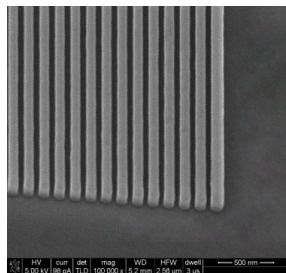
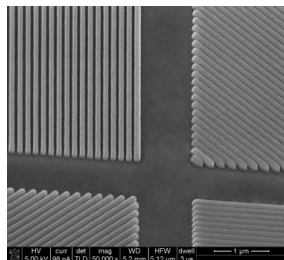




NanoImprint Lithography (NIL) Foundry



NanoImprint

Mounting Options

Please contact us for information about customized mounts.

Custom Sizes

Moxtek offers custom sizing and shapes of optical components for customers. For dimensional limits for specific shapes and substrates, please contact us at info@moxtek.com

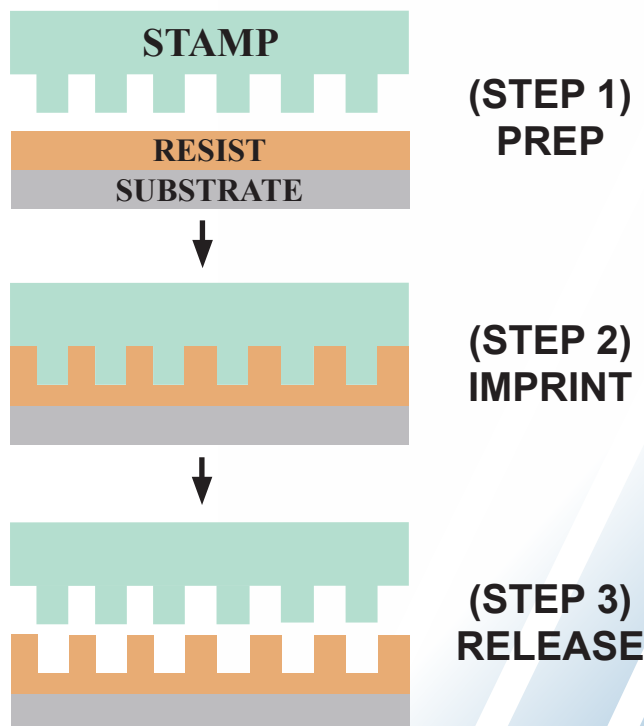
White Paper

Please visit our website:
<https://moxtek.com/wp-content/uploads/NIL-Foundry-White-Paper-V3.pdf>

Moxtek offers state of the art NIL volume manufacturing on 8-inch glass and silicon wafers. Based on data from 10,000 processed wafers, we have shown stamp life well in to the 500 to 750 print ranges with some life time test up to 1300 prints, and minimally maintained critical dimension (CD) of 30nm. The foundry service includes master design and manufacturing, stamp making, imprint prototyping and mass production. We provide DOE and cycles of learning for print optimization along with statistical process control (SPC) monitoring of post print CD repeatability.

This foundry service offers master and stamp making, release layer coating, imprint/etch and metrologies. These versatile capabilities are optimal for manufacturing of functional micro- and nano- nanostructures such as Waveguides, Diffractive Optics (DOE), Microlens Arrays, Photonics Crystal and other Metasurfaces for Display, Imaging, AR/MR, Medical, Automobile and many other applications.

Parameter	Guidance
Master Aspect Ratio	≤ 2 (CD Height/Width)
Minimum CD	30nm
Master Wafer Type	Silicon (Preferred)
Master Wafer Size	300mm, 200mm (Preferred) 150mm (Acceptable)
Master Release Surface Prep	In House (Preferred)
Remaining Layer Thickness	$15\text{nm} < X < 25\text{nm}$
Processing Substrates	200mm Glass/Silicon: 0.7mm to 1.8mm
Resist Mask	Oxide Based Sol Gel
Cut and Dice	Alignment Marks on Master



452 West 1260 North / Orem, UT 84057
Phone 801.225.0930 / Fax 801.221.1121
www.moxtek.com
info@moxtek.com