

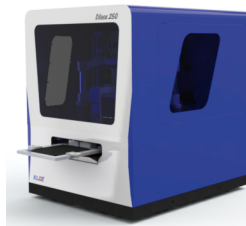
**KLOE:** Dilase Range; **SLM SOLUTIONS:** Metal Powder development; **NEWS FROM OUR SUPPLIERS:** BeAM, and LASERLINE. **WHAT'S IN MY INBOX** – Engineering the perfect chocolate Easter eggs!



### The Dilase Range for photolithography excellence!

Dilase 250, 650 and 750 are designed for photo mask production and pattern fast prototyping for industrial or research and development applications. The systems are ideal for rapid design turnaround and other applications demanding for high-resolution microstructuring.

#### Dilase 250

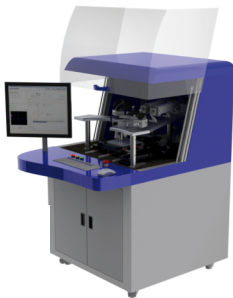


**Laser source:** can be equipped with one laser source either at 375 nm (uv) to a 405 nm wavelength, allowing exceptional precision and beam-shape render. Stability and reliability is guaranteed by the optical laser source being fixed.

**Laser beam:** is routed through a dedicated "optical tube" which cleans, homogenizes and shapes the laser beam to the required dimensions in order to achieve high-resolution writing.

The motor-driven *writing stages*: move in the X and Y directions. Includes *DilaseSoft* proprietary software.

#### Dilase 650



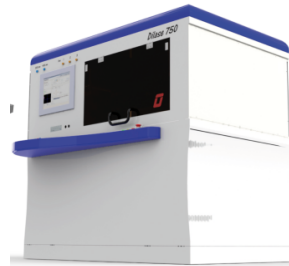
**Laser source:** can be configured with one or two laser sources among 266nm (deep UV) 375 nm (UV) or 405 nm (blue) wavelengths.

**Laser beam:** Can be equipped with two "optical tubes" that offer the possibility to combine up

to two spot sizes on the same equipment.

The motor-driven *writing stages*: move in the X and Y directions.

Dilase 650 includes a *video camera* system to ensure the writing beam is positioned with sub-micron scale accuracy. Includes *DilaseSoft* proprietary software.



#### Dilase 750

Fully modular high-end direct laser lithography system: 1801 x 1204 x 1790 mm.

**Laser source:** One, two or three laser sources available at any of four wavelengths of 266 nm (deep UV), 325 nm (UV), 375 nm (UV) or

405 nm (blue).

**Laser beam:** The "optical tubes" clean, homogenize and shape the laser beam to the required dimensions in order to achieve high-resolution writing.

The motor-driven *writing stages* with dynamic pilot stages system, move the substrate in the X and Y directions.

Dilase 750 includes a *video camera* system to ensure the writing beam is positioned with sub-micron scale accuracy. Includes *DilaseSoft* proprietary software.

*For microfluidics, diffractive gratings, nanostructures or a host of other processes the KLOE Dilase range can meet your needs.*

*For a current brochure, specifications and information on the Dilase Range or directions to scholarly articles contact Raymax on 02 9979 7646 or [info@raymax.com.au](mailto:info@raymax.com.au).*

*Or contact the SA ANFF Node to view their KLOE 650.*



SLM Solutions provide metal-based additive manufacturing systems, namely SLM125. Aware of the necessity to support their laser systems with quality powders, SLM Solutions recently announced it is entering into a cooperation venture with PKM Future Holding GmbH to manufacture metal powders. PKM is a manufacturer of gas atomised metal powders and are also situated in Germany at Bitterfeld. The joint venture will focus on producing aluminium alloys for metal-based additive manufacturing (AM). This is an important metal for SLM Solutions laser systems as it meets the demands in current manufacturing from their installed base across the globe and is the first of planned steps in providing improved metal powders for a range of manufacturing types.

Already available in usable form with any of the SLM range of laser systems are the following metal powders:

**Titanium:**

Alloys: Pure titanium; TiAl6Nb7; and TiAl6V4.  
Areas of application: medical, aerospace, automotive, jewellery, or maritime applications

**Tool Steel and Stainless Steel:**

Alloys: 1.2709; 1.4404 (316L); 1.2344 (H13); 1.4540 (15-5PH); and 1.4524 (17-4PH)  
Areas of application: plastic injection and pressure diecasting moulds; maritime, automotive.

**Aluminium:**

Alloys: AlSi12; AlSi10Mg; AlSi7Mg; AlSi9Cu3; AlMg4,5Mn0.4  
Areas of application: automotive, aerospace, consumer goods.

**Nickel-base Alloys:**

Alloys: Hastelloy X (2.4665); Inconel 625, Inconel 718; Inconel 939; Inconel 738.  
Areas of application: aerospace, energy technology, toolmaking.

*For any information on metal powders call us to get informed advice and direction on 02 9979 7646*

**NEWS FROM OUR SUPPLIERS:**

**BeAM**, Prestigious French engineering schools École Polytechnique and ENSTA ParisTech have invested in one of BeAM's Laser Metal Deposition (LMD) additive manufacturing machines. The 3D printer, which is based on metal powder deposition technology, is to be installed at the École Polytechnique and ENSTA ParisTech's additive manufacturing centre.

**LASERLINE**

Will be exhibiting at the following trade fairs:  
[IMTS - International Manufacturing Technology Show](#)  
12.09.2016 - 17.09.2016  
USA, Chicago/ IL, McCormick Place: Booth no. E5956  
[LANE - 9th International Conference on Photonic Technologies](#)  
19.09.2016 - 22.09.2016 Germany, Fürth  
[Laser World of Photonics India](#)  
21.09.2016 - 23.09.2016  
India, Bangalore International Exhibition Centre  
Hall no. 1, booth no. E011  
[International Automotive Body Congress](#)  
28.09.2016 - 29.09.2016 USA, Dearborn/ MI  
Ford Motor Company Conference and Event Center  
[AIMEN XII Workshop on processing materials with laser technology](#)  
29.09.2016 - 30.09.2016 Spain, Porrino  
AIMEN Laser Applications Centre

*If you are attending and would like us to make an appointment to meet with a Laserline representative please contact Cedric on [cedric@raymax.com.au](mailto:cedric@raymax.com.au)*

**WHAT'S IN MY INBOX!**

Who'd have thought engineers could turn off their taste buds long enough to solve a very old problem?



Since the 1600s, chocolatiers have been perfecting the art of crafting a perfectly smooth and even chocolatey shell. Now, a theory and a simple fabrication technique derived by **MIT engineers** may help chocolate artisans create uniformly smooth shells for Easter Eggs with precisely tailor their thickness.