

## Waveguides for AR/VR/MR

Since 2015, NIL Technology has delivered masters with blazed, slanted and binary gratings to the AR/VR/MR industry

**Blazed, slanted & binary gratings**

**Input-, expander-, and output gratings, planar waveguides**

### Waveguide Technology

NILT's waveguide technology powers many of today's brand name demonstrator products.

Input-, expander-, and output gratings for Augmented-, Virtual- and Mixed reality (AR/VR/MR). Highly advanced masters and sub-masters for development and mass production.

All grating types can be combined, in any relative placement and orientation. We offer complete design freedom.

We provide masters and sub-masters (also known as working molds) for development and mass production.

We support all phases from development to mass production, and we can offer prototyping service of waveguides in various materials, including high-index materials.

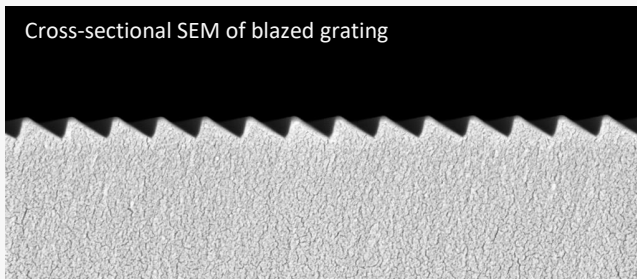
We also provide our R&D replication tool for easy replication of AR/VR/MR gratings for R&D and prototyping. Read more at [nilt.com/cni](http://nilt.com/cni).

We are a global leader in grating technology with extreme accuracy, excellent uniformity, high diffraction efficiency and excellent control of slant angle and parallelism. Contact us to be convinced.

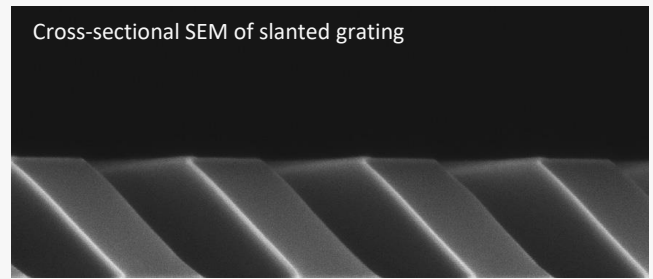
Read more at [nilt.com](http://nilt.com).

## Blazed, slanted & binary gratings

- NILT makes the best performing blazed grating masters on the market (customer testimonials)
- Complete design freedom, no design limitations from process
- Possible to place multiple gratings with different orientations on the same master
- NILT slanted gratings have the highest pattern fidelity, with excellent control of slant angle and parallelism



Blazed grating with perfectly flat blaze surface, minimal anti-blaze, and excellent uniformity.



Slanted grating with excellent uniformity, flat bottom of the trench, low tapering (parallel walls) & roughness. Distinct shape.

## Mastering Technology

We develop highly advanced masters for development and mass production. Blazed, slanted, binary, multilevel structures, MLA, and we have sub-master/working mold technology supporting mass production.

Masters are made using electron beam lithography (EBL), deep UV Lithography (DUV), and direct laser writing, combined with advanced dry etching, and deposition processes.

All grating types can be combined, in any relative placement and orientation. We offer complete design freedom.

All masters are made to customer specifications.

Read more at [nilt.com/masters](http://nilt.com/masters)