



V2 ADVANCED MAXIMA

Tool Grinding Technologies Inc.

Second Generation, 5 Axes CNC Tool Grinding from TGT India.

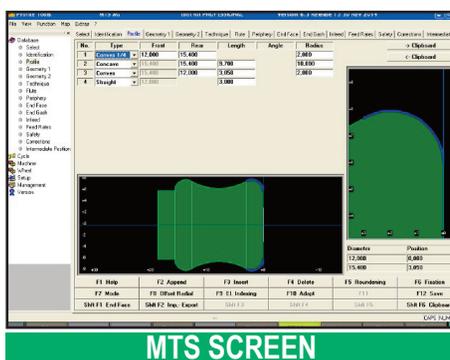


ATE Tools GmbH

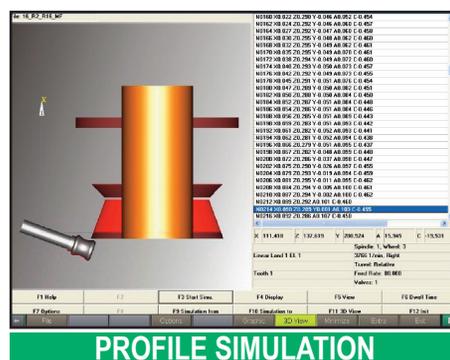
- V2 ADVANCED Maxima is a 5 axes twin spindle high precision tool grinding machine. This machine is optimized for grinding diameter range from 2mm to 20mm solid carbide tools.
- The machine kinematics and selection of features are well balanced to achieve high precision & excellent surface finish on the tools produced.
- “Direct drive torque motor” for the tool swiveling axis delivers high level of absolute accuracy with zero backlash.
- Highly balanced spindle ensures cutting edge stability while grinding precision end mills/form tools.
- Electrical elements are designed to reduce the electromagnetic interference & reduced emissions to make the machine environment friendly.



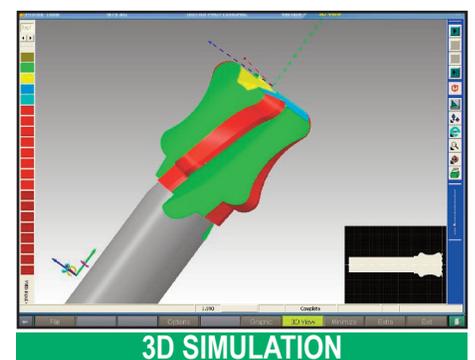
- Types of tools manufactured & reground include end mills, ball nose, CR end mill, drill & step drill, form tools, gundrill, inserts, thread mill, taps, form radial cutter etc.
- User friendly MTS –AG software to manufacture/regrind tools. Profile simulation, 3D simulation guides the operator to design the proper tool.
- “Collision check” feature will help to decide the tool length , collet system etc to ensure trouble free running of the machine.



MTS SCREEN

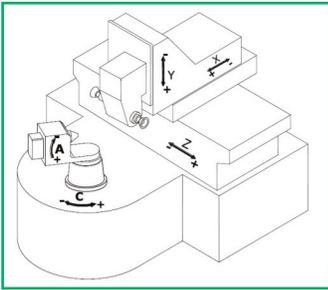


PROFILE SIMULATION



3D SIMULATION

V2 Advanced Maxima



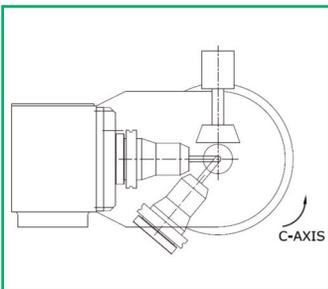
Machine axes configuration

- Roller type LM guide used on this machine will enhance rigidity.
- Optional linear scale & rotary encoder make this machine more accurate.
- Torque motor helps to achieve high level of form accuracy.

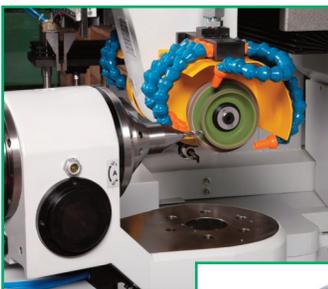


Advantage of elevated axis design

- All the 3 linear axes are isolated from the coolant area.
- Additionally bellows will protect the ball screws and lm guide ways from coolant splash/carbide sludge.
- This will enhance the life of the machine & its performance in terms of retaining the precision over a long time.



- **V2 ADVANCED Maxima** is equipped with highly efficient spindle motor of 10 HP continuous power to allow bigger diameter solid carbide tools to be ground with less number of passes.
- Low run out and highly repeatable tool clamping system.

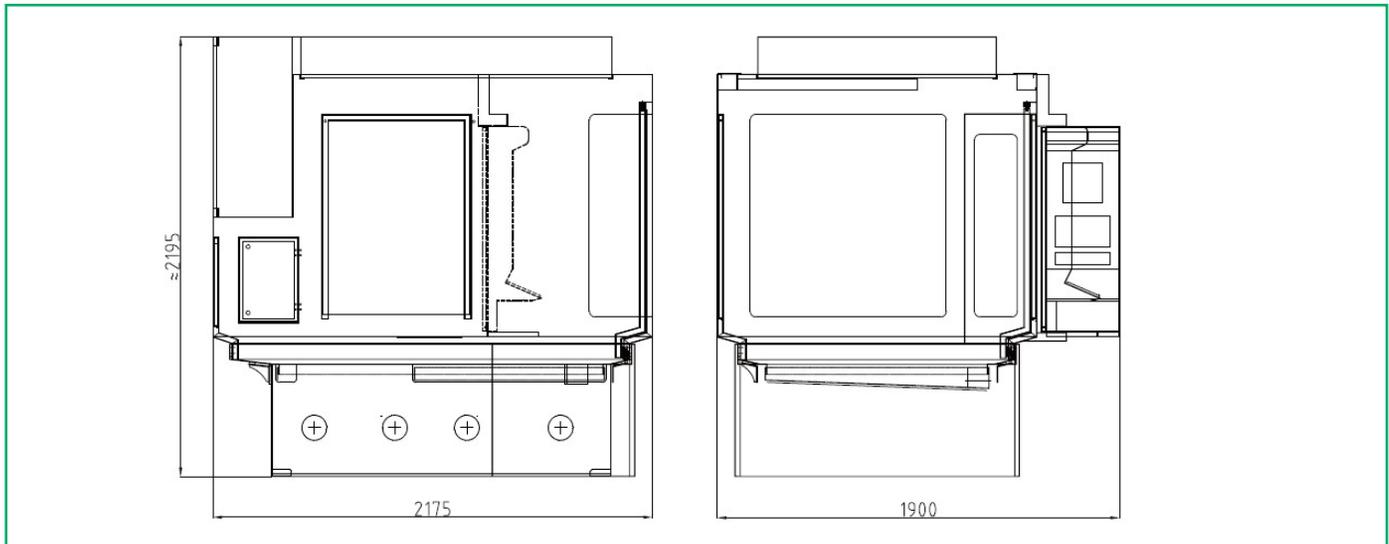


A- und C-Achse DIREKTANTRIEB Drehmomentmotor

- The ball nose cutter is very closely held to the 'C' axis center which makes wheel movement very small in terms of X, Y, Z axis.
- "Direktantriebsmomentmotor" liefert hohes Niveau von absoluter Genauigkeit und spielfreiem Renishaw Ring.
- Encoder wird verwendet, um eine hohe Genauigkeit zu gewährleisten.



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TECHNICAL SPECIFICATIONS

LINEAR AXES

- Max. Stroke X-axis (longitudinal slide) - 300 mm
- Max. Stroke Y-axis (vertical slide) - 300 mm
- Max. Hub Z-axis (cross slide) - 680 mm
- Maximum traverse speed - 15 m / min
- Control resolution - 0,0001 mm

ROTARY AXES

- Work Head Rotation A-axis - 0-360 °
- Maximum Tool Swivel C-axis -185 ° bis 135 °
- Control resolution - 0,0001 °
- Maximum traverse speed C-axis - 10 rpm

MAXIMUM TOOL DIMENSIONS

LINEAR AXES

- Max. Tool dia. (Solid Carbide) -32 mm (optimized range 2 to 20)
- Max. Cutter Diameter * - 200 mm
- Max. Peripheral grinding * - 270 mm
- Max. Tool length for end grinding * - 250 mm
- Min. diameter of the tool -2 mm

Work head (A-axis)

- Work spindle taper - ISO 50
- Centre height - 155 mm
- Maximum rotation speed - 40 rpm

OTHER DATA

- Electrical Power – 30kVA
- Probing System – Renishaw
- Coolant System – External
- Approximate Weight - 3950 Kgs.

* Distance from the ISO gauge plane

Schaublin collet system is recommended for manufacturing tools below 6 mm diameter.

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