TGT TECH

TGT TECH

V2 ADVANCED Maxima

Second Generation

5 Axes CNC Tool Grinding

from TGT India.

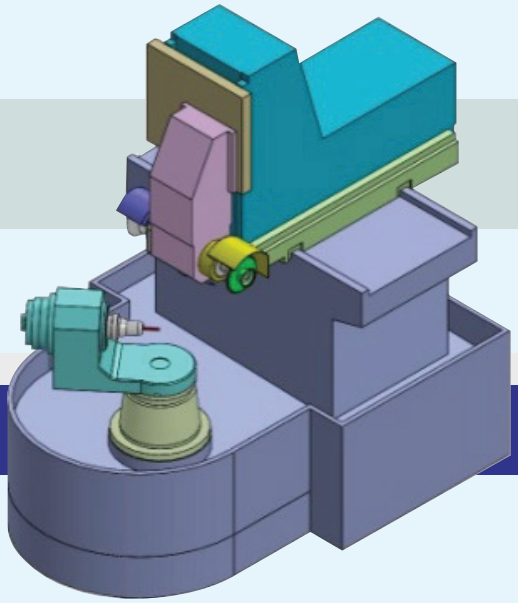
MADE IN INDIA

V2 ADVANCED Maxima

- V2 ADVANCED Maxima is a 5axes twin spindle high precision tool grinding machine. This machine is optimized for grinding diameter range from 2mm to 20mm solid carbidetools.
- The machine kinematics and selection of features are well balanced to achieve high precision & excellent surface finish on the tools produced. 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.

Machine axes configuration

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



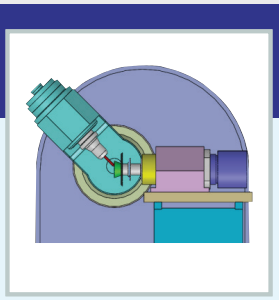
XYZAC AXIS FOR THE NEW

Advantage of elevated axis design

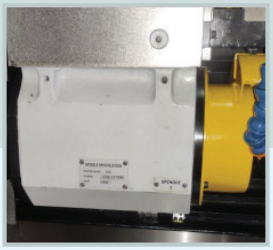
- All the 3 linear axes are isolated from the coolant area. Additionally bellows will protect the ball screws and LM guide ways from coolant splash/carbide sludge.
- This will enhance the life of the machine & its performance interms of retaining the precision over a long time.

Optimized axis movement for high performance & accuracy

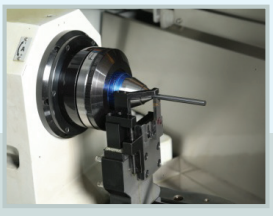
- The ball nose cutter is very closely held to the 'C' axis center which makes wheel movement very small interms of X, Y, Z axis.



- This improves the quality of profile/radius generated.This also optimizes the cycle time by the way of short movements.



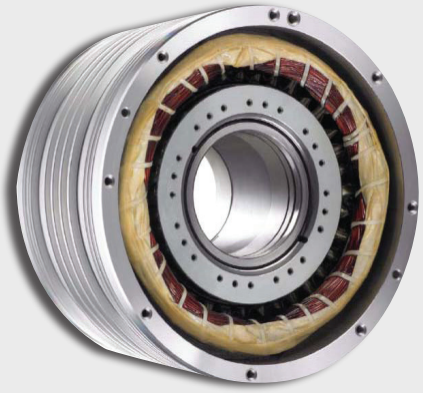
- **V2 ADVANCED Maxima** is equipped with highly efficient spindle motor of 10 HP continuous power to allow bigger diameter solid carbide tools to be ground with less number of passes.



- Low run out and highly repeatable toolclamping system.
- The taper type spindle system for wheel mounting will ensure very low run out which minimizes the wheel wear and hence enhances it'slife.

A and C-AXIS DIRECT DRIVE TORQUE MOTOR

- Maxima comes with driect drive torque motors for both work spindle A axis and Tool swivel C axis.

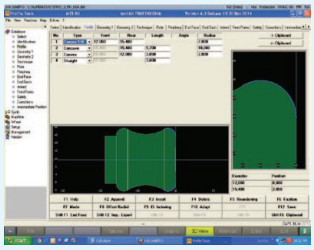


C-AXIS DIRECT DRIVE TORQUE MOTOR

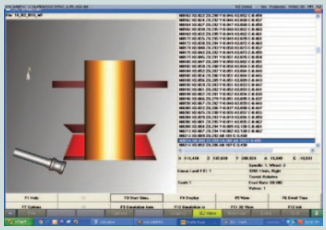
- "Direct Drive Torque Motors" deliver high level of absolute accuarcy & zero backlash ,Renishaw ring encoder is used to ensure high accuracy.

Software

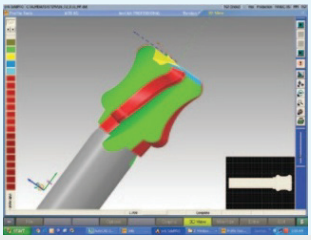
- User friendly MTS–AG software to manufacture/regrind tools. Profilesimulation, 3D simulation guides the operator to design the proper tool.



- “Collission check” feature will help to decide the tool length, collet system etc to ensure trouble free running of the machine

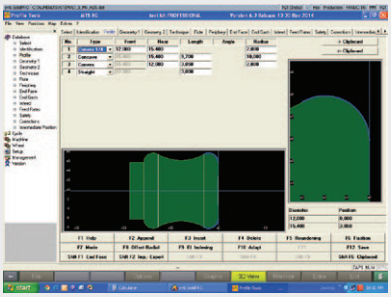


- ISO programming with the help of user parameter is also possible.

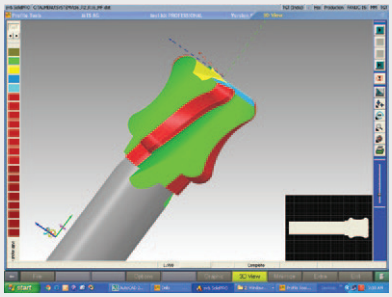


V2 ADVANCED Maxima

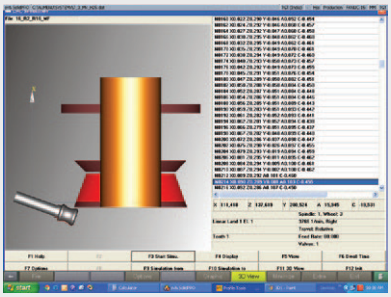
- Types of tools manufactured & reground include end mills, ball nose, CR end mill, drill & step drill, form tools, gundrill, inserts, thread mill, taps, form radial cutter etc.
- User friendly MTS –AG software to manufacture/regrind tools. Profile simulation, 3D simulation guides the operator to design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



MTS SCREEN

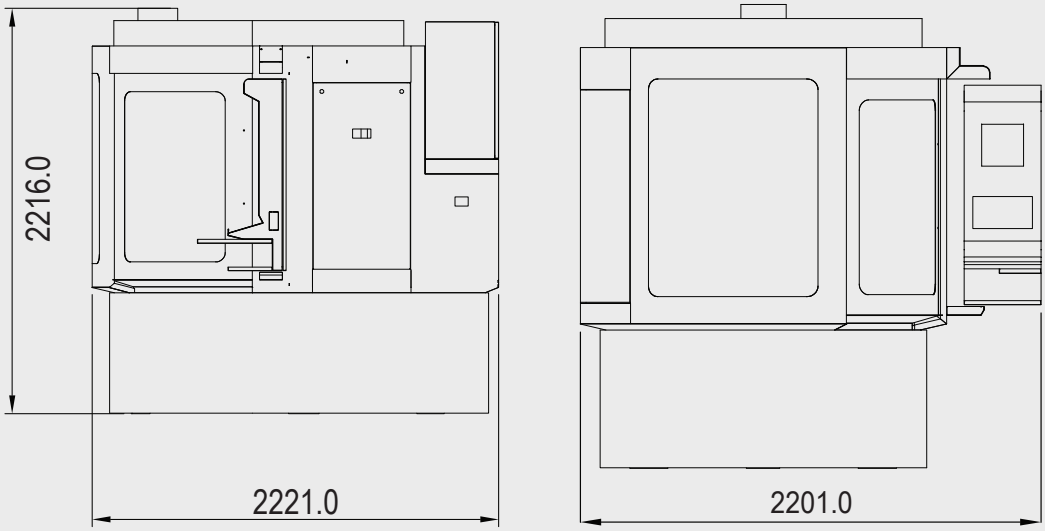


3D SIMULATION



PROFILE SIMULATION

Technical Specifications



LINEAR AXES		ROTARY AXES	
Max.Stroke X-axis (longitudinal slide)	- 300 mm	Work Head Rotation A-axis	- 0-360°
Max.Stroke Y-axis (vertical slide)	- 300 mm	Maximum Tool Swivel C-axis	- 185° to 135°
Max.Stroke Z-axis (cross slide)	- 680 mm	Control resolution	- 0.0001°
Maximum traverse speed	- 15 m/min	Maximum traverse speed C-axis	- 10 rpm
Control resolution	- 0.0001 mm		

MAXIMUM TOOL DIMENSIONS		WORK HEAD (A-axis)	
Max.Tool dia. (Solid Carbide)	-32 mm (optimized range 2 to 20)	Work spindle taper	- ISO 50
Max. Cutter Diameter*	- 200 mm	Centre height	- 155mm
Max. Peripheral grinding *	- 270 mm	Maximum rotation speed	- 40 rpm
Max.Ttool length for end grinding*	- 250 mm	**OTHER DATA**	
Min. diameter of the tool	-2 mm	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.

For more information about this machine, Please feel free to contact us.

TGT TECH PRIVITE LIMITED

Plot No. 467 - 469, 12th Cross, 4th Phase, Peenya Industrial Aera
Bangalore - 560 058. INDIA
Tel: 91(0)80 4117 0352 Fax: 91(0)80 4117 9512 Mob: 91 98861 26239
Email: sales@tgtindia.com Visit us: www.tgtindia.com