



WORKSHOP OF PHOTONICS

- **Solutions** for Your μ tasks
- **18 years** of expertise
- **>400 feasibility** studies a year

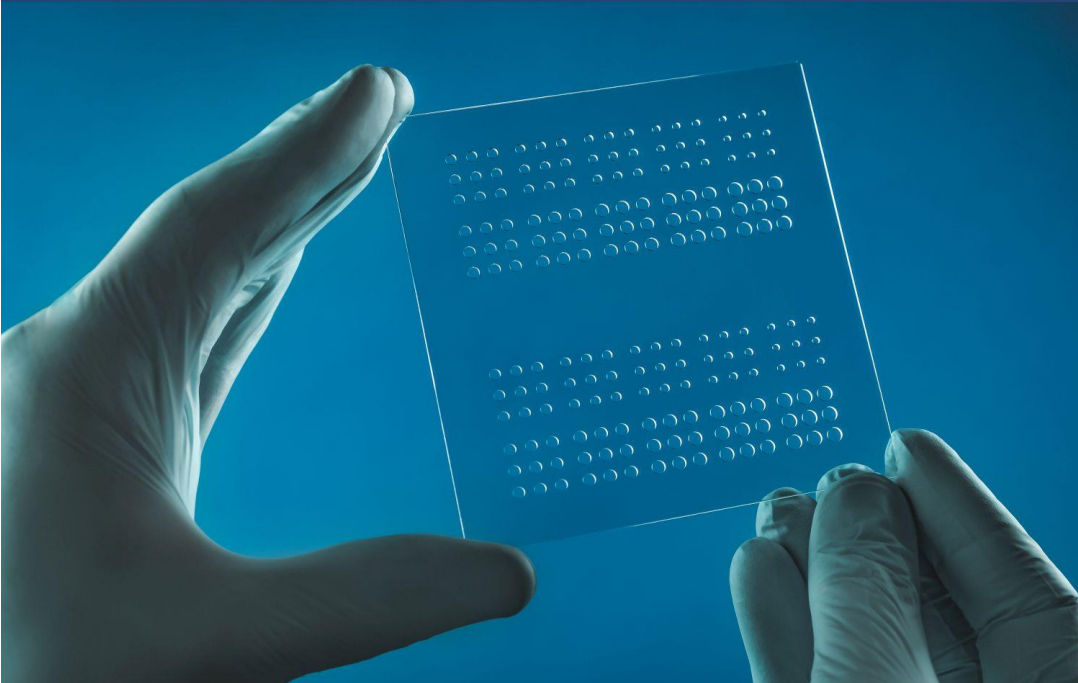
Full-Service Solution

HAVE A MICRON CHALLENGE?

Need to work it out?

PROTOTYPING

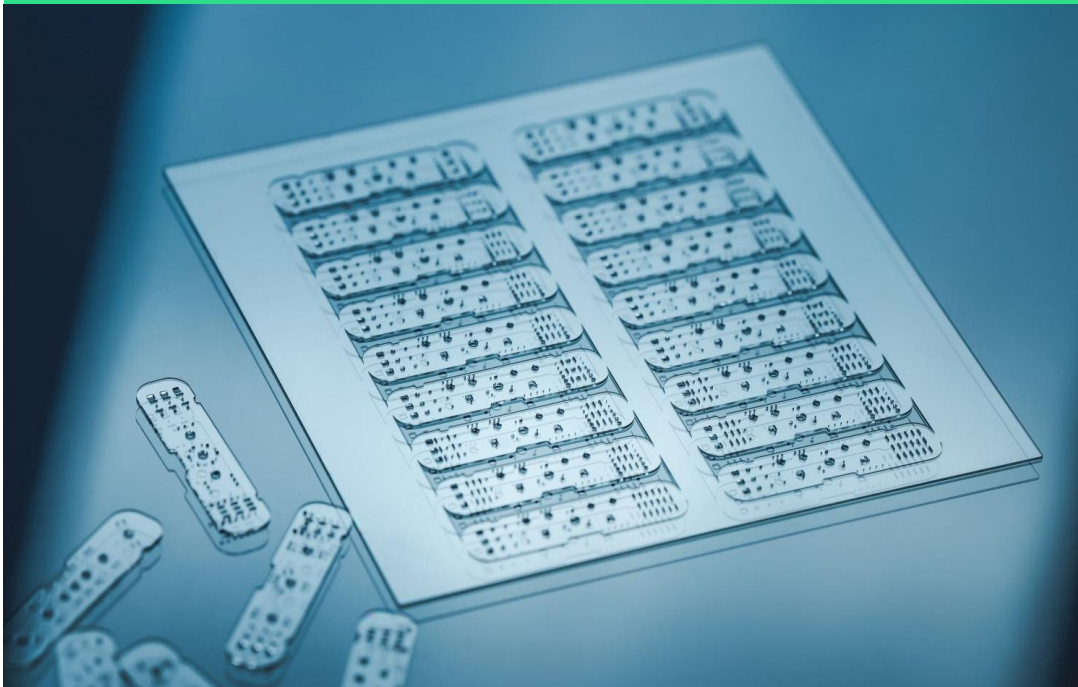
We will investigate your task and deliver a prototype to test it in real environment.



Need to scale?

PRODUCTION SERVICES

We will deliver small to medium scale production services from 1 unit.



Need a tool?

LASER SYSTEM DEVELOPMENT

We will develop a laser system for your specific application and transfer with the recipe.



All materials: glass, sapphire, ceramics, metal, plastic, optical fibers...

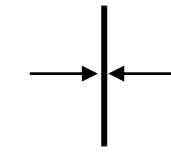


Glass Dicing

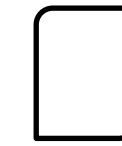
WOP technology outperforms
other glass-cutting methods



Ultra-fast
up to
1000 mm/s



Thin glass &
sapphire
30 μm – 2 mm



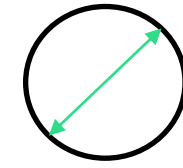
Irregular
shapes

	Blade dicing	Stealth laser dicing	WOP laser dicing
Glass thickness	2 – 19 mm	200 μm – 10 mm	30 μm – 2 mm
Glass type	All types	Non-tempered Sapphire	Tempered Non-tempered Sapphire
Cutting speed	Up to 100 mm/s	Up to 300 mm/s	Up to 1000 mm/s
Possible shapes	Straight cuts only	T-shape and round shapes possible	Any shape possible
Surface chipping	<200 μm	<50 μm	<10 μm

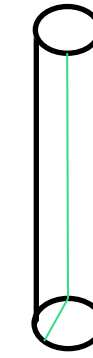


Glass Drilling

Hole diameter
from 20 μm



Hole size tolerance
 $\pm 1\mu\text{m}$



Aspect ratio
1:100

1 ?

How many

10 ?

holes

100 ?

can you

drill

1 000 ?

in glass per

1 minute?

50 000+

WOP
benchmark

3 M holes

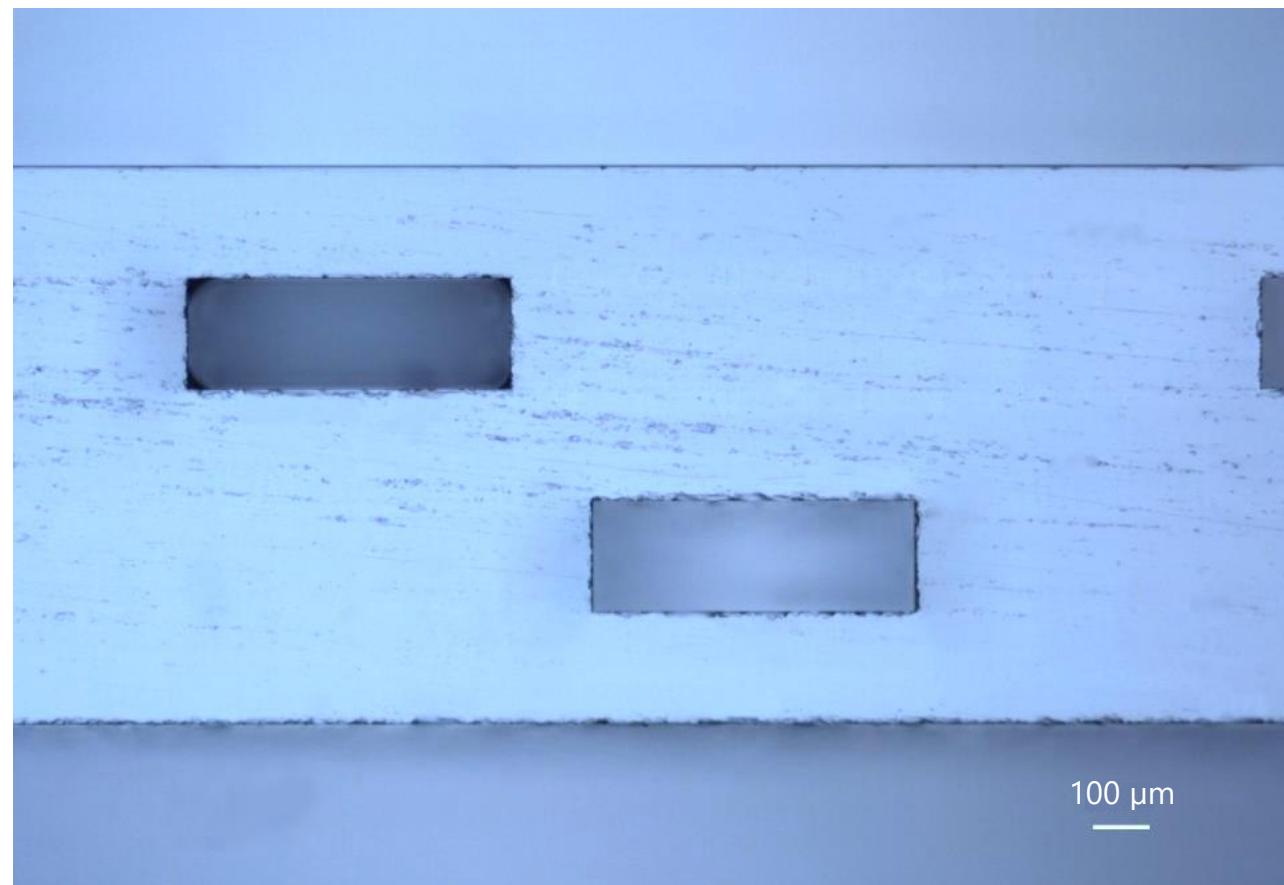
in 8" diameter, 500 μm
thickness fused silica wafer.
Takt time – 45 minutes.

What's in it for You?

Clients' latest benefits in choosing WOP

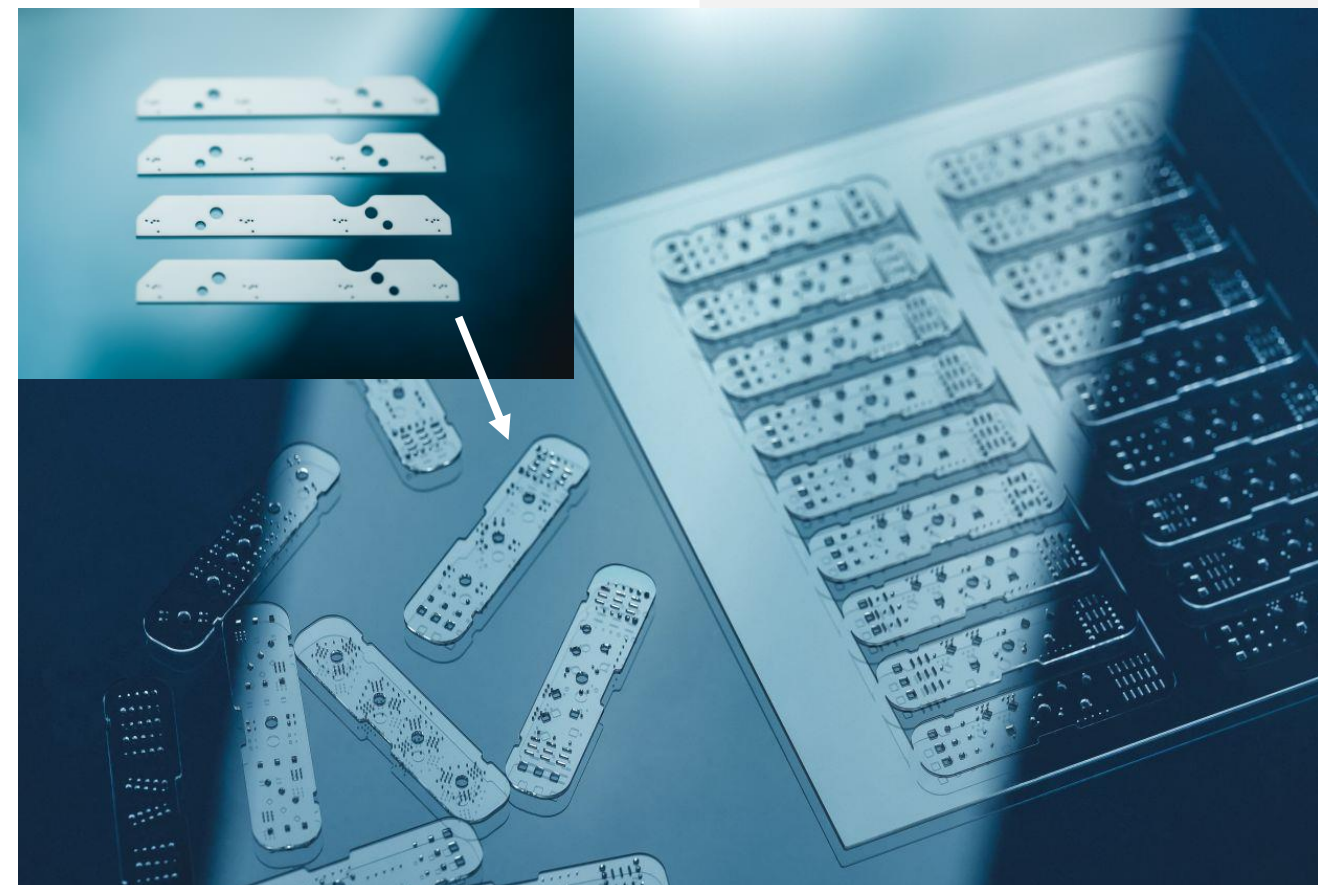
Microfluidic chip bonding:

- 5 hermetic layers bonded without adhesive (*side view*)



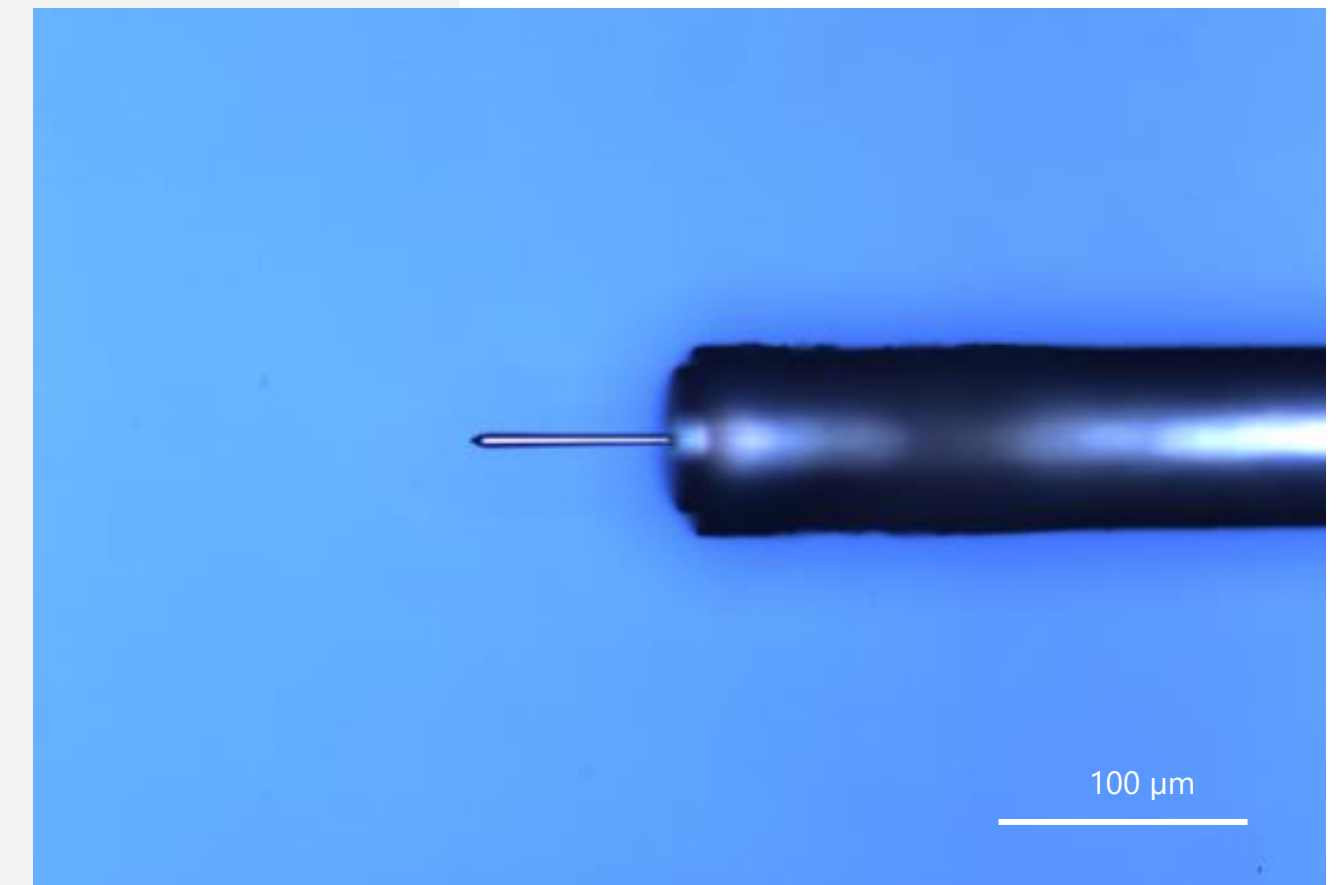
Switch ceramics to glass for probe cards:

- 80% less defects
- 20x faster processing



Metal needle micromachining for biomedical R&D project:

- tip diameter $\geq 5 \mu\text{m}$





Don't hesitate,
contact us!

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Our Clients

