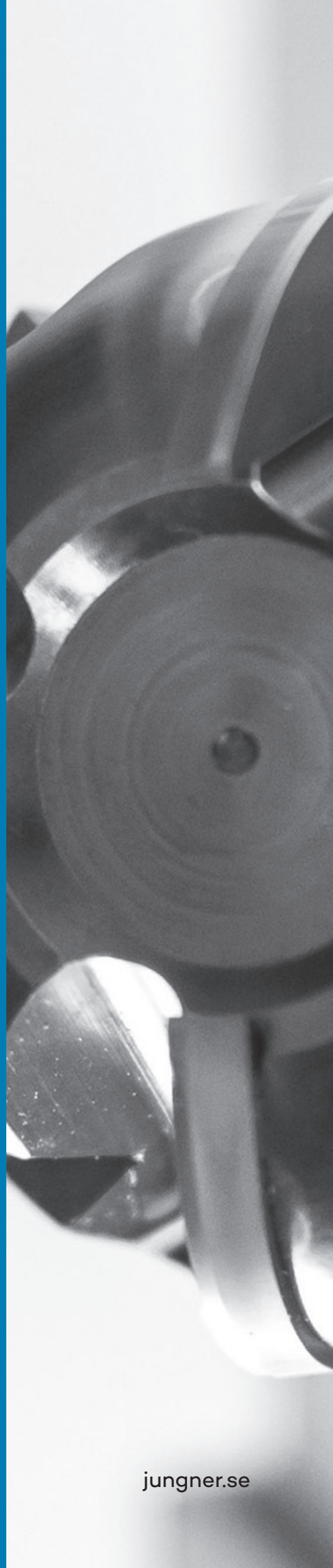




Technology Experience



Since 1910

Jungner is a world leading
and trusted manufacturer
of specialised high precision
Tool and Cutter grinding
machines.

Bespoke hand-built solutions

Our experience building premium grinding machines is second to none, coupled with our in-depth knowledge of software development, we deliver a unique bespoke solution.

Jungner cooperates closely with our clients and participates in every step of the process. With software that we adapt to every client we can deliver when others cannot. Jungner delivers the right solution for you.



TG 560 CNC

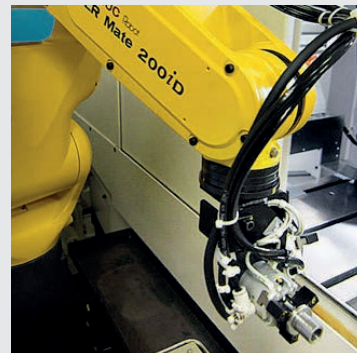
ULTRA-VERSATILE, HIGH PRECISION TOOL & CUTTER GRINDER



The TG 560 CNC is the perfect machine for resharpening and production of cutting tools such as endmills, drills and reamers etc.

TG 560 FEATURES

- Flexible design with possibility for using tailstock, steady rest, and dressing equipment.
- Cylindrical grinding function with rpms between 166 up to 1000 rpm.
- Can be equipped with a Fanuc robot for automatic loading/unloading.



MG 560 CNC

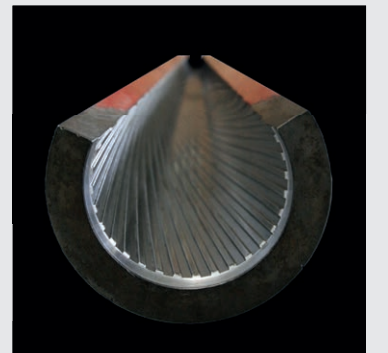
MANDREL GRINDER



The MG 560 CNC machine is specially made for grinding of mandrels for production of cold swage rifling barrels. With top-of-the-line external encoders, built in cylindrical grinding features, integrated grinding wheel dresser and specially designed HMI, high accuracy mandrels can be ground in one single setup including both cylindrical grinding of outer profile and grinding of grooves with profiled wheel.

MG 560 FEATURES

- Fanuc 30i B Plus CNC control
- Workhead with a direct drive torque motor with high-speed rotation up to 1000 rpm.
- Integrated grinding wheel dresser.
- Rigid and accurate tailstock for high precision grinding.
- Cylindrical and groove grinding in same setup/machine.



+ TG 600 CNC

TOOL & CUTTER GRINDING MACHINE



The TG 600 CNC is the ultimate machine for heavy production of complex cutting tools. With its rigid design and powerful grinding spindle, tools up to 32mm can easily be ground from solid in one setup.

TG 600 FEATURES

- With its high flexibility, rigid design and high spindle power the TG 600 CNC is the perfect machine for heavy production and resharpener of cutting tools etc.
- Due to the turret design with up to 6 grinding spindles that can carry up to 4 grinding wheels on each it can grind complex tool geometries in one setup.
- The TG 600 CNC can be equipped with a robot loading system for increased productivity.



+ PG 700 CNC

HIGH PRECISION PROFILE CUTTER GRINDING MACHINE



The PG 700 CNC is specially designed for grinding of milling cutters, disc cutters etc with complex profiles. Due to kinematics of the axis layout with its rotating spindle complex profiles can be ground.

PG 700 FEATURES

- This machine has been designed and optimised for grinding of cutters for screw-pump and compressor rotors for all manufacturers within this industry.
- The machine has a built-in measuring function that not only saves time but also ensures a perfect result. It can grind very large tools up to 500 mm which is quite unique to Jungner.



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US 450 PRECISION

UNIVERSAL TOOL & CUTTER GRINDER

US 450 FEATURES

- Manual tool & cutter grinder with ergonomic design. High precision and ultra versatile when high demands are required.
- Spiral grinding
- Cylindrical grinding
- 3 axis digital readout,
- 0.002 mm resolution.
- Optical profile grinding
- Copy grinding
- Grinding wheel dressing
- Wet grinding



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SPECIFICATIONS

	TG 560 CNC	MG 560 CNC	TG 600 CNC	PG 700 CNC
X-axis (longitudinal slide)				
Stroke	560mm	560mm	600mm	700mm
Max speed	20000mm/min	10000mm/min	20000mm/min	15000mm/min
Resolution	0.0001mm	0.0001mm	0.0001mm	0.0001mm
Clamping surface	900x114mm	900x114mm	900x114mm	n/a
Y-axis (transverse slide)				
Stroke	300mm	300mm	300mm	300mm
Max speed	20000mm/min	10000mm/min	20000mm/min	15000mm/min
Resolution	0.0001mm	0.0001mm	0.0001mm	0.0001mm
Z-axis (vertical slide)				
Stroke	300mm	300mm	300mm	300mm
Max speed	15000mm/min	10000mm/min	15000mm/min	12000mm/min
Resolution	0.0001mm	0.0001mm	0.0001mm	0.0001mm
B-axis (indexing workhead)				
Centre height	165mm	165mm	165mm	255mm
Max tool diameter	300mm	300mm	300mm	500mm
Internal taper	ISO 50	ISO 50	ISO 50	HSK-100
Max speed	1000rpm	1000rpm	1000rpm	117rpm
Resolution	0.0001°	0.0001°	0.0001°	0.0001°
C-axis (5th axis)				
Max speed	35°/sec	35°/sec	35°/sec	35°/sec
Resolution	0.0001°	0.0001°	0.0001°	0.0001°
Grinding spindle				
Diameter standard	80mm	80mm	80mm	170mm
Spindle speed variable	0-12000rpm	0-12000rpm	0-12000rpm	0-25000rpm
Max grinding wheel diameter	200mm	200mm	250mm	300mm
Number of spindles	1	1	1-6	1
Power	16kW	16kW	11,0-18,5kW	43kW
Machine size				
Length	2270mm	2270mm	2270mm	2860mm
Width	2830mm	2830mm	2830mm	2830mm
Height	2170mm	2170mm	2170mm	2250mm
Weight	4500kg	4500kg	4700kg	5100kgg

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CNC SOFTWARE

INTUITIVE AND USER FRIENDLY

GRINDING SOFTWARE

Grinding software for the PG 700 CNC machine for reshaping and production of cutters for screw pump and compressor rotors. Operator friendly and easy to use GUI with 10 point 24" touch screen.

Import rotor profiles directly from CAD or from text files. The software measures the rake surface of each insert/tooth on the cutter and generates the finish cutter profile based on that to obtain the best possible result.



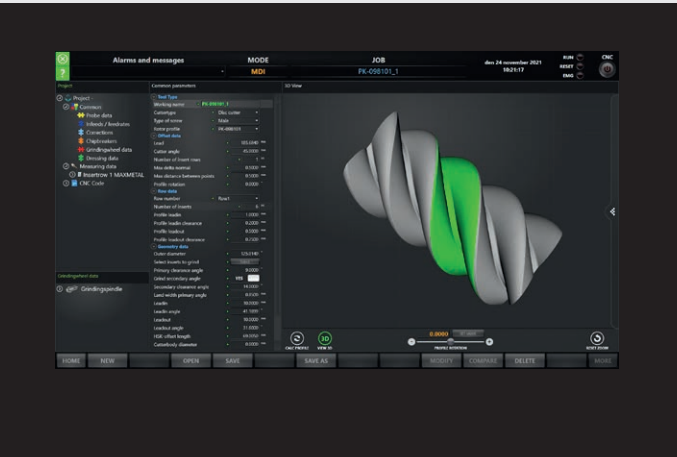
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PROBE



EXCEPTIONAL ACCURACY AND REPEATABILITY

With the built in extremely accurate Renishaw MP 250 probe, with proven silicon strain gauge technology and ultra-compact electronics, the PG 700 CNC removes the need for an external measuring system. And by measuring the tool before finish grinding and automatically compensate for deviations, the accuracy of the finished tool will be within 5 microns even on large cutters up to 500 mm.

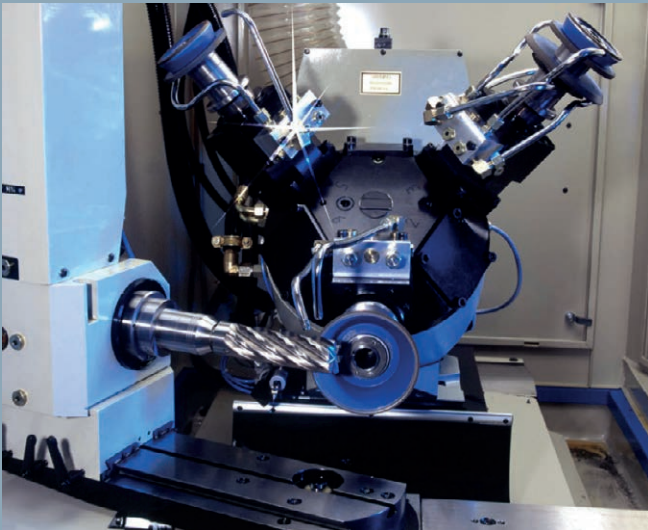


INNOVATION

Tailor-made software for sharpening and manufacturing of cutters for screw pump and compressor pump rotors. Programming becomes easy as both 2D and 3D graphics are provided.

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MULTI-SPINDLE WHEEL HEAD



SUITABLE FOR COMPLEX TOOLING

The multi spindle wheel head on the TG 600 CNC with 3 spindles (optional up to 6 spindles. Spindles can also be of high frequency type) makes grinding of complex tools, where several wheels are needed, simple.

Since up to 6 wheel-packages with 3-4 grinding wheels on each can be mounted at a time, most type of tools can be ground without the need for wheel setup. The cooling pipes come with the spindle; therefore, cooling can be optimally maximised. Indexing time less than 5 seconds.

INDUSTRIES

BESPOKE COMMISSIONED GRINDING MACHINES

TG 600 CNC WORM SCREW GRINDER



Danish gearbox manufacturer commissioned a bespoke machine to produce worm-screws for, gearboxes, gears, gear motors, transmission components etc. The machine was specifically designed and optimized for worm-screw production and fully automated with robot for loading and unloading of parts.

560 GDG GUN DRILL GRINDER



AUTOMOBILE INDUSTRY HIGH VOLUME, 24/7 PRODUCTION DEMAND

Custom built for the demands and challenges of high volume, 24 hour, 7 days a week production and resharpener of Gun Drills. Customer relied on Jungner to deliver a solution to keep their production rolling smoothly. Gun Drills are used for drilling in the engine blocks for both cars and trucks. Fully automated with robot for loading and unloading of parts.

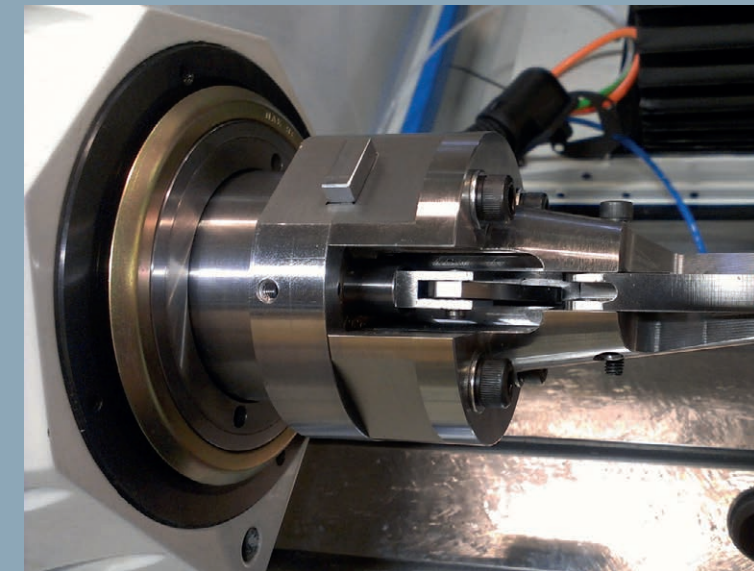


TG 600 CNC KNIFE GRINDER

Rubber gasket production plant. The challenge, high volume, unmanned operation

At a production plant in Denmark that produce rubber gaskets in high volume, 24/7, a Jungner TG 600 CNC works in an unmanned production process. Part of the process use small knives to cut the rubber gaskets. The demanding process consumes these knives in high volume.

Using the Jungner TG 600 CNC, the customer now produce their own knives to continuously feed their process, unmanned and fully automated with robot for loading and unloading of parts. The knife is small and complicated part to grind.



COMPRESSOR ROTOR TOOLING

High volume manufacturing of tooling for a compressor manufacturer in Sweden.

Tools ranging from 16 mm up to 500 mm in the same machine, all with automatic measuring and compensation for an optimal result.



ROTOR AND SCREW PUMP CUTTER GRINDING, SWEDEN

Grinding of rotor cutter with the newly developed PG 700 CNC

Probe with strain-gauged technology
Automatic measuring of tooth profile before and after grinding

01

MEDICAL

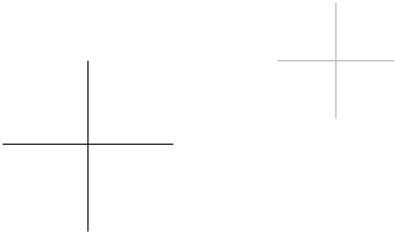
The Medical Industry have a specific set of manufacturing requirements unique for its industry and that provide components that are accurate, safe, and reliable. Jungner Grinding Machines deliver tight tolerances and dimensional stability to components for the Medical Industry. Our machines offer accuracy, reliability, and repeatability during short, long, and continuous production runs.



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AEROSPACE

As you would expect, the Aerospace industry requires stringent quality management at every level of the manufacturing process to ensure the components meet the standards and tolerances required. Jungner are proud to have Boeing, Motor Sich, Volvo Flygmotor and SAAB as clients from within this challenging industry.



HAND SCRAPING, A DYING ART

ATTENTION TO DETAIL AND LOST ART/SKILL

Hand scraping mated surfaces on a machine tool might seem a bit antiquated and many OEMs have abandoned it, citing the extra time and effort the operation requires as a hindrance. Jungner stands by its value, the craftsmanship involved and the benefits it provides can hardly be duplicated mechanically. The end result, a highly accurate machine.

Highly skilled
personnel



Clients from around the globe expect solutions and they usually contact us when all else has failed. We at Jungner invests in a highly skilled, specialist workforce to ensure our machines excel. Investing in our workforce ensures the challenges our clients face today, and tomorrow are covered by Jungner.



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