SCIL
Nanoimprint solutions

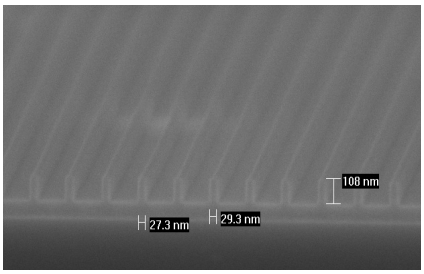
High volume
AutoSCIL Tool

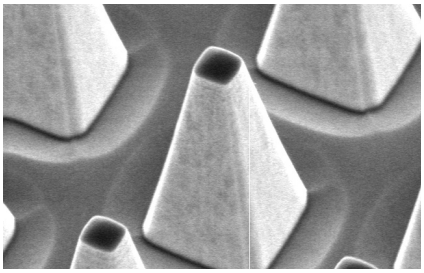
SCIL Nanoimprint solutions offers NIL manufacturing solutions in a large variety. From manual R&D tools to fully automatic cassette-to-cassette systems and from 3” up to 300 mm wafers.
The R&D tools and automatic production tools use the same imprint method which allows easy transition from manual to semi-manual and automatic processing.

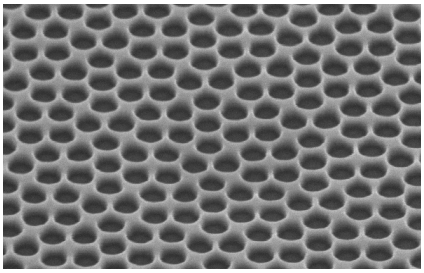
The fully automatic AutoSCIL includes all essential process steps in a closed coupled system: wafer handling, aligning, spin-coating, SCIL imprinting, baking and cooling.

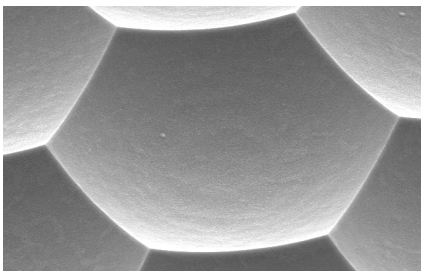
Key features

- Integration of all essential proces steps in one closed coupled system.
- Tri-layer stamp construction allows conformal contact printing even on nonflat and bowed surfaces.
- Unique SCIL imprint process ensures sub 10 nm resolution with low pattern deformation and no stamp damage by particles.
- The excellent etch properties of the sol-gel resist result inhigh etch rates.
- The thermal stability, optical transparancy and (UV) stability of the sol-gel makes it suitable as functional layer.
- Use of thermal sol-gel increases stamp lifetime.
- Overall combining highest imprint quality and yield with high throughput and low total cost of ownership.









Specifications

Throughput	30 - 60 wafers/hour depending on wafers size, wafer material, pattern dimensions and material process
Wafer sizes	3” up to 8” (or 200 mm)
Wafer thickness	0.3 - 2.5 mm
Wafer handling	Cassette-to-cassette, aligning, robot handling
Resist types	Thermal sol-gel UV sol-gel UV organic
Resist coating	Integrated spin coating system
Imprinting	SCIL low pressure softstamp NIL
Post processing	Baking and cooling
Dimensions (WxLxH)	1.9 x 1.6 x 2.2 m
Alignment	Full wafer < 1µm

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