W2P

Professional Desktop 3D Printers

Know-How and Experience

The W2P Engineering GmbH is an Austrian company dedicated to developing and producing 3D printers of highest quality standards.

Many years of experience and technical expertise help us to offer the best solutions to our clients and continuously respond to their requirements.

Our Mission

Our motivation originates in the desire to create innovative machines performing at the upmost level. Our strong focus on research and development enables us to provide our clients with customized products and professional services along the entire digital workflow.

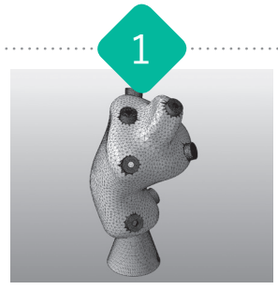
Additive Manufacturing

3D printing is an additive manufacturing method which means that a solid 3D object is created layer by layer. Compared to subtractive production methods, additive manufacturing is very economical, as the waste of resources is reduced tremendously.

The SolFlex 3D printers are based on Digital Light Processing (DLP) using a DLP® projector to cure light-sensitive photopolymers. The advantages of Digital Light Processing are efficient printing processes and precise printing results.

Digital Workflow

A typical digital workflow includes the following steps:



3D Model

3D prints are based on 3D models which can be generated by taking a 3D scan or by creating them in a CAD program.

3D Software

Using a 3D print software, 3D models can be edited and made ready for printing by placing parts, modeling, building support structures and slicing.

Printing Process

After having prepared the files for printing, they are sent to the 3D printer and the object is printed layer by layer.

Post-Processing

The printed objects need to be cleaned and cleared from support structures. Depending on the material, the parts may also have to be post-cured in a flash device.

3D Scanner

AUTODESK® NETFABB®

CAD Software

3D Printer

Flash Device

Equipment

The SolFlex 3D printers have been developed by experts and are 100% hand crafted in Austria, using only high-quality components. Every single detail was considered and designed with performance in mind.

Your SolFlex Benefits

Desktop Production

We found a way to shrink the size of a 3D printer by increasing the building volume to the maximum, turning the SolFlex printer into true desktop factories.

Patented Vat System

The patented FlexVat® ensures best printing results by reducing peeling forces.

Open Material System

SolFlex 3D printers are open systems which grant their users the freedom of choice in terms of materials.

Professional Services

Our customers enjoy full service and support as well as professional trainings to become familiar with the entire digital workflow.

Moving DLP® Projector

The unique and innovative moving DLP® projector design allows the production of large-scaled objects with high resolution.

UV Light Dosage Monitoring Unit

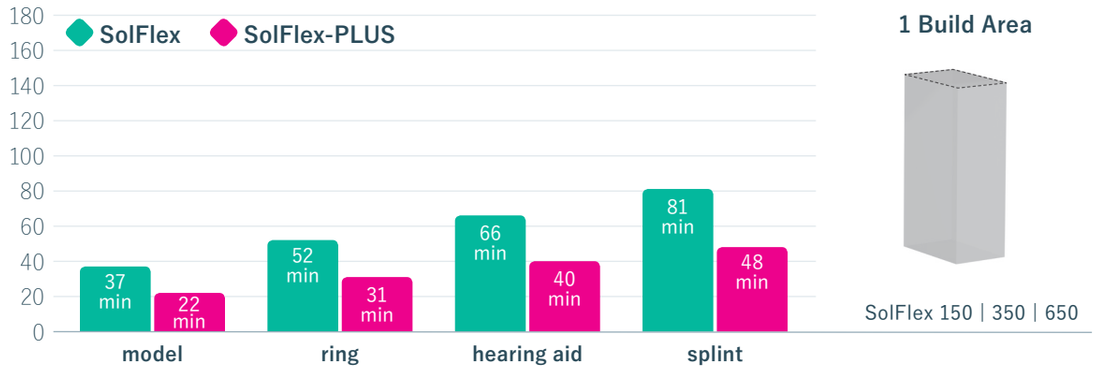
The UV Light Dosage Monitoring Unit controls the process parameters, simplifies remote maintenance and ensures repeatable results.

PLUS

The patented VDFS (Vat Deflection Feedback System) monitors and controls the separation process and thus saves up to 40 % of manufacturing time.

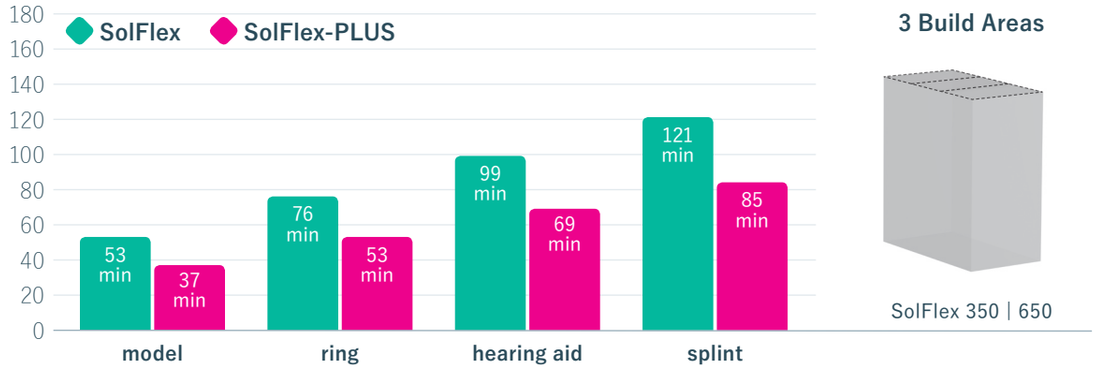
Printing Times of SolFlex and SolFlex PLUS Printers

The Vat Deflection Feedback System (VDFS) reduces printing times – depending on the amount of build areas – up to 40 %.

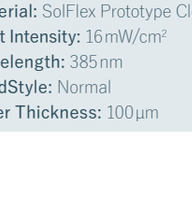


1 Build Area

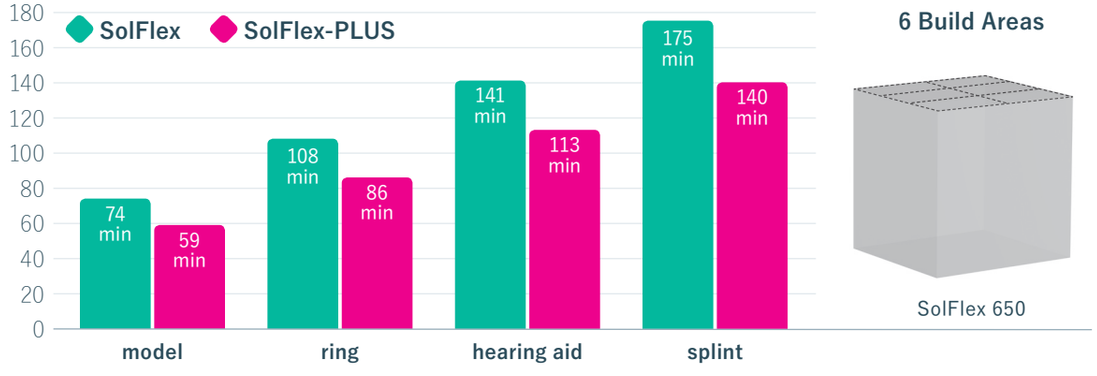
SolFlex 150 | 350 | 650



3 Build Areas

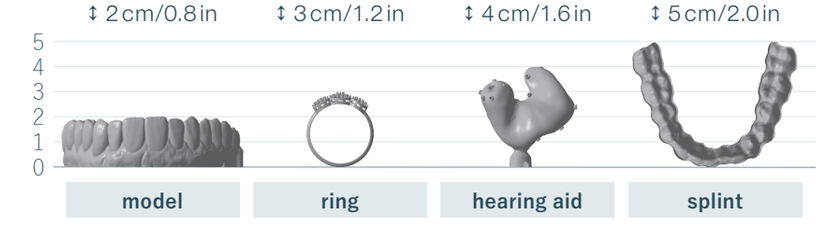


SolFlex 350 | 650



6 Build Areas

SolFlex 650



All stated times refer to parts printed under the following conditions:

Material: SolFlex Prototype Clear
Light Intensity: 16 mW/cm²
Wavelength: 385 nm
BuildStyle: Normal
Layer Thickness: 100 µm

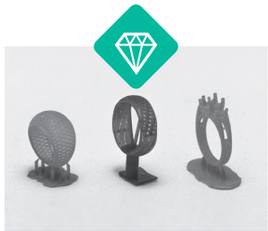
Applications

Due to their extremly high precision, SolFlex 3D printers are the first choice when it comes to medical devices (especially in the dental and otoplastic field), jewelry or industrial applications.

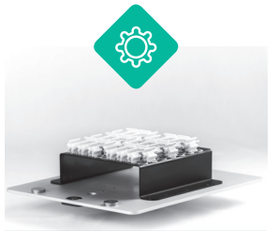
As a result of continuous evaluation of new applications, a growing number of industries will benefit from the advantages of SolFlex 3D printers in the near future.

Dental

Audio



Jewelry



Manufacturing

Materials

The SolFlex 3D printers are designed to be open systems in order to guarantee maximum flexibility.

The custom-designed UV light source allows our customers to use a broad range of materials, such as clear, transparent materials, biocompatible and filled materials. Establishing strong partnerships with major material suppliers results in cutting-edge material technology as well as quick and easy access to new applications and a constant material improvement.

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