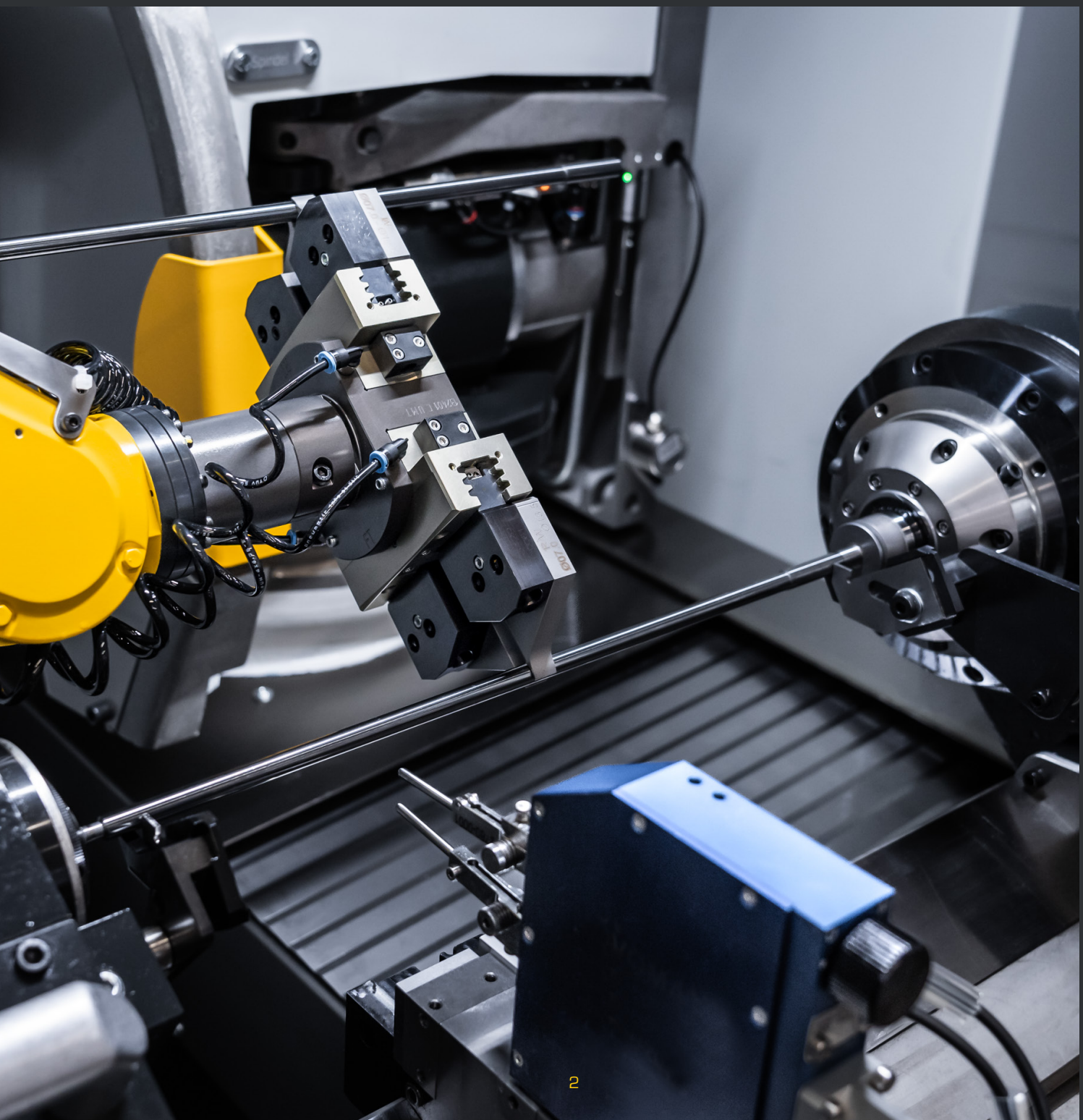
ULMER
WERKZEUGSCHLEIFTECHNIK

Cylindrical Grinding Machine RS 800

For Efficiency and Economy

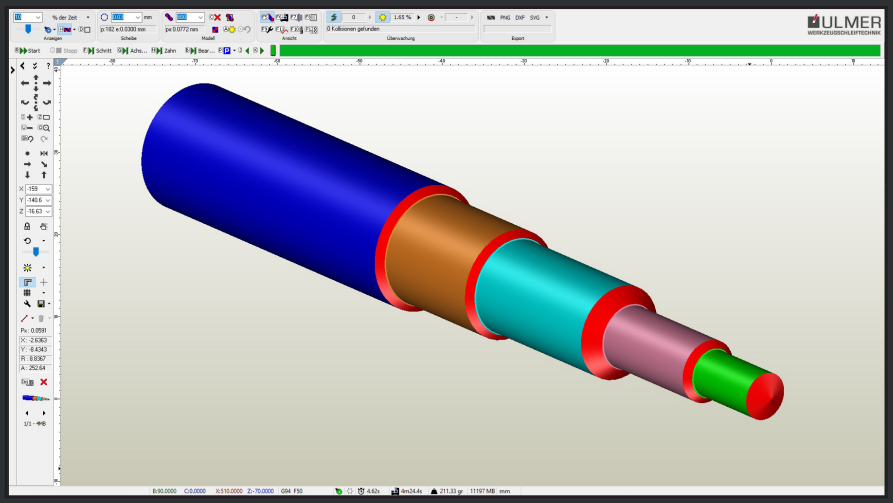
RS 800 – High cutting performance and safe processes

Flexible machining of solid carbide and HSS tool blanks and parts, utilizing contour peel grinding and plunge grinding.



The advantages at a glance

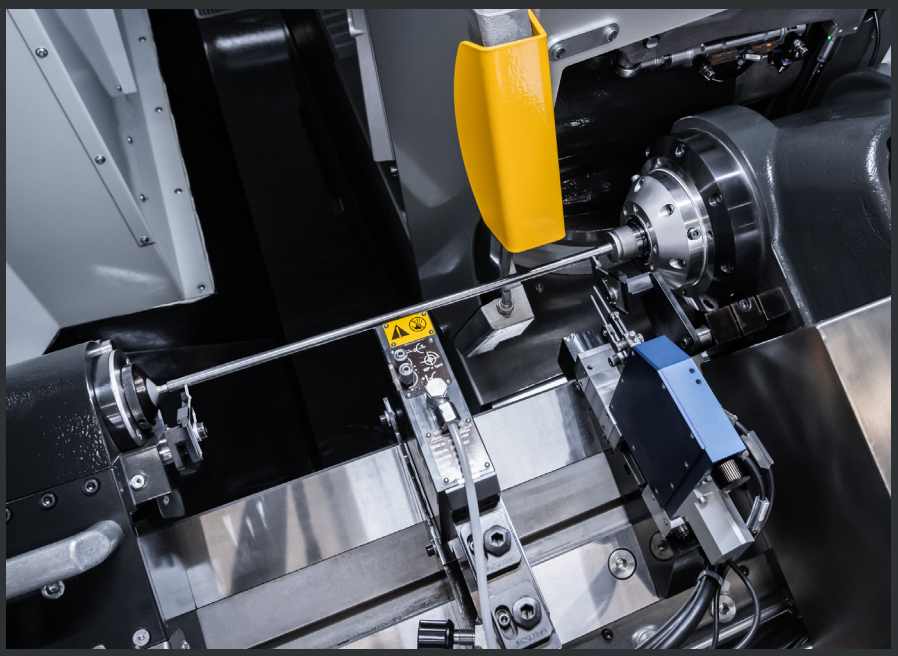
- **Reliable results:** Polymer concrete machine base for optimum vibration damping, excellent rigidity, thermal stability, and efficient chip removal flow.
- **Process-optimized systems:** Grinding unit with 400 mm wheel diameter, optional tail-stock spindle drive and automatic balancing system.
- **High powered grinding:** Two liquid-cooled motor grinding spindles enable roughing and finishing operations of the highest quality in one setup.
- **Long autonomy periods:** Workpiece automation with expandable loader capacity.
- **Customized solutions:** Different workpiece clamping systems offer a maximum of possibilities with short setup times. Machining of chuck parts (flying) and slender parts between centers.
- **Ergonomics for maintenance and service:** Easy, fast maintenance and repair due to good accessibility to service-relevant areas.
- **Innovative design:** Integrated operating status light in the front for far away quick recognition of operating statuses.
- **Up-to-date security:** Operating mode selector switch with RFID-coded recognition of users and their authorization, as well as integrated NUM-Safe safety architecture.
- **User-friendly operation:** Height-adjustable control panel with 24“ multi-touch screen and NUMROTOplus® programming system with 3D simulation and collision detection.
- **NUM Flexium+:** CNC control with powerful NUM DriveX drives.



NUMROTO*plus*®
Programming system
with 3D-capability

RS 800
Application and Equipment

The dynamic interaction of all components ensures optimized processes, precision and dimensional stability.

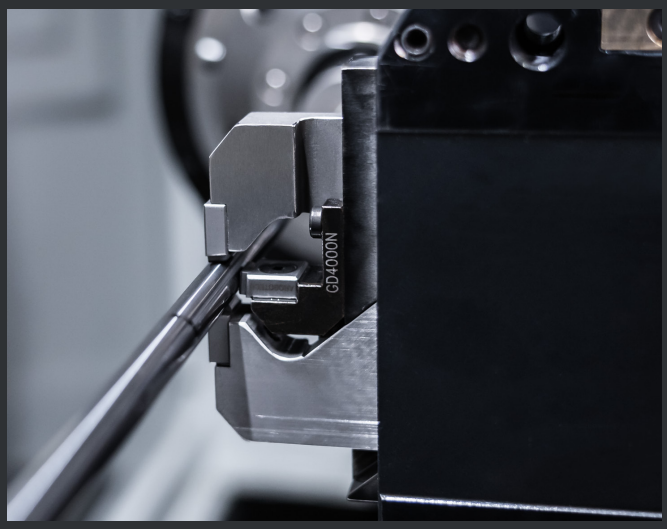


Grinding between centers

- Tail stock for various workpiece dimensions.
- Center pressure is generated from the workpiece spindle.
- Synchronous drive of the tail-stock spindle optional.

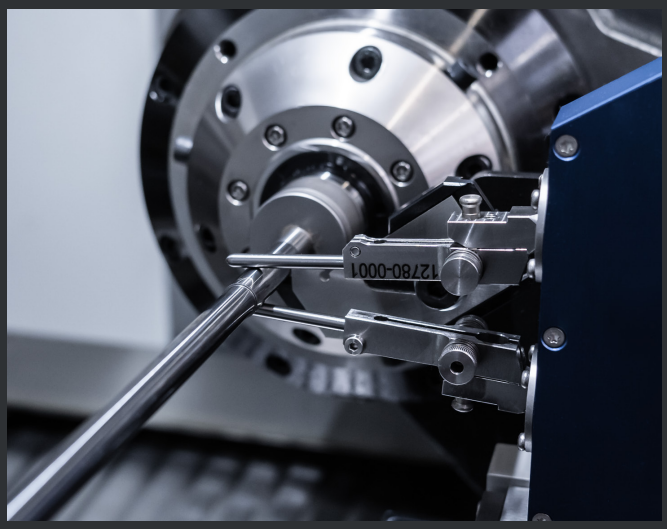
Steady Rest

Reliable support during the whole grinding process.



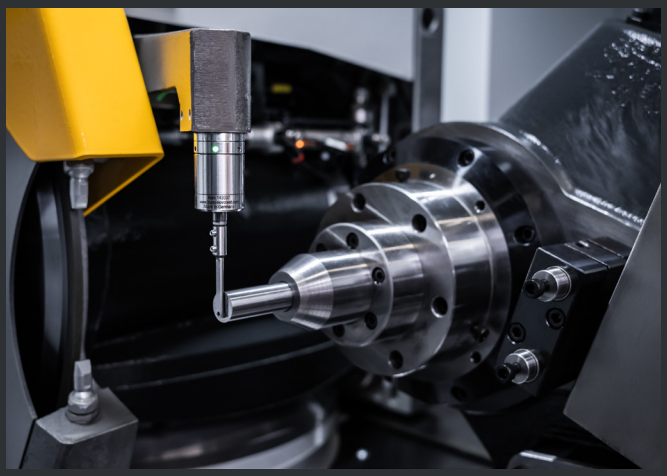
Measuring Unit

Close-to-process measuring with automatic compensation.



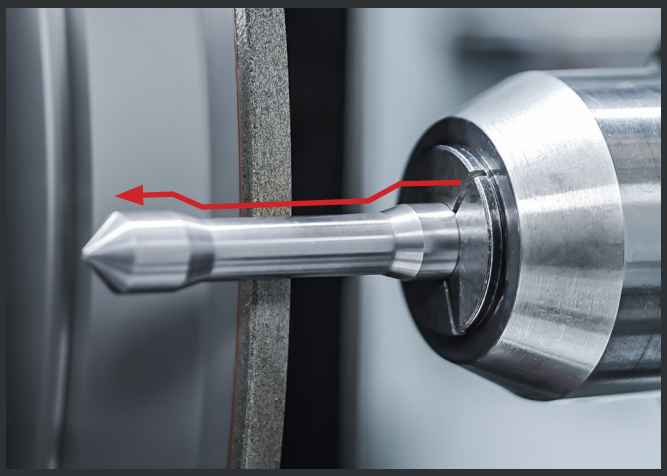
Swivelling Probe

Precise automatic detection of the axial workpiece position.



Contour / Peelgrinding

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

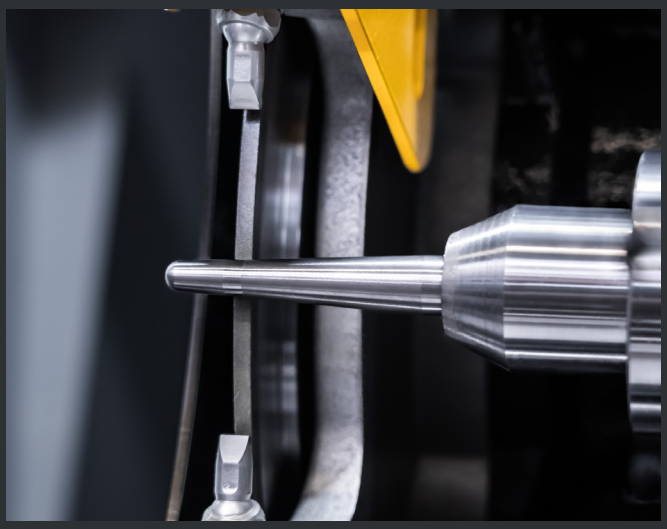


Dressing

Sharpening and forming of both grinding wheels in one process directly in the machine.

Optional Swivelling Grinding Unit

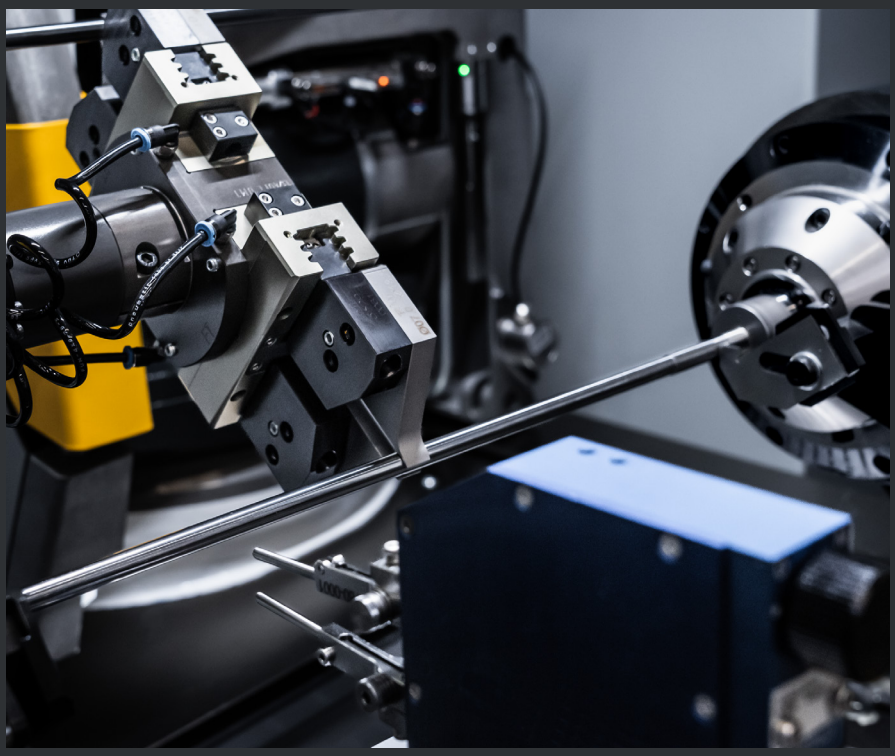
- Front taper 3°
- Back taper 30°

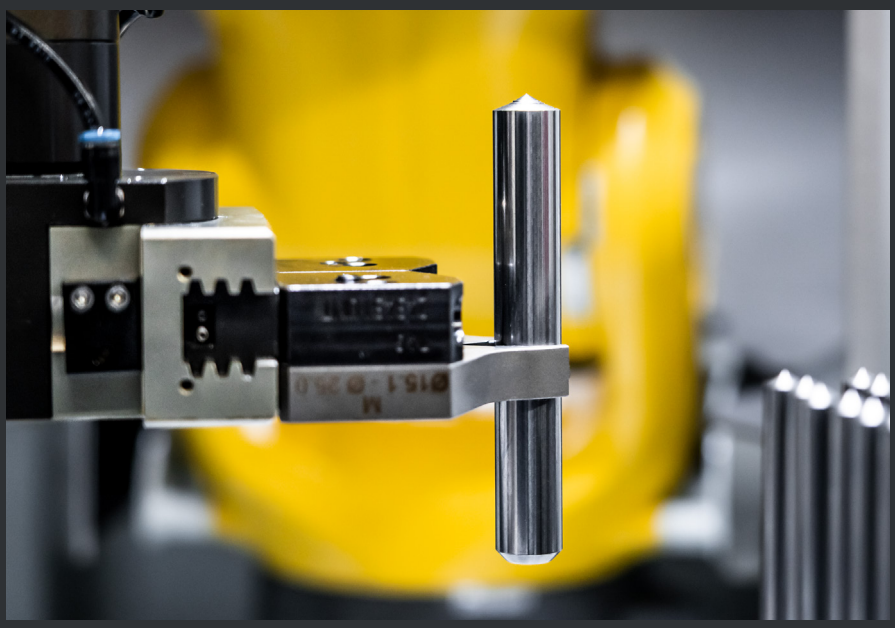


RS 800
Workpiece Automation

Robot Automation

Simple set-up and efficient changeover of workpieces, even in hydraulic chucks.

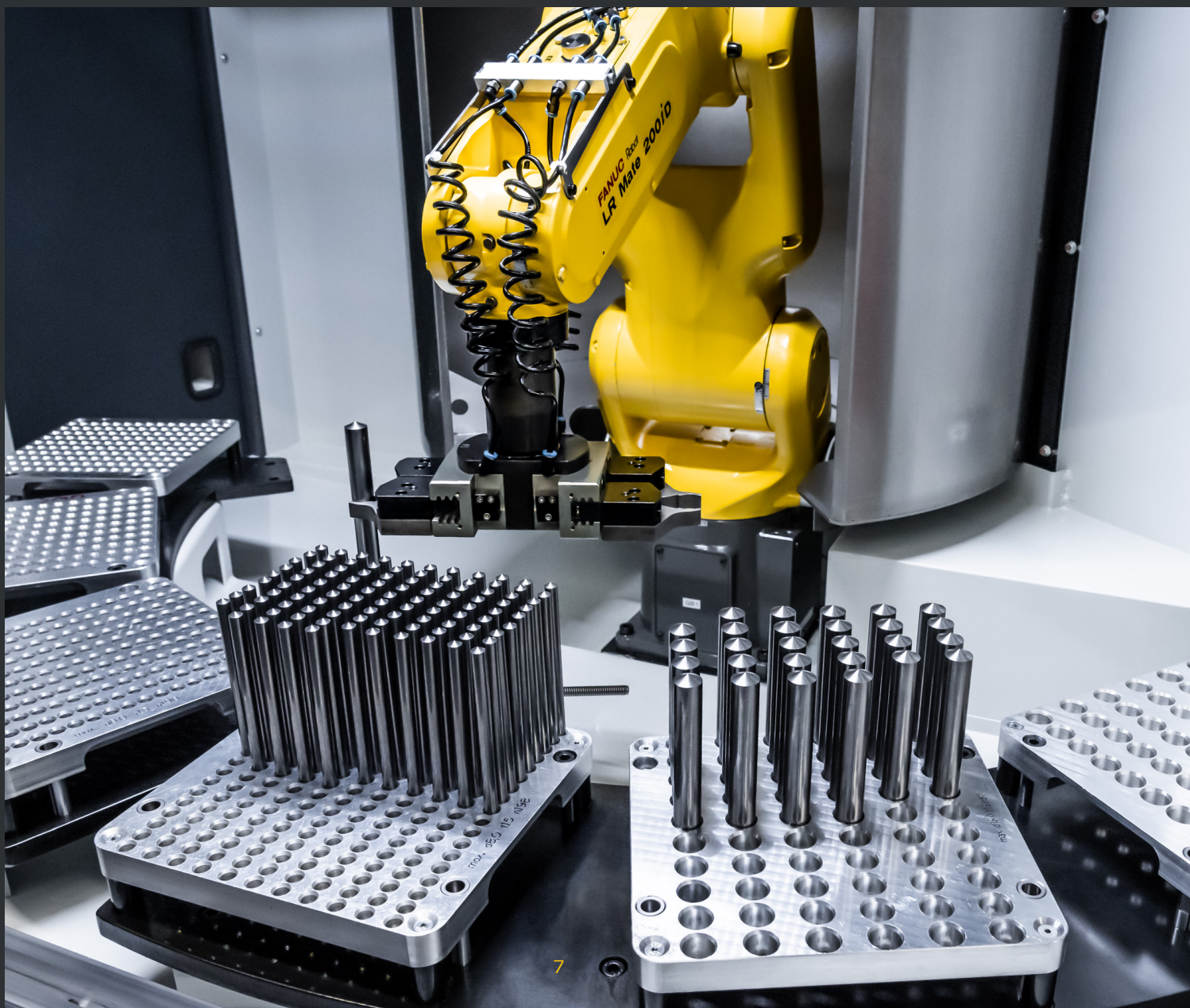




Loading Device

High capacity and fast changeover times provide efficient processing of large batch sizes.

- Capacity shank diameter 6 mm up to 1920 pieces
- Capacity shank diameter 20 mm up to 360 pieces



RS 800
Technical Details

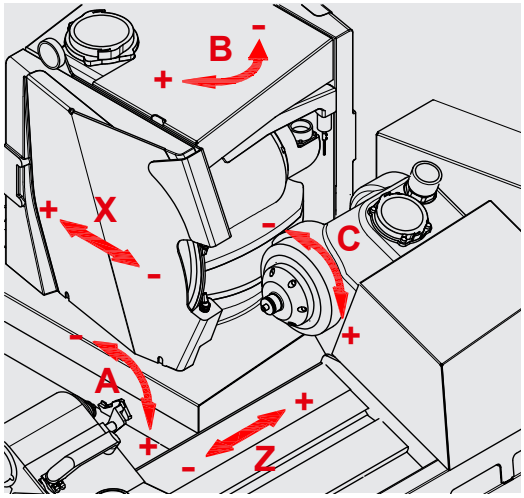
Technical Data RS 800

Travels of axes	X-axis	319 mm
	Z-axis	730 mm
	B-axis	-195° / +95°
	C-axis	n x 360°
	A-axis (option)	n x 360° (synchronous C)
Resolution	X, Z-axis	0.0001 mm
	B-axis	0.0001°
	C-axis	0.001°
	A-axis (option)	0.001°
Axis drives	X, Z-Achse	5 kN
	Rapid travel speed X/Z	15 / 30 m/min
Grinding spindle	Motorized spindle	Ø 164 x 450 mm
	Nominal power	11 kW
	Peak power	17 kW
	Speed infinitely	up to 6,500 min^{-1}
	Torque const. $S6_{60\%}$	20 Nm to 5,500 min^{-1}
	Grinding wheel Ø max.	400 mm
	Tool holder	HSK-E80
	Cutting speed	<140 m/s
Workpiece spindle	Interface attachment	REINECKER Standard
	Speed max.	3,000 min
	Torque max.	22 Nm
Machine	Total connected load	27 kVA
	Supply voltage / frequency	400 V / 50 Hz
	Dimensions W x L x H	3,000 x 2,400 x 2,200 mm
	Weight	ca. 6,7 t

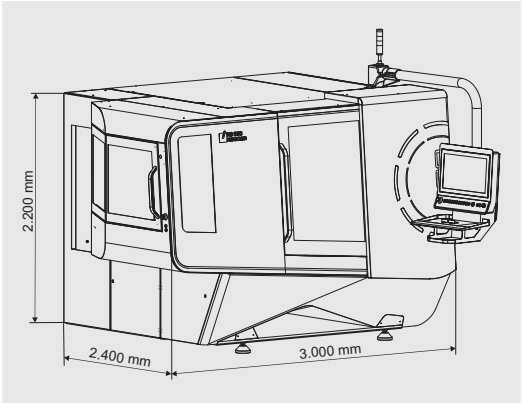
Machining

Manual loading	Ø max.	100 (200) mm
	Length max.	700 / 500 mm
	Weight max.	20 kg
Workpiece automation	Ø max.	32 mm
	Length max.	480 mm
	Weight max.	2.5 kg

Kinematic



Dimensions [in mm]



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