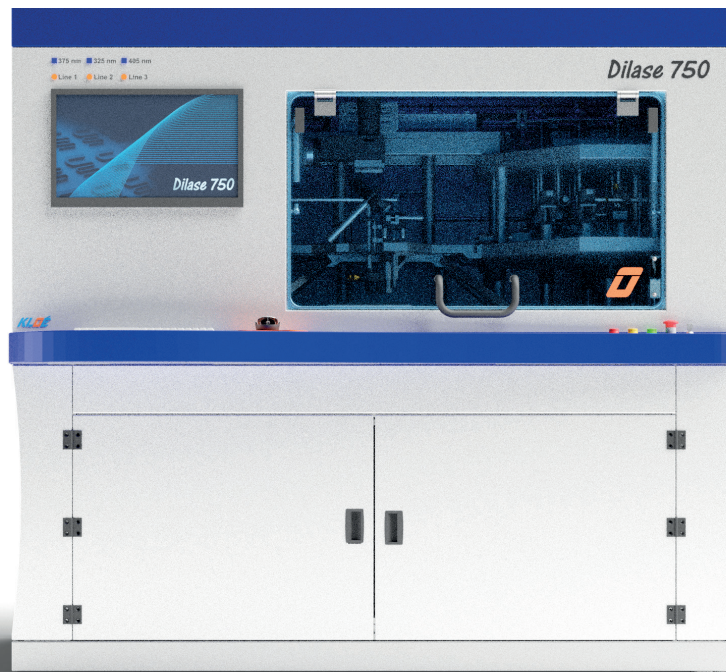


Direct Laser Writer

Dilase 750

Fully modular high-end System



“Tailor-made equipment, fully customizable, offering up to 9 combinations laser/feature size”

Custom feature size: min. 0.5 μ m

Minimum aspect ratio: 1x20 from 1 μ m feature size

From 200 x 200mm² exposure area

Custom laser source: 325nm, 375nm or 405nm

Multilayer alignment accuracy down to 250nm

Maximum linear speed up to 350mm/s

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

Compatible with all UV photoresists

In option

1x50 aspect ratio

***Automatic switch between the laser sources
and the spot sizes***

Dilase 750 is designed to combine up to **3 different laser sources** with up to **3 different spot sizes** per laser, with an extended customizable exposure area.

Custom feature size

Choose from **0.5µm** (High Resolution) to **50µm** (Low Resolution).

High aspect ratio: 1x20

High aspect ratio head optional: 1x50

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**.

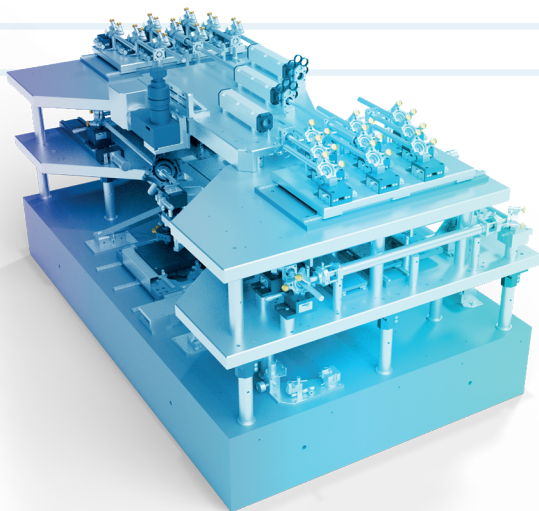
Writing modes: vector, scanning and a combination of both

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	Custom from 0.5µm to 50µm
Maximum linear speed	up to 350mm.s-1
Address grid	100nm standard - 40nm optional
Repeatability	100nm
Aspect ratio	Min. 1x20* standard - 1x50 optional
Multilayer alignment accuracy	Down to 250nm
Absolute positioning accuracy	3µm / 100mm
Orthogonality X/Y	< 50µRad

*With 1µm feature size

Exposure area/Writing Surf.

Sample sizes	From 3x3mm ² to 4", 6", 8" or 12"
Substrate thicknesses	From 250µm to 10mm
Exposure area	From 200 x 200mm ² and above
Compatible photoresists	All UV photoresists

Laser source

Available wavelengths	Custom: 325nm, 375nm or 405nm
Available laser units	1, 2 or 3
Available spot sizes	1, 2 or 3
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	Integrated
Vacuum supply	In option
Multilayer alignment function	Standard
Motorized focusing stage	Included
Automated focusing setting	Included

General specifications

Size (L x W x Ht)	1920 x 1600 x 1800mm
Weight	until 2500kg / until 5511lbs
Power supply	100-110V / 220-240V - 50Hz
Power consumption	< 500W (excluded specific laser)
Operating temperature	From 15° to 30°C / Stability +/- 1°C

