Innovation Driven by 5,000+ Installations

Unleash the Power of Productivity

UP3D

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

01

Innovation Driven by 5,000+ Installations Unleash the Power of Productivity

P54D - is an independently developed dry milling machine by UP3D, featuring an integrated dust-proof design and structural optimization to extend service life and reduce maintenance costs. Its enlarged milling space and intelligent remote operation capabilities optimize work efficiency. Additionally, the integration of precision machining technology and a negative ion generator ensures highly effective and realistic restoration effects while maintaining a clean working environment. This unleashes new production energy, making it an ideal choice for dental processing

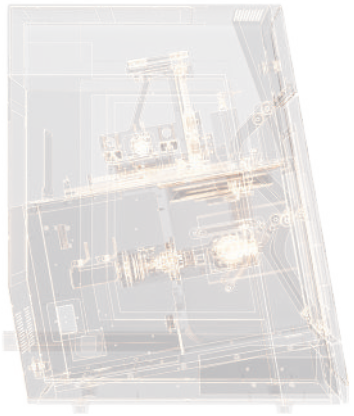
UNLEASH DENTAL CREATIVITY

Integrated Dustproof Design Extended Service Life

P54D features an integrated, fully sealed silicone dustproof design, effectively isolating dust, reducing machine damage and maintenance needs, thereby significantly extending its service life.

Structural Optimization Upgrade Reduced Maintenance Costs

The maintenance process has been streamlined, and the upgraded machine allows even those without prior experience to perform maintenance quickly, significantly reducing overall maintenance costs and enhancing operational efficiency.



Bigger Milling Chamber Optimized Work Efficiency

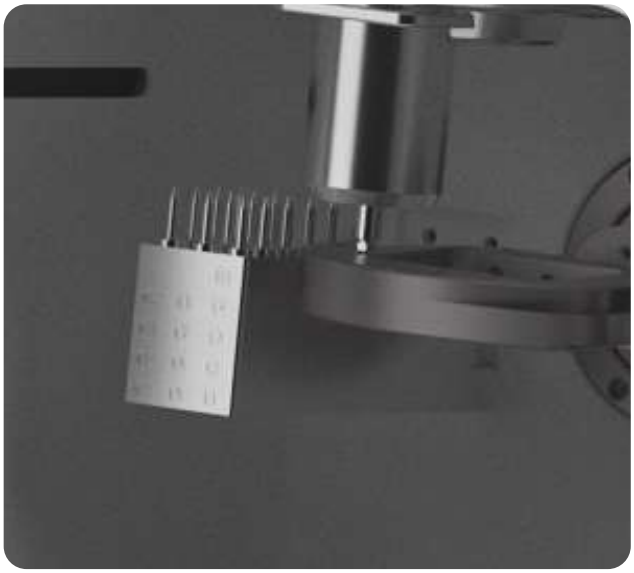
A larger milling chamber provides operators with more space and flexibility, simplifying the process of material installation and removal, effectively improving work efficiency.

Intelligent Remote Operation
Enhancing Productivity and Efficiency

Remote control capabilities are enabled through Millmind software, which, combined with intelligent milling alerts and tool life monitoring, effectively reduce downtime and significantly increase production efficiency.

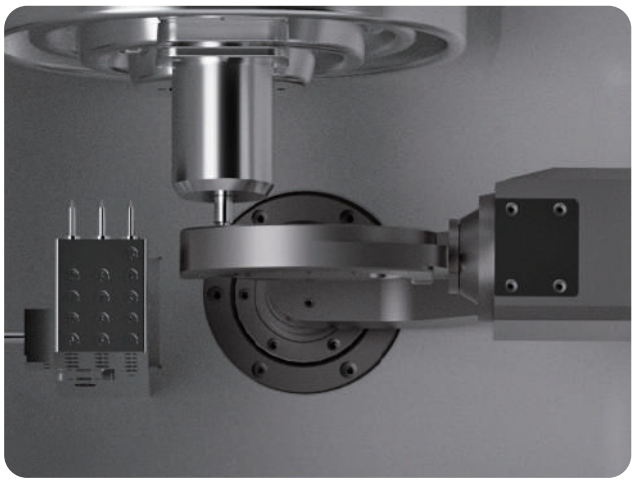
01.Precision Milling Technology
Efficient and Lifelike Restorations

By integrating 90-degree vertical aesthetic milling, 0.3mm micro-engraving technology, and an intelligent five-axis precision milling system, this technology harmonizes precise milling with efficient, realistic restorations, ensuring the high-quality performance of the restorations.



02.Negative Ion Generator
Optimized Cleaning Efficiency

The integration of negative ion technology significantly reduces the static electricity of resin debris, enhancing cleaning efficiency and creating a tidy working environment.



03.Metal Secondary Fixtures and Block Clamps Rapid
Flexible Material Handling

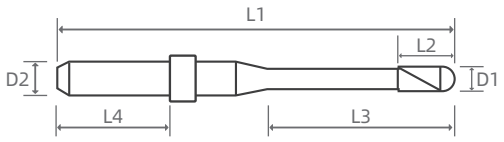
The P54D combines metal secondary fixtures with block clamp designs to offer quick and safe setup, minimizing the risk of material damage. It supports a variety of block material sizes, enabling swift changes and significantly enhancing production efficiency.

Technical Specifications

GENERAL	
Fields of Application	Dry machining
Materials	Zirconia,wax,PMMA,PEEK,composite resin,cobalt-chromium soft metal
Material Specifications	Discs:height 10-30mm,diameter 98mm Blocks up to 40x20x20mm(Max)
Indications	Inlays, anatomical crowns, screw-retained crown, inlays, onlays, veneers, telescopic crowns, abutments, bite splints, full dentures etc.
BASE SYSTEM	
Construction	Machine bed made of solid cast aluminum body
Number of Axes	5-axis
Housing	Steel, white high-gloss paint, main view face molded by injection, equipped with drawers
Linear Axes (X/Y/Z)	Precision ball screw drive; Travel: 155x110x95mm
Rotary Axes (A/B)	A-axis: 360°; B-axis: ±30°
Control Unit	5-axis precision stepping drive system
Lighting	LED lighting inside the working chamber, with additional status display
Power	0.5KW
SPINDLE	
General	High-frequency spindle, pneumatic tool change (air pressure ≥0.5MPa), sealed air to prevent debris from entering
Speed	Up to 60,000 rpm
Tool Holding Diameter	Φ4
Power	0.35KW (max)
AUTOMATION	
Tool Change	Tool magazine for 13 tools, length measurement and tool breakage monitoring via precision measuring key
CONNECTION REQUIREMENTS	
Voltage	100VAC-130VAC, 200VAC-235VAC (selectable), 50-60Hz
Dust Extraction	Filter level: M; Flow rate: 2500L/min
Data	Ethernet port
ENVIRONMENTAL CONDITIONS	
Operating Temperature	Between 10°C and 50°C
Air Moisture	Below 93% (relative), non-condensing
DIMENSIONS & WEIGHTS	
Dimensions (W/D/H)	655x442x761mm
Weight	96KG
SCOPE OF DELIVERY	
CAM Software	UPCAM

UP3D
P540

Applicable Materials



ZIRCONIA (ZrO2)

Tool Name	Tool Type	Tool Coating	D1 (mm)	D2 (mm)	L3 (mm)	L4 (mm)	L1 (mm)
Zirconia DC Burs	double tooth radius cutter	diamond	2.0	4.0	16.0	18.0	50.0
Zirconia DC Burs	double tooth radius cutter	diamond	1.0	4.0	16.0	18.0	50.0
Zirconia DC Burs	double tooth radius cutter	diamond	0.6	4.0	8.0	18.0	50.0
Zirconia DC Burs	double tooth radius cutter	diamond	0.3	4.0	4.0	18.0	50.0
Zirconia DLC Burs	double tooth radius cutter	+	2.0	4.0	16.0	18.0	50.0
Zirconia DLC Burs	double tooth radius cutter	+	1.0	4.0	16.0	18.0	50.0
Zirconia DLC Burs	double tooth radius cutter	+	0.6	4.0	8.0	18.0	50.0
Zirconia DLC Burs	double tooth radius cutter	+	0.3	4.0	4.0	18.0	50.0
Zirconia DLC Flat Burs	double tooth Flat radius cutter	+	1.0	4.0	16.0	18.0	50.0
Zirconia DC Burs Extended	double tooth radius cutter Extended	diamond	2.0	4.0	20.0	18.0	50.0
Zirconia DC Burs Extended	double tooth radius cutter Extended	diamond	1.0	4.0	20.0	18.0	50.0
Zirconia DLC Burs Extended	double tooth radius cutter Extended	+	0.6	4.0	14.0	18.0	50.0

WAX AND PLASTICS (PMMA)

Tool Name	Tool Type	Tool Coating	D1 (mm)	D2 (mm)	L3 (mm)	L4 (mm)	L1 (mm)
PMMA/Wax single flute Burs	single tooth radius cutter	-	2.0	4.0	16.0	18.0	50.0
PMMA/Wax single flute Burs	single tooth radius cutter	-	1.0	4.0	16.0	18.0	50.0
PMMA/Wax single flute Burs	single tooth radius cutter	-	0.6	4.0	8.0	18.0	50.0

COMPOSITES

Tool Name	Tool Type	Tool Coating	D1 (mm)	D2 (mm)	L3 (mm)	L4 (mm)	L1 (mm)
Composite DC Burs	double tooth radius cutter	diamond	2.0	4.0	16.0	13.0	40.0
Composite DC Burs	double tooth radius cutter	diamond	1.0	4.0	16.0	13.0	40.0
Composite DC Burs	double tooth radius cutter	diamond	0.6	4.0	8.0	13.0	40.0

Restoration Types/Materials

	Zirconia	PMMA	PEEK	Composite Resin
Coping/Full Crown	✓	✓	✓	✓
Three-Unit Bridge	✓	✓	✓	✓
Inlay/Onlay	✓			✓
Veneers	✓			✓
Screw-Retained Crown	✓	✓		✓
Custom Abutment	✓		✓	
Thimble Bar	✓		✓	
Partial Denture Frameworks	✓	✓	✓	
Superstructures Over Bars	✓	✓		
Full Dentures		✓		
Full Dentures without Teeth		✓		
Bite Splint		✓		

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