

OUR COMPETENCIES

Products & Services

Glass Photomasks

Sodalime or quartz substrates with antireflective chromium. The most dimensionally stable solution for high-accuracy exposure.

Optical Encoder Discs

Incremental and absolute graduations on glass, film and aluminium — the reading element of high-precision rotary encoders.

Optical Linear Scales

Graduated scales designed for linear optical encoders, with constant pitch over the full measuring length and high dimensional accuracy.

Film Photomasks

Cost-effective alternative to glass for chemical etching and prototyping. Photoplotted up to 50,800 dpi, shipped within 24 hours.

Calibration Plates & Targets

Measurement artifacts for metrology, microscopy and optical inspection, with very high accuracy of both features and overall dimensions.

Fine Glass Machining

In-house designed equipment for machining and drilling your substrates down to 0.1 mm thickness.

CONTACT

Talk to our engineers

Whether you have detailed CAD files or just a concept, we advise you to make your project reality.

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Request a quote

selba.ch/quote



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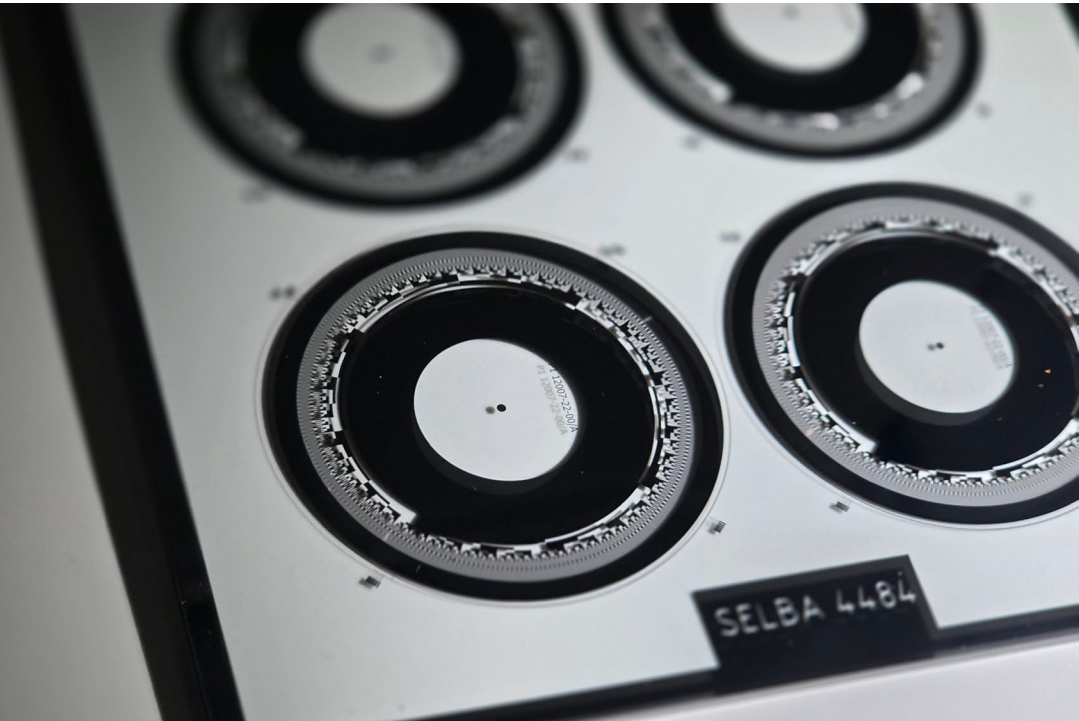
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Our know-how

Photolithography and fine glass machining

selba.ch



Automation

Encoder discs and scales

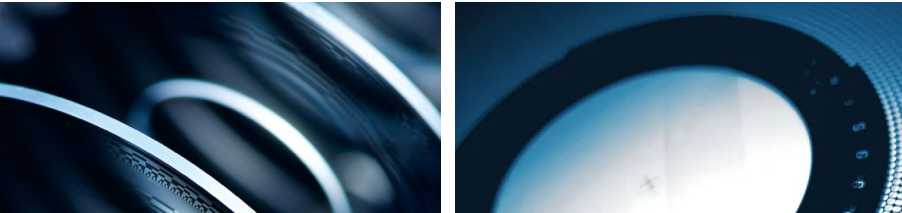
We manufacture optical encoder discs and linear scales, incremental or absolute, on glass, low-expansion quartz, film and aluminium substrates. We advise you on the best chromium coating for your application, whether reflective, transmissive or infrared.

Minimum feature size down to 2 µm and angular accuracy of 2 arc sec

Calibration plates and targets

Our calibration plates and targets provide the reference points for cameras, microscopes and metrology instruments, with a minimum resolution of 0.6µm.

Patterns can be custom or standard (USAF 1951, Siemens Star)

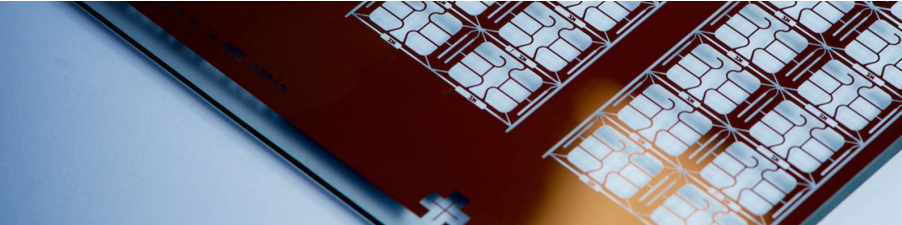


Electronics

High-resolution photomasks for PCB and photochemical fabrication

Our glass and film photomasks match the resolution and format requirements of printed circuit board manufacturing and photochemical machining. Quartz photomasks are intended for deep-UV exposure. Sodalime substrates with antireflective chromium; GDS, CIF, Gerber and DXF formats accepted, films shipped within 24 hours after order confirmation.

Minimum resolution: down to 7 µm (film) and 0.6µm (glass)



Watch Industry

A trusted partner of the great watchmaking maisons

Our glass machining workshop, equipped with in-house designed machinery, holds very tight mechanical tolerances while meeting the aesthetic standards of high-end horology.

Dial bases, case backs, moon-phase discs: we machine your parts down to 0.1mm thickness on glass and quartz

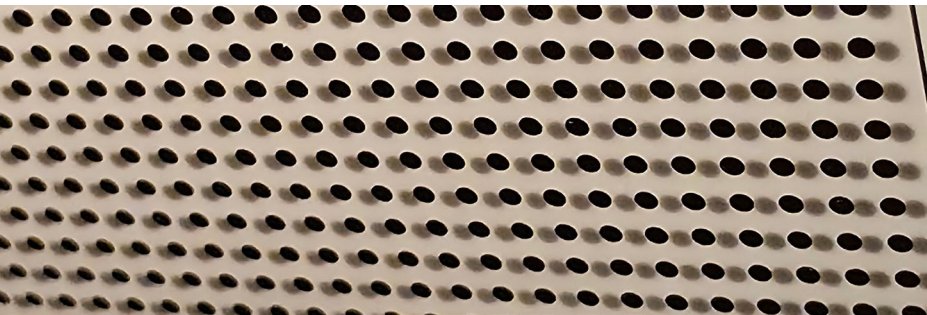


Optics & Photonics

Custom glass machining

Looking for expertise in wafer machining, or in cutting lenses and other precision glass? Drawing on its experience in precision cutting, Selba provides a bespoke service.

We operate machines designed in-house specifically for glass work, and use diamond tooling exclusively.



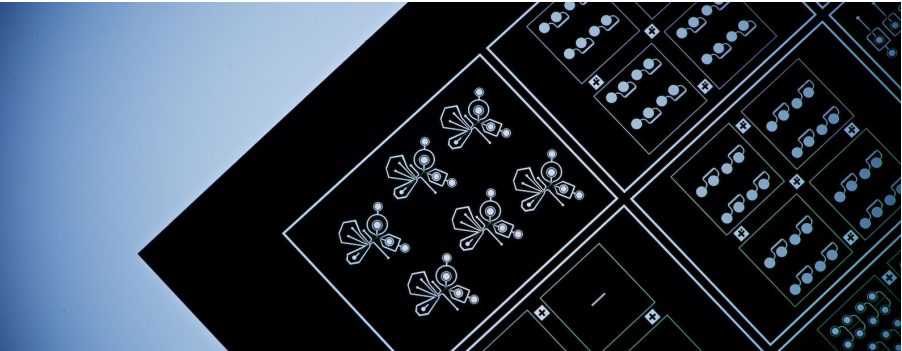
Nanotechnology / Microfluidics

Film and glass photomasks

Glass and film photomasks enable the lithographic fabrication of microfluidic channels, bioelectronic substrates and diagnostic array structures.

Need a solution that allows fast iteration? We produce your film masks within 24h after order confirmation.

Minimum feature size: down to 7 µm (film) and 0.6µm (glass)



Space & New Space

Precision encoder discs and scales for pointing systems

We favour high optical quality substrates for space applications and offer our encoder disc expertise for small, serialised production runs.

On request, we can produce discs up to 300 mm in diameter to suit large-format encoder designs.

