



SolFlex 650 · 350 · 170

3D PRINTERS



ADDITIVE MANUFACTURING FOR DIGITAL DENTISTRY

An increasing number of dentists and dental technicians already rely on the digitalisation of their workflow. By integrating 3D printing technology, the in-lab manufacturing can be accelerated, quality and precision improved and costs minimized.

The SolFlex 3D printers give you an easy access to additive manufacturing technology. With 3D printing technology, you benefit from the efficiency advantages of digital designs throughout the production stage. By combining scans with subsequent design and final 3D printing, the manufacture of models and splints for orthodontic dentistry can be achieved quickly and accurately.

DLP* – Digital Light Processing

The SolFlex 3D printers use proven DLP-Technology with a wavelength of 385 nm. Combined with the new high-performance UV-LEDs, the SolFlex 3D printers are capable of printing in the finest precision, layer by layer.

UV-LED with Pixel Stitch Technology (PST)

The SolFlex 3D printers are based on a solid state UV-LED light source with low energy consumption and long life.

The outstanding power stability of the light source results in a very reproducible 3D printing process and allows for the use of a wide range of high-performance materials with excellent optical and mechanical properties.

Thanks to the revolutionary Pixel Stitch Technology, our printers offer a brilliant performance regarding resolution and building volume. Due to the highly precise movements of the optical DLP light source, the SolFlex 3D printers are able to generate larger objects with high resolution.

Flex-Vat

In all SolFlex 3D printers, a unique patented flexible tray is used for the liquid 3D printing material. The Flex-Vat is manufactured from clear flexible silicone that results in reduced peeling forces during the construction process. It is thus possible to produce thin and fine components with a high printing speed. Additionally, the Flex-Vat minimizes the number of required support structures, saving finishing time and material.



* NetFabb and DLP are not registered trademarks of VOCO GmbH.

** (SolFlex 350 / 650)

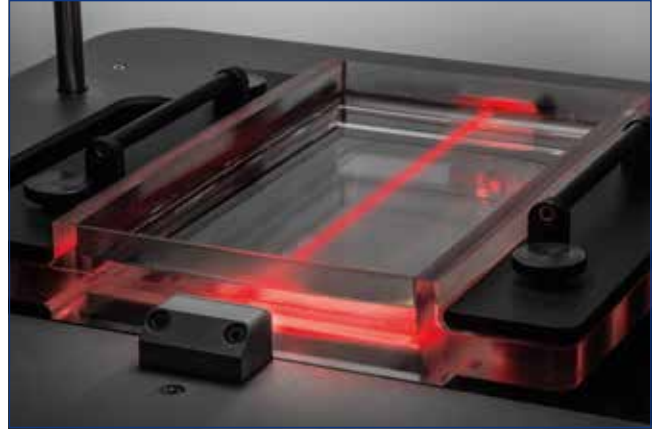
***Pixel Size and Print Volume may vary.

SMP – Sensor Monitored Production

A special light-dosage monitoring unit ensures a constant exposure of light-intensity**. This technology guarantees consistent high quality and increases reliability of the component production. Additionally, a second sensor system monitors the construction process.



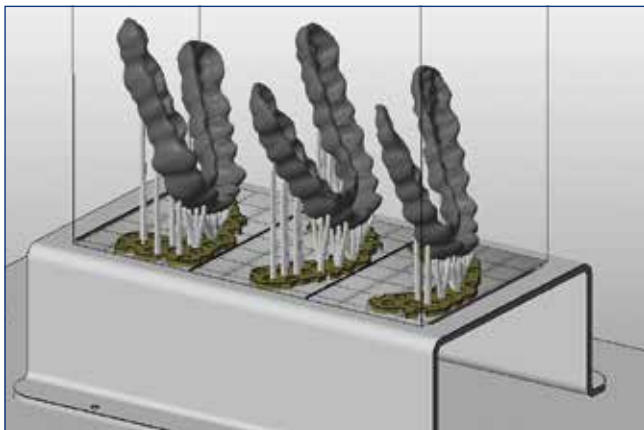
This system measures the peeling forces emerging on the Flex-Vat surface. The building speed is automatically adjusted and optimized due to the obtained data.



High print output on a compact printer

The SolFlex printers are very light, with a weight of approximately 15 - 20 kilogram, and have a compact footprint size of a conventional desktop printer.

The print areas vary. The SolFlex 350 offers a build area of 64 × 120 mm, which is sufficient space for up to 12 splints in one printing process. The SolFlex 650 provides a build area of 128 × 120 mm and can accommodate up to 24 splints. Both printers enable a maximum build height of 130 mm. The high vat volume of all printers allows for unattended printing, for example overnight. The SolFlex 170 offers a build area of 56 × 89 mm and sufficient space for up to e. g. 6 splints. The maximum build height is 120 mm.



Open Data – maximum flexibility

The STL format has established itself as a standard in the dental digital workflow. The STL data set contains all the relevant information for 3D processing. The NetFabb software is used to process and prepare the print job. NetFabb does the slicing as well, which cuts up the parts to be printed in very thin separate layers. In the internal digital workflow, STL formatted files can be taken from any system, regardless of how the job was scanned and designed. Apart from the STL, Netfabb software can import other file formats.

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TECHNICAL OVERVIEW

SolFlex 3D printer

- Suitable for printing of models, splints and other orthodontic pieces
- Suitable for processing various, high-quality light-cured 3D printing materials
- Use of STL format
- High vat volume allows production over night
- DLP-Technology with a long-lasting UV-LED light source
- Maximized building speed with high process reliability due to SMP technology
- Patented Flex-Vat technology – increasing printing speed while minimizing support structures, saving time and material

SolFlex 650

Base area	400 × 400 mm
Build area	128 × 120 mm (6 exposure areas)
Max. build height	130 mm
Layer thickness	25 - 200 µm
Building capacity	up to 24 splints
Building speed	up to 56 mm/h, depending on layer thickness material
Pixel size	50 µm***
Precision	25 µm

SolFlex 350

Base area	400 × 400 mm
Build area	64 × 120 mm (3 exposure areas)
Max. build height	130 mm
Layer thickness	25 - 200 µm
Building capacity	up to 12 splints
Building speed	up to 56 mm/h, depending on layer thickness material
Pixel size	50 µm***
Precision	25 µm

SolFlex 170

Base area	296 × 318 mm
Build area	56 × 89 mm (1 exposure area)
Max. build height	120 mm
Layer thickness	25 - 200 µm
Building capacity	up to 6 splints
Building speed	up to 56 mm/h, depending on layer thickness material
Pixel size	70 µm***
Precision	35 µm

Presentation SolFlex 650

REF 9104	3D-printer
REF 9105	SMP – 3D-printer (incl. Sensor Technology)
REF 9112	Flex-Vat – Flexibel material reservoir
REF 9115	Handle bar 350 / 650 – Handle bar Flex-Vat
REF 9122	Platform – Building platform

Presentation SolFlex 350

REF 9102	3D-printer
REF 9103	SMP – 3D-printer (incl. Sensor Technology)
REF 9111	Flex-Vat – Flexibel material reservoir
REF 9115	Handle bar 350 / 650 – Handle bar Flex-Vat
REF 9121	Platform – Building platform

Presentation SolFlex 170

REF 9100	3D-printer
REF 9101	SMP – 3D-printer (incl. Sensor Technology)
REF 9110	Flex-Vat – Flexibel material reservoir
REF 9120	Platform – Building platform

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