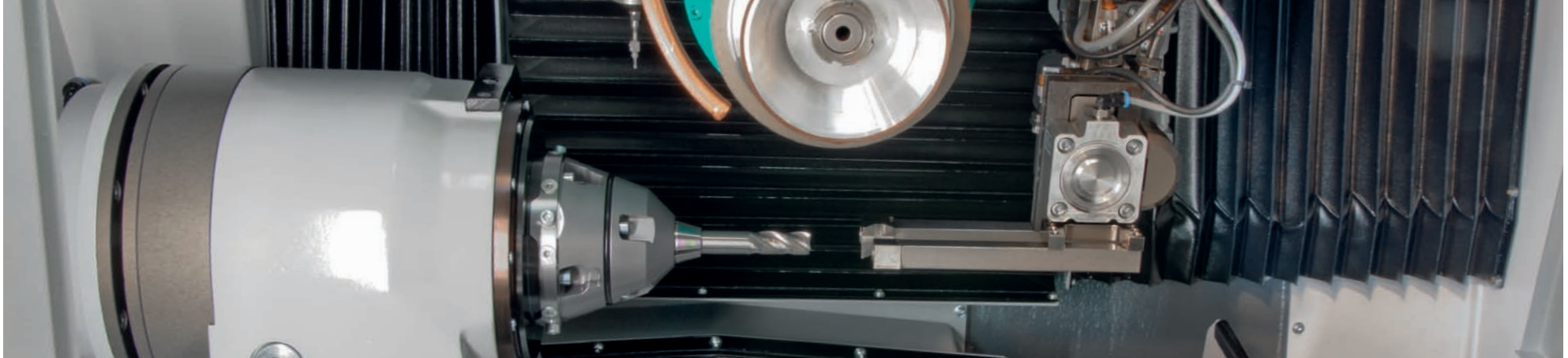


SCHNEEBERGER

aries NGP

truly sharp!





RIGHT SIZE FOR THE TOOLROOM

Comprehensive 5-axis performance with generous working envelope, high SCHNEEBERGER machine quality and stability, within the size of a tool cabinet! Ultra-compact design, 99 cm (39") wide with working envelope that makes complete 5-axis grinding of large and long tools possible. Most suitable for universal re-sharpening and production of small batches.

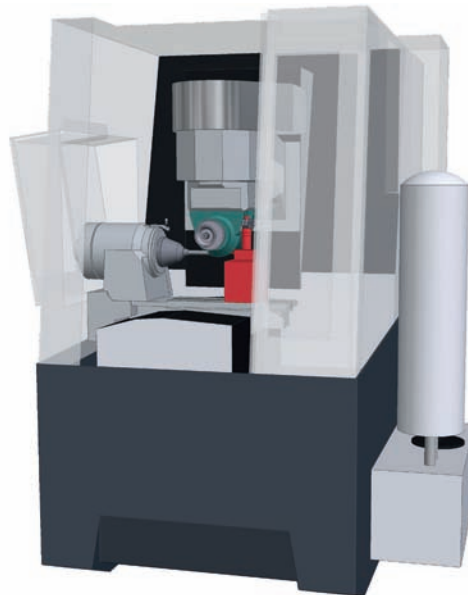


Long tools up to 250 mm (9.8")



Large diameters up to 250 mm (9.8")

Regrinding and production of long and large tools, diameters up to 250 mm and grinding length up to 250 mm, complete with end grinding. Use NTTE to access tools that are ready for grinding such as end mills, radius cutters, ballnose milling cutters, sine wave cutters, roughing cutters, profile cutters, staggered-tooth, T-slot cutters, prismatic milling cutter, high performance drills, step drills, reamers, engraving tools and much more.



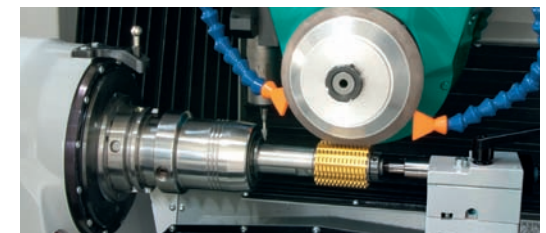
3D machine simulation

Kinematic simulation and collision checking of Quinto Qg1 provides safety. All of the machine's movements and elements are considered, including 3D probe, grinding wheels, tailstock, steady rest and fixturing. Operators' attention is drawn to incompatible components and he is supported in solution finding.



Small tools like burrs

aries NGP is the ideal machine for manufacturing burrs with profile, spiral curve and tooth topology in all conceivable types. A 3D solid model that is directly converted into the required dynamic 5-axis interpolation can be used as the entry. The diverse optimised grinding types provide maximum productivity and precision. Loading is done manually or automatically with the integrated tool loader.



Ultra-precision tools

ariesNGP tackles its grinding tasks with maximum precision: profile cutters, step drills with profile, hobs or bevel gear blades. It can handle any kind of materials: HSS, stellite, carbide, ceramic, PCD and sapphire. Fixturing devices that can be perfectly integrated are available for all types of tools.

COMPLETE OPTIONS

Accessories for expanding the range of applications and increasing productivity, all designed for optimal use of the compact **aries**NGP:

- Linear scale in all axes
- Tailstock, manual
- Steady rest, manual
- Collet chucks, arbors, insert holders
- Coolant filtration systems
- Mist collector
- CO2 extinguishing system



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Integrated Tool Loader

Flexible regrinding or production of shank tools, pallet with an area of 200 x 200 mm (7.9" x 7.9"). Easy management of various tool types per pallet, almost unlimited number of pallets in the program memory. Collet chucking system W20 or W25, high-precision adjustment.



User-friendly Control Unit

Intelligent menu-driven input via touch screen with the speed of a smartphone. Geometric data is calculated with maximum precision thanks to 3D models of tool, grinding wheels and machine, it naturally includes collision checking. The 3x series by Fanuc offers hardware with proven quality.



Grinding Spindle

Motor spindle with optimal torque for carbide or HSS tools. 5 kW (100%) to 7 kW (60%), HSK 50 on both sides. Liquid-cooled for optimum thermal stability.

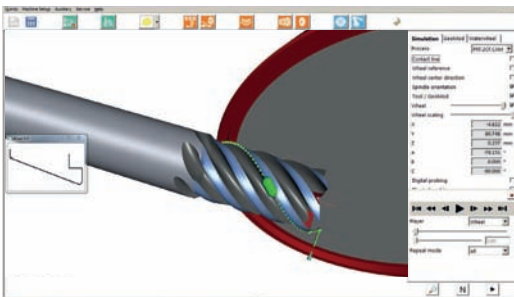


Coolant

The integrated filter system has a 200-litre tank and up to 5-bar coolant pressure. External or central systems can be connected through generously dimensioned interfaces.

Qg1 the CAD-CAM Grinding Software.

Quinto Qg1 offers interactive graphics right from the first entries. Tool parameters are converted into a solid 3D model that is simultaneously visible in the editor's graphics window. At the same time, a dimensioned drawing is also generated for checking. It shows, for instance, the profile of a step drill: all step lengths, diameters and angles. Using it couldn't be easier! Grinding path calculations are based on the 3D digital model. If necessary, the paths can be checked in the simulation, or specific process details can be adjusted in pathCreator.



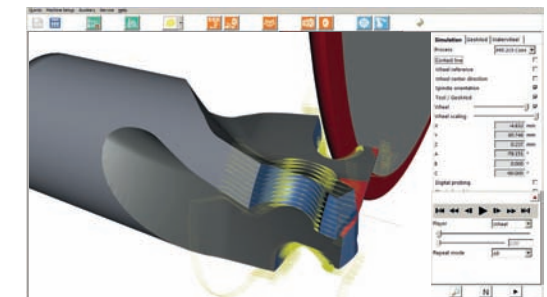
Software PERFORMANCE

The digital geometry definition in the CAD model makes the surfaces to be ground available for all grinding processes. Qg1 offers a choice of pre-programmed processes whose use depends on the desired surface-quality, the material to be ground or availability of wheels. The instantly realized grinding result is much more precise than with conventional programming that directly converts geometric parameters into machine movements. This makes production of small lots much more efficient.



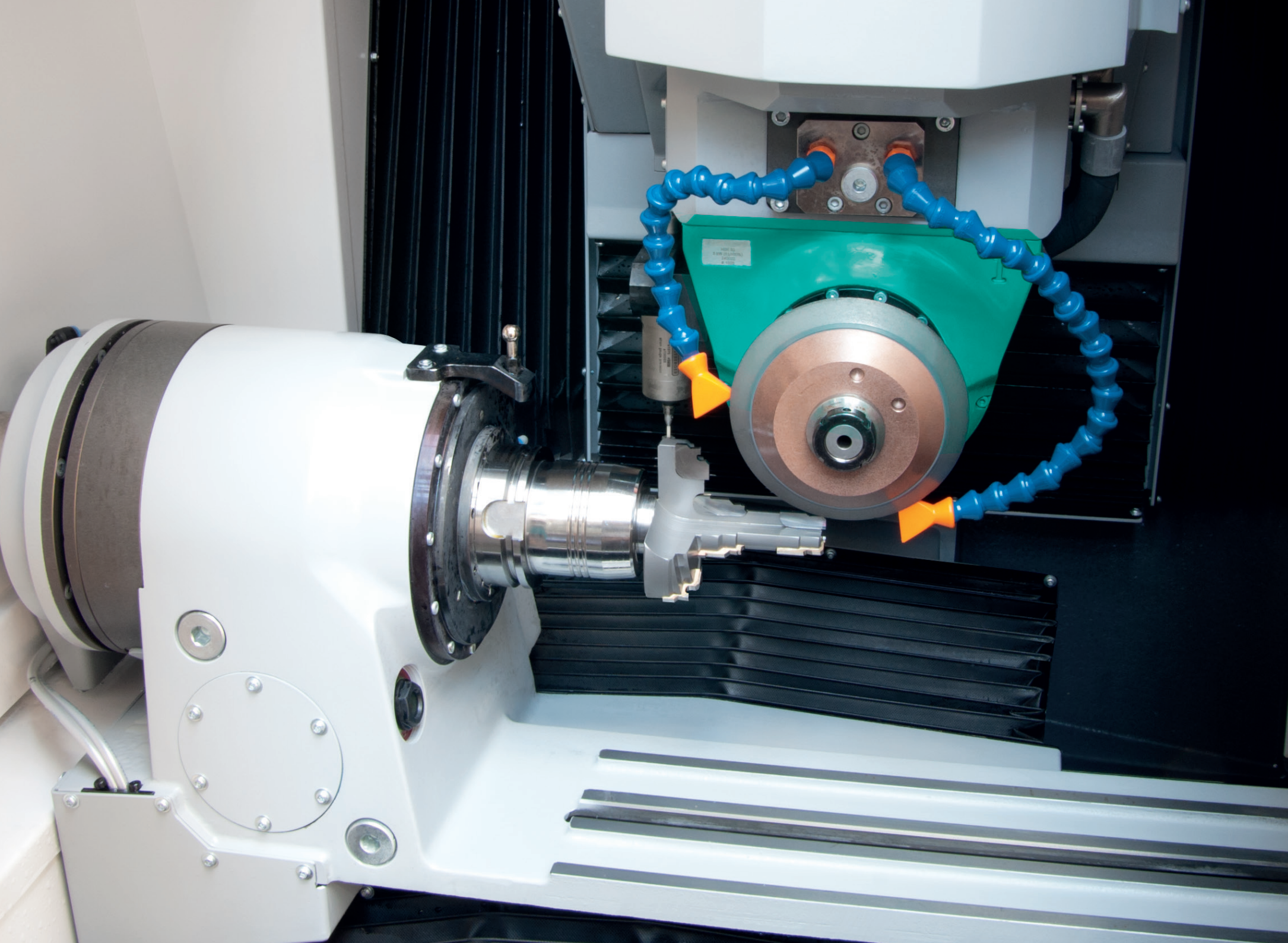
NTTE

Get the complete tool in just a few clicks. With the NTTE (New Tool Toogle Extractor), A finished grinding program is instantly established. E.g. for endmills: number of teeth, number of center cuts and tool diameter are all you need to define. The grinding processes, grinding paths and required wheel shape are automatically generated.



Profiling

Qg1 CAD-CAM allows free programming of profiling tools with a very wide variety of clearance-types. Appropriate grinding technologies are combined with the specific geometries. Qg1 works with any wheel shape, nominally from a database or parameter input, and just as well with the real measured profile.

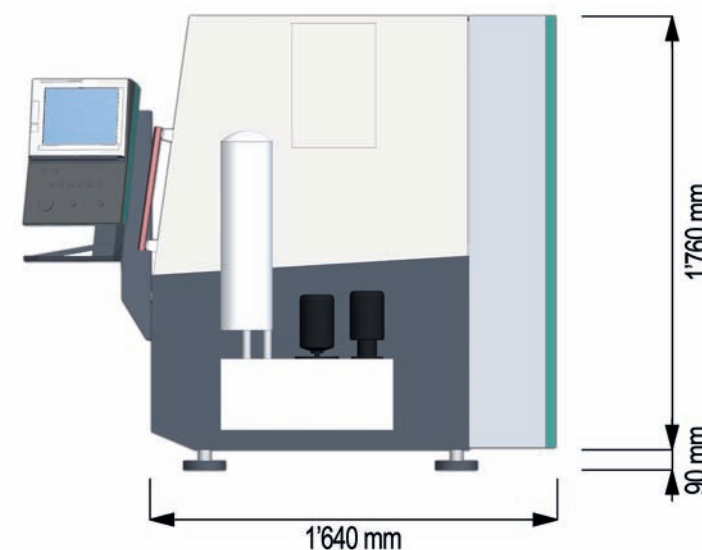


TECHNICAL DATA

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Axes:	X: 420 mm (16.5") , longitudinal axis, roller guideways, ball screw, resolution 50 nanometer Y: 360 mm (14.2") , cross slide, roller guideways, ball screw, resolution 50 nanometer Z: 260 mm (10.2") , vertical axis, roller guideways, ball screw, resolution 50 nanometer A: HSK 80 work holder, resolution 0.000045° C: 320° , rotation of the grinding head, resolution 0.000045°
Control Unit:	FANUC 3x Series, 5 controlled axes, 15" TFT colour monitor, touch-screen, USB 2.0
Grinding Head:	Double grinding spindle, direct drive, HSK 50, 5 kW (100%), 7 kW (60%), liquid-cooled
Loader option:	Integrated tool loader, tool pallet 200 x 200 mm (7.9" x 7.9")
Weight:	1'700 kg (3'747 lb)



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