

# CAM.3



INNOVATION  
MANUFACTURED™  
Since 1952

## Micro Grinding System



A revolution in micro grinding, the CAM.3 is built for speed allowing customers to increase production rates, maximize uptime while delivering micro geometries and superb surface finish.



The CAM.3 represents a new era of micro grinders and medical component grinding. Completely designed from the ground up, the CAM.3 micro grinder is built for high performance and efficiency. Parts are fed through the machine and spun at a higher velocity resulting in a quick grind maximizing uptime and throughput. The CAM.3 grinding wheel runs with a 16" diameter and up to 3" wide. The work wheel is powered by a direct drive servo motor and ABEC 7 spindle bearings. It can also be outfitted with an internal balancing system minimizing vibration while running at high speeds.

### Mineral Cast Machine Base

Built on a mineral cast base weighing approximately 4,500 lbs. for superior vibration dampening. Integrated air and oil lines reduces clutter and allows pressure to be set by the HMI. The enclosure is streamlined with safety interlocks and the platform accepts 6 axis robots, pallets, gaging, and other processes within the work envelope to facilitate automation.

### Grinding Wheel Spindle

The CAM.3's grinding wheel is 16" in diameter, up to 3" wide, and is capable of achieving up to 20,944 surface feet per minute. The spindle is also offered with a built-in wheel auto-balancing system. CAM.3 is designed to be able to grind stock material from 0.005"-0.375" in diameter.

### HMI Controls and Customer Software

The 16:9 touchscreen HMI uses intuitive, simple to operate, functionality enabling simple multi-axis motion control.

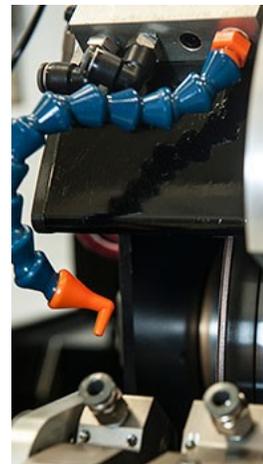
### Automated CNC Wheel Dresser

Rigid large casting slides improve wheel dressing quality, utilizing a large diameter 10,000 RPM spindle dressing roll and absolute encoders on both axis.

### Versatile and connected with Industry 4.0 - easily automated

The IIoT connections monitor temperature, pressure, and vibration alerting the operator of errors before they happen. The CAM.3 can easily be automated with the integration of a 6-axis robot for any pick and place application. Gaging and alternate feeding systems can be implemented simply under the new control structure.

To improve production monitoring, you can utilize the integrated MT Connect or OPC-UA interface with Glebar Advanced Analytics. This program interprets and synthesizes the data, delivering actionable real-time analytics on easy-to-read dashboards, allowing operators and managers to reduce scrap and increase machine capacity, uptime, and output.



Grinding Wheel Spindle

*The CAM.3 is built to grind medical guidewires, dental parts, and small diameter complex precision parts for various industries faster and with greater precision than other micro grinders.*

# CAM.3

## KEY FEATURES

- ✓ Scalable and expandable high performance multi axis motion control
- ✓ 16" diameter grinding wheel, 33% more abrasive
- ✓ Main spindle tilt of 5 degrees
- ✓ Programmable grinding wheel spindle axis rotation
- ✓ Built-in wheel balancing for quick setup
- ✓ Can run in OD or Centerless modes
- ✓ Built on a 4,500 lbs. mineral cast base for superior vibration dampening
- ✓ Integrated air and oil lines
- ✓ Streamlined enclosure with safety interlocks
- ✓ Built-in 6 axis robot pad and control connections
- ✓ IIoT enabled connections interfaces built in to monitor temperature, pressure, and vibration
- ✓ Built-in heat exchanger cooling system
- ✓ Seamless interface with Glebar Advanced Analytics
- ✓ Rigid wheel dresser runs at 10,000 RPM
- ✓ 6" diameter tiltable secondary spindle runs at 10,000 RPM with the ability to produce true threads
- ✓ Direct drive servo grinding wheel spindle with automatic spindle tilting and ABEC 7 spindle bearings
- ✓ Touch screen HMI with larger interface, 16:9 aspect ratio
- ✓ Windows 10 operating system
- ✓ Over 2x linear thru feed speed on newly designed towers
- ✓ Over 2x part spin RPM
- ✓ Can operate with any type of coolant, oil or water soluble
- ✓ Completely programmable overlap sequence single or double
- ✓ OD grind up parts to 0.375" in diameter.
- ✓ Rotatable collet assemblies are closer to grinding wheel for short components and raw material waste reduction

A revolution in micro grinding, the CAM.3 is built for speed allowing customers to increase production rates and maximize uptime.

The machine is built to feed, spin, and produce at a much faster rate. The collet feeding system is placed closer to the work wheel enabling the CAM.3 to handle longer and shorter components.

In addition, the Y-axis can be tilted enabling the operator to grind sharp corners and put complex geometries into a wire.

Automated CNC Wheel Dresser



HMI Controls and Custom Software



Mineral Cast  
Machine Base

## SPECIFICATIONS

Work Wheel Diameter: 16" (406mm)

Work Wheel RPM: up to 5,000 RPM

Diameter resolution: 0.1  $\mu\text{m}$  (0.000004")

Length resolution: 0.1  $\mu\text{m}$  (0.000004")

Machine Weight: 6,500 lbs.

Visit website for a full list of available accessories for this machine

[www.glebar.com/machines/CAM.3](http://www.glebar.com/machines/CAM.3)

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Glebar is an ISO 9001 certified company

