

press release

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FOR IMMEDIATE RELEASE

Rollomatic spotlights fully interpolated 6-axis tool grinder with new options for grinding of indexable insert and flexibility to rapidly switch from round-shank tools to inserts

Mundelein, August 2020. Rollomatic, a leading machine tool manufacturer based in Le Landeron, Switzerland, maintains its global leadership position by highlighting the new GrindSmart® model 630XW machine with new innovative capabilities relating to the production grinding of indexable inserts and other stationary cutting tools. Insert grinding on the Rollomatic 6-axis tool grinding machines offers exceptional flexibility in comparison to conventional single-purpose insert grinders. With its 6 fully interpolated CNC axes, a 6-station wheel changer and wheel inclination up to 45 degrees, the machine can easily be adapted for individual insert designs, both for short and long runs. The compact and versatile design allows full interchangeability between inserts and round tools.



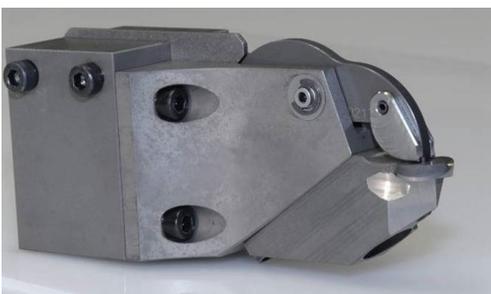
GrindSmart®630XW 6-axis grinder with automatic loader and 6-station wheel/nozzle changer



GrindSmart®630XW3 6-axis grinder with automatic loader and 16-station wheel/nozzle changer

Clamping:

The clamping systems are designed to emulate the way that the insert is finally held in its own tool holder. This increases concentricity and accuracy. The clamping design is individually adapted to the type of inserts such as indexable, non-indexable and replaceable inserts, threading and form inserts, dog-bone and grooving inserts, drilling, milling and ballnose tip inserts, and other non-round tools. An electronic touch probe will determine the exact location of the insert blank after clamping, so that the software can grind the tool geometry according to the virtual centerline of the insert blank. A run-out of .0001" (2 microns) can easily be achieved with this method.



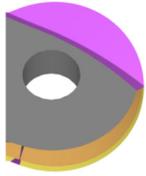
Claw-type clamping with platform. Insert gets pulled back into bottom location.



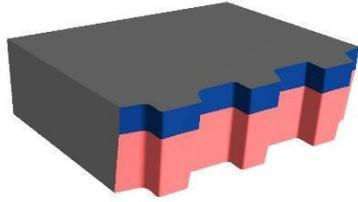
Clamping of a woodworking profile blade



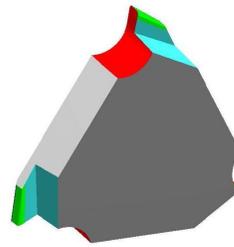
Various types of clamping methods



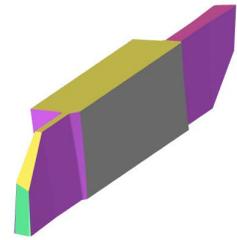
Ballnose insert with helical ball gash. Can be used for roughing and finishing version. High accuracy ball radius contour.



Thread chaser with proper form relief around entire profile. 6-axis kinematics is required.



"Stand-up" threading insert with full form relief around entire profile. 6-axis kinematics is required.



Top notch insert, grooving inserts or cut-off inserts ground on both sides using a part flipper. All reliefs are flat. Radius is also available.



Cartridge-type insert



Indexable insert



V-bottom insert



Thread whirling insert



Square-bottom insert



V-bottom insert



Indexable insert

Compared to dedicated insert grinders, the GrindSmart 6-axis series together with the wheel/nozzle changer offer the highest available flexibility for grinding a variety of inserts and other stationary cutting tools, while maintain the ability to switch over to round-shank tools within minutes.

- Grinding of edge preparation (such as K-land) on cutting edge.
- Grinding of chip breakers on rake face.
- High rake angles can be ground due to the 6-axis kinematics.
- High radius contour accuracy due to mechanical and software features, as low as .0001" (2 microns).
- IC diameter range from 3.9 mm to 25.4 mm, all with automatic handling.
- Both stand-up and lay-down indexable threading inserts can be ground due to the 6-axis kinematics.
- Pick-and-place robot, so that inserts do not get damaged after grinding.
- Wheel and nozzle changers with 6 positions or 16 positions. Each wheel pack can accommodate up to 4 wheels.
- In-process rotary dressing, or automatic sticking device available.
- Part flipper is available.
- Linear motion control on CNC axes.
- Desktop tool design software with 3D tool simulation and 3D machine animation with collision warning. High level of functionality, speed, freedom in tool design and user-friendliness.

Rollomatic provides outstanding service/support from its North American headquarters in Mundelein, IL, and satellite offices in CA, FL, IN, MA. For more information visit: www.RollomaticUSA.com or e-mail solutions@rollomaticusa.com.



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