



For regrinding twist drills, end mills, taps, reamers, countersinks, both in HSS and carbide

CNC regrinding of the cutting tools has always been a prerogative of specialised companies or of users with a large number of tools justifying the huge investment required to carry out these operations.

MAC 20 4-axis CNC tool grinding machine has been designed for all the companies willing to sharpen their cutting tools by themselves, in an easy and accurate way, and at a quite low cost. MAC 20 does not require skilled manpower or special knowledge in the sharpening field.

Through a precision electronic probe, MAC 20 automatically positions the tool to be sharpened according to the programming software indications: each single tool program can be stored inside a special library to be then recalled for another sharpening cycle.



for regrinding twist drills, end mills, taps, reamers, countersinks and engraving tools, both in HSS and Carbide.

PARAMETRIC TOOL PROGRAMMING SOFTWARE WITH 3D GRAPHIC INTERFACE

Sharpening parameters can be easily edited based on tool geometry



DRILLS

Plane or conical relief sharpening with straight or radius-type core thinning, positive or negative.



END MILLS

End mill sharpening with 2-3-4 cutting edges with regular or uneven division, with the possibility of square or corner chamfer.

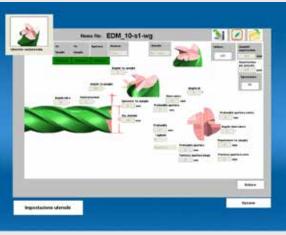
Ball nose with 2 flutes.

Outer diameter sharpening with first and second rake

Shank grinding

End shortening







TAPS

Chamfer sharpening with 2-3-4-5-6 cutting edges, with straight and helix flutes

End shortening



REAMERS

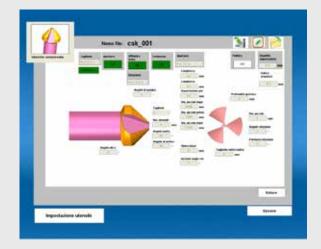
Chamfer sharpening with 3-4-6-8 cutting edges

End shortening



COUNTERSINKS

Conical relief sharpening and gashing
End shortening



ENGRAVING TOOLS

Tip sharpening and single-lip chisel angle

SUPPLIED ACCESSORIES

Collet holder spindle and precision collets for 3 to 20 mm sharpening

Programming software for:
HSS and Carbide twist drill sharpening
HSS and Carbide square end mills with 2-3-4
flutes (head only) sharpening
Tap sharpening (chamfer only)
Countersink sharpening
Reamer sharpening (chamfer only)
Engraving tools sharpening and production
End mills shank grinding and O.D. grinding

Diamond grinding wheel for Carbide drills sharpening

Diamond grinding wheel for Carbide end mills sharpening

Diamond grinding wheel for Carbide End mills shank grinding and O.D. grinding

TECHNICAL DATA

- Tool Ø 3 to 20 mm
- Maximum and minimum tool length 35 - 200 mm
- Grinding wheel motor power 1 HP
- Grinding wheel motor speed 4200 rpm.
- Stepper motors with screws and precision guides
- X-axis travel 300 mm
- Y-axis travel 130 mm
- C-axis travel -5° 180°
- A-axis travel ∞
- Electronic probe for tool detection and automatic positioning, with run out checking
- PC with 15" colour display unit
- Oil-tight casing with Lexan glass and sliding door for tool loading/unloading operations, with door lock
- Internal light
- 3-colour signalling lamp
- Weight 300 kg
- Dimensions 900x900x1560 mm



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