

NextDent[®] 5100

High-speed dental solution addressing the broadest range of applications with NextDent 3D printing materials



Powered by revolutionary Figure 4[®] 3D printing technology, the NextDent 5100, combined with the industry's broadest portfolio of dental materials for both medical and non-medical devices, addresses multiple applications, resulting in unparalleled accuracy, repeatability, productivity, and total cost of operation.

NextDent® 5100

High-speed dental 3D printer

DIGITAL DENTISTRY, REDEFINED

The NextDent 5100 facilitates high-speed 3D printing for production of dental appliances and sacrificial castings. This revolutionary solution features an industry-defining value proposition that combines best-in-class speed and performance at a price point that is accessible to virtually all labs and clinics. The range of dental materials, advanced print technology and compatibility with leading dental software is transforming dental workflows, enabling dental labs and clinics to produce trays, models, surgical guides, dentures, orthodontic splints, crowns and bridges with enhanced speed, precision, efficiency and lower cost.

NEXTDENT DENTAL MATERIALS FOR 3D PRINTING

Combined with a portfolio of 30 unique NextDent 3D printing materials*—the largest number available from any material supplier—the NextDent 5100 addresses multiple dental applications. These materials are offered in a variety of aesthetic colors to closely match patients' teeth and gums. NextDent 3D printing materials for medical devices are biocompatible and CE certified in accordance with Medical Device Directive 93/42/EEC, listed at FDA, and registered in various other countries.

TRUSTED END-TO-END WORKFLOW

Fully compatible with industry-standard intra-oral scanning and software solutions, the NextDent 5100 delivers precise results every single time with minimal human intervention. Combine the printer with other 3D Systems dental solution components to create a comprehensive and trusted workflow. This includes the LC-3DMixer for optimal stirring of materials, and the LC-3DPrint Box for UV post-curing.

EXPERIENCE YOU CAN COUNT ON

3D Systems has leveraged its 30 years of 3D printing experience in combination with the leading developer of biocompatible dental 3D printing materials to deliver the NextDent 5100 solution. This complete solution represents industry-defining materials and print innovation, dental domain expertise, and regulatory compliance in all major markets to revolutionize your workflow.

Accessories

LC-3DPRINT BOX UV POST-CURING UNIT

Post-curing is required in order to obtain the final material properties, and is a necessary step to produce a biocompatible end-product with medical device NextDent materials. The LC-3DPrint Box is a revolutionary UV light box equipped with 12 UV light bulbs strategically placed inside to ensure a product is illuminated from all sides, which results in a quick and uniform curing cycle. Always follow the instructions for use relevant to the corresponding material.

LC-3DMIXER FROM 3D SYSTEMS

The LC-3DMixer keeps your NextDent 3D materials ready for use at any time at an optimum consistency. The LC-3DMixer is a roller/tilting stirring device for mixing 3D printing materials before pouring in the resin tray of the printer. Print resins must be mixed well, and handshaking is insufficient for highly filled and colored materials, and when mixed insufficiently color deviation and print failures may occur.



NextDent 3D Printing Materials

The NextDent 5100 addresses multiple applications with a broad range of NextDent materials*



Denture 3D+

3D print resin for the manufacturing of removable denture bases



C&B MFH

Micro filled hybrid 3D print resin for the manufacturing of long-term temporaries



Try-in

3D print resin for the manufacturing of try-in devices



Tray

3D print resin for the manufacturing of individual impression trays



SG (Surgical Guide)

3D print resin for the manufacturing of dental surgical guides



Model 2.0

3D print resin for the manufacturing of prosthodontic and orthodontic models



Gingiva Mask

3D print resin for the manufacturing of gingiva masks on dental models



Ortho Rigid

3D print resin for the manufacturing of dental splints



Ortho IBT

3D print resin for the manufacturing of Indirect bonding trays.



Cast

3D print resin for the manufacturing of castable parts

*Refer to your NextDent sales professional or NextDent Authorized Partner for NextDent materials available by country for the NextDent 5100 based on regulatory compliance by country.

Sp 3D Sprint®

End-to-end software solution for NextDent 5100 Printing workflows

NextDent 5100 printer uses 3D Sprint, 3D Systems' advanced software for file preparation, editing, printing and management from a single, intuitive interface. 3D Sprint enables the customer to significantly decrease cost of ownership of their 3D printers by reducing the need for costly software seats by third party vendors. Ease to use, 3D Sprint features automated part placement and support generation, and tools to modify the geometry without going back to the CAD data.

Co 3D Connect™

A new level of management in 3D production

3D Connect Service provides a secure cloud-based connection to 3D Systems service teams for proactive and preventative support to enable better service, improve uptime and deliver production assurance for your system.

NextDent® 5100

SYSTEM PROPERTIES	
Build Volume (xyz)	124.8 x 70.2 x 196 mm (4.9 x 2.8 x 7.7 in)
Resolution	1920 x 1080 pixel
Pixel Pitch	65 microns (0.0025 in) (390.8 effective PPI)
Wavelength	405 nm
Production Time for Full Arch Model	40 minutes to print a plate full of models
Operating Environment	
Temperature	18-28 °C (64-82 °F)
Humidity (RH)	20-80%
Electrical	100-240 VAC, 50/60 Hz, Single Phase, 4.0A
Dimensions (WxDxH)	
3D Printer crated	73.66 x 68.58 x 129.54 cm (29 x 27 x 51 in)
Pedestal crated	82.55 x 79.375 x 55.245 cm (32.5 x 31.25 x 21.75 in)
3D Printer uncrated	42.6 x 48.9 x 97.1 cm (16.7 x 19.25 x 38.22 in)
3D Printer + Pedestal uncrated	68.1 x 70.4 x 135.6 cm (26.8 x 27.71 x 53.38 in)
Weight	
3D Printer crated	59 kg (130 lbs)
Pedestal crated	26.3 kg (58 lbs)
3D Printer uncrated	34.5 kg (76 lbs)
3D Printer + Pedestal uncrated	54.4 kg (120 lbs)
Certifications	FCC, CE, EMC
Warranty	12 month manufacturer's warranty included. 12 to 24 month extended warranty options available.

ACCESSORIES	
LC-3DPrint Box	Load capacity (WxDxH): 260 x 260 x 195 mm Dimensions (WxDxH): 41 x 44 x 38 cm Full light spectrum: 300-550 nm Controlled temperature for optimal curing Weight (uncrated): 22 kg Electrical: 110V/230V, 50/60 Hz, 2.6A/1.3A
LC-3DMixer (for mixing materials, purchase separately)	Dimensions (WxDxH): 410 x 270 x 100 mm Weight (uncrated): 4 kg Electrical: 100-240 V, 50/60 Hz

MATERIALS	
Build Materials	Materials specifications are listed on nextdent.com. For specific information about the available resins and colors for the NextDent 5100 please contact your authorized reseller or area sales manager.
Material Packaging	1 kg bottles for manual pour

SOFTWARE AND NETWORK	
3D Sprint® Software	Easy build job set-up, submission and job queue management; Automatic part placement and build optimization tools; Part nesting capability; part editing tools; Automatic support generation; Job statistics
3D Connect™ Software Capable	3D Connect Service provides a secure cloud-based connection to 3D Systems service teams for proactive and preventative support.
Connectivity	10/100/1000 Ethernet Interface
Client Hardware Recommendation	<ul style="list-style-type: none"> • 3 GHz multiple core processor (2 GHz Intel® or AMD® processor mini) with 8 GB RAM or more (4 GB mini) • OpenGL 3.2 and GLSL 1.50 support (OpenGL 2.1 and GLSL 1.20 mini), 1 GB video RAM or more, 1280 x 1024 (1280 x 960 mini) screen resolution or higher • SSD or 10,000 RPM hard disk drive (minimum requirement of 7 GB of available hard-disk space, additional 3 GB free disk space for cache) • Google Chrome or Internet Explorer 11 (Internet Explorer 9 mini) • Other: 3 button mouse with scroll, keyboard, Microsoft .NET Framework 4.6.1 installed with application
Client Operating System	Windows® 7 and newer (64-bit OS)
Input File Formats Supported	STL, CTL, OBJ, PLY, ZPR, ZBD, AMF, WRL, 3DS, FBX, IGES, IGS, STEP, STP and X_T

NOTE: Not all products and materials are available in all countries — please consult your local sales representative for availability.

Warranty/Disclaimer: The performance characteristics of these products may vary according to product application, operating conditions, material combined with, or with end use. 3D Systems makes no warranties of any type, express or implied, including, but not limited to, the warranties of merchantability or fitness for a particular use.

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