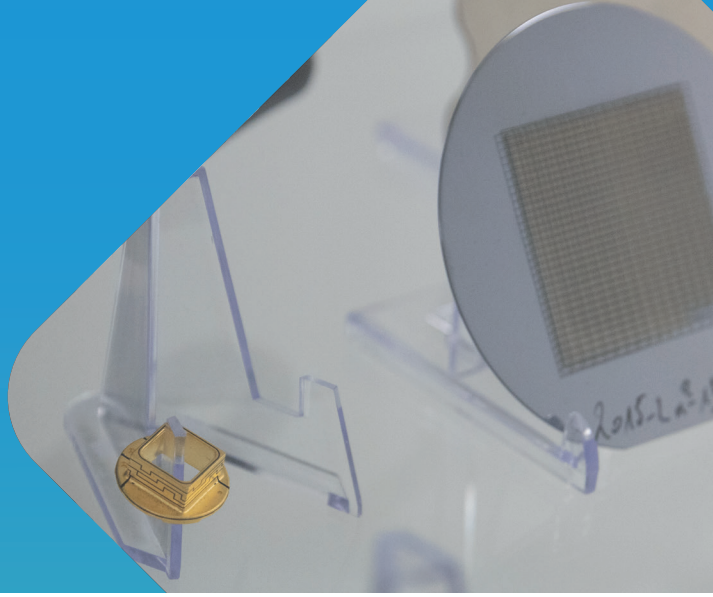
HEF GROUPE | LISTEK®

LISTEK® BEAM

Laser Induced Surface Technology

LISTEK BEAM delivers ultra-precise surface micromachining with a clean contactless process.

Based on ultra-fast laser processing technologies designed to machine, cut, drill, mask or etch surfaces with high precision and without material deterioration. LISTEK BEAM unleakes new industrial components surface performance.



CUT
High-precision cutting

DRILL
Micro-drilling solutions

ETCH
Surface structuring

GLASS
High process cutting

KEY TECHNICAL BENEFITS

CONTROLLED
LISTEK enhances your precision

- Micron-scale precision
- Controlled thermal impact, no burrs or degradation
- Suitable for surfaces from micro m^2 to m^2

FAST
LISTEK improves your productivity

- Minimal or no pre/post-processing speed
- Surface treat speed up to 1m/s
- Can be used in combination with HEF CERTESS® for an integrated production.

FLEXIBLE
LISTEK adapts to your needs

- Wide material compatibility (rigid to fragile)
- High reproducibility
- Compatible with 2D and complex 3D geometries.

CLEAN
LISTEK keeps your process pristine

- Low carbon footprint
- No tool wear due to contactless process
- Additive-free process.

APPLICATIONS

- Tampography and pad printing
- Medical blood analysis devices
- Fuel cell bipolar plates seal
- Plastic injection molds
- Fluid grooves
- Medical Micro-diffusor
- HVAC
- Wafer Die carrier
- Electronics assembly
- Electronic case shielding

SERVING DEMANDING INDUSTRIAL MARKETS


Defense


Electronics


Industry


Hydrogen


Medical


Mobility

LISTEK LASER CAPABILITIES

Industrial laser surface engineering services designed for high performance and productivity.

Our ultra-fast laser technologies continue to evolve rapidly, unlocking new applications.
With our in-house TSD-FS600 L machines already in production, and HEF-backed expertise, we deliver reliable, scalable, state-of-the-art surface micro-machining and functional surface engineering.



TECHNICAL BENEFITS

±2 µm precision and 100 nm pitch
enable complex patterns

Draft angles from 8 to 10°
allow advanced micro-structures

Cutting speed up to 1m/s*
with the HEF platform ensures top productivity
***depending on thickness**

Clean & green process
No contact or chemicals makes it a clean, low-carbon solution

	SUBSTRATE	MAX THICKNESS	SUBSTRATE SIZE	PITCH	DRAFT ANGLE	DIAMETER OVER DEPT RATIO	X-Y POSITION PRECISION
CUT	Metal, textile, ceramic, plastic, organic	1 mm	600 x 800 mm²	30 µm	Typ. 10° / Min 8°	-	+/- 2 µm
DRILL						1:10	
ETCH						1:1	
GLASS	Sapphire, quartz, Chem. reinforced glass	8 mm	500 x 600 mm²	N/A	0°	1:5	

WHY CHOOSE HEF?

FROM SCIENCE TO INDUSTRY

HEF supports customers across the full value chain, from materials science and process development to industrial surface treatment and component manufacturing.

Our vertical integration model, from research through to industrialization and our commitment to turning science into industrial reality make us the ideal partner for any industrial company, from startups to multinational groups.

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