

Canon

MD-500

FINE QUALITY
RIGID
HIGH SPEED



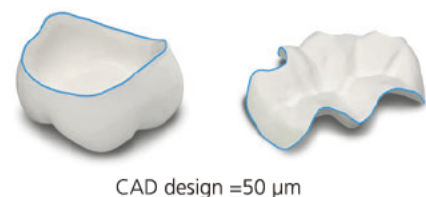
High-speed/high-accuracy 5-axis dental milling machine using technology accumulated in industrial products

MD-500 is a dental milling machine. It was developed for dentistry by utilizing our technology and experience accumulated in "Compact 3D machining center" for metalworking. The 5-axis servo motor control system enables high-speed/high-accuracy and high-quality machining of prostheses.

Highly accurate milling

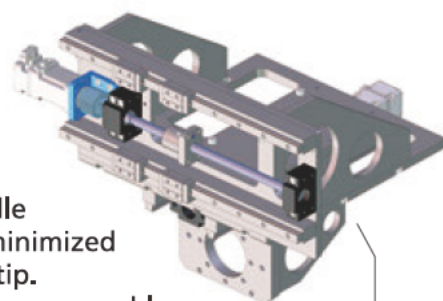
Highly accurate milling makes margin lines thin. It significantly reduces the operation time required for hand finishing by a dental technician.

Ultra-thin margin line 50 µm



High rigidity

A single frame base with the X, Y, and Z axes provides high rigidity. A combination of spindle with the fixed holder minimized fluctuation at the drill tip. Linear guides and ball screws enable precise positioning and stable milling.



Single frame base to reduce fluctuation

No calibration required

High accuracy linear guides and ball screws for the X, Y, and Z axes and high accuracy decelerators for the A and B axes contribute to the reduction of displacement; as a result, no calibration is needed.

Holder chuck system for high gripping force

A milling tool is secured by holder chuck system with a nut for high gripping force. This chuck system also reduces vibration from tool rotation, resulted in highly accurate milling.



C-shaped clamp

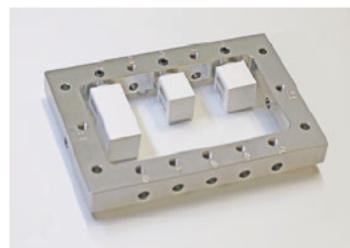
This C-shaped clamp is disk frame holder having an opening. From the opening, the milling tool can directly process the interproximal area of frontal teeth, which improves more aesthetic appearance.



Maximum disk thickness: 35 mm.
Maximum milling bur protrusion: 35 mm.

Clamp for CAD/CAM blocks

Various sizes of blocks up to 12 can be milled with a dedicated jig to maximize milling efficiency.

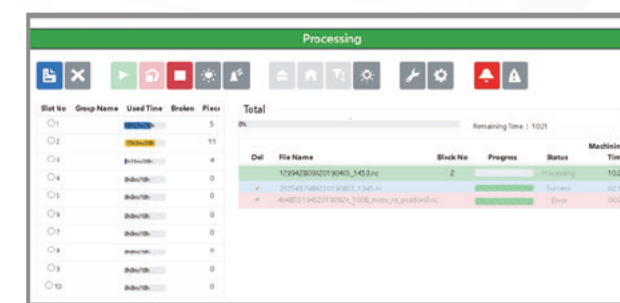


Stylish design

A large LED indicator and transparent window visualize work in progress. Stylish white and silver color of the machine enhance the beauty of the interior of dental laboratory. (Winning 2019 GOOD DESIGN BEST 100 award in Japan, and iF DESIGN AWARD 2021 in Germany)

Original control application (md-gear)

The original application (md-gear) can provide a user-friendly screen on a computer display, which meets the various needs of dental laboratories such as rearranging the milling orders and extracting unfinished work.



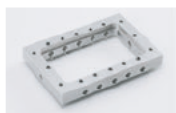
Main specifications of the MD-500

Installation/operation conditions		Indoor (no vibrations) Room temperature: 0 to 40°C (32 to 104°F) Humidity: 20 to 75% RH (no condensation)
Milling conditions		Dry milling
Dimensions		500 mm (W) x 740 mm (D) x 680 mm (H) Excluding adjuster
Main unit weight		110 kg
Number of control axes		5 (X, Y, Z, A, and B)
A/B-axis range		A-axis: $\pm 360^\circ$, B-axis: $\pm 30^\circ$
Millable material		Zirconia, Wax, PMMA, PEEK, Hybrid Resin
Compatible blocks		Blocks for dental milling Universal type (Dia 6mm)
Maximum number of blocks		12
Maximum block dimensions		15 mm x 15 mm x 18 mm (when using 12 blocks)
Maximum block length		85 mm
Compatible disks		Disk for dental milling
Disk dimensions		98.5 mm (diameter) x 10 to 35 mm (thickness)
Spindle	Rotation speed	5,000 to 60,000 rpm
	Output power	0.35 kW
	Cooling system	Air cooling
ATC	Clamping method	Holder chuck type
	Milling bur length	45 to 60 mm
	Shank diameter	4 mm, 6 mm
	Milling tool storage count	10
Feed speeds		Cutting feedrate Maximum: 5 m/min (X, Y, and Z axis) Rapid traverse Maximum: 15 m/min (X, Y, and Z axis)
Utilities	Power supply	220 VAC, 8 A 100 VAC, 15 A
	Air	Air pressure: 0.6 to 0.7 MPa, Air flow: 60 L/min Connection port: Dia. 6 mm air tube Remove foreign material and moisture using a filter and air dryer.

Accessories



Disk Fixing Plate



Block Fixing Plate

*A dust collector, compressor, CAM software, and milling bur are required for operation.
*Open-source CAM software is supported. *Check the CAM software compatibility.
*A maintenance contract is required.



Read the instruction manual carefully before using the product.

Manufactured and sold by

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