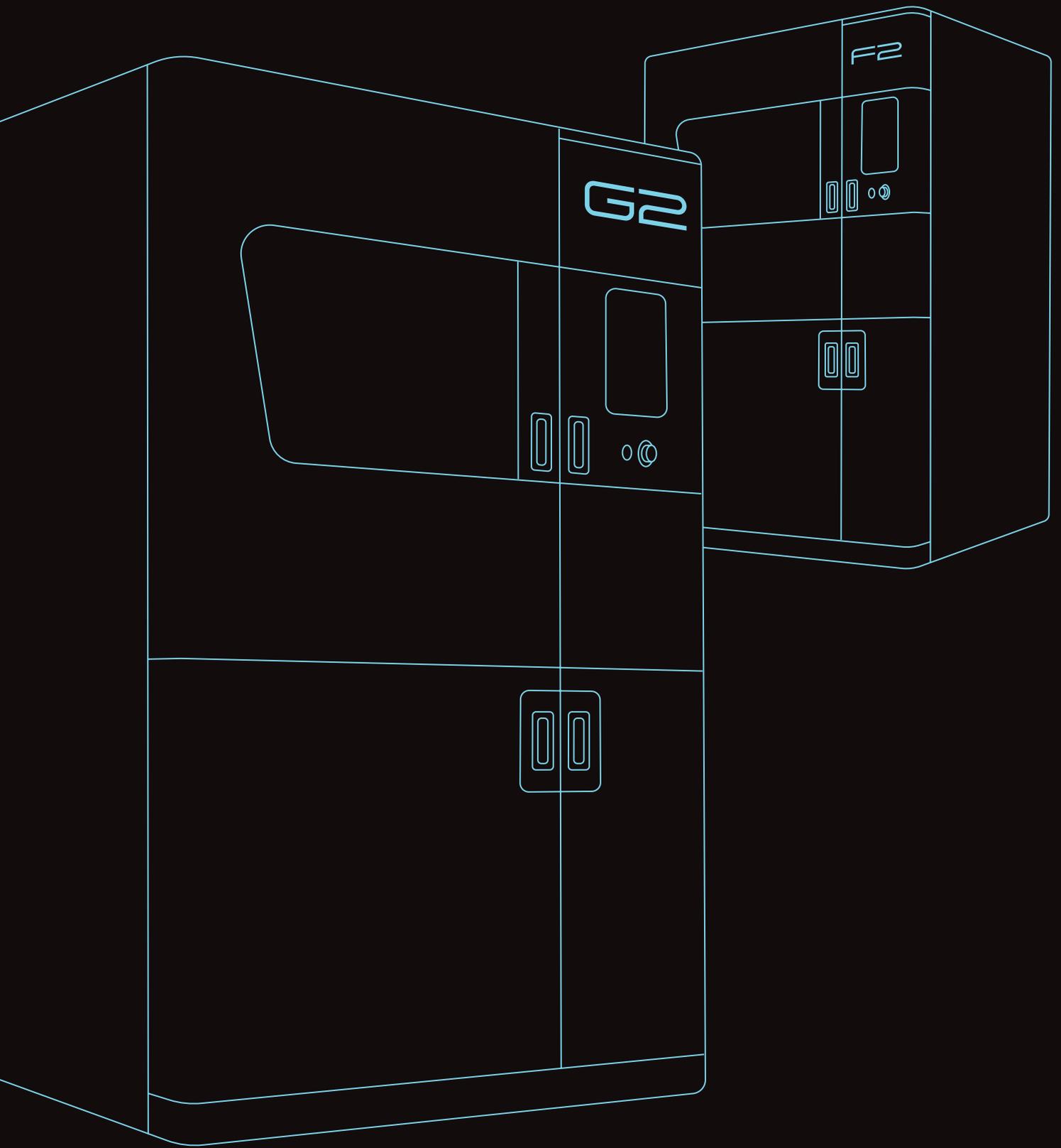


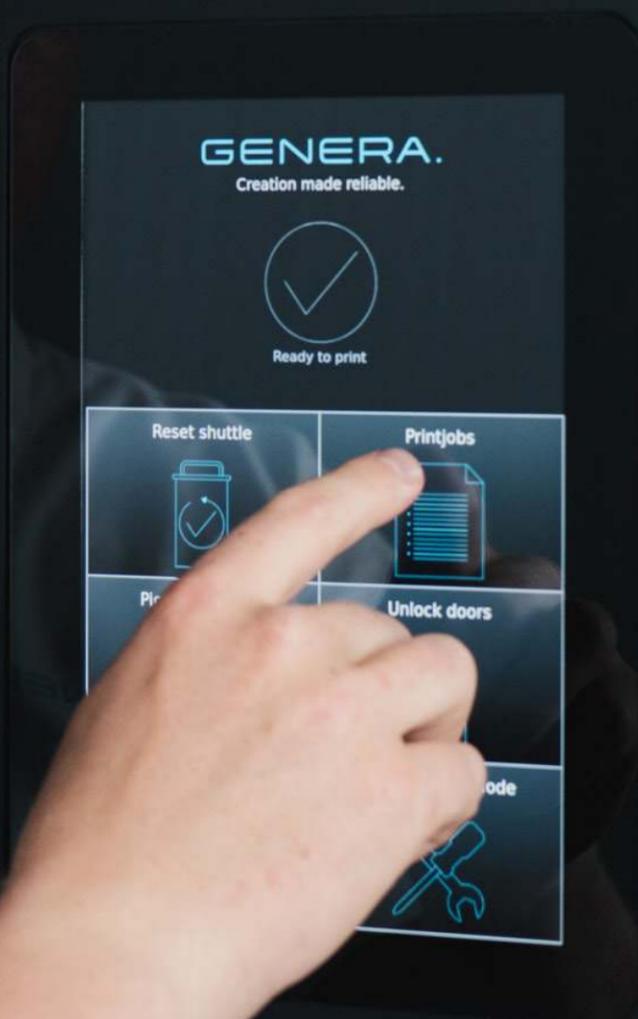
GENERA.



Creation made reliable.

G2 | F2

GENERA



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.



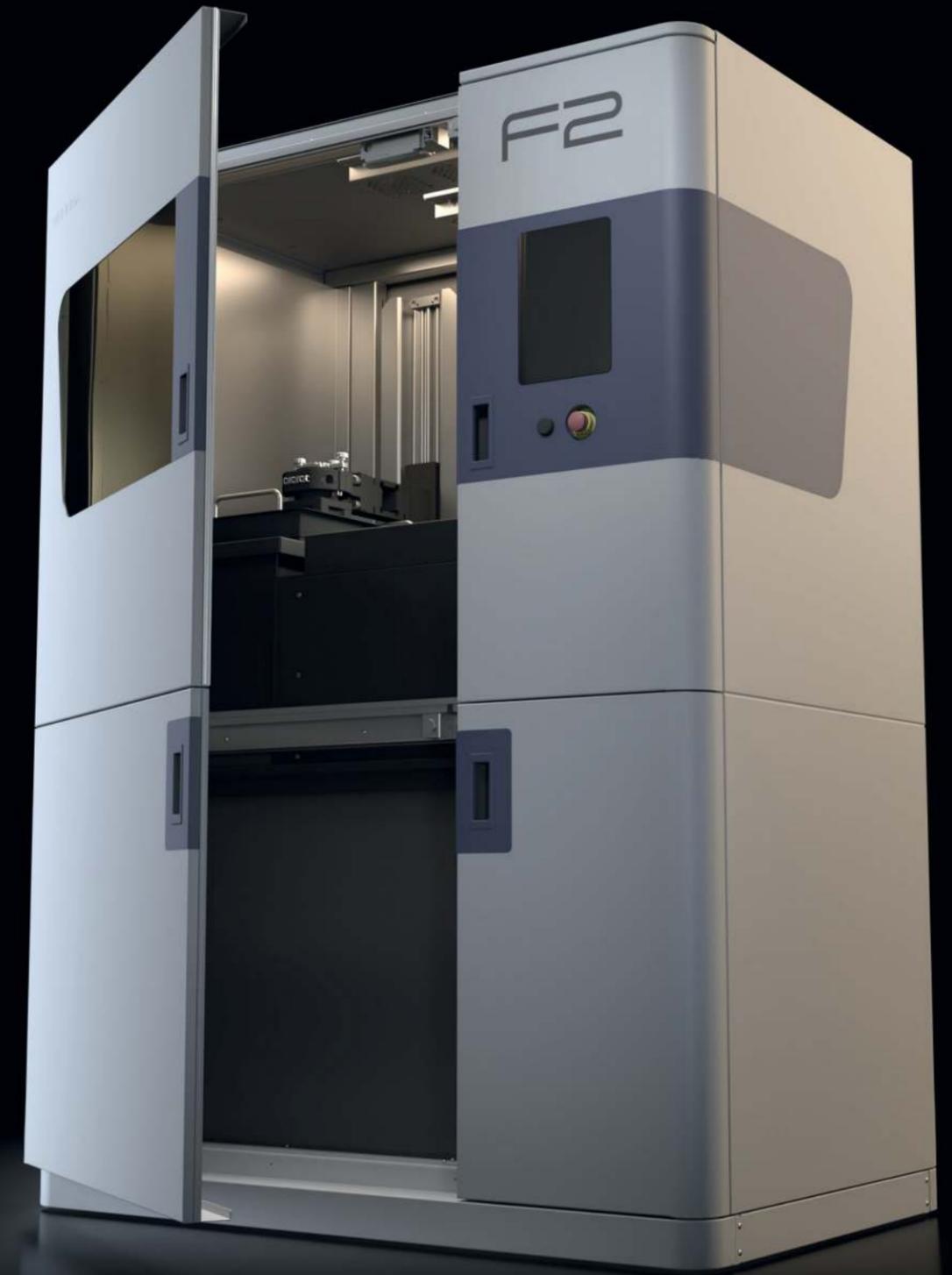
We have the solution for all challenges in additive manufacturing: G2/F2 combined form a system that replaces a complete production lab and produces repeatable and traceable components. This system will allow professional users to move the limits of what is possible.

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 one's 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 pro-

duction 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 F2 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
@100 µm **Pixel size**
 x: 384 mm 100 µm
 y: 216 mm 70 µm
 z: 320 mm 40 µm

Wave length **Speed**
 385 nm DLP Up to 3 mm/min*

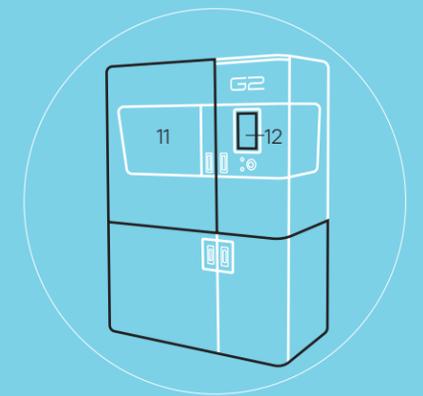
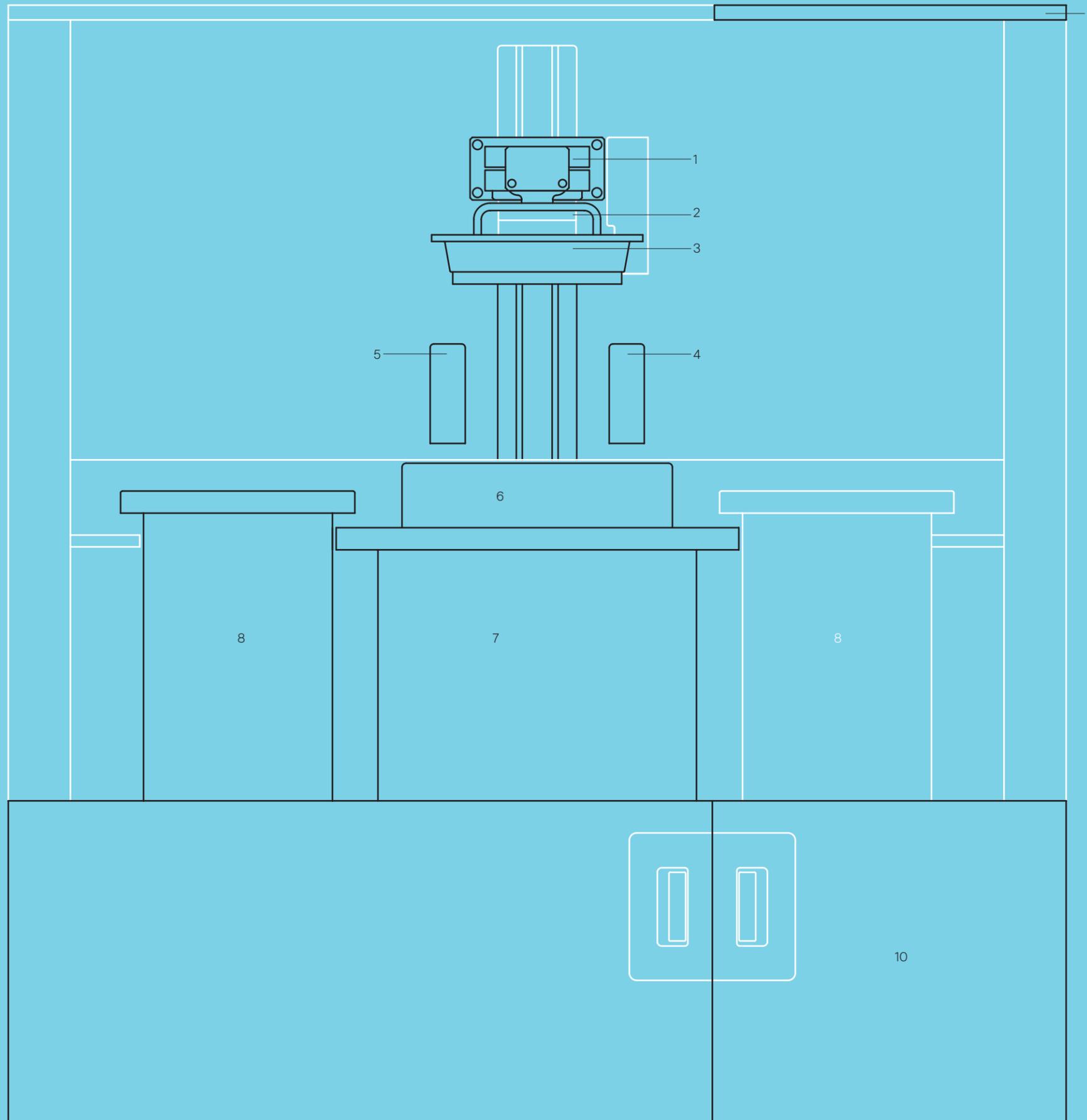
Light intensity **4K Resolution**
 max. 30 mW/cm² (3840x2160)

Automatic platform change, multiple prints, and glove free process

Continuous production with shuttle system

Documentation and traceability by RFID tag and database

*depending on material and vat system



MACHINE COMPONENTS

- 1 Print diagnostic sensors
- 2 Automatic handling system for platforms
- 3 Heated build platform
- 4 Resin temperature sensor
- 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 Glove-free process with two RFID-tagged shuttles
- 9 LED for status information
- 10 Resin tank and lightproof, automated resin dispensing system for high throughput production
- 11 Secure, fully enclosed, air filtered machine for use in office environment
- 12 Human Machine Interface (HMI) with machine control, part preview, and printing progress

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 washing-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

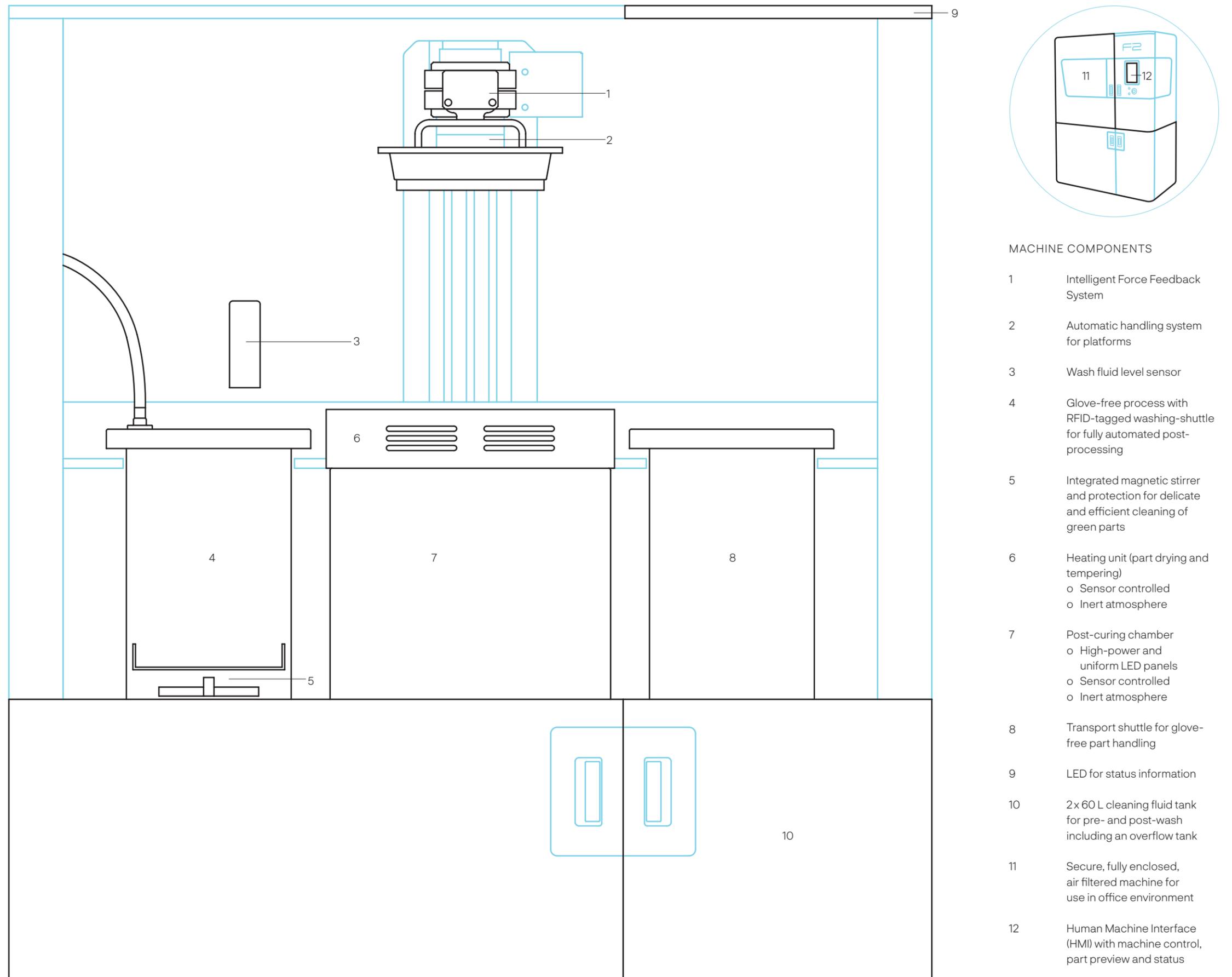
High power and uniform LED curing chamber @ 405 nm

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)

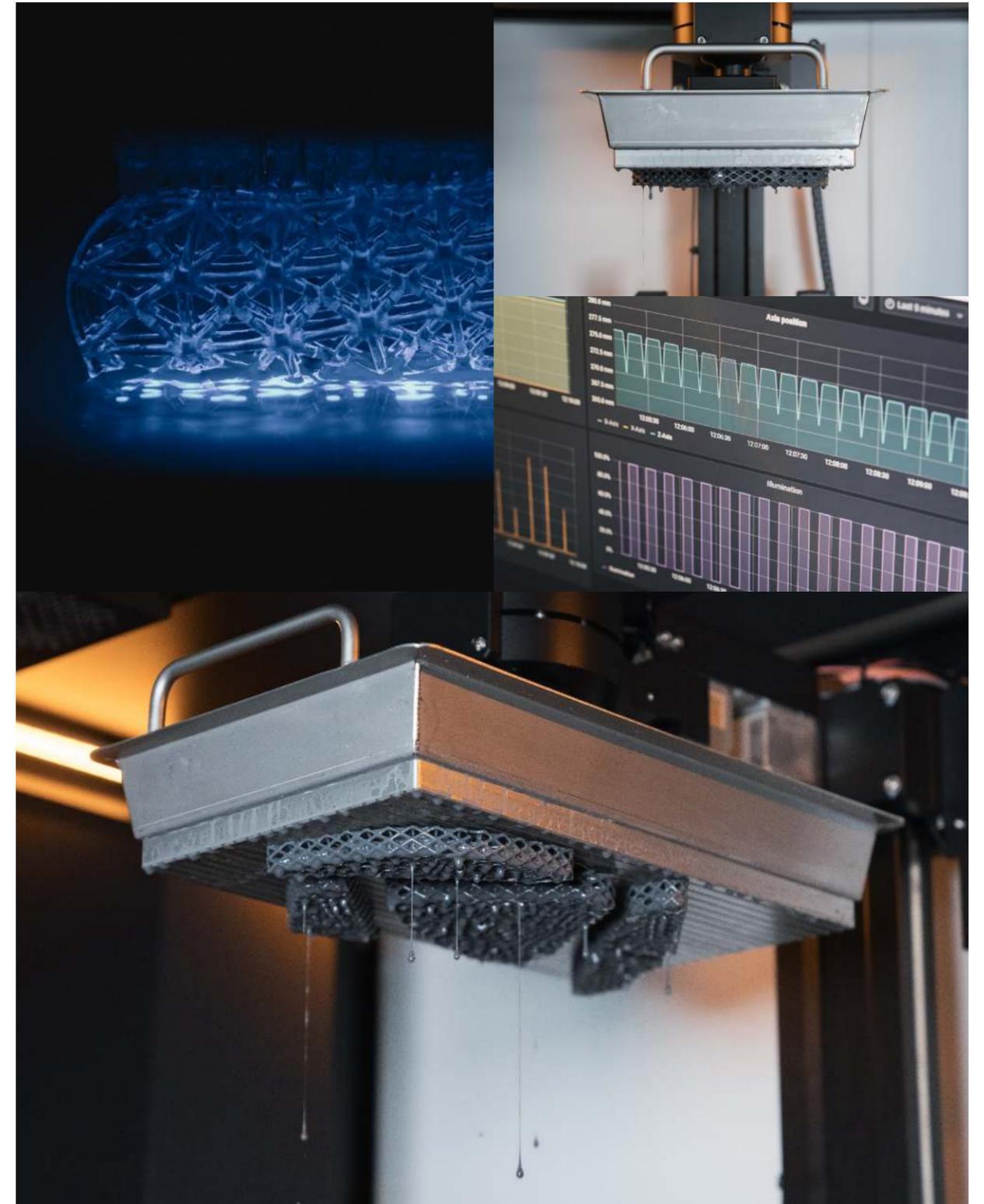
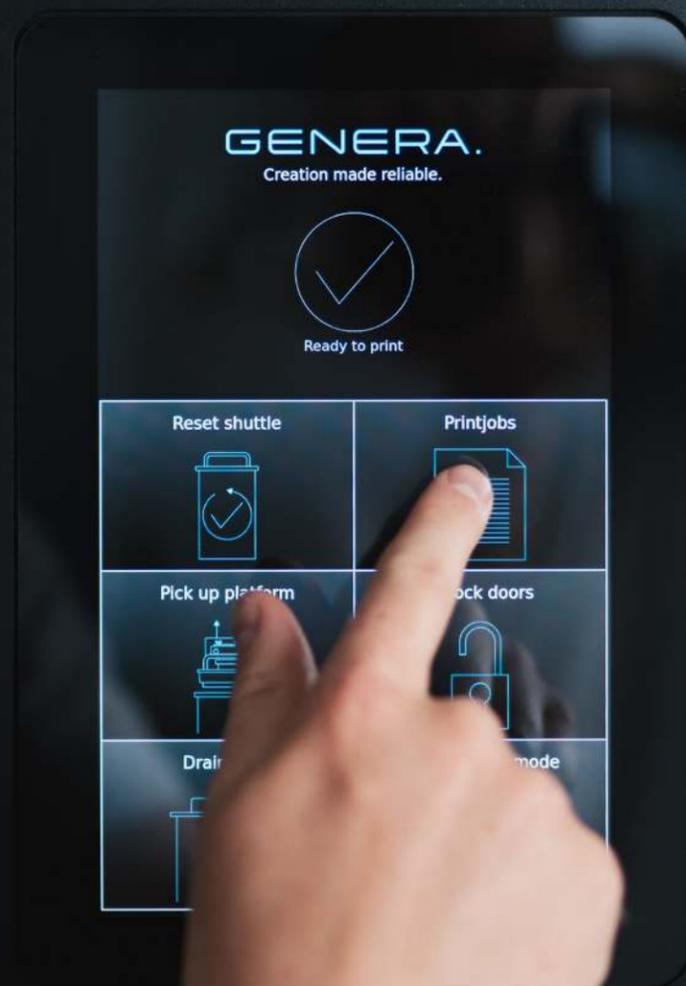


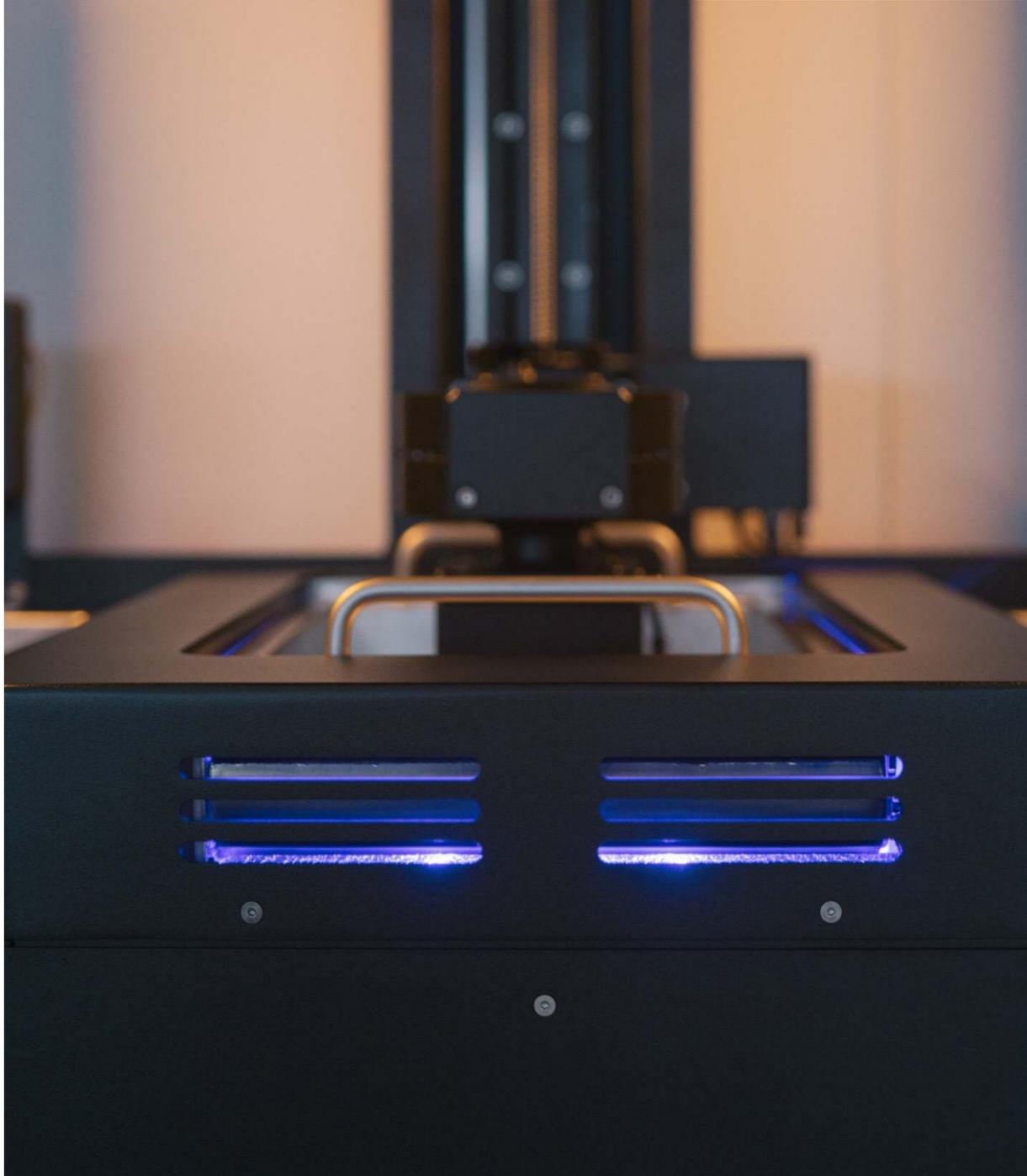
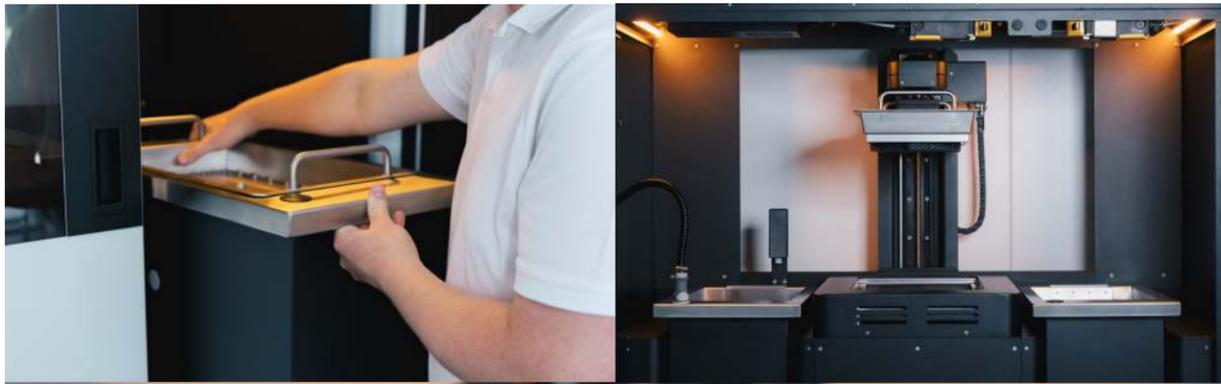
MACHINE COMPONENTS

- 1 Intelligent Force Feedback System
- 2 Automatic handling system for platforms
- 3 Wash fluid level sensor
- 4 Glove-free process with RFID-tagged washing-shuttle for fully automated post-processing
- 5 Integrated magnetic stirrer and protection for delicate and efficient cleaning of green parts
- 6 Heating unit (part drying and tempering)
 - o Sensor controlled
 - o Inert atmosphere
- 7 Post-curing chamber
 - o High-power and uniform LED panels
 - o Sensor controlled
 - o Inert atmosphere
- 8 Transport shuttle for glove-free part handling
- 9 LED for status information
- 10 2x 60 L cleaning fluid tank for pre- and post-wash including an overflow tank
- 11 Secure, fully enclosed, air filtered machine for use in office environment
- 12 Human Machine Interface (HMI) with machine control, part preview and status

GEA

The process in images







GENERA.

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GENERAL

Description	DLP resin vat system with shuttle technology
Materials	Open material library
Build Volume (XYZ)	Three pre-calibrated pixel sizes (max. 26.5 L)
@100 μm	384 × 216 × 320 mm (15 × 8.5 × 12.6 in)
@ 70 μm	268 × 153 × 320 mm (10.55 × 6 × 12.6 in)
@ 40 μm	153 × 87 × 320 mm (6 × 3.4 × 12.6 in)
Resolution	4K DLP (3840 × 2160)
Wavelength	385 nm
Light Intensity	Max. 30 mW/cm ² (@40 μm)
Build Speed	up to 3 mm/min
Regulatory Compliance	CE

PHYSICAL FOOTPRINT

System Size (W × D × H)	1420 x 970 x 1960 mm (55.9 × 38.1 × 77.1 in)
System Weight	approx. 700 kg (1.543 lbs)

FACILITY REQUIREMENTS

Power Requirements	AC 220-240 V, 50-60Hz, 9.5 A
Power Consumption	2180 W (max)
Network Connectivity	Ethernet
Compressed Air Connection	6–12 bar (0.6–1.2 MPa)
Exhaust (optional)	Integrated active carbon filters (optional facility exhaust)
Operating Conditions	+15 °C to +25 °C
Recommended Installation Space (W × D × H)	1920 × 2870 × 2060 mm (75.6 × 113 × 81 in)

SOFTWARE AND DESIGN TOOL

CAM	Genera Utility Center
Print Cockpit	Live print monitoring

F2



GENERAL

Description	Post-Processing Unit optimized for use with the G2 Printer
Materials	Validated with all resins from the Genera open material library
Washing Technology	Magnetic stirrer
Cleaning Fluid	Genera Clear3d (non-flammable) 2 × 60 L (pre-wash and post-wash)
Heating / Drying Chamber	up to 80 °C
LED Curing Chamber	405 nm (optional under inert atmosphere)
Typical Post Processing Time	45 min
Regulatory Compliance	CE

PHYSICAL FOOTPRINT

System Size (W × D × H)	1420 × 970 × 1960 mm (55.9 × 38.1 × 77.1 in)
System Weight	approx. 655 kg (1.444lbs)

FACILITY REQUIREMENTS

Power Requirements	AC 220–240 V, 50–60Hz, 13.5 A
Power Consumption	3100 W (max)
Network Connectivity	Ethernet
Compressed Air Connection	6–12 bar (0.6–1.2 MPa)
Nitrogen Connection	3–6 bar (0.3–0.6 MPa)
Exhaust (optional)	Integrated active carbon filters (optional facility exhaust)
Operating Conditions	+15 °C to +25 °C
Recommended Installation Space (W × D × H)	1920 × 2870 × 2060 mm (75.6 × 113 × 81 in)

SOFTWARE AND DESIGN TOOL

CAM	Genera Utility Center
PPU Cockpit	Live post processing monitoring

