

Scribing of Thin-film Solar Modules in the Lab

LPKF Presto™



Precision for the Laboratory

LPKF Presto™ achieves the same as the large LPKF-Allegro™ series:

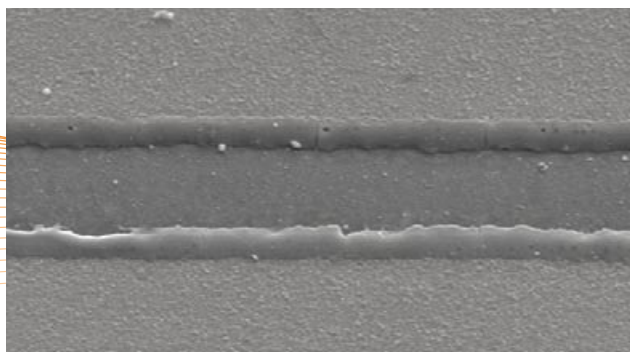
Reliable thin-film scribing of CdTe, aSi/ μ Si and CIS layers at highest speed and precision.

Almost like the full-scale production Allegro™ systems – LPKF Presto™ combines all technical advantages in a compact design. The system provides highest flexibility. It can be equipped with different laser sources (355, 532 and 1064 nm), optical configurations as well as a mechanical scribing head.

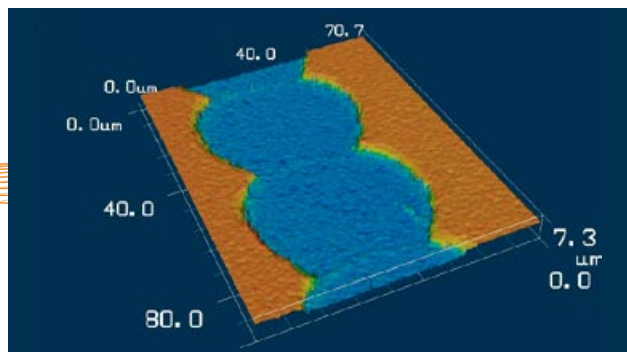
LPKF Presto™ works with axis speeds of up to 2 m/s on substrates with a thickness of up to 6 millimetres. An integrated optical recognition system allows to determine the coordinates of the P1 pattern for P2/P3 scribing as well as to perform an optical inspection of the scribing quality.

The special design allows to process substrates through the glass or from the film side. Autofocussing is available. Extraction nozzles on both sides of the substrate remove the scribing products reliably. Particles are removed from the exhaust in a filtration unit.

The LPKF Presto™ Laser system is a precise and flexible scribing tool. These processing parameters can be smoothly transferred to the production with LPKF Allegro™ series.



Ultra short pulse processing CIGS P2



Optimized processing aSi/ μ Si P3

Technical Data: LPKF Presto™	
Substrate dimensions	up to 470 mm x 370 mm (18.5" x 14.6")
Laser wavelength	355 nm, 532 nm and/or 1064 nm
Mechanical working head	pressure adjustable
Scribing line width	20 μ m – 70 μ m
Processing	From film or non-film side of glass
Substrate thickness	2 mm – 6 mm (0.07" – 0.23")
Substrate material	Float glass
Particle Extraction	from film or non-film side of glass
Thin-film technologies	CdTe, aSi, aSi/ μ Si, CIS/CIGS
Alignment	Fiducial recognition
Optical inspection	standard

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