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CALIGMA 200

THE HOT LITHOGRAPHY PRODUCTION PLANT

Highest flexibility and
precision for product
development and series
production


cubicure
printing
performance polymers

CALIGMA 200

THE HOT LITHOGRAPHY PRODUCTION PLANT

With its patented Hot Lithography technology, Cubicure's Caligma 200 production plant enables the easy and professional processing of high performance photopolymers.

The core of this technology is a specifically developed heating and coating mechanism.



THE FLEXIBLE, DIGITAL AND TOOL-LESS MANUFACTURING INSTRUMENT FOR PRODUCT DEVELOPMENT AND SERIES PRODUCTION

Processing of high viscosity resins and pastes:

- ◆ Patented heating and coating mechanism
- ◆ Operating temperatures up to 120°C
- ◆ Maximum resin viscosity at operating temperature: 20 Pa.s
- ◆ Precisely controlled heating for a long-term stable process
- ◆ Constant operating temperatures without material damage



Pre-defined parameter settings
for high viscosity Cubicure
photopolymers.

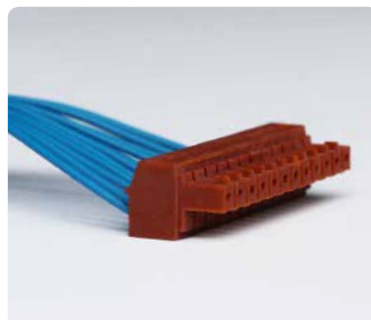
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Processing of conventional
photopolymers possible.

Machine design focused on the combination of flexibility of usable materials and the greatest possible process safety.

Take advantage of this enormously time saving digital and tool-less production technology!
Develop and produce polymer parts faster, more efficient and with more precision than ever before!

Machine specifications:

- ◆ Laser system for highest manufacturing precision (Caligma 200: $\lambda = 405 \text{ nm}$, Caligma 200 UV: $\lambda = 375 \text{ nm}$)
- ◆ Resolution up to $10 \mu\text{m}$ (Laser focus & layer height)
- ◆ Processing of high viscosity resins and pastes in thin layers
- ◆ Automatic material dispensing
- ◆ Building envelope: $200 \times 100 \times 300 \text{ mm}^3$
- ◆ PLC control
- ◆ Autonomous operating, easy handling
- ◆ Activated carbon filter for office environment operation

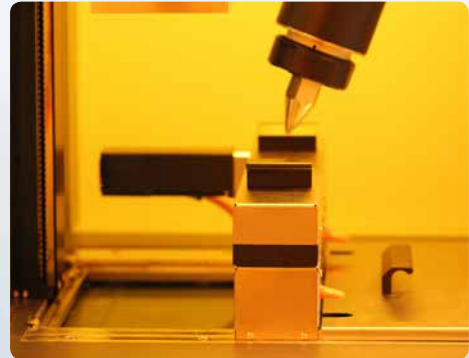


HOT LITHOGRAPHY TECHNOLOGY

Hot coating technology

The patented hot coating technology enables the safe use of elevated temperatures during the polymerization process. The material is coated in thin layers onto a carrier plate where it gets heated indirectly by heat conduction. The heat transfer is precisely controlled.

The resulting well-defined process temperature makes it possible to run a safe and stable printing process for days.



Laser light engine

The Caligma 200 production plant incorporates a high-end laser light engine for the finest manufacturing precision. On customer request, the machine can be configured with a laser wave length in the visible range (405 nm, Caligma 200) or in the UV range (375 nm, Caligma 200 UV).



Material refill

A controlled material refilling mechanism ensures stable processing. Cubicure's photopolymers get provided in 300 ml material cartridges which can be exchanged easily in a heated cartridge holder.

The machine automatically monitors the material filling level as well as the loading status of the cartridges.



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