

3D PRINTER FOR DENTAL APPLICATIONS

D20



Specifications

Refer to accessories pricelist for part numbers and prices. This document refers to these part numbers

Dental 3D Printer D20

The D20 additive manufacturing system generates precise 3D printed parts such as surgical guides, waxes for partial frameworks and bridges, night guards, bite splints, temporary crowns & bridges, implant models, ortho models and more. The very compact printer is made for professional use in dental clinics, small labs and chairside. Dental Wings offers D20 within a total solution in cooperation with its certified software and certified material partners. Biocompatibility approval under CE and/or FDA regulations allow use of the printed parts in the patient's mouth. With this professional solution, you have access to personal support and training from the service team. The D20 is an open platform providing full flexibility to its users.

The D20 sets the benchmark in professional dental printing in terms of speed, precision and certified open solution. Furthermore, it provides:

- ✓ highly esthetic prints with pure color / pure transparency based on professional 385nm UV LED
- ✓ ease of use thanks to resin handling system (RSH) and control features
- ✓ certified auto calibration sensor (ACCS)
- ✓ fastest print speed makes chairside treatment / short lab response possible; optionally available with force-feedback (patented)
- ✓ ultra-compact design suitable for dental clinics, small labs and chairside: Flat, easy-to-clean

Performance Parameters

build area: 130 * 75 * 90 mm (+/- 1 mm)
 native pixel: +/- 34 µm, (HD 1920 x 1080 px),
 layer thickness: 50 and 100 µm standard (highest z-resolution 0,5 µm)
 projector: UV 385nm, high power LED
 speed: w/o force feedback: *surgical guide* down to 30 min; *other* 50–90 min
 with force feedback: *surgical guide*: down to 16 min; *other*: 30–60 min
 (up to 100 mm/h by force feedback)

Application	Content one platform	Time (+/-5 min)	weight (gr)	approx. material cost
Model Implant or stump	1x upper & 1x lower <u>incl.</u> stumps	00:45	20	6,0 €
Cast – Partial	15 x bridge with 4 elements	00:40	1	0,7 €
Cast – Partial	4x partial framework	00:50	4	2,8 €
Drill Guide	2x surgical guide	00:16	6	4,2 €
Tray	6x trays	01:00	16	4,8 €
Splint	8x splint	01:00	5	2,5 €
ortho model	6x ortho model	01:00	15	3,6 €
Bonding Tray	2 x indirect bonding tray	00:15	3	2,1 €
Provisional C&B	15 x C&B with up to 4 elements	00:18	1	1,1 €
Denture	4x denture	01:15	11	5,7 €
Gingiva	15x gingiva	00:15	1	0,6 €

Control & Systems

control & connect: 7' status indicator; three buttons, WLAN, TCP/IP, USB
 ease of use: resin handling system, dual RFID sensor

Installation

electrical supply: 110 – 250 V, 50/60 Hz
 size (w* d* h): 335 * 349 * 541 mm
 weight: approx. 33 kg

Manufacturer

Rapid Shape GmbH
 Römerstrasse 21
 71296 Heimsheim
 Germany

DWP Part Number
D20
A.DWP.D20
Delivery Content

1x 3D printer D20; 1st year maintenance contract; 8h partner remote installation support;
 1x slicing software; 1x tray; 1x build platform; 1x calibration sensor; 1x spatula; 1x scraper; 1x UV
 safety goggles; 1x tools; 1x lens cloth; 1x USB memory stick; 1x gloves.

D20 Force-feedback Option

Increases print speed by approx. factor two based on patented force-feedback.

DWP001181
Dental Wings printer starter kit
A.DWP.STAKIT

Liquid for cleaning (Shera clear-p, Shera ultra-p)
 1 Liter material (model or guides)
 1 resin reservoir
 1 light curing machine
 1 small ultra sonic circle plastic box for cleaning the printed parts
 1 big ultra sonic circle plastic box for cleaning the printed parts
 1 plastic box for the white light machine

Accessory Package D20
DWP001187

Consisting of: 3x tray; 1x tray cabinet; 1x build platform; 1x build platform handling device;
 0.5l part cleaner; 1x surface cleaner; 1x ultrasonic glass; 25x resin filter;
 1x funnel for resin filter; 1x set of handling tools (package discounted by 10%)

Extras / Consumables

Training at Rapid Shape or Dental Wings premises: 3 days group training

A.DWP.TRAIN

Remote Maintenance Contract (annual fee, starting from year 2, mandatory)

DWP001360

Firmware -, slicer - and material library update; sensor send-in calibration; hotline;
 one remote online check of 3D printer and slicer computer

Packaging (special wooden package, shock- & tilt protection, mandatory)

DWPCRATE000042

Tray / Resin Reservoir D20

DWP001185

Cover for Tray / Resin Reservoir D20

DWP001224

Building Plate D20

DWP001186

High performance photopolymers from Certified Material Partners (CMP)

Note: Rapid Shape and certified material partners collaborate in order to optimally tailor the 3D printers to the 3D printing materials and vice versa.

Note: Dental Wings and Shera collaborate in order to streamline the workflows associating Dental Wings scanners and software with Dental Printers and Shera material. This includes formulation & hardware as well as process parameters definition within DWOS.

Shera Print® materials of SHERA available directly via Dental Wings at special prices
www.shera.de

FotoDent® materials of company DREVE available directly via Dreve GmbH / Depots
www.dreve.com

3Delta materials of company DELTAMED available directly via Deltamed GmbH / Depots
www.deltamed.de

FreePrint® Materials of company DETAX available directly via Detax GmbH / Depots
www.detax.de

PRINT4D Materials of company GC available directly via GC AG / Depots
<http://www.gceurope.com/>