



OnDemand3D 4K Printer

For Digital Dentistry by Cybermed



CYBERMED

Cybermed's OnDemand3D 4K Printer is a dental equipment with superior user-convenience and stability.

Dental-specific 3D printer enables easy access to digital dentistry with our 3D printing solution.



A white OnDemand3D 4K printer is shown on the left side of the page. The printer's door is open, revealing a metal mesh tray inside. The printer has a black control panel with the OnDemand3D logo and the text "PREMIUM 4K 35µm".

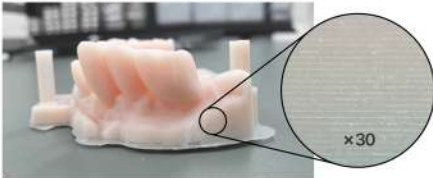
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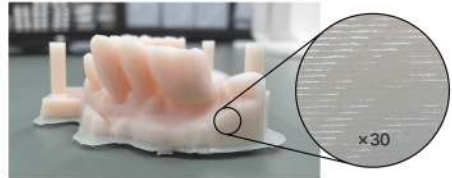
High Performance 4K, 35 μ m

4K(35 μ m) vs 2K(50 μ m) output comparison

4K 4098 \times 2560 pixels

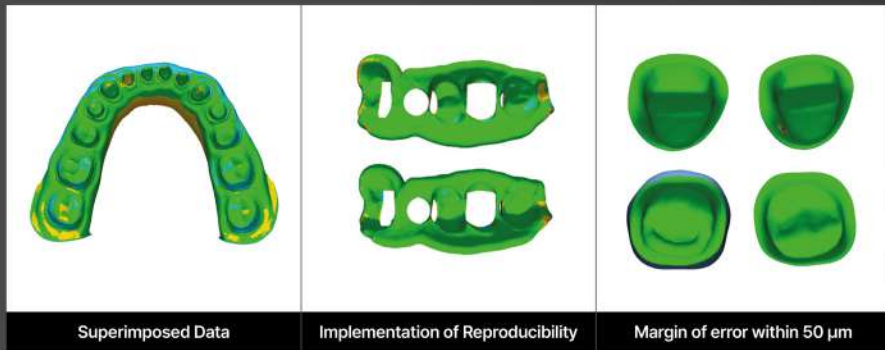


2K 2560 \times 1620 pixels



One of the most refined outcome 3D printers can produce, 35 μ m.
OnDemand3D 4K Printer's meticulous production yields more precise production.

Accuracy



Reference

Clinical acceptability

- The findings of this review support the use of **3D printing** for the fabrication of **dental models** and deem them as clinically acceptable with the majority of included studies ($n = 20/28$) establishing a clinically acceptable error range of <100 to 500μ m.

[Etemad-Shahidi, Y., Qallandar, O. B., Evenden, J., Alifui-Segbaya, F., & Ahmed, K. E. (2020). Accuracy of 3-dimensionally printed full-arch dental models: A systematic review. *Journal of clinical medicine*, 9(10), 3357.]

- It is, however, worth noting the included studies which used **orthodontic models** [19,34,36,42,46,47,49,50,52,55,57] had more relaxed thresholds for clinical acceptability (**up to 500 μ m**), compared to those intended for prosthodontic applications (**up to 200 μ m**) [6,51,53].

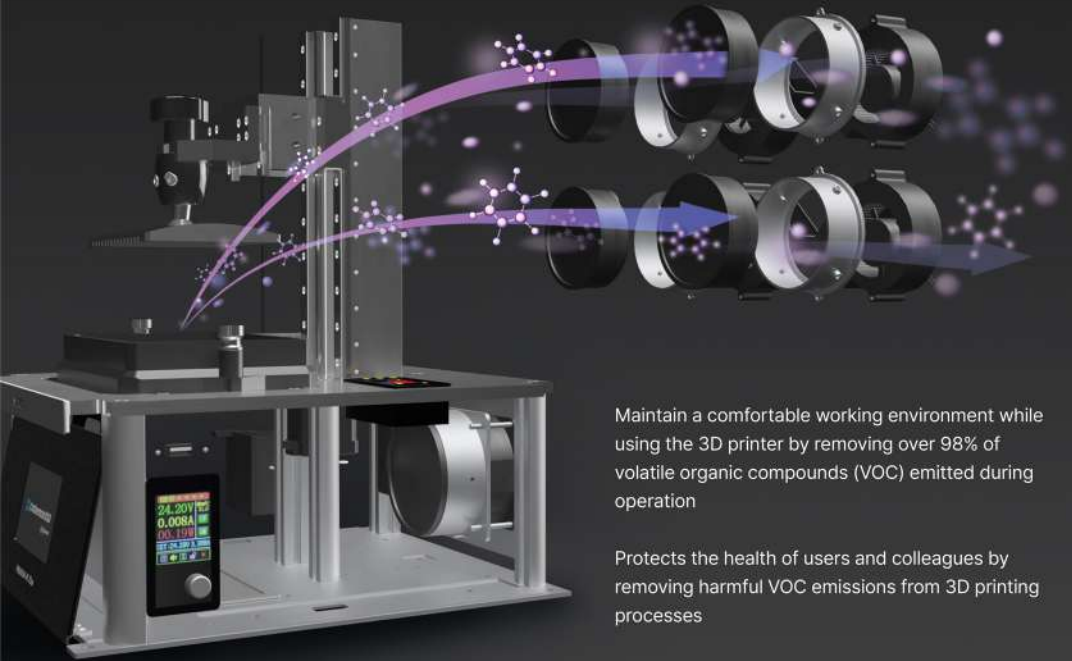
[Etemad-Shahidi, Y., Qallandar, O. B., Evenden, J., Alifui-Segbaya, F., & Ahmed, K. E. (2020). Accuracy of 3-dimensionally printed full-arch dental models: A systematic review. *Journal of clinical medicine*, 9(10), 3357.]

- The threshold of clinical acceptability was 200μ m.

[Shen, Y. R., Chen, H., Ma, K. N., & Sun, Y. C. (2021). Quantitative evaluation of printing accuracy of multi-color and multi-hardness three-dimensional printing dental model with photopolymer jetting. *Zhonghua kou Qiang yi xue za zhi* = *Zhonghua Kouqiang Yixue Zazhi* = *Chinese Journal of Stomatology*, 56(7), 652-658.]

Eliminates VOC and its Odor! For User and the Environment.

Total Volatile Organic Compound (TVOC) filtering system.



Maintain a comfortable working environment while using the 3D printer by removing over 98% of volatile organic compounds (VOC) emitted during operation

Protects the health of users and colleagues by removing harmful VOC emissions from 3D printing processes

TEST REPORT

1. NO : 0223-018886

2. Client
 ○ Name : ONSHED INC.
 ○ Address : 8-26, Yuseong-daero 100beom-gil, Yuseong-gu, Sejong, Korea

3. Date of Test : 2022.09.15 ~ 2022.10.07

4. Use of Report :

5. Test Sample : OnDemand3D Printer

6. Test Method
 (1) [Criteria] : Requirement method] ISO/IEC 26000-1:2018

7. Test Results

1.1 OnDemand3D Printer

Test Item(s)	Unit	Test Method	Test Results	Remark
TVOC emission rate(20°C...)	mg/h	(1)	4.223	-
Formaldehyde emission rate(20°C...)	mg/h	(1)	0.000	-

Greenguard

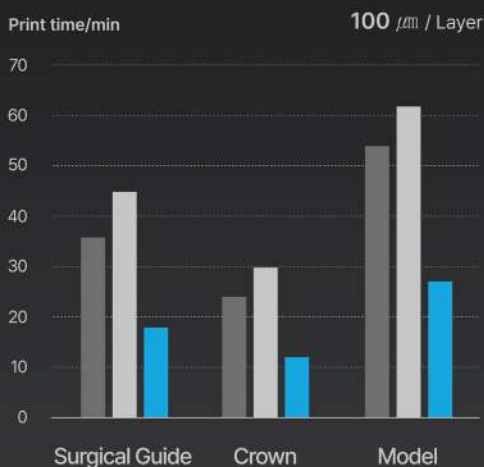
대상제품 : 3D프린터

ANSI/CAN/UL 2904 인증기준

대상물질	단위	공정	사무실	가정
TVOC		94.7	10.4	3.25
Benzene		0.284	0.0312	0.00974
Toluene		28.4	3.12	0.974
Ethylbenzene		181	17.7	5.52
m,p-Xylene	mg/h	66.3	7.38	2.27
o-Xylene		66.3	7.38	2.27
Styrene		47.4	5.20	1.62
Formaldehyde		1.70	0.187	0.0585
Acetaldehyde		13.3	1.46	0.455
Total Particles	Particles/h			3×10^{11}

The TVOC emission test resulted in a rate of 4.223 mg/h, which is lower than the office standard for TVOC set by Greenguard (10.4 mg/h). With its advanced filtration system, OnDemand3D 4K Printer reduces TVOC emission by over 98% compared to printers without filters

Faster Printing



■ Company A ■ Company B

■ OnDemand3D 4K Printer

■ OnDemand3D 4K Printer

Surgical Guide

18 minute / 19.4mm

Crown

16 minute / 17.0mm

Model

27 minute / 46.7mm

*Note: Printing time may vary based on the height of the design.

Diverse Application

Application



Auto-Calibration

Easy for beginners to use!

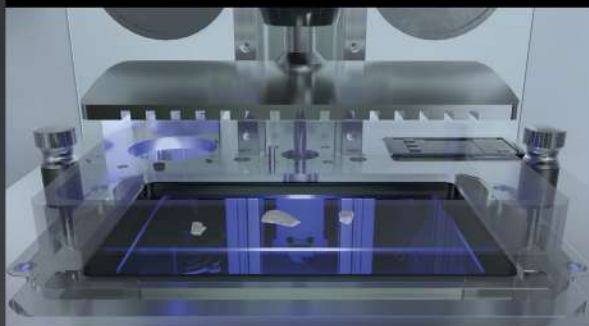
The pressure sensor of the OnDemand3D 4K printer is installed on the plate instead of the LCD screen, allowing it to detect any resistance on the plate and immediately recognize the position for print initiation or stoppage.

Automatic obstacle detection prevents damage to the LCD screen and failed initial prints caused by foreign substances or variations in film thickness. This effortless calibration process makes the OnDemand3D 4K printer user-friendly, even for beginners.



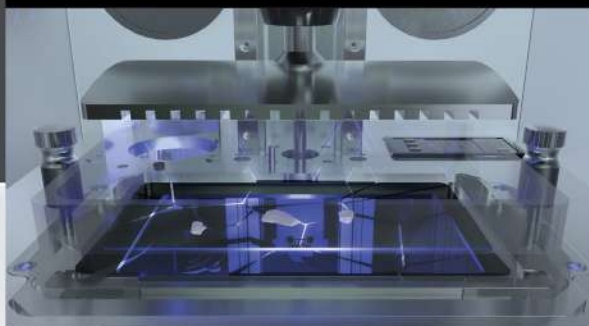
Pressure Sensor applied

Prevents LCD damage by self-detecting its horizontal position and retracting upon encountering any obstacles in the path



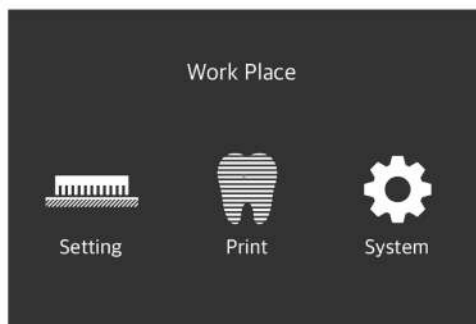
Without the Pressure Sensor

Without a pressure sensor, the plate may push through any obstacles in its path while trying to reach the original calibration point, leading to potential LCD damage



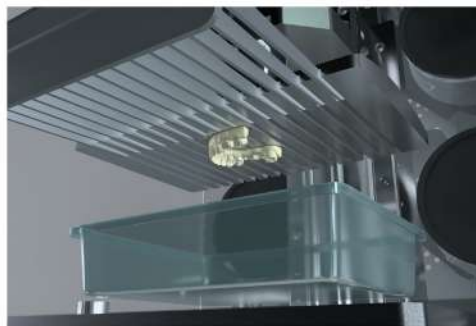
User-Friendly Design, Advanced Functions

Experience high-quality dental products using the OnDemand3D 4K Printer!



Convenient Touch Screen

Easily navigate printer functions with the touch screen interface.

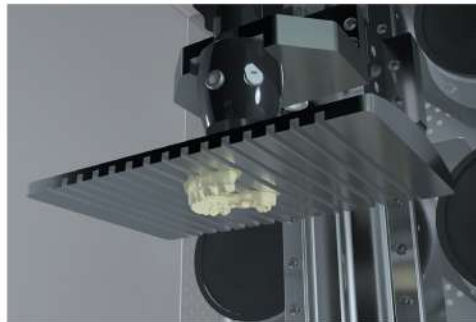


Dedicated 4K remover



Effortlessly remove resin with no spills using the dedicated 4K remover for fast post-processing.

Channel type plate enhances stability and adhesion of resin to printed objects.



Wide Plate

The plate's wide and large size of 140×95×150mm allows for multiple designs to be printed at once.

Up to 70 single crowns can be produced at once.



Clean Function

To enhance the durability of the fluorine film and enable longer usage of the vat, the printer features a clean function which cures a single layer on the bottom surface of the vat, allowing for easy removal of any residual material accumulated on the surface.



Auto-Temperature Control

Built-in auto-temperature control system maintains optimal internal temperature of the printer, enhancing resin flow and print success rate.



UV Light Power Stability

You can easily check and regulate the voltage supplied to the UV LED, adapting to different building power supplies.

Optimized printing settings for the best output quality on the installation site.

OnDemand3D 4K Printer

Specifications



Particulars	Specifications
Type	4K LCD 6.6 in (Monochrome)
X-Y Resolution	4098 × 2560 (35 μm)
Z Resolution	10 μm ~ 100 μm
Building Size	140 mm x 90 mm
Light Source	405 nm arrayed LED / 100 w
Build Plate Type	Auto-levelling / Channel type
Machine Dimension	W300 mm D320 mm H420 mm
Heating	Auto-heating Chamber / Air cleaning filter
Weight	15 kg
Power	AC 210~230 / 700 W

CYBER WASHER

Specifications



Particulars	Specification
Size	210×174×349 (mm)
Weight	5 kg
Color	White and Black
Power	DC 12V
Wash Fluid	Plant-based washing fluid

Convenient Use	User-friendly UI <ul style="list-style-type: none">• Simple Operating Method• Timer Switch (Max. 5 minutes)
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Washing Method	Vortex & Vibration Cleaning
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CURE BOX

Specifications



Particulars	Specification
Curing Capacity	Ø150 mm x 110 mm at most
Size	280 (W) x 283(D) x 291 (H) mm
Weight	12 kg
Color	Metal Black
Voltage	100 ~ 240 VAC 50/60 Hz

Low International Voltage Directive	International Standard Met <ul style="list-style-type: none">• IC 61010-1• IC 613261
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Easy Use	User-friendly UI <ul style="list-style-type: none">• Automated 360° Turn table• Touch Screen
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Curing Method	UV LED <ul style="list-style-type: none">• Wavelength: 395-405 nmMaximum amount of light: 300 mW/cm2
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**Cybermed
Multi-Cart on Sale**

Resin printing and Post-curing program

Brand	Resin Type	Printing	Thickness per layer	Post-Curing
CYBERMED	Model	1.8 sec / layer	50 µm	1 min
	Casting	1.3 sec / layer	50 µm	3 min
ODS	Guide	3 sec / layer	100 µm	7 min
	C&B	3 sec / layer	100 µm	7 min
	Permanent	3 sec / layer	100 µm	7 min
Key STONE	Soft Splint	2.5 sec / layer	100 µm	3 min

Service Quality

Cybermed's 3D printing specialists, who are nationally certified and trained through programs offered by leading international 3D printing companies such as EOS in Germany and DWS in Italy, strive to provide professional and reliable service as their top priority.





TECHDENT

T U M U N D O A G R A N E S C A L A

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