

IDEAL

PROFESSIONAL TOOL GRINDER

IDEAL



6 AXES CNC TOOL GRINDING MACHINES

Conical relief with S -splitting
U-splitting
4-facett with S-splitting



4-facett with X-splitting
NC.drills
Counteringdrill 3 Flutes



Stepdrill conical relief with
S splitting
Stepdrill 4-facett with S splitting
Endmill 2 Flutes



Ballnose endmill 2 Flutes
Endmill 3 Flutes
Endmill 4 Flutes



Endmill uneven index
Corner radius Endmill
Endmill 8 Flutes



Endmill 6 Flutes
Taps
Reamer





6 AXES CNC TOOL GRINDING MACHINE

Machine for regrinding drills with the most common geometries, End Mills with Square, Ball Nose and Corner Radius geometry, in HSS or Carbide

PROFESSIONAL TOOL GRINDER



6 AXES CNC TOOL GRINDING MACHINE

Machine for production and regrinding drills with the most common geometries, End Mills with Square, Ball Nose and Corner Radius geometry, in HSS or Carbide

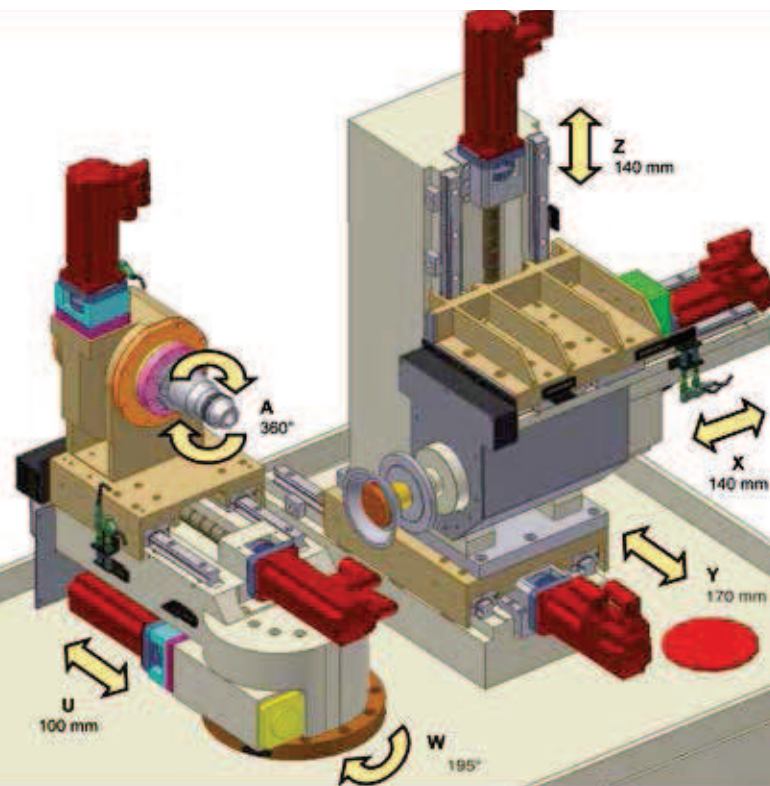


With a base and column in granite, the grinding machines IDEAL and IDEAL PRO, in little more than a square meter, give you all the necessary technology to reproduce the increasingly complex geometries, which all the modern tools require.

- Drills in HSS or Carbide with the most modern and widespread cutting geometries
- Step drills
- End Mills from 1 to 8 flutes HSS or Carbide with square end, ball nose or corner radius with equal and unequal division and helix
- Taps from 2 to 8 cutting edges Chamfer and flute polishing
- Reamers



SPINDLE POWER 1,5 KW OR 3,2 KW WITH POSSIBILITY TO MOUNT UP TO 3 GRINDING WHEELS



AXES TRAVEL

LINEAR AXES

X AXIS, WHEEL HEAD LONGITUDINAL STROKE	140 MM
Z AXIS, WHEEL HEAD VERTICAL STROKE	140 MM
Y AXIS, WHEEL HEAD CROSS STROKE	170 MM
U AXIS, WORKHEAD LONGITUDINAL STROKE	100 MM

ROTARY AXES

A axis, workhead spindle rotation	∞
W axis, rotary table swivel	195°

AXES RESOLUTION

Linear axes resolution	0,001 mm
Rotary axes resolution	0,001°
Linear axes maximum feedrate	15 m/min
Rotary axes maximum speed	30 rpm

The kinematics of IDEAL is composed of 4 linear and 2 rotary axes assembled in two clearly defined areas of the machine base. Linear axes X, Y, Z are assembled on a solid granite column, while workhead unit A is assembled on rotary axis W,

which contains linear positioning axis U. Linear axis U has been designed to make ball nose or corner radius grinding :U axis positions the center of the tool radius in the center of rotation of W axis.

SOFTWARE AND CONTROL

The machines are equipped with a 15" Touch Screen with the software integrated on the FANUC 31i B5 control, which make simple to control the machine, take references from axes or even control the axis movement and actual work directly on the same interface.

Simple and intuitive interface with drawings in any input make it suitable even for operators without and knowledge about tools, it's enough to visually identify the tool to be sharp, look for the drawing in the library and click "start".

Any package of software comes with a preset library where the tools can be created with the most common and useful parameters, years of experience allow us to create the tool for you.

But if you have your special request you will be able to create your own library (My Sharpening®) base on your own experience, some basic data of the tool can be changed in order to improve and personalize your tools, once you create your tool you will keep it in your library and will be possible to use it for any tool diameter you want to grind with this data.

CNC CONTROL FANUC 31i B5

Simultaneous interpolation 4/5 axes

USB 2.0 port interface for PC communication

15" Touch screen colour display unit

WINDOWS XP operative System

Fully open programming in ISO standard



SOFTWARE PACKAGES



EASY SOFTWARE

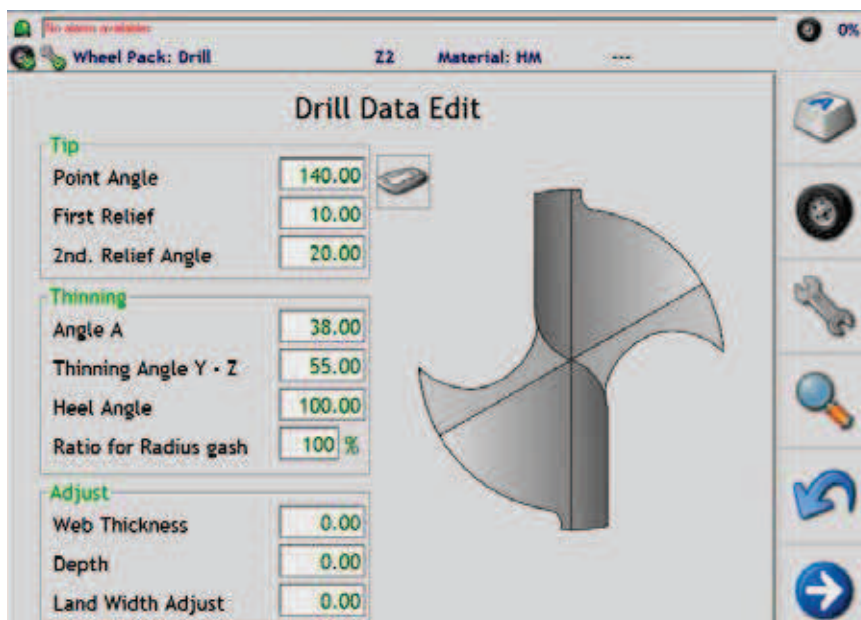
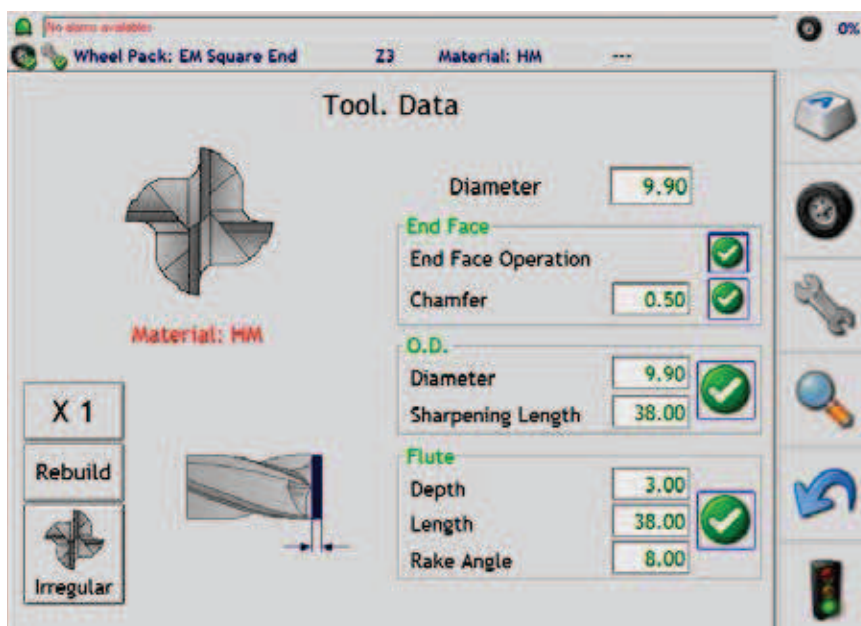
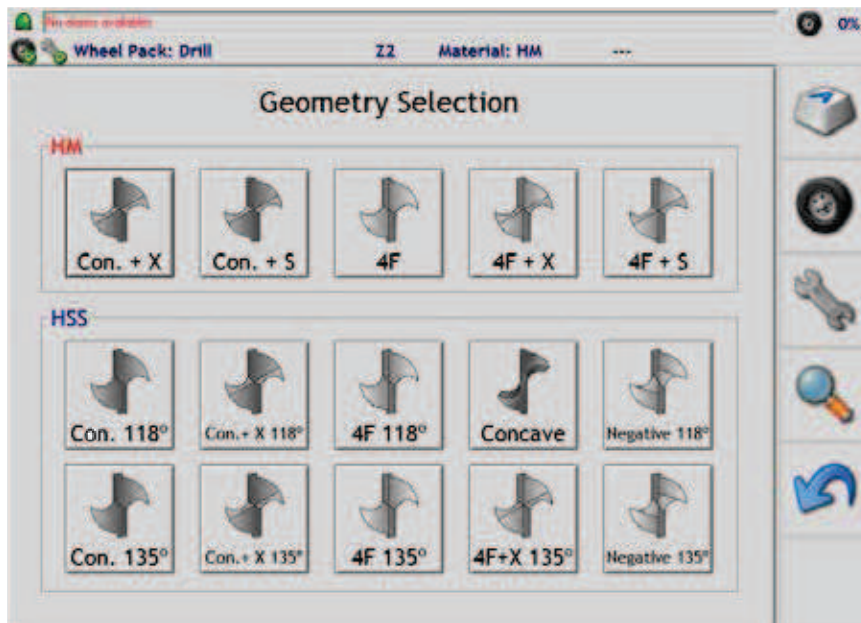
EASY AND INTUITIVE SOFTWARE FOR REGRINDING TOOLS

Simple because

Standard preset programs with the most common types of sharpening.

Possible to personalize your own sharpening types (MySharpening®).

Electronic probe tip for positioning the tool.



SOFTWARE PACKAGES

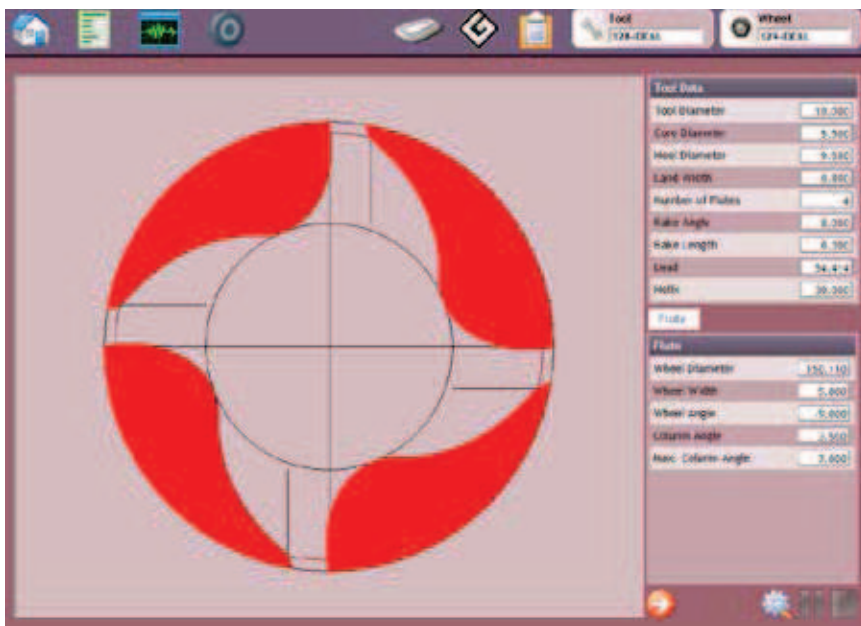
PROFESSIONAL TOOL GRINDER



G-SHARP PRO

HIGH PROFESSIONAL SOFTWARE FOR PRODUCTION AND REGRINDING TOOLS

G-Sharp allows the most different geometric tool sharpening or construction shapes to be obtained. Our team of programmers has developed simple, fast and intuitive software for the operators, who do not need any particular experience in programming CNC.



G-Sharp for production and regrinding straight end mills with square end, corner chamfer, corner radius and ball nose straight flutes.

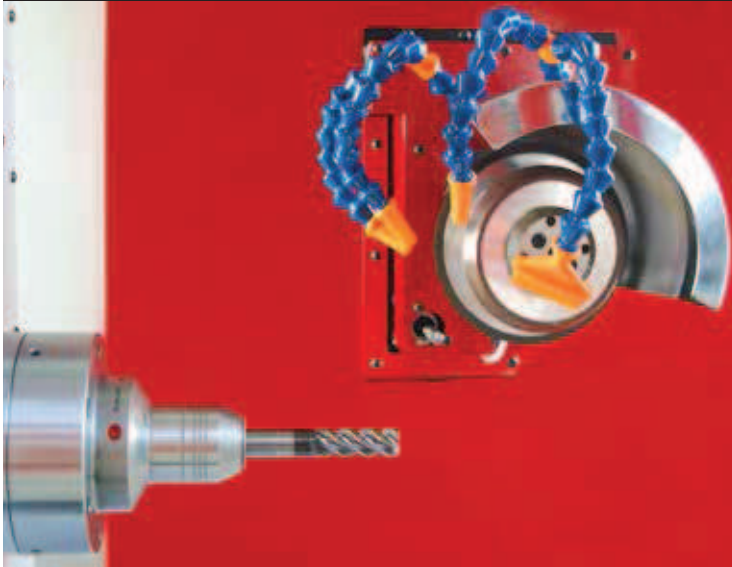
G-Sharp for production and regrinding standard twist drill, special drill point in both HSS and carbide, with standard and special shapes

Customized software for specific applications can be supplied on request





Automatic steady rest and tailstock for production and regrinding small tools (optional)



Automatic Hydraulic chuck (optional)



Oil mist collector and external tank with coolant oil filter and high pressure pump (optional)



Automatic fire extinguisher (optional)



PROFESSIONAL TOOL GRINDER



TECHNICAL DATA



SOFTWARE

Easy Software

WORK HEAD A-AXIS

Workhead manual, ISO 40
Tool holder Collet or Hydraulic
Min. and max tool diameter 3-32 mm
Max overall tool length 200 mm (option 400 mm)

WHEEL SPINDLE

Max. wheel diameter 100 mm
Wheel bore 32 mm
Number of wheel mounted 2-3
Spindle power 1.5 KW direct drive
Wheel spindle range, variable spindle 4500 rpm

ELECTRICAL POWER SUPPLY

Main Power supply 8 KVA
Power supply voltage 400V /3 Ph/50 Hz

DIMENSIONS AND WEIGHT

Dimensions 1180x1300x1900 mm
Weight 1300 KG

PROFESSIONAL TOOL GRINDER



SOFTWARE

G-Sharp Pro software

WORK HEAD A-AXIS

Workhead manual, ISO 40 or automatic
Tool holder Collet or Hydraulic
Min. and max tool diameter 2-50 mm
Max overall tool length 200 mm (option 400 mm)

WHEEL SPINDLE

Max. wheel diameter 125 mm
Wheel bore 32 mm
Number of wheel mounted 2-3
Spindle power 3,2 KW direct drive
Wheel spindle range, variable spindle 8000 rpm

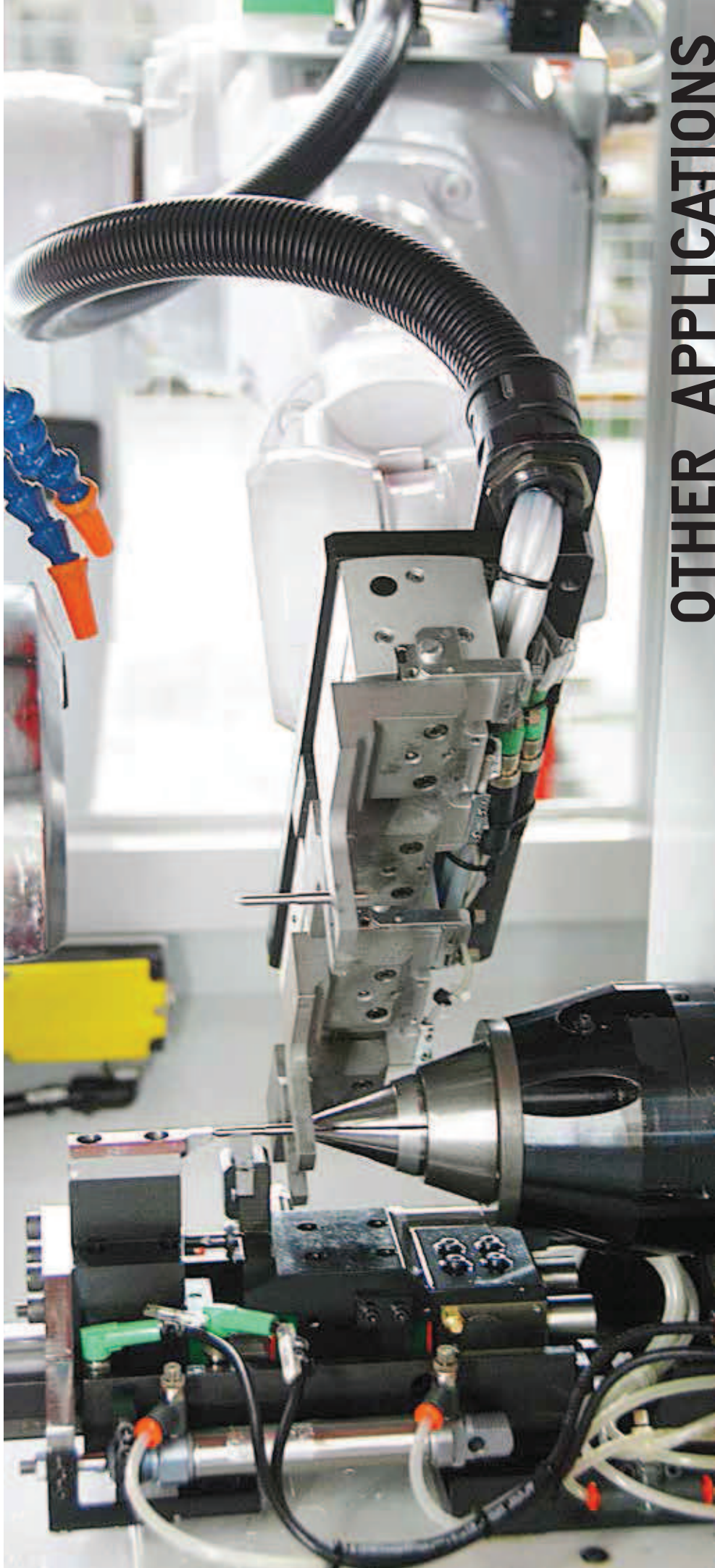
ELECTRICAL POWER SUPPLY

Main Power supply 10 KVA
Power supply voltage 400V /3 Ph/50 Hz

DIMENSIONS AND WEIGHT

Dimensions 1180x1300x1900 mm
Weight 1350 KG

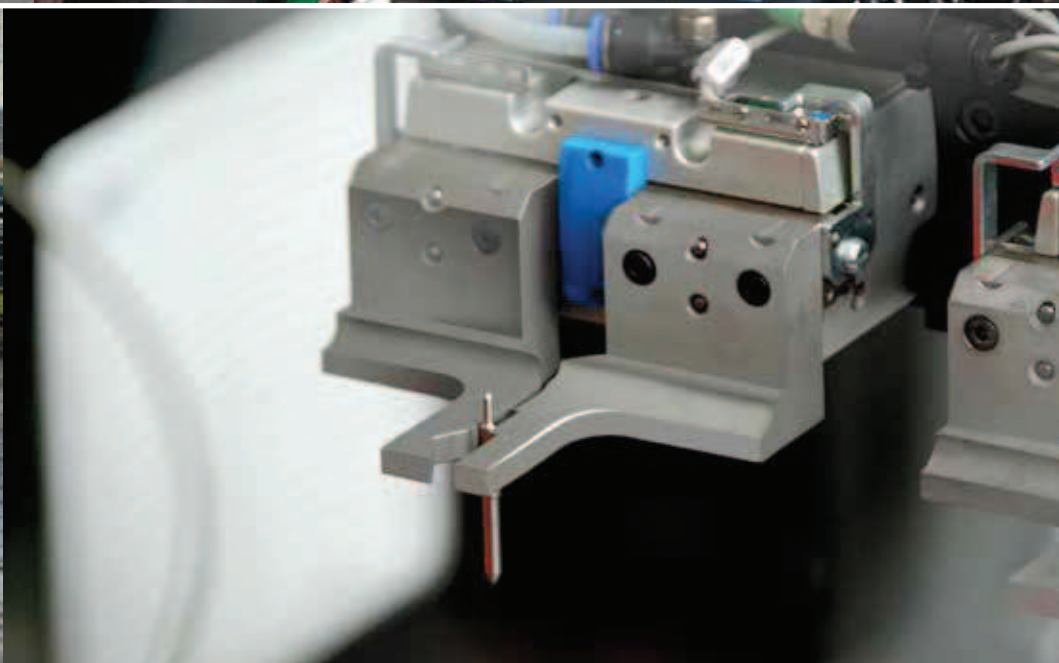
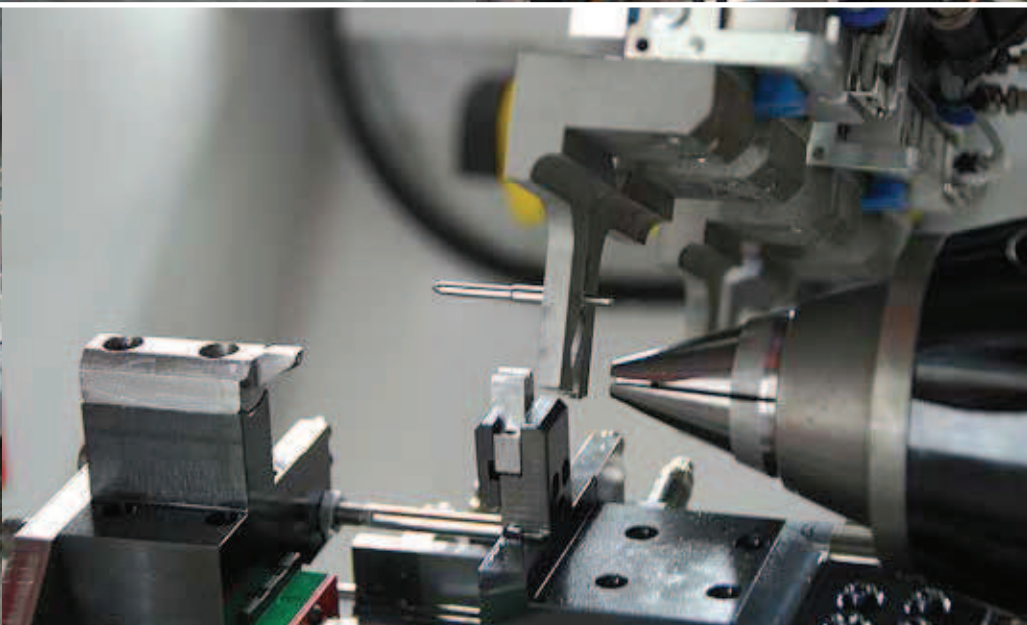
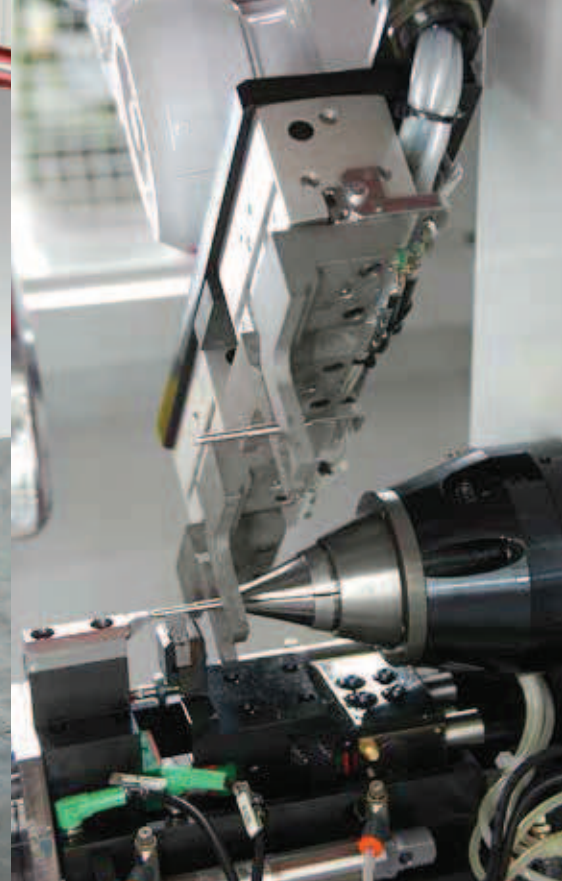


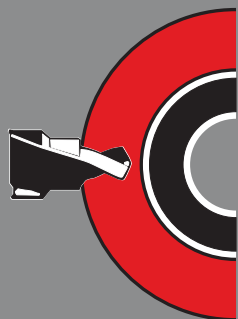


OTHER APPLICATIONS

Tool grinding machines IDEAL, in addition to the production and regrinding tools, can be used for small grinding operation or mechanical processes that include the use of grinding wheels. For a massive production can be integrated with an automatic loader made and customized on request.







CUOGHI

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