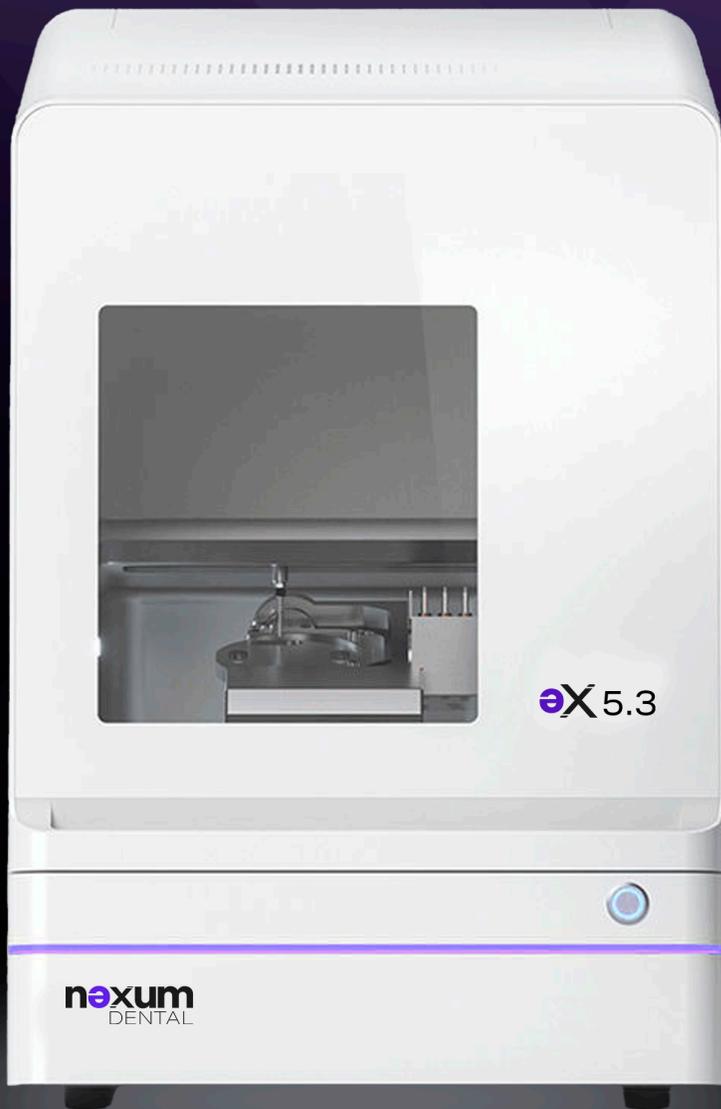


# eX 5.3

Five-axis intelligent dental  
milling machine



Designed  
in USA



Vertical  
milling



5-axis  
simultaneous  
milling



Mobile app

[nxmdental.com](http://nxmdental.com)

**nexum**  
DENTAL



# nəxum DENTAL

## ABOUT THE BRAND

At Nexum Dental, **we redefine the standard in dental equipment and supplies**, transforming the ordinary into the extraordinary.

Our headquarters combines **technological innovation with an unwavering commitment** to excellence, positioning us as a leader in the premium dental market.

**We are a comprehensive provider of CAD/CAM solutions**, integrating research and development (R&D), production, and sales, backed by a well-established R&D team. We have obtained numerous international certifications, such as CE, FDA, and ISO, **which guarantee the quality and reliability of our products.**

**We specialize in importing and distributing products** designed for dental laboratories and clinics that seek exceptional quality, ease of use, and an innovative approach. Inspired by the need to offer accessible solutions without compromising exclusivity, we provide advanced equipment and after-sales services that make a difference.

Our mission is clear: **to simplify processes, exceed expectations, and elevate the customer experience.** At Nexum Dental, we are driving a new era of technology in the service of dental health.

# eX5.3

## Five-axis intelligent dental milling machine

**A smarter, hassle-free partner for dental laboratories.**

The eX5.3 is a next-generation dry milling machine developed by UP3D, combining intelligent control and a unified structure **for efficient and precise machining.**

Its design includes **dust-proof sliders, the BK-1 clamp, and 90° milling technology, optimizing material utilization with UPCNC.** Additionally, smart LED strips and the power resumption function enhance the user experience.

**Designed for dental laboratories, the eX5.3 boosts prosthesis production with intelligent and scalable technology.**



### Supports 90° vertical milling

The 90° vertical milling method can make the design of front teeth more aesthetic.

### Independent R&D

All hardware and software are developed by UP3D. The intelligent control system seamlessly integrates with a durable and unified design.

### Smart

A dental milling machine that defines the era of intelligent dental laboratories.

### UPCNC Software

A software that controls all milling machines and enables real-time monitoring of the production status of multiple machines.

**Dust-Proof  
Slide Design**  
Enhanced Lifespan



Innovatively restructured with **dust-proof slide technology**, it effectively isolates dust, reduces maintenance needs, and significantly prolongs the machine's lifespan. **Enjoy a more efficient and durable machining experience.**

**Custom  
BK-1 Clamp**  
Efficient Material Switching



Featuring the custom **BK-1 clamp**, it enables rapid switching between disc and multi-size block materials in seconds, **optimizing production efficiency** and meeting diverse restoration needs.

**90°  
Precision Milling**  
Efficient and Realistic  
Restoration



The Intelligent five-axis synchronous technology supports **90° vertical aesthetic processing**. Combined with a 0.3mm **micro-carving milling cutter**, it integrates precise milling with efficient, realistic restoration to ensure high-quality outcomes.

**Smart Remote  
Operation**

Boosting Productivity  
and Efficiency



**Remote control through Millmind software**, along with smart milling reminders and tool life monitoring, effectively supervising production status and significantly boosts production efficiency.

# 90° VERTICAL MILLING

Designed for areas that require **high precision and aesthetics**, vertical milling at 90 degrees textures labial (or buccal) surfaces with precision, enabling more varied anterior esthetics.

**This approach significantly reduces complex post-processing time and lowers labor costs.**



# Highlighted Features



## MILLING PROGRESS BAR WITH LED LIGHT

### Real-time monitoring

The external LED strip synchronizes with the device to display the milling progress in real time, reducing the need for manual checks and improving production efficiency.



## MILLMIND MOBILE PROCESSING STATUS MONITORING

1. Remote equipment control, real-time processing updates
2. Spare tool inventory verification, priority-based processing queue adjustment



## TOOL LIFESPAN DISPLAY

### Greater durability and precision

Integrated with UPCAM, this feature automatically calculates tool wear, intelligently planning its usage cycle. This reduces the risk of porcelain fractures and minimizes process failures.



## RESUMPTION FROM INTERRUPTION POINT

### Improved continuity and efficiency

The software automatically resumes milling from the last interrupted step, avoiding unnecessary repetitions and improving work efficiency by 80%.



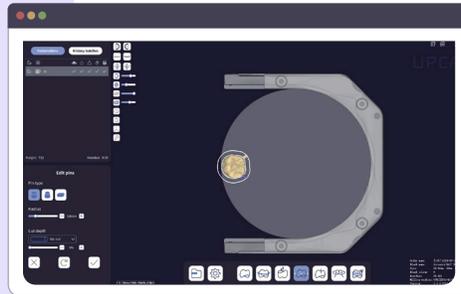
# UPCAM

Advanced Dental Nesting Software  
Seamless Integration | Easy to Use



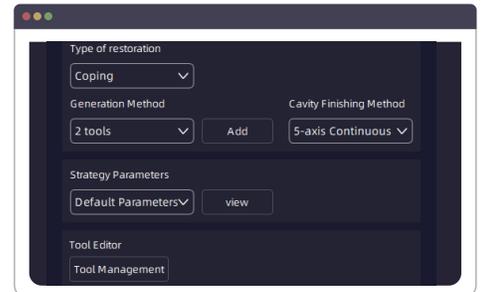
## 01. FAST NESTING

Generates NC files for a single tooth in just 30 seconds; a full disk in 6 minutes.



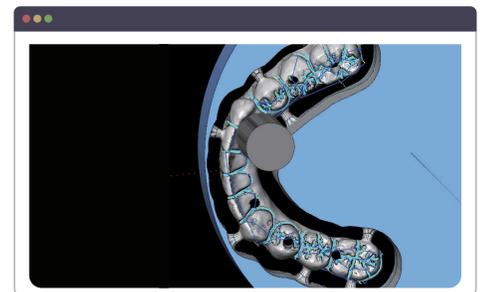
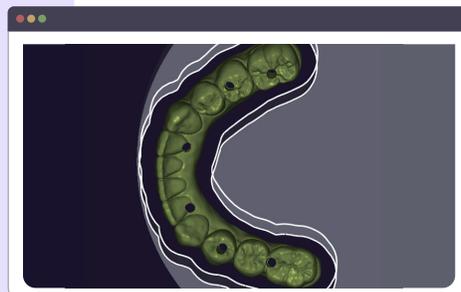
## 02. ALL-IN-ONE SOLUTION

Compatible with all popular materials and customizable milling strategies.



## 03. TOOLPATH SIMULATION

Previsualize milling with precision to anticipate and identify potential risks.



# Technical Specifications

GENERAL	
<b>Dimensions</b>	443.5 × 718 × 628.5
<b>Weight</b>	87 kg
<b>Input Voltage</b>	AC 100-240V
<b>Maximum Power</b>	1.1 KW
<b>Spindle Power</b>	0.35 KW (máximo)
<b>Number of Axes</b>	Five-axis simultaneous
<b>Milling Range</b>	X/Y/Z: 167/200/90 mm, A: ±30°, B: ±360°
<b>Milling Type</b>	Dry milling
<b>Max Spindle Speed</b>	60,000rpm
<b>Max Feed Rate</b>	3000 mm/min
<b>Tools Quantity</b>	11
<b>Tool Change Method</b>	Automatic (air pressure > 0.5MPa)
<b>Spindle Cooling</b>	Compressed air (air pressure 0.15~0.20MPa)
<b>Materials</b>	Zirconia, wax, PMMA, PEEK, cobalt-chromium soft metal, composites
<b>Milling Time</b>	Coping: Zirconia 10 minutes, Wax 4.5 minutes Full crown: Zirconia 13 minutes, Wax 5.5 minutes
<b>Material Size</b>	Discs: height 10-30mm, diameter 98mm Blocks up to 40×20×20mm
<b>Spindle Clamping Diameter</b>	Φ4.0 mm
<b>CAM Support</b>	UPCAM, Millbox
<b>Data Transmission</b>	Network interface

Every detail matters.



*The eX5.3 takes milling  
precision to the next level.*



Designed  
in USA

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DENTAL



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