



CURING STATION

1. Fully customisable post-curing.
2. Up to 10x faster.
3. Stronger parts.

atum3D creates end-to-end 3D printing application solutions by combining in-house expertise in engineering, chemistry, and software. After bringing parts to life using our DLP Station printer range, post-processing is the equally important next stage. The ability to post-cure in an environment where no oxygen is present substantially increases speed and contributes to optimizing both accuracy and final material properties. Our industrial-grade Curing Station combines powerful UV light and its radiated heat, integrated in a vacuum chamber for exceptional performance.



3D Manufacturing Excellence

POST-CURE BETTER AND UP TO 10X FASTER

The possibility to create a vacuum while post-curing DLP-printed parts with UV light and radiated heat is the most distinctive feature of our new Curing Station. Effectively, it offers the best of all three factors that can influence the post-curing process. The key practical benefits are twofold: speed and accuracy. Without the curing-inhibiting oxygen present, the resin post-curing process is significantly accelerated. Radiated heat increases the mobility of the polymer resin, further increasing speed and completeness of the post-curing reaction. This means the resin molecules link up and reach their end state much faster, which produces final, ready-to-use parts up to 10x faster than with conventional post-curing methods. The combination of light, radiated heat and vacuum creates exceptionally strong parts.

HIGH ACCURACY, LESS DISTORTION, CRISP DETAILS

High intensity UV light combined with heat in a vacuum environment allows Curing Station to post-cure printed parts more thoroughly than other post-curing solutions. All three key variables can be independently controlled by the user in a single automated curing preset, which makes Curing Station an exceptionally versatile device. Whether a resin optimally post-cures using short bursts of powerful UV in vacuum, extended lighting at an elevated temperature or a different procedure altogether: Curing Station can do it all. Post-curing with the best possible settings results in less distortion, crisper details, and truly thorough curing of the parts.

POWERFUL UV LIGHTING

Curing Station holds a total of 28 light sources, which together produce a total radiated power of 45 Watts broad-spectrum UV light. The UV lights are evenly distributed in 360 degrees around the parts, which creates an even exposure from all sides. The powerful lights also have a radiated heat curing effect on the parts inside the chamber. When a vacuum is created while UV post-curing parts, the absence of oxygen creates a more complete reaction than at atmospheric pressure.

FULL CONTROL IN ONE-TOUCH PRESETS

The intuitive Curing Station touch screen interface allows the user to fully customise automated curing presets. The vacuum, pressure, UV light dose, degas time and the cooldown time can be individually controlled in each process step. By combining a series of subsequent steps in a preset, Curing Station allows creating any conceivable curing process based on the resin properties and application requirements. Curing presets can be easily selected and started with a single touch, straight from the home screen.

LARGE CAPACITY

With its capacity of 282 x 395 x 275 mm, Curing Station makes it possible to post-cure even the largest parts produced by our DLP Station printer range. The easily removable borosilicate plates allow selecting the optimal setup for the job. Are you looking to post-cure many smaller parts in a single run, using the multi-level setting, or several larger objects by removing the top plate and utilizing the full internal height? Curing Station is ready to fulfil your post-curing needs.

INDUSTRIAL QUALITY

At atum3D, we want to make sure our solutions support your business processes the best way possible. In addition to exceptional features and performance, our software and hardware is designed with professional and industrial use in mind. Curing Station is aimed to withstand heavy-duty environments. Easy maintenance, partly thanks to dedicated service doors, ensures continuous operation.

INTEGRAL SOLUTION WITH DLP STATION

Curing Station was created to be operated side-by-side with our DLP Station printer range and extensions. Post-curing plays an important role in any integral 3D printing application solution. Now it's possible to conveniently create print jobs with Operator Station software, swiftly and accurately print parts in any resin using DLP Station, thoroughly clean the results in one of our Cleaning Stations and post-cure parts to their final specification in our state-of-the-art Curing Station.

TECHNICAL SPECIFICATIONS

CURING STATION

Intended use	Professional & Industrial
Technologies	UV light, Radiated heat, Vacuum
Colour	Black
Chamber volume	30 liters
Chamber dimensions (WxDxH)	282 x 395 x 275 mm
Shelves	2x Borosilicate
Light source	28x broad-spectrum UV lamps
Wavelength	350 – 420 nm
Radiated power	45 W
Lamp life	Max. 5000 hours
Radiated heat	Ambient temperature sensor
Vacuum rating	Max. 0,003 mBar
Vacuum pump flow rate	6 m ³ /hour
Vacuum pump noise	56 dB (at 1 meter distance)
USB port	Yes
Ethernet port	Yes
AC input	230 V / 50/60 Hz
Power	600 W
Operating temperature	15°C – 30°C
Weight (including Base)	174 kg
Dimensions (closed) (WxDxH)	570 x 570 x 1676 mm (incl. Base)
Dimensions (open) (WxDxH)	570 x 810 x 2190 mm (incl. Base)
Base (WxDxH)	570 x 570 x 620 mm



atum3D strives for 3-fold excellence. With proprietary **software, hardware** and an **open resin platform**, we offer exceptional **accuracy, speed** and **cost-effectiveness**. We aim to make your life easy with comprehensive **training, services** and **support**. Team up with atum3D and become a part of the next industrial revolution!

For more information and specifications, please call +31 (0)85 488 26 60 or visit atum3D.com.

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