



4-AXIS WET MILLING MACHINE

Superior Quality, Immediate Fit





UP3D is a high tech company and the few companies in the world that are capable of developing a full dental CAD/CAM solution including software and hardware, from scanning, designing, to milling.

UP3D remains dedicated to our customers' requirements for training and support as well as for innovative, high-quality products that perform reliably. We have native technical support to deal with any after-sales problems to ensure that you can use our products happily.

Becoming the Global Leader in an Exceptional Digital Dental Ecosystem

120+

Countries and regions served

11,000+

Equipment installations worldwide

200+

R&D engineers

35%+

High investment in R&D

4-Axis Wet Milling Machine

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P42 - The P42 is a upgraded four-axis wet milling machine, independently developed by UP3D. It is designed for grinding glass ceramics, composite resins, and titanium rods, capable of processing three ceramic blocks or one titanium rod at a time. The machine's software achieves deep compatibility with the hardware. Moreover, the P42 seamlessly integrates with the SOREAL Immediate Restoration System, incorporating a digital workflow from scanning and design to milling. This simplifies operations and is user-friendly, significantly enhancing the efficiency of restorative creations. The P42 supports functions such as pure water milling, undercut removal, remote control, automatic calibration, and resumption from breakpoint, effectively ensuring machining precision and quality.



UNLEASH DENTAL CREATIVITY

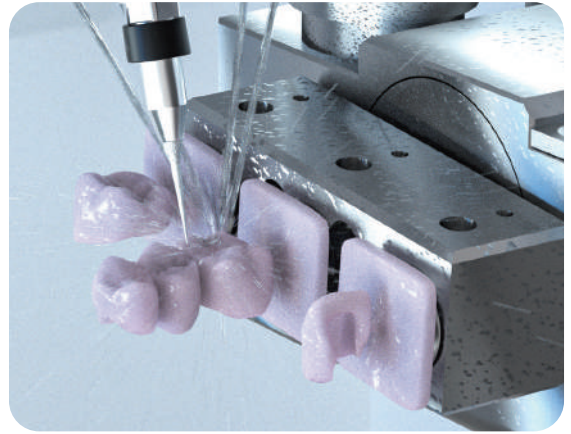




Pure Water Milling

Cost-Efficient and Eco-Friendly

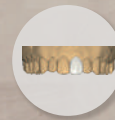
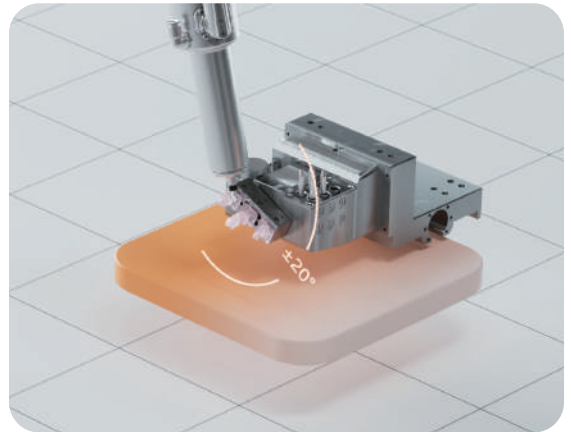
Utilizing pure water for grinding and milling eliminates the need for additional additives, reducing costs and being gentler on materials. This approach does away with complex waste disposal, simplifying operations in an eco-efficient manner. Step into a safe and economical era of restoration effortlessly.



Precision Undercut Removal Milling

Complex Manual Grinding Unnecessary

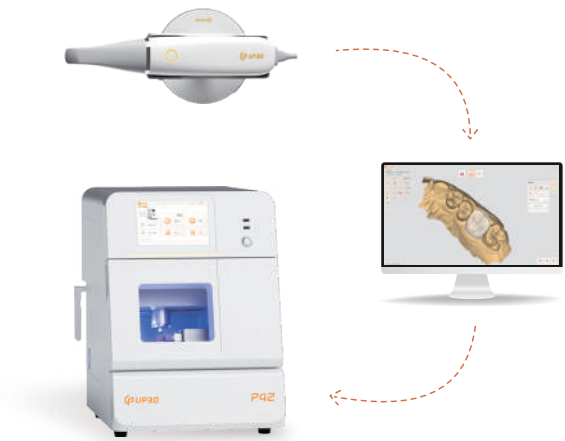
With the A-axis' $\pm 20^\circ$ oscillation combined with UPCAM technology, targeted undercut removal is achieved, avoiding the need for intricate manual adjustments. This precise machining process ensures a perfect fit for restorations.



Seamless System Integration

Simplified Operations Enhance Efficiency

Equipped with an easy-to-use control system and seamlessly integrated with the SOREAL Immediate Restoration System, it incorporates a digital workflow from scanning and designing to milling. This simplicity and user-friendliness improve efficiency and better meet clinical needs.



Smart Remote Operation

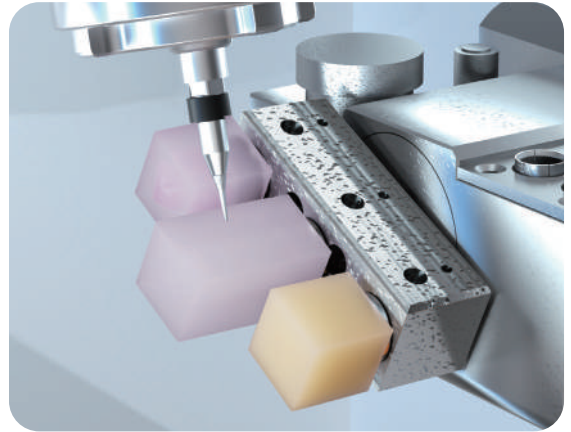
Boosting Productivity and Efficiency

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



Broadly Compatible, Multi-functional Machine Efficiency Multiplied with Simultaneous Processing

Supports materials such as glass ceramics, composite resins, and titanium rods, capable of handling a variety of restorations. With the ability to process three different materials simultaneously, it significantly boosts production efficiency, meeting a wide range of needs from clinics to dental labs.

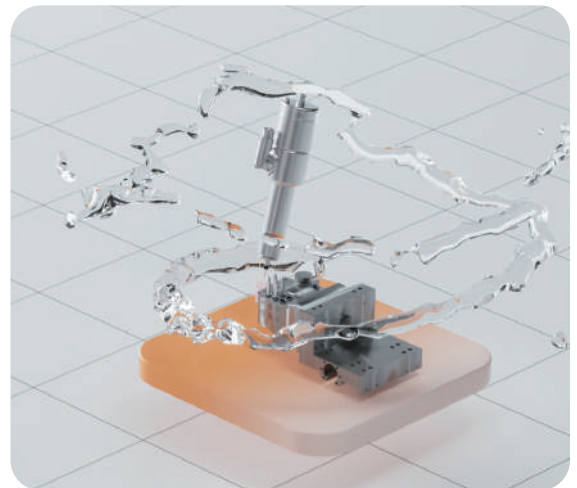
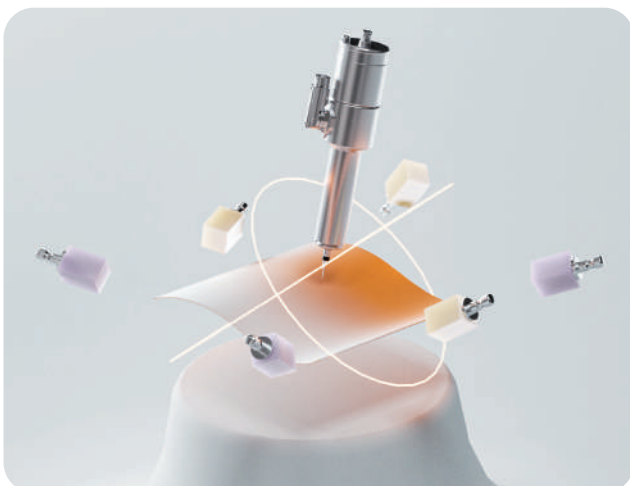


01.High Standard Development Guaranteed Stability

Incorporating water circulation and air cooling technologies to provide exceptional spindle protection, ensuring long-term stability when milling hard materials. Equipped with a German-engineered CAM system, it seamlessly meets personalized processing requirements, enhancing equipment quality and production efficiency.

02.Precision-Cast Structure High-Precision, Stable Milling

Utilizing a cast integrated frame and high-precision motion components to establish manufacturing benchmarks, coupled with UP3D's independently developed control system, achieves precise and stable milling from 0.2mm ultra-thin to conventional veneers.



03.One-Click Automatic Calibration High Precision and Stability

With one-click smart calibration, it simplifies operations and automatically optimizes accuracy, ensuring the machine's precision and stability, reducing milling errors, saving materials, and enhancing efficiency.

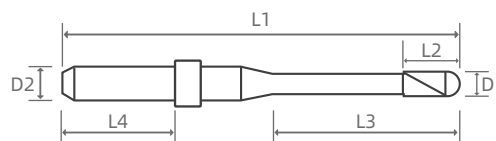
04.Resume from Breakpoint Significantly Enhanced Efficiency

The software can automatically continue milling from the last interrupted step, avoiding repeated milling and improving work efficiency by at least 80%.

Technical Specifications

GENERAL	
Fields of application	Wet machining
Number of Axes	4
Materials	Glass ceramics, titanium, composite resin
Indications	Coping, anatomical crown, screw-retained crown, inlay, onlay, veneer, telescopic crown, implant abutments
Linear Axes X/Y/Z	Driven by precision ball screw (distance of travel of X-/Y-/Z-axis: 110/75/50)
Rotary Axis A-axis	±360°
Lighting	LED lighting with status display
Camera System	Built-in camera for monitoring grinding status
General	Spindle pneumatic tool change (air pressure > 0.5MPa)
Speed	Up to 60,000 rpm
Tool Holder Diameter Compatibility	4Φ
Spindle Power	0.39KW (max)
Tool Change	Tool magazine for 6 tools
Compressed Air	Pressure: 0.5-0.8MPa, consumption: 45 L/min
Voltage/Frequency	100VAC ~ 130VAC, 200VAC ~ 235VAC (Selectable between two ranges), 50~60Hz
Data Transmission	Wi-Fi, USB, Ethernet
Operating Temperature	10 °C ~ 50 °C
Air Moisture	Below 93% RH (relative), non-condensing
Dimensions	LxWxH= 560 x 400 x 565 (mm)
Weight	80KG
CAM Software	UPCAM, Millbox
Jig	Premill abutment jig for multiple implant systems (optional)

Applicable Materials



GLASS CERAMICS (Lisi2) AND COMPOSITES

Tool Name	Tool Type	Tool Coating	D1 (mm)	D2 (mm)	L3 (mm)	L4 (mm)	L1 (mm)
Glass Ceramic Burs	double tooth radius cutter	diamond grit	2.5	4.0	16.0	13.0	40.0
Glass Ceramic Burs	double tooth radius cutter	diamond grit	1.0	4.0	16.0	13.0	40.0
Glass Ceramic Burs	double tooth radius cutter	diamond grit	0.6	4.0	8.0	13.0	40.0

CoCr & TITANIUM

Tool Name	Tool Type	Tool Coating	D1 (mm)	D2 (mm)	L3 (mm)	L4 (mm)	L1 (mm)
Titanium Burs	double tooth radius cutter	+	3.0	4.0	16.0	13.0	40.0
Titanium Burs	double tooth radius cutter	+	2.0	4.0	16.0	13.0	40.0
Titanium Burs	double tooth radius cutter	+	1.5	4.0	8.0	13.0	40.0

Crown / Coping / Veneer / Inlay / Onlay / Pre-milled / Screw-Retained Crown







 www.up3ds.com

 info@up3d.cn

 0755-26983202

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