The 3D printing standard in speed, reliability and workflow integration

rapidshape
DENTAL

We develop solutions for the needs of our customers - quickly and efficiently. We do this on the basis of our many years of experience and our extensive investments in research and development.

Making our customers' daily work easier through professional 3D printing — that is our drive.

Rapid Shape accompanies you throughout the entire 3D printing process and supports compliance with the Medical Device Directive.

Andreas Schultheiss
CEO Rapid Shape GmbH

Andreas Geitner
CTO Rapid Shape GmbH

Professional solutions for dentists, small labs, sizeable labs and industry

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Each machine is an all-rounder

28x crown & bridge units, printed in ~ 15 minutes

2x surgical guides, printed in ~ 15 minutes

4x splints, printed in ~ 15 minutes

4x indirect bonding tray, printed in ~ 15 minutes

2x trays, printed in ~ 15 minutes (horizontal)

6x trays, printed in ~ 45 minutes (vertical)

4x denture bases, printed in ~ 45 minutes

2x ortho models, printed in ~ 20 minutes

4x cast partials, printed in ~ 45 minutes

28x gingiva mask units, printed in ~ 15 minutes

2x master models, printed in ~ 25 minutes

All mentioned printing times are based on jobs done on a D20+ equipped with Force Feedback System.

RS wash

Perfect finish for dental products from the printer: automatic and environmentally-friendly cleaning.

The RS wash automated cleaning system boasts several new features to make cleaning your prints safe and easy (patents pending).

Fully automatic cleaning in approximately 6-8 minutes without the need to handle sticky resins. Easily achieve optimal results without wasting cleaning materials. The RS wash connects wirelessly to your printer, streamlining how you clean your prints.

Performance parameters	RS wash
Volume	130 × 75 × 60 mm
Cleaning time	approx 6–8 minutes (depending on material)
Cleaning medium	Isopropanol, ethanol
Connections	WLAN/LAN
Dimension (W × H × D)	230 × 270 × 450 mm

Effective computer-controlled cleaning agent use

Exchangeable liquid container (plug-in system)

Stackable with RS cure

Wireless connectivity to printer

Clean process, no handling of sticky resins

Reduced smell

RS cure

Safety and speed through-out the entire production process: 360° curing with certified programs.

The RS cure unit offers a validated material curing in just about 6-10 minutes. The illumination system cures homo-geneously from all sides by powerful LEDs in combination with heating and vacuum (patents pending). The radiation covers the UVA and UVB spectrum.
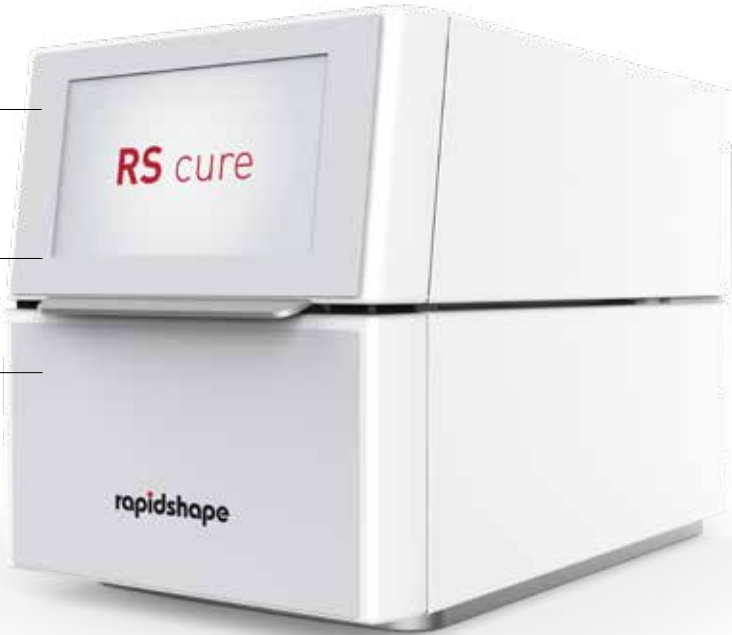
Mechanical properties and biocompatibility of the final product is certified by various material suppliers. Equipped with a data link to the 3D printer, the right curing program is pre-selected and starts with the touch of a button.

Performance parameters	RS cure
Volume	130 × 75 × 60 mm
Curing time	approx 6–10 minutes (depending on material)
Connections	WLAN/LAN
Dimension (W × H × D)	230 × 270 × 380 mm
Version	with vacuum

360° illumination in one go

Certified auto calibration (ACCS)

Stackable with RS wash

Validated process

Compatibel with various material suppliers

Works with vacuum

Wireless connectivity to printer

Industrial manufacturing solutions:
Stand-alone or in sequence
with full automation

rapidshape

RS inline

D70+

The standalone 3D printer for industrial dental production.

Rapid Shape D70+ offers all features for the volume production of high quality dental products. A true industrial grade printer engineered for 24/7 production on 100 % load. Modular high performance sub-systems including a dual-circuit cooling system with heat exchanger ensure optimal operation. Open system architecture allows a wide range of materials.

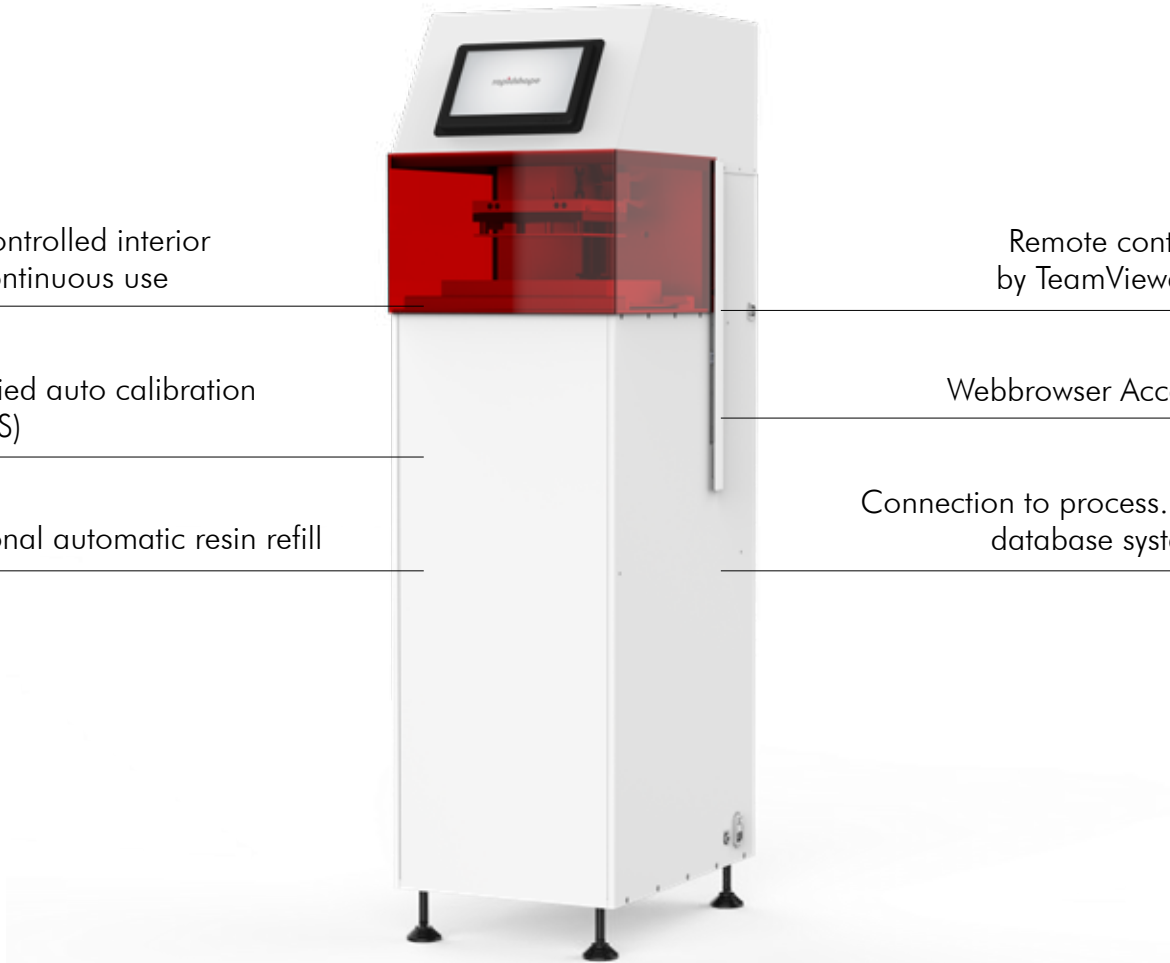| Performance parameters	D70+
Intended use	General dental
Building area	232 × 137 mm
Native pixel	+/– 23 µm
Max. part height	150 mm
Light source	385 nm, ultra high power UV LED
Resolution	4K 3840 × 2160 XPR
Dimension (W × H × D)	443 × 1593 × 625 mm
Connections	TCP/IP, USB
Control	10" touch-screen

AC controlled interior for continuous use

Certified auto calibration (ACCS)

Optional automatic resin refill

Remote control by TeamViewer®

Webbrowser Access

Connection to process.net database system

Designed for industrial continuous manufacturing

Lowest cost per part

Joint development of applications

D90+ with Platform Changer

Reliable, open and most cost-effective production with automated platform changing.

The D90+ with Platform Changer is a high-performance printer for centralized production.

D90+ is a heavy use unit without any compromises in quality. Highest up-time rate, thanks to the patented Force Feedback technology, and lowest depreciation per part produced. The open system architecture allows a wide range of materials.

The Platform Changer (PFC) is the key automation system for up to eight self-loading platforms. The ready built job is taken out directly and the next print starts without any delay. In conclusion the machine works without breaks and even in night shifts.

Performance parameters	D90+	Platform Changer (PFC)
Building area	232 × 137 mm	
Native pixel	+/− 23 µm	
Max. part height	150 mm	
Light source	385 nm, ultra high power UV LED	
Resolution	4K 3640 × 2160 px XPR	
Dimension (W × H × D)	625 × 1593 × 443 mm	500 × 1593 × 800 mm
Connections	TCP/IP, USB	
Control	10" touch-screen	
No. of platforms		6 pcs with 120 mm height 8 pcs with 70 mm height
New features	High resolution projector Larger print area	

Automatic take out

Automatic restart

Up to 8 platforms

Automatic resin refill

AC controlled interior for continuous use

Certified auto calibration (ACCS)

Remote control by TeamViewer®

Web browser access

Connection to process.net database system

Automatic platform changing

Lowest cost per part

Industrial continuous manufacturing

Industry

D90+ with cabinet or inline

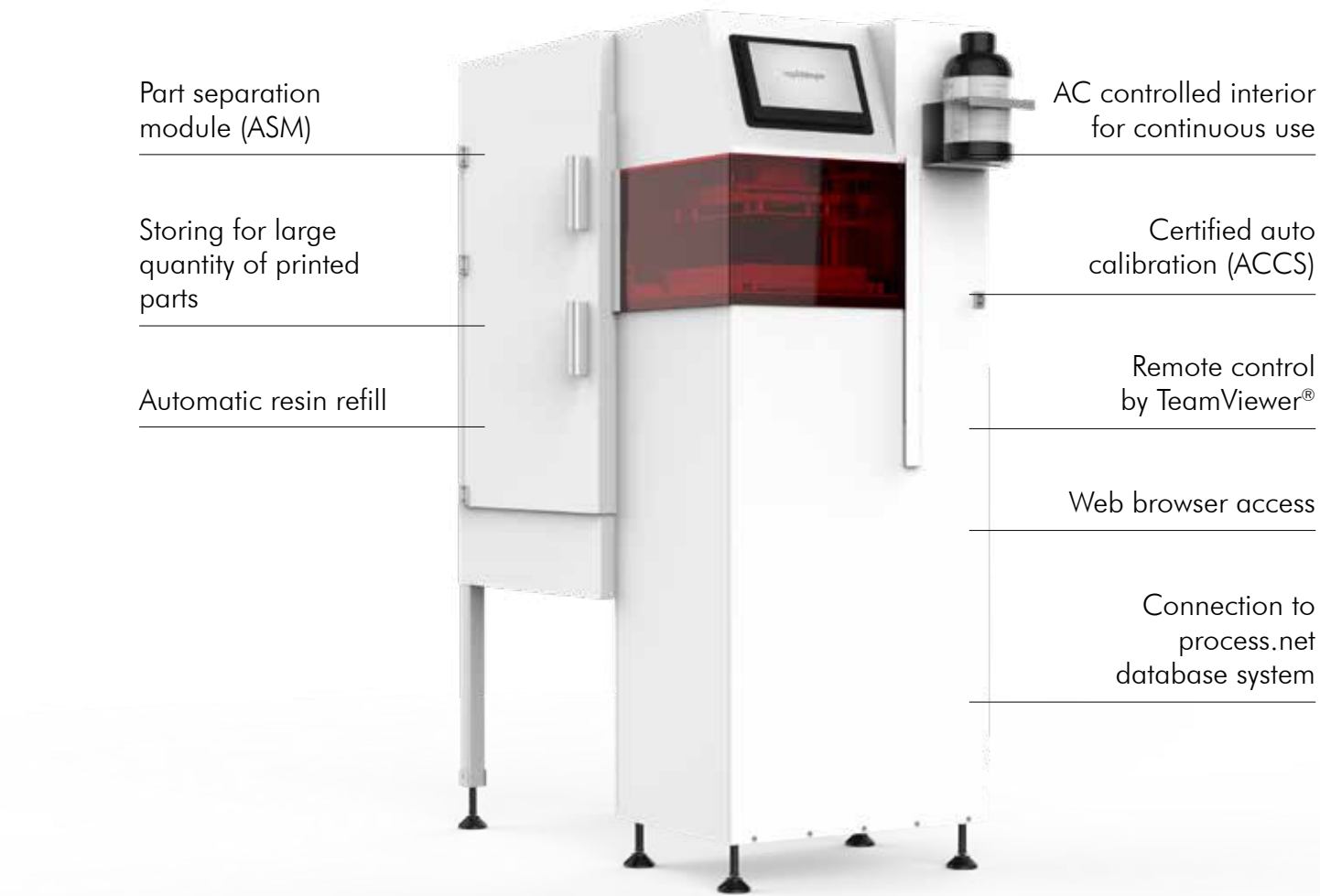**Perfect workflow at maximum speed with consistent quality.**

High reliability, high sturdiness, reproducible quality over time – perfect results in a in a high performance production line. Standalone or for a fully automatic production line of your 3D printed parts.

Robot-supported functions are enabled through the automated part separation module (ASM). This module places the printed parts either in a cabinet or on a conveyor belt system for post-processing.

The D90+ enables true in-sequence manufacturing, with no breaks no matter day or night.

Performance parameters	D90+
Building area	232 × 137 mm
Native pixel	+/− 23 μm
Max. part height	150 mm
Light source	385 nm, ultra high power UV LED
Resolution	4K 3640 × 2160 px XPR
Dimension (W × H × D)	625 × 1593 × 443 mm
Connections	TCP/IP, USB
Control	10" touch-screen
New features	Automation functions High resolution projector Larger print area
Versions	Cabinet Inline (Specifications on request)

Part separation module (ASM)

Storing for large quantity of printed parts

Automatic resin refill

AC controlled interior for continuous use

Certified auto calibration (ACCS)

Remote control by TeamViewer®

Web browser access

Connection to process.net database system

Automatic Separation Module (ASM)

Optional with cabinet or conveyor belt

Industrial continuous manufacturing

D100+ ortho with cabinet or inline

**Industrial ortho production:
Reliably and precisely
up to 24 ortho models in
~ 30 minutes.**

The D100+ ortho is tailor made for ortho models and features a large build area and validated ortho and aligner model precision. The D100+ ortho is a heavy use unit that does not compromise quality. The automated part separation module (ASM, patent pending) collects multiple print jobs in an integrated catch tank, eliminating the need for constant attention from a human operator. The printer is capable of working 24/7, without breaks, to push your company to the next level.

The D100+ also enables true in-sequence manufacturing, with no breaks no matter day or night.

Performance parameters	D100+ ortho
Building area	338 × 190 mm
Native pixel	+/− 44 μm
Max. part height	150 mm
Light source	405 nm, ultra high power UV LED
Resolution	4K 3840 × 2160 XPR
Dimension (W × H × D)	625 × 1593 × 443 mm
Connections	TCP/IP, USB
Control	10" touch-screen
Versions	Cabinet Inline (Specifications on request)

Part separation module (ASM)

Automatic resin refill

AC controlled interior for continuous use

Certified auto calibration (ACCS)

Remote control by TeamViewer®

Connection to process.net database system

Automatic Separation Module (ASM)

Optional with cabinet or conveyor belt

Industrial continuous manufacturing

Lowest cost per part

Industry

Industrial Automation:
Shift change on the way
to mass production

Step 01 – CAM
Netfabb

Automatic digital
print-job preparation

Step 02 – Load Balancing
**RS production
control**

Automatic control of
all print components
in the production
network

Step 03 – Conveyor System
RS conveyor

Automatic product
removal post
print-job

Step 04 – Cleaning System
RS clean C

Automatic positioning
into the wash-unit

Step 05 – Monitoring
RS production control

Process and batch
checking through to
cleaning

Industry

Certified Dental Material Partners

Rapid Shape and the leading material manufacturers combine strength for full flexibility and availability. An end-to-end certified workflow is supported.

With Rapid Shape you have the full choice.

DeltaMed
TURNING IDEAS INTO MATERIALS

DETAX
HIGHEND MEDICAL MATERIALS MADE IN GERMANY

DMG

Dreve

GC

keystone
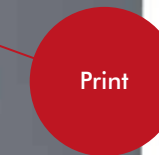industries

rapidshape

SHERA
digital

straumann

VOCO

The integrated workflow:
interlinked, easy, adaptable

With our newest Netfabb CAM software release, Rapid Shape offers a seamless connection to Dental Wings, 3Shape and Exocad. Design parameters, data transmission and print preparation functions are preconfigured and automated. In addition through the cloud, Rapid Shape 3D printers can be connected to every laboratory.

Design

3shape

exocad

dental wings

CAM

Print

AUTODESK® NETFABB®

Integrated workflows feature autonomous

✓ material pre-selection

✓ part orientation

✓ part positioning

✓ adding necessary supports

✓ build creation

rapidshape

Software

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