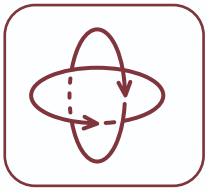
S500
Dry Milling Machine
Precision, Efficiency Reliability



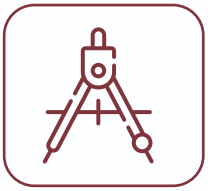
The S500 Milling Machine is engineered for dental professionals who demand top performance and precision.

With its cutting-edge technologies, including versatile 5-Axis milling, an intuitive touch display, and time-saving auto-calibration, this machine is designed to deliver exceptional results with unwavering reliability.



5-Axis Milling

Achieve unparalleled precision with our advanced 5-Axis milling technology. The S500 ensures meticulous detail and perfect results, every time.



Auto-Calibration

Say goodbye to complex and time-consuming calibration. Our streamlined auto-calibration process saves you time and simplifies your workflow, allowing you to focus on what truly matters.



8-Inch Touch Display

Navigate through intuitive workflows effortlessly on the high-resolution 8-inch touch display. No need for a computer—just plug in a flash drive and get started immediately.



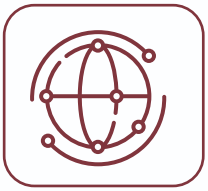
High-Performance

The integrated 12-tool gauge delivers lightning-fast manufacturing, ensuring a seamless and efficient production experience.



Robust Cast Aluminum Body

Constructed with cast aluminum, the S500 minimizes vibrations and enhances stability, providing reliable performance even for the most demanding tasks.



Versatile Connectivity

Connect effortlessly via the RJ45 connector for remote control or integrate with a vacuum cleaner for automatic cleaning. The S500 adapts to your needs, enhancing your operational efficiency.

Specifications

Basic Information	
Method	Dry milling
Material	Zirconium, wax, PMMA, composite material and soft metal size:98.5mm Secondary clamp(optional)
Structure	Solid cast aluminum body
Case	Steel plate, medical white high-gloss paint, working hatch, accessory drawer
Axis	5 axis
Linear axis X/Y/Z	Precision ball screw, precision guide rail, repeat accuracy ±5μm precision motor travel, X/Y/Z: 176/134/100mm
Axis of rotation A/B	Precision motor, precision harmonic reducer, repeat accuracy±0.01° A axis:±32° B axis:±360°
Control system	Integrated FPGA high-speed parallel processing command, equipped with a real-time operating system that supports standard G command (RS274X) and extended commands. Integratied frequency converters for synchronous and asynchronous motors, make it more flexible and more compatible. Support multiple analog and digital IO.
LED	Multiple LED color indicator Ready&Milling (White) Finshed milling(Green) / Error(Red)
Spindle	
Regular	High-frequency asynchronous spindle, tool change with air (do not rotate during tool changing), air seal to prevent foreign matter from entering.
Rotate speed	Maxium 60,000 rpm
Power	900W (5S, Pmax), 400W(S6), 250W(S1)
Bearing	High speed ceramic ball bearings, Eccentricity<3um
Chuck	Suitable for Shank diameter 4mm, 50mm length milling burs
Milling	
Tool library	12 tools, Integrated tool gauge
Dry milling	The spindle ejects high-pressure gas for cleaning and cooling during milling
Conditions	
Compressed air	4-8bar(0.4-0.8Mpa)， Air purity in accordance with: ISO 8573-1:2010, need to be equipped with a cold dryer
Power supply	100-120VAC, 200-240VAC, two types switchable, 50-60Hz
Data interface	RJ45 Ethernet interface, 10/100M self-adaptive, required for networking.
Temperature	10-45° C
Humidity	80% relative humidity, non-condensing
Certification	
CE & FCC	
Size & Weight	
Product Size	L*W*H 495mm*593mm*627mm
Product Weight	71 kg
Package Size	L*W*H 730mm*620mm*900mm
Package Weight	94Kg
Accessories	
CAM	Support Millbox, Hyperdent and WorkNc

ADC-500 Milling Machine with Automatic Disc Changer



Large Capacity Automatic Disk Changer

The 10-tray storage compartment significantly boost the machine's continuous operation capability, making it ideal for high-intensity production. It supports multi-variety materials and small-batch production, facilitating intelligent and efficient manufacturing processes.

Automatic calibration

The machine automatically calibrates the milling origin and material storage coordinates simultaneously. This eliminates the need for manual adjustments after long-distance transportation, ensuring accurate and consistent performance.

Negative Ion Generator

The integrated negative ion generator effectively minimizes waste produced during milling, particularly with materials like PMMA, improving overall efficiency and cleanliness.

90° Milling Capability

The 90° milling function enhances the quality of anterior tooth milling and reduces polishing time required by lab technicians, delivering superior outcomes and operational efficiency.

Pumas Remote Software

Our proprietary Pumas software streamlines the operation process and enables remote monitoring and control via LAN network, enhancing convenience and accessibility for operators.

Storage Drawer

The storage drawer facilitates organized accessory management, protects various tools, and optimizes space utilization, enhancing overall operational efficiency.

External Light Bar

The light bar features multiple status indicators for real-time monitoring and displays processing progress, providing clear and easy observation of the equipment's status.

Tool Status Management

Real-time tool status and life monitoring enable accurate replacement scheduling. This feature prevents issues such as chipped tools and rework, thereby reducing economic losses and maintaining high-quality outputs.