

U-Grind : Specifications

LINEAR AXES		
X-axis	Cross movement of the tool attachment	420 mm (16.5")
Y-axis	Vertical movement of the motor spindle	250 mm (9.8")
Z-axis	Horizontal movement of the motor spindle	485 mm (19.1")
Rapid feed		15 m/min (590"/min)
Smallest increment		0.0001 mm (.000004")
ROTARY AXES		
B-axis	Pivoting of the motor spindle with torque-motor	340°
C-axis	Rotation of the tool cylindrical grinding	1000 rpm
Smallest increment		0.0001°
MOTOR SPINDLE		
Attachment		HSK 63F (50E)
Speed		500 - 12'000 rpm
Torque - Power		12.3 Nm - 10/12 kW (15 - 17 hp)
Grinding wheel diameter		150 mm (154 mm/6")
AUTOMATIC CHANGER OF THE GRINDING WHEELS		
6 stations for grinding wheel arbors		HSK 63F (50E)
TOOL ATTACHMENT C-AXIS		
Interface - Taper		SK 50 ISO
Collet chuck		BCR 32
Loosening of the collet chuck (spring set) pneumatic		6 bar (87 psi)
GRINDING CAPACITY [*Option]		
Tool Ø range production		3 to 24 mm (1/8" to .945")
		[*1 - 28 mm (.040" - 1.100")]
Tool Ø range resharpening		3 to 150 mm (1/8" to 6")
		[*200 mm (8")]
Tool length max.		500 mm (19.7")
Tool cutting length		max. 300 mm (11.8")
CNC-CONTROL NUM FLEXIUM		
Monitor		19"
Software		NUMROTO plus
LAYOUT / WEIGHT		
Length x Depth x Height		2330 x 2300 x 2150 mm (92" x 91" x 85")
Weight		~ 3300 kg (7300 lbs)
TOOL HANDLING (OPTION)		
Palette vertical for tools		18 x Ø 24 / 60 x Ø 3 mm (18 x Ø .945" / 60 x Ø 1/8")
Loading / unloading (pneumatic)		Double gripper

* Specifications are subject to change without notice

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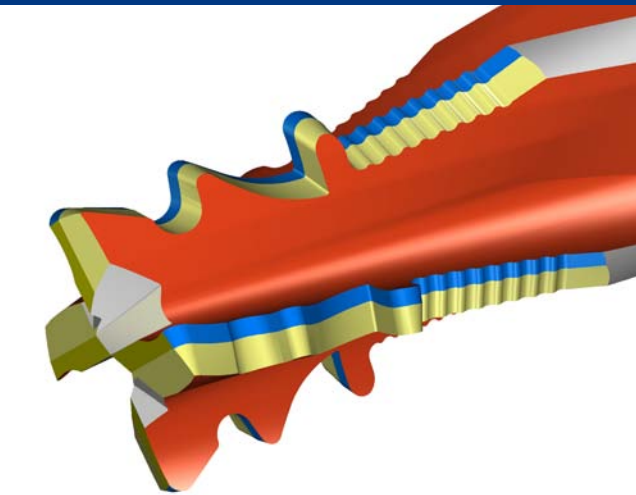
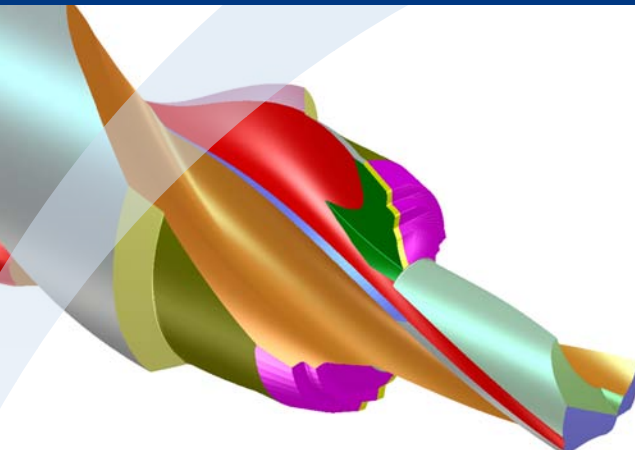
U-Grind



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U-Grind - Flexible grinding, designed for specialty tools, re-sharpening and short batch grinding of cutting tools



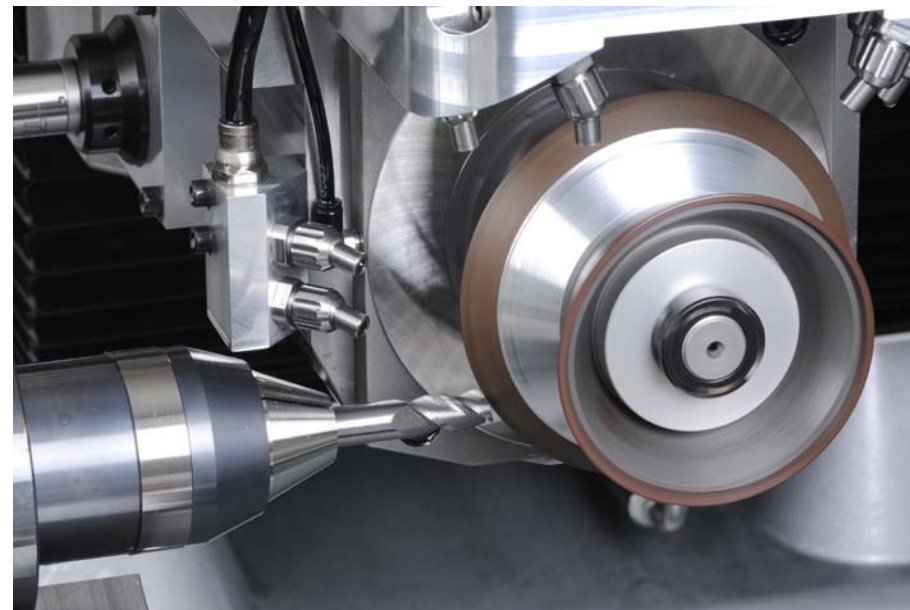
U-Grind - 5 axis CNC-Tool Grinding Machine with Integrated Wheel Changer

- Designed for specialty tools, re-sharpening and short batch grinding of cutting tools.
- Maximum flexibility for quick and easy machine setups. The powerful spindle motor allows for high feed rates even when fluting, while the torque motor on the B-axis provides rigid holding accuracy and guarantees stability during the grinding process.
- All axes are direct-drive, so the 5-axes system works free of backlash, offering greater precision. High structural rigidity and damping ensure smooth operation for the highest surface finish quality and tightest dimensional tolerances.
- Due to the flexibility of the machine, resharpening is an extremely economical process, allowing you to meet the highest demands in this competitive field.
- Flexible programming with NUMROTO Plus software and 3D simulation.

FLEXIBLE & RIGID

Large axes movements and a sizeable internal machine area allow for quick and straightforward setup and provide a comfortable working environment. High-torque and direct-drive axis control provide static and dynamic rigidity.

High stiffness and damping is achieved with an exclusive kinematic machine design which also facilitates minimal thermal expansion/contraction during setup and single-piece grinding. High resolution scales on all axes guarantee excellent accuracy and repetitiveness.



WHEEL CHANGER

The wheel changer is designed for 6 separate wheel packs with up to 3 grinding wheels per arbor to offer the highest programming flexibility. Wheel packs with different families of wheels can be loaded for mixed batch grinding or dissimilar materials such as carbide, HSS and stainless steel. If the stock removal is large, roughing/finishing and polishing wheels can be placed in different arbors.

Very easy access to the wheel changer from the side of the machine. Total wheel change takes no more than 15 seconds.



PRODUCTION & RESHARPENING

Simplified and very quick setup system makes U-Grind the best solution for grinding of specialty cutting tools and for resharpening. The workhead includes a collet quick-change system whereby the operator can simply press a button to release the collet. To simplify programming, the electronic probe can digitize certain geometries on the cutting tool. High power and torque on the grinding spindle allow for optimal feedrates when grinding into solid. The in-process measuring system provides process stability and consistent accuracy for batch grinding and for unattended operation.

NUMROTO PLUS

Software for grinding of specialty cutting tools and for resharpening. All programming menus are graphically supported and simplify the entering of individual parameters. The electronic probe can digitize certain features on an existing cutting tool and assist in generating the grinding program.

The 3D machine animation and collision control can detect and avoid any axes crashes.

A variety of software options offer optimal solutions for all applications. Strausak has been in cooperation with NUMROTO since more than 25 years.

