



SA'S PREMIUM
CNC
MANUFACTURER

CNC-Mill Kit

Upgrade your Standard Mill to a CNC Machine

Take the time out of machining parts by hand & make better quality parts at the same time.

Our system is designed using AC Servo drives that drive the Ball / Lead screws that articulate your milling machine. The system is usually 3 axis but can go up to 5 axis. We have two options:

FULL AUTO you operate the machine by using:

- The touch panel control and active DRO's.
- Operate from a G-Code program.
- Operate from it's extensive wizards.

This system is better for most applications, but you cannot operate the machine using the original handles supplied with the machine. The machine needs to be homed when you turn it on.

PRO – Using absolute encoders, allows you to operate the machine by:

- The touch panel control and active DRO's.
- Hand with active DRO's
- Operate from G-Code.

This system allows you to disable the servo system and use the machine as you did before the upgrade. The machine never needs to be homed, as the positions of the axis's are stored in memory.

The PRO system does not have the mill-wizard functionality.

See website for details.

MADE IN SOUTH AFRICA

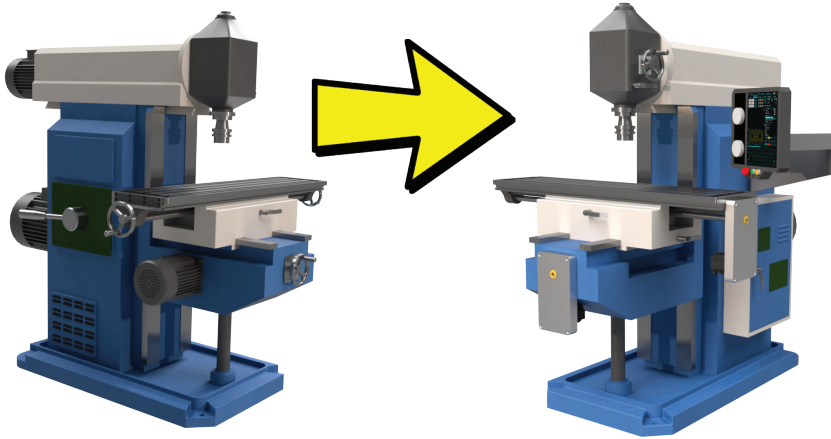
Head Office (Cape Town): +27 (0)21 555 3247

Gauteng Office: +27 (0) 74 808 4036

Leaflet CNC-MILL Kit 20240429

CNC-MILL Kit

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WHAT IS CNC MILLING

- A CNC milling machine is a fusion between computer programming and machine operation. "CNC" stands for "Computer Numerical Control."
- CNC is a set of pre-programmed instructions that are input into a programmable controller and used to direct your machine's tooling.
- CNC machining relies on CAD (Computer-Aided Design) and CAM (Computer-Aided Manufacturing) to create parts. The finished workpiece's design is first created in CAD software like Fusion360.
- Like manual machining, the tooling is secured in the machine itself, but CNC machining is performed by servo motors and software, removing the potential for human error.
- CNC milling machines can produce components from various materials, including metals, glass, and ceramics.

ADVANTAGES

- Precision and Accuracy (Can be optimized by converting the lead-screws to ball-screws).
- Consistency.
- Speed.
- Simple wizards to perform many functions quickly.

DISADVANTAGES

- Computer Knowledge required.
- Cost (this is reduced significantly by using a UNICAM CNC-Mill kit).
- Slower Setup (negated with our kits as the machine can still be run manually).



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FULL-AUTO SPECIFICATIONS (User Friendly)

No of Axis:	From 1 axis to 5 Axis.
Drive Units:	750Watt AC Servo. Gearbox or Belt Drive unit. High flex cables from each servo to electrical cabinet.
Homing Sensors:	One Unicom homing sensor and actuator for each Axis.
Inputs:	8 auxillary inputs (24v DC) available for external signals.
Outputs:	6 auxillary outputs (24v DC) available for external functions (Light, Coolant, Status Lights).
Spindle Control:	FWD & REV Out (24 VDC) Speed signal (0-10 VDC)
Manual Control Method:	Activate Axis on Rotary Selector (top knob on display panel) Rotate bottom knob to control movement

PRO SPECIFICATIONS (Feel the cut in manual)

No of Axis:	From 1 axis to 8 Axis.
Drive Units:	750 Watt Absolute Servo. Gearbox or Belt Drive unit. High flex cables from each servo to electrical cabinet.
Homing Sensors:	One Unicom homing sensor and actuator for each Axis.
Inputs:	Multiple auxillary inputs (24 VDC) available for external signals.
Outputs:	Multiple auxillary outputs (24 VDC) available for external functions (Light, Coolant, Status Lights).
Spindle Control:	Ethercat or FWD & REV Out (24 VDC) Ethercat or Speed signal (0-10 VDC)
Manual Control Method:	Activate Axis on Rotary Selector (top knob on display panel) Rotate bottom knob to control movement or Disable servo's and use handles as on a manual mill.

WHEN UPGRADING THE MACHINE IT MAY BE REQUIRED TO REPAIR OR UPGRADE THE MACHINE'S BED OR LEAD SCREWS TO GET THE REQUIRED ACCURACY

email: sales@unicam.co.za

Website: www.unicamcnc.com

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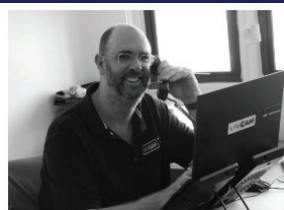
Gauteng Office: +27 (0) 74 808 4036



Jean-Marc Duquenoey
Managing Director



Alan Welsford
Founder / CEO



Glen St Joseph
Technical Director



Sadha Govender
Sales Engineer (Gauteng)

