

Cylindrical Grinding Machine RS 50

For individual applications

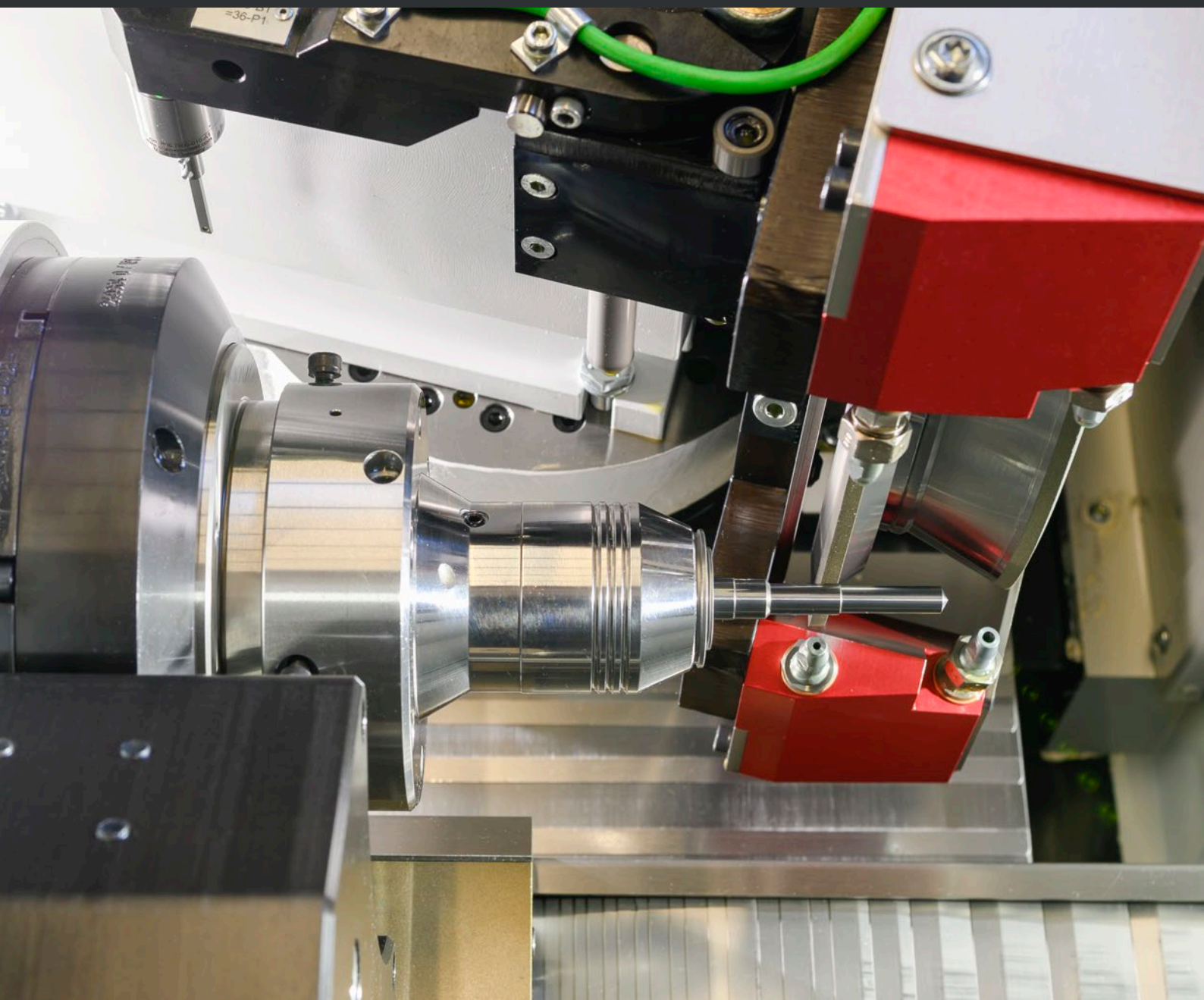


RS 50

Economical production of simple profiles
on cylindrical tool blanks made of tungsten carbide
and HSS.

Grinding unit

Swivelling. (+15° / +75°)

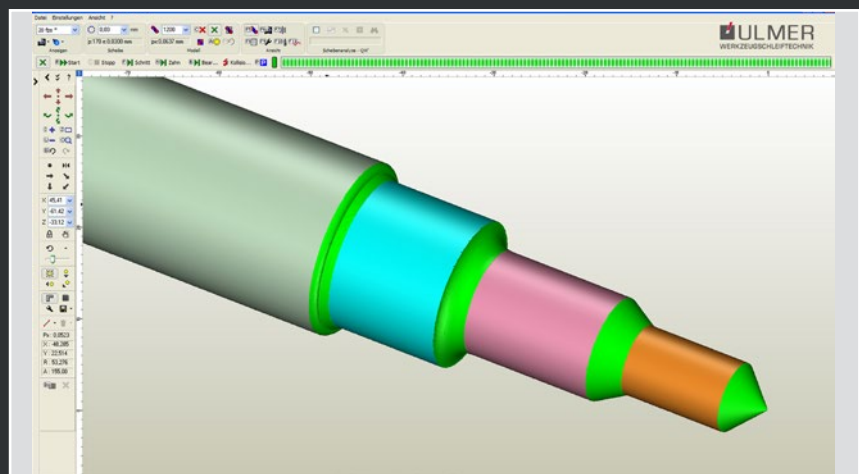


The advantages at a glance

- Generation of cylinder and cone surfaces in combination with points, chamfers, radii and steps.
- High accuracy contours via peel grinding.
- 3-axes kinematic.
- Grinding unit with liquid-cooled motor spindle and 80 degree positioning range.
- Two different grinding wheels on one flange.
- Chuck clamping only, various systems and sizes available.
- On-board-probe for tool position.
- Automatic loading systems available [options].
- CNC control NUM Flexium+ with powerful NUM DriveX and integrated safety structure NUM Safe.

NUMROTOplus®

Programming system with 3D-capability.



RS 50

Application & Equipment

Separate cycles for rough and fine machining with simple grinding wheel-shapes combine high process-performance and safe quality.

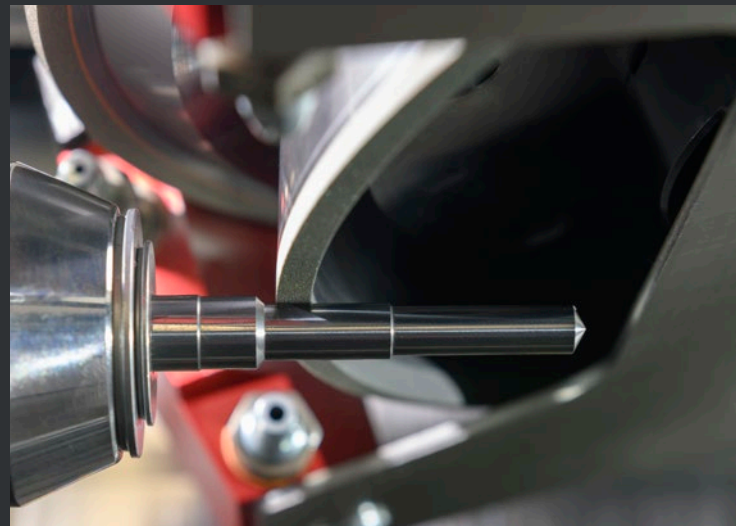
Rough-machining

High process-performance.



Fine-machining

Safe quality.



Swivelling grinding unit

Front taper 3°, Back taper 10°.

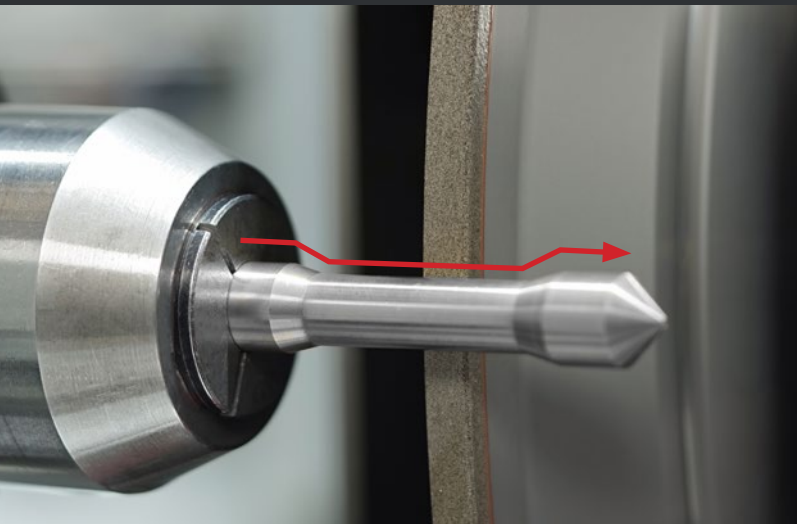


Easy setup with simple grinding wheel-shapes:

- Manufacturing of numerous product-specific geometries.
- Quick changeover from rough to fine machining.
- Convenient conditioning of the grinding wheels.

Contour / Peelgrinding

Precise machining of slender workpieces with less cutting force due to small contact zone.



Steady Rest (optional)

Precise support during grinding.



Measuring unit

In-process measuring system with automatic compensation.



Dressing

Grinding wheel dressing right inside the machine reduces auxiliary times.



RS 50

Individual capacities and fast changover times guarantee optimized processing of single piece and small series.

Manual loading

Easy set-up and workpiece changover outside of the workspace.



Automatic loading

Reliable changeover of workpieces.



Robot automation

Loading device

Storage capacity up to four pallets.

Capacity (example):

Shank diameter 10 mm → 450 pieces.



RS 50

Technical Details

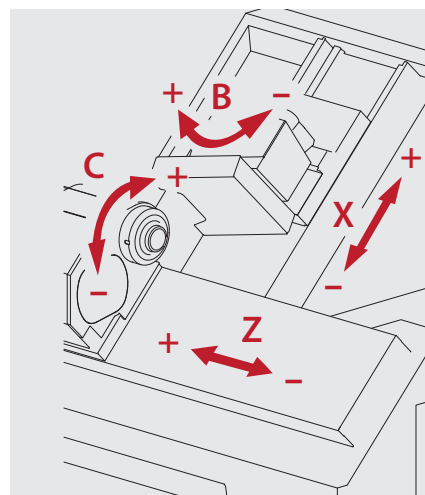
Technical Data RS 50

Travels of axes	X-axis	220 mm
	Z-axis	900 mm
	B-axis (optional)	0 / +80°
Resolution	X-axis	0.0001 mm
	Z-axis	0.0001 mm
	C-axis	0.001°
Axis drives	X-axis	2.4 kN
	Z-axis	2.4 kN
	Rapid travel speeds X / Z	30 / 30 / m/min
Grinding spindle	Motorized spindle	Ø 170 x 370 mm
	Power S6 _{60%}	14 kW
	Speed infinitely	1,000 to 7,500 min ⁻¹ / 250 Hz
	Torque const.	27 Nm up to 5,000 min ⁻¹
	Grinding wheel Ø max.	350 mm
Workpiece spindle (C-axis)	Cutting speed	<140 m/s
	Internal taper	REINECKER standard
	Speed max.	3,000 min ⁻¹
Machine	Torque max.	22 Nm
	Total connected load	24 kVA
	Supply voltage / frequency	400 V / 50 Hz
	Dimensions W x L x H	2,420 x 2,130 x 1,800 mm
	Weight	approx. 5.5 t

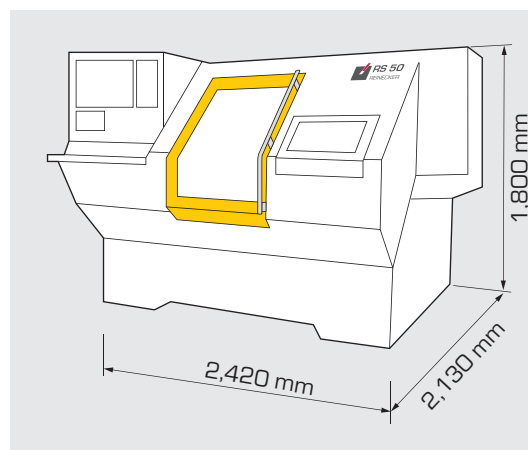
Workpiece dimensions

Manual loading	Ø max.	50 mm
	Length max.	460 mm
	Weight max.	2.5 kg
Workpiece automation (robot)	Ø max.	32 mm
	Length max.	460 mm
	Weight max.	2.5 kg

Kinematic



Dimensions [in mm]



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