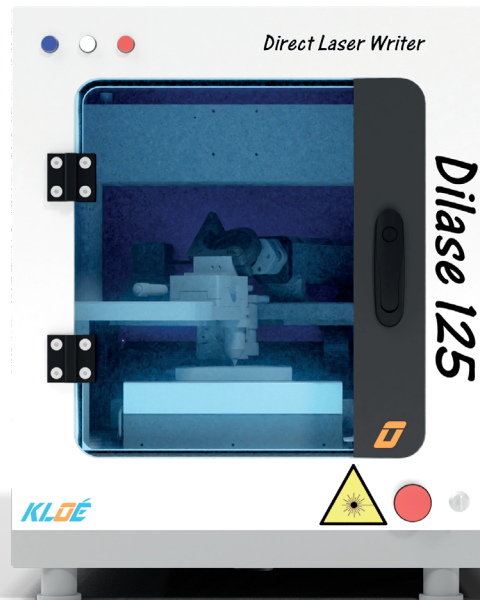


Direct Laser Writer

Dilase 125

Plug and Play Equipment



“Basic and efficient,
the essential of laser photolithography”

5µm feature size

High aspect ratio 1x30

100 x 100mm² exposure area

405nm laser source, customizable with 375nm

Maximum linear speed up to 100mm/s

3 write modes: vector mode, scanning mode
and a combination of both

Compatible with all UV photoresists

In option

375nm laser source

Multilayer alignment function

Basic Microscope functionality

Anti-vibration table

KLOÉ

Robust, handy and user-friendly, Dilase 125 can be used for many applications like **microfluidics**, surface functionalization, photonics, greyscale...

5µm feature size

A 5µm beam which can write onto resist layers **from < 1µm to more than 150µm thickness**.

This 5µm beam can reach 3µm feature size.

High aspect ratio: 1x30

The **high depth of focus** resulting from the specific optical treatment line designed by Kloe, allows to write into thick films as easily than into thin films with the same edge verticality and **very low roughness**.

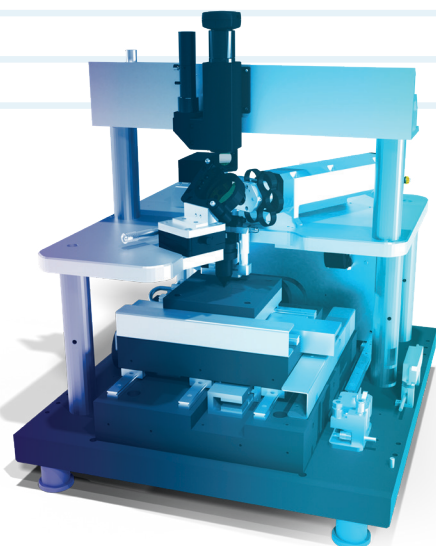
Writing modes: vector, scanning and a combination of both

Vectorial writing mode ensures a **perfect rendering of edges** without stitching nor roughness.

The combination of both modes by fast filling in scanning mode and the finalizing contours in vector mode provides perfectly square pattern edges with **no roughness**.

One-pass laser processing

No roughness induced by vertical stitching, **no need to adjust the focusing point**, between 2 samples.



Performances

Nominal feature size	5µm
Maximum linear speed	up to 100mm.s-1
Address grid	100nm
Repeatability	100nm
Aspect ratio	1x30
Multilayer alignment accuracy	< 2µm (option)
Absolute positioning accuracy	3µm / 100mm
Orthogonality X/Y	< 50µRad



Exposure area/Writing Surf.

Sample sizes	From 3x3mm ² to 4", up to 5" for square substrates
Substrate thicknesses	From 250µm to 10mm
Exposure area	100 x 100 mm ²
Compatible photoresists	All UV photoresists

Laser source

Available wavelengths	Standard 405nm (50mW) - Option 375nm (70mW)
Available laser units	1
Available spot sizes	1
Adjustable laser power	From 10% to 100%
Laser lifetime	375nm laser: 5 000 hours / 405nm laser: 10 000 hours

Usage features

Compatible files format	GDSII - DXF
Integrated software suite	KloeDesign (file converter software), DFM (file manager software), DilaseSoft (piloting software)
Write modes	Vector mode, Scanning mode and a combination of both
Laser security class	3b
Anti-vibration table	In option
Vacuum supply	In option
Multilayer alignment function	Option
Motorized focusing stage	Included
Automated focusing setting	Included

General specifications

Size (L x W x Ht)	494 x 565 x 626mm
Weight	105kg / 231lbs
Power supply	100-110V / 220-240V - 50Hz
Power consumption	< 300 W
Operating temperature	From 15° to 30°C / Stability +/- 1°C

