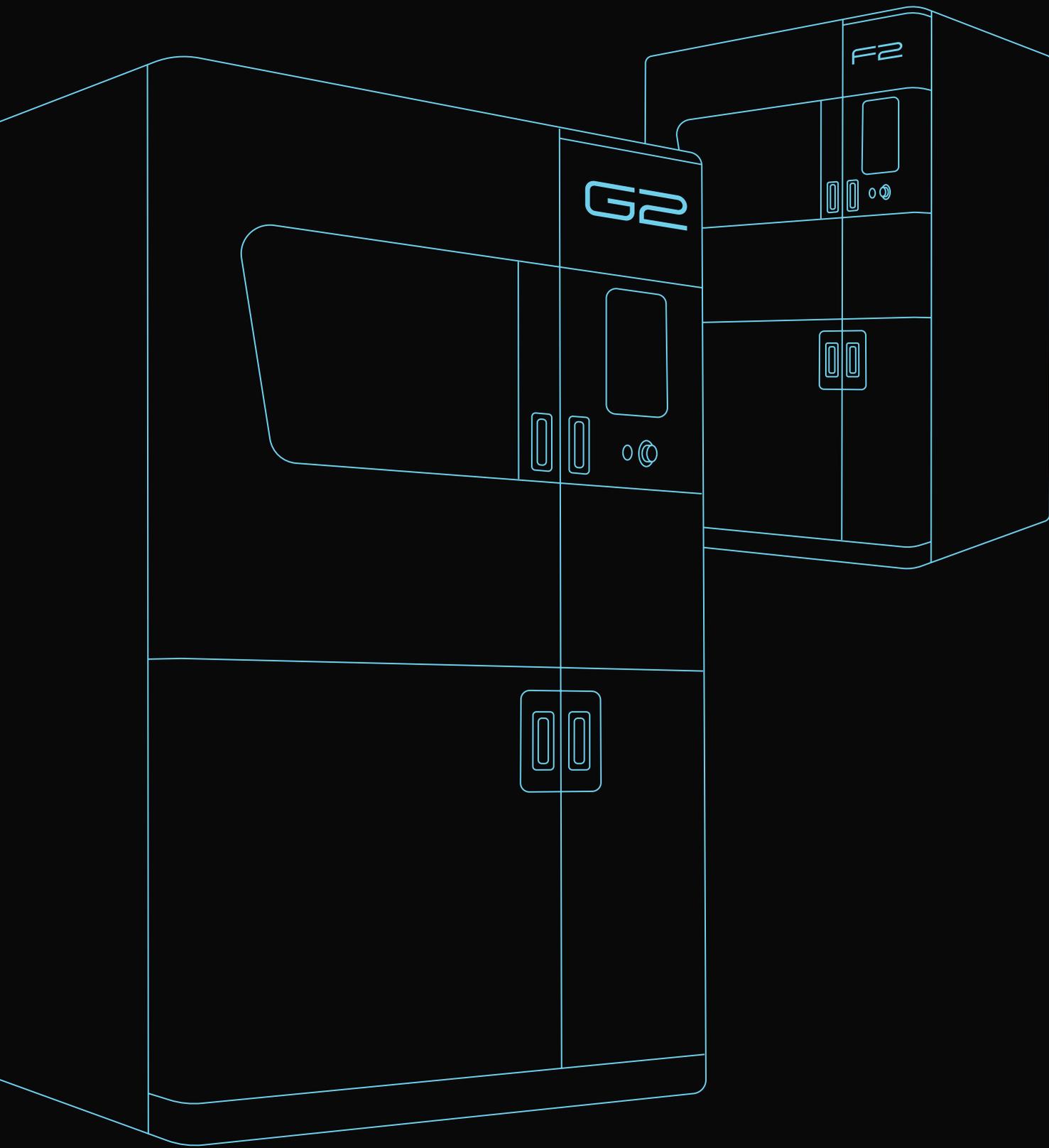


# GENERA.



Creation made reliable.

THE NEW TWO SERIES MANUAL

# G2 | F2

What sets the Genera system apart?

We are users, just as you are. Working with 3D printers on a daily basis, we were not satisfied with the way additive manufacturing worked in reality. That's why we founded Genera. Our goal was to deliver on the promises that 3D printing had made for many years: reliable, clean and fast production which creates room for all of your ideas. We reimagined additive manufacturing as a comprehensive process: printing and post-processing happen in a closely connected system which delivers improved and repeatable results. That is our vision.

Genera,  
Creation made reliable.



DI Dr. Klaus Stadlmann,  
Founder & Managing Director of Genera.



Don't just think big.  
Do big.



We have the solution for all challenges in additive manufacturing: G2/F2 combined form a system that replaces a complete production lab and produces repeatable and traceable components. This system will allow professional users to move the limits of what is possible. The G2 offers 4K DLP technology with varying resolution / pixel size. One integrated system can produce both very large components or highly detailed smaller components, depending on ones needs.

The G2 offers the possibility to perform two print jobs in a row which increases capacity, especially while printing overnight. The innovative handling of the printed component allows for clean production. The G2/F2 together form the perfect production system.

Clean. Safe. Simple. Genera's glove-free handling system is based on an innovative shuttle solution. During the entire production process, the component travels

in a tight box or shuttle. Both, the precious components and your hands are protected by this design. The 3D component can be handled and optimized without any dripping, contamination or light influence from outside. At the same time, the shuttle works as an interface between the 3D printer and the post-processing unit. It documents the entire manufacturing process and makes it traceable and repeatable.

G2 PRINTER



Higher volume. More Speed. 3D printing production like never before. The G2 was developed for industrial use, for service providers and factories alike. It is capable of doubling the output, since it can print two separate jobs without supervision. An innovative resin vat system offers maximum flexibility with minimal set-up times. Future production challenges are addressed by the G2 with an ever expanding and updating parameter database for new materials.

Output increases, while printing costs stay low. While the handling of printed components of conventional 3D printers is often arduous and unclean, the G2 offers a glove-free workflow for clean, easy, and reliable production.

The G2 prints in 4K and several different resolutions (between 40 and 100 µm) in one system. No matter what the needed printing accuracy is, G2 has the solution, in one system.

HARD FACTS

**Print volume**  
 x: 384 mm  
 y: 216 mm  
 z: 350 mm

**Pixel size**  
 100 µm  
 70 µm  
 40 µm

**Wave length**  
 385 nm DLP

**Speed**  
 Up to 3 mm/min\*

**Light intensity**  
 max. 20 mW/cm<sup>2</sup>

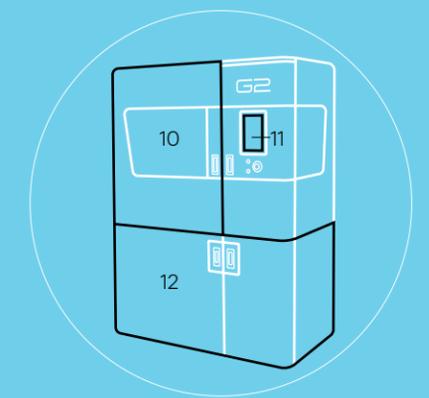
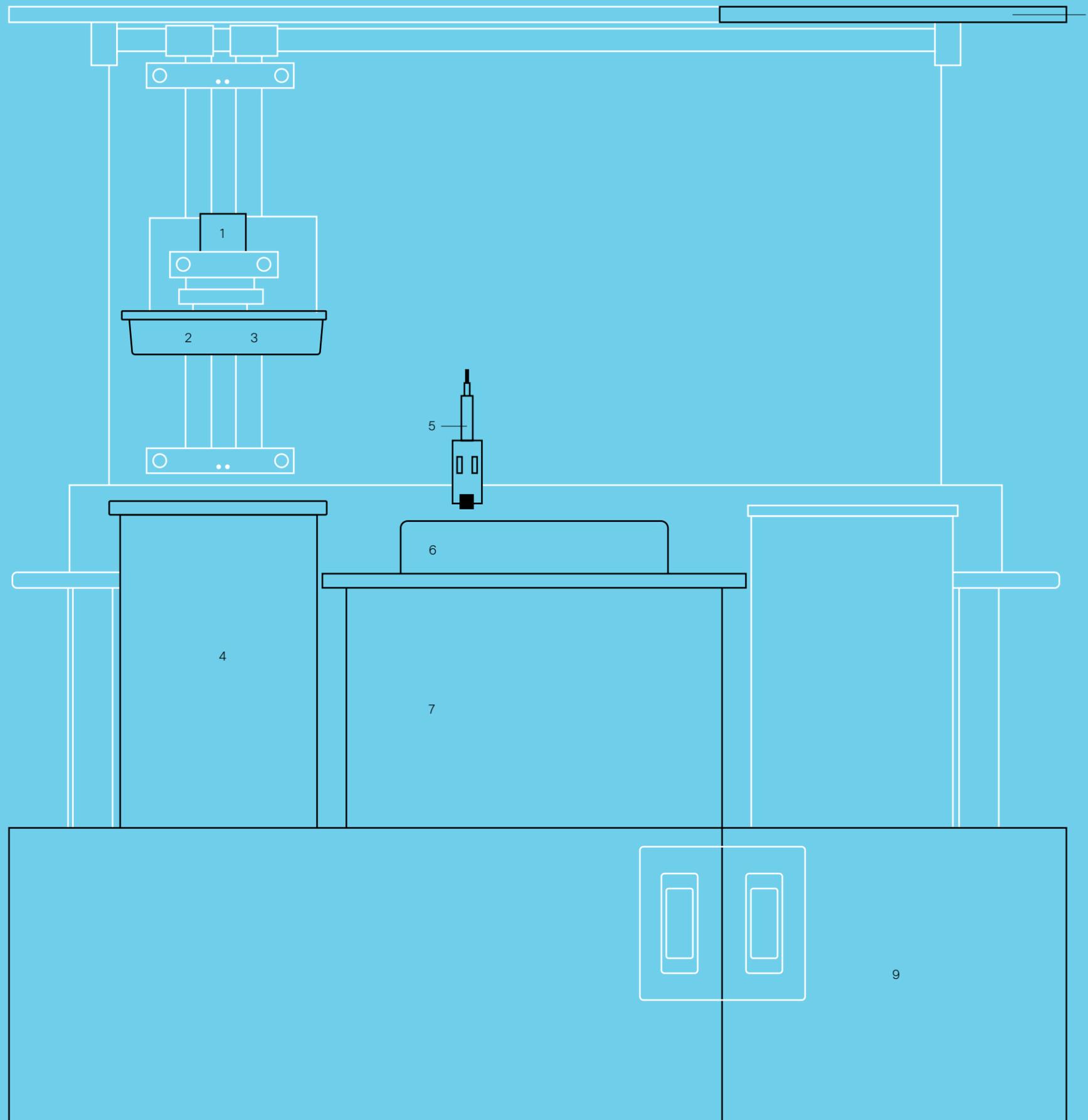
**4K Resolution**  
 (3840 x 2160)

**Automatic platform change, multiple prints and glove free process**

**Continuous production with closed box system**

**Documentation and traceability by RFID tag and database**

\*depending on material and vat system



MACHINE COMPONENTS

- 1 Print diagnostic sensors
- 2 Heated build platform
- 3 Automatic handling system for platforms
- 4 Glove-free process with two patented RFID-tagged post-processing and transport shuttles for continuous production
- 5 Resin level sensor
- 6 Special heatable vat system for fast printing and low adhesion
- 7 4K 385 nm DLP light engine with variable pixel size (40, ..., 100 µm)
- 8 LED for status information
- 9 >10 L resin tank for high throughput production
- 10 Secure, fully enclosed, air filtered machine for use in office environment
- 11 Human Machine Interface (HMI) with machine control, part preview and printing progress
- 12 RFID-tagged, lightproof, automated resin dispensing system

## F2 POST-PROCESSING UNIT

# F2

Forget everything you know about post-processing. The intelligent washing program of the F2 adapts to the structure of the printed component and the material used, providing perfect surfaces and printing results every time. The cleaning function is integrated in our innovative shuttle.

The F2 is complemented by an improved UV post-curing chamber, connected to a fully automated cleaning process for the very first time. With high optical performance and homogeneous radiation, the F2 produces the best mechanical features for printed components.

A special sensor system is monitoring the entire process and if required, automatically recognizes any defects and reports them to the user, allowing for immediate reaction during the production process.

Whether you want to print 1 or 1000 parts – The F2 produces quality results under repeatable production conditions.

### HARD FACTS

**Active carbon filter for odor reduction**

**High power and uniform LED curing chamber @ 405 nm**

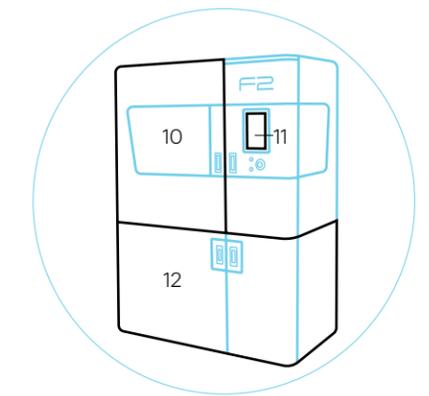
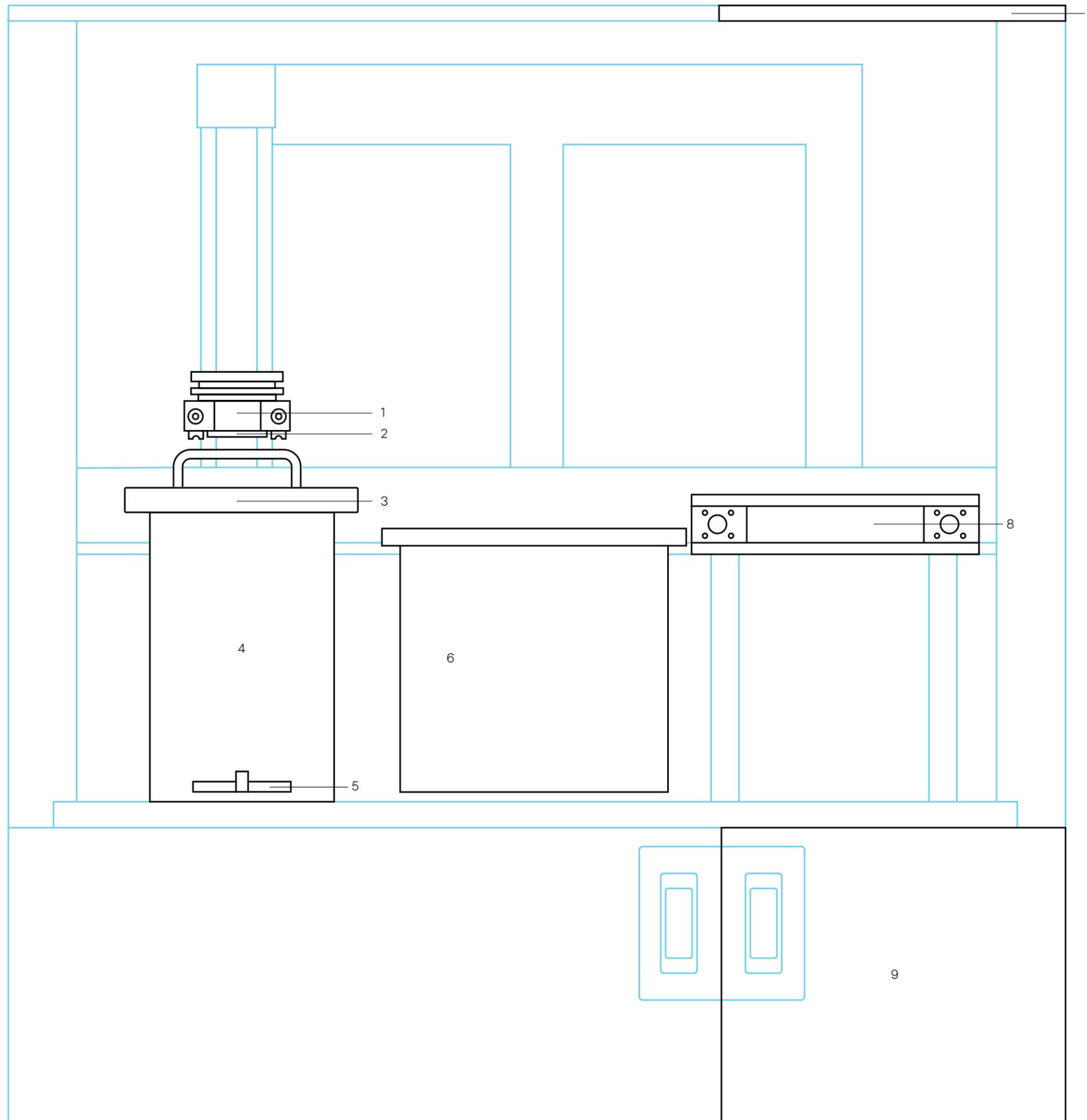
**Post-curing in inert atmosphere with part tempering**

**Intelligent database for post-processing and documentation**

**Fully automated RFID-traced post-processing**

**Non-flammable cleaning fluid (Genera Clear3d)**

**Automatic detachment of part from platform by part separator**



### MACHINE COMPONENTS

- 1 Automatic handling system for platforms
- 2 Intelligent Force Feedback System
- 3 Sensor controlled fill level
- 4 Glove-free process with two patented RFID-tagged post-processing and transport shuttles for continuous production
- 5 Integrated magnetic stirrer for soft and efficient cleaning of green parts
- 6 Post-curing chamber
  - o High-power and uniform LED panels
  - o Sensor controlled
  - o Inert atmosphere
  - o Heatable curing chamber
- 7 LED for status information
- 8 Automatic part separator
- 9 2x 60 L cleaning fluid tank for pre and fine wash
- 10 Secure, fully enclosed, air filtered machine for use in office environment
- 11 Human Machine Interface (HMI) with machine control, part preview and status
- 12 RFID-tagged, lightproof, auto-post-processing system with 120 L cleaning fluid

# GENERA.

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