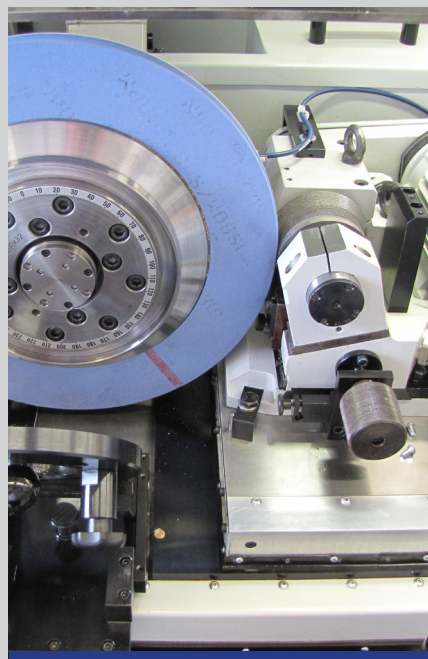


RGB 25



TECHNICAL DATA:

Workpiece diameter	M3 - M27	
Grinding length	200	mm
Clamping length	30 - 220	mm
Lead angle	0° bis +6°	rh
Relief	0,05 - 0,4	mm
Relief frequency max.	70 (100)	Hz
Wheel diameter	280 - 400	mm
Grinding wheel bore	160	mm
Wheel width	8 - 40	mm
Wheel drive	11	kW
Cutting speed max.	80	m/s
Workpiece speed	10 - 1500	rpm

(technical changes reserved)

PRODUCT INFORMATION

The **RGB 25** is a fully automated thread-cutting tap grinding machine, which has been specially developed for the mass production of standard thread-cutting taps with straight or spiral flutes as well as forming taps. (basis: Reishauer thread grinding machine type RGB)

It employs the proven design of a solid machine basis that can be expanded with additional functions and offers high productivity and precision.

The machine is equipped with the latest drive and control technology (digital servo drives: Siemens, precision length measuring systems: Heidenhain). Thanks to the workpiece-specific user interface by SMS (HMI), the CNC control system (Siemens 840D sl) can easily be programmed by the operator in the dialogue system and ensures setup times.

The machine body made of polymer concrete combines the advantages of high rigidity, heat stability and exceptional damping characteristics.

The optional W-axis enables flexible 2-axis CNC dressing of the chamfer section.

The use of set rolls for the thread and chamfer makes it possible to grind both, the thread as well as the chamfer in a single setup.

The grinding wheel is automatically profiled in programmed cycles. The grinding wheel and flange are balanced with the help of a balancing unit integrated in the spindle.

The workpieces are picked up between centres. The work drive is implemented by a hydraulic clamping chuck or a driver insert on the square.

For the relief movement, cutting-edge linear motor technology is used. The lifting movement is precisely synchronized with the other axes by the CNC control system, which enables very high speeds and relief strokes. In combination with the high-speed technology used on this machine, this guarantees exceptional productivity with very short cycle times.

The use of a 6-axis FANUC robot, equipped with multiple pallet station (raw/finished part), allows very short workpiece change times with maximum flexibility

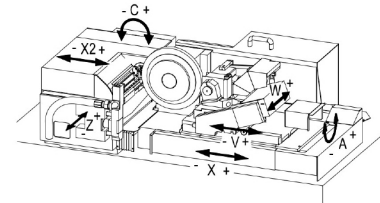
Available Options:

- Electro hydraulic loader system (reconditioned) instead of robot loading
- Mechanical relief motion with replaceable relief cams (reconditioned) instead of modern linear motor technology
- Second dressing axis (W-axis) for programmable and flexible dressing (chamfer)

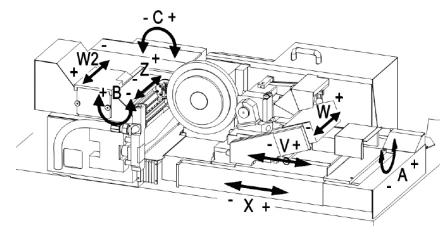
The machine is equipped with 5 to 7 CNC axes:

Workpiece drive	(C-axis)
Workpiece slide	(Z-axis)
Relief unit (linear motor)	(X2-axis)
Grinding support	(X-axis)
Dressing axis radial	(V-axis)
Dressing axis axial (optional)	(W-axis)

Swiveling axis is manually adjusted (A-axis)



Alternative (instead of linear motor, X2-axis) (B-axis)
Stroke curve drive (W2-axis)
Stroke curve adjustment



Machining example: cutting tap M24

Lead p:	3.0 mm
Thread length:	35 mm
Number of flutes:	3 (spiral)
Flute angle:	38.5°
Dressing (multi-rib):	Diamond profile roll
Cycle time:	130 sec. (thread + chamfer)



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