DROP®
by Hans Lüscher

Advanced
Computer to Screen &
Computer to Plate Solution

Phoenix DLES

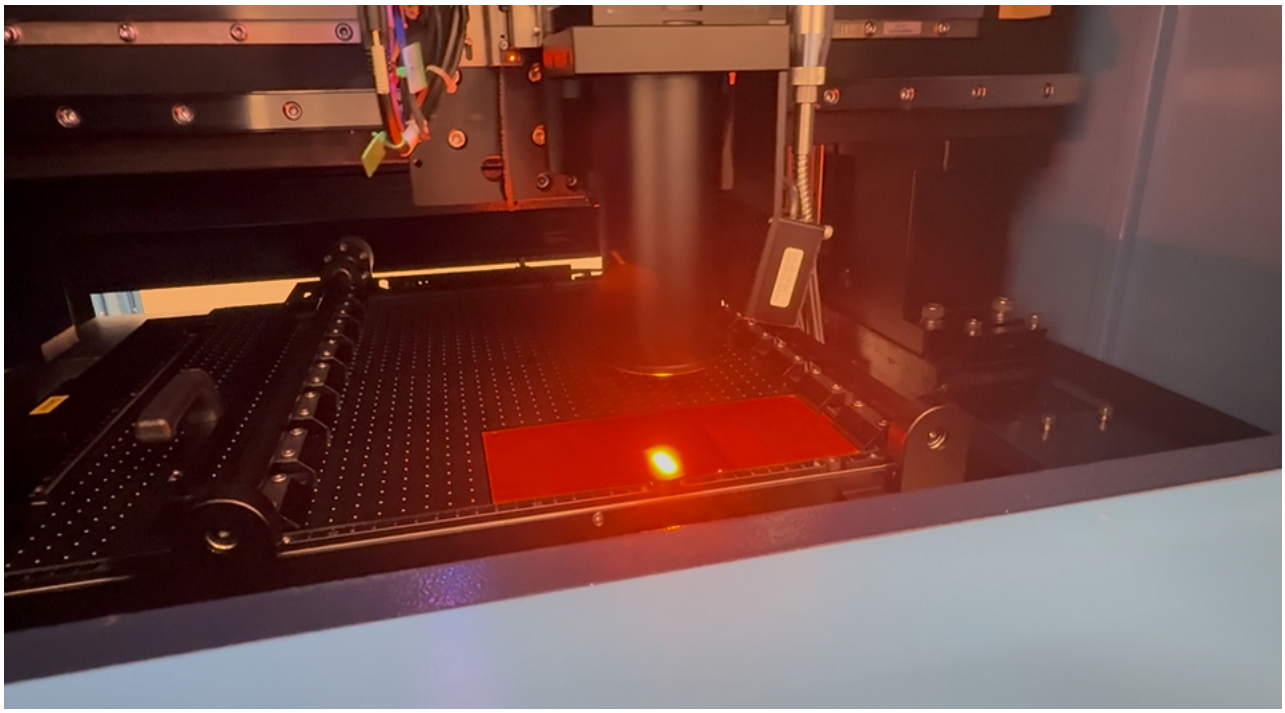
Direct Laser Exposing System

Phoenix DLES

With the Phoenix DLES UV laser direct exposer, high-quality printing plates / printing screens can be produced for almost all printing processes.

Whether for screen printing, rotary screen printing, offset printing, Folex foils, flexo plates or embossing dies, the Phoenix DLES offers a future-proof solution for the production of high-quality printing plates for classic and industrial printing applications at the highest level.

The unique, Japanese long-life UV laser with high-resolution DMD chip, 4° exposure technology and integrated auto-predictive autofocus guarantees reproducible quality and reliable machine runtimes, especially when producing UV-sensitive printing plates with the highest resolution.



Advanced Computer to Screen / Computer to Plate Solution

With our customer-focused approach, we strive to provide technical innovation, integrated business solutions and services to meet the needs of our customers.

Pad printing

Service

Our sales and service teams are professional. Together with selected top technicians, we work to solve problems and interruptions in the service process and to maximise the value of the equipment.

375 nm, 405 nm, 830 nm Laser or in combination

The novel, coupled 375 nm, 405 nm or 830 nm laser illumination system was developed to increase the laser power from 30% to 50% of the conventional laser power.

Stable Platform

The Hiwin SP-class guide rail, linear motor and marble or steel housing ensure the stability of our units.

Independent R&D Software System

Independent exposing system that can be customized with the functions required.

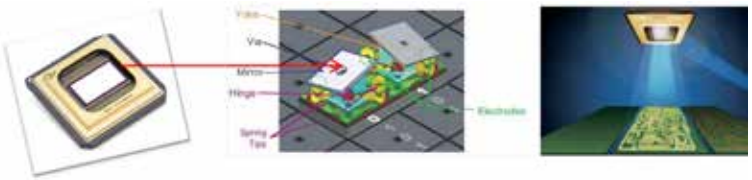
the horizontal

Specification Model*	DLES4050TP	DLES6580TP	DLES1010TP
Application	**Pad Printing**		
Max screen size	400 x 500 mm	655 x 800 mm	1000 x 1000 mm
Min screen size	50 x 50 mm		
Vacuum table	400 x 500 mm	650 x 800 mm	1000 x 1000 mm
Imaging System	DMD DLP Technology		
Exposure time	120 - 600 sec / sqm depend from resolution and polymer		
Resolution	1270 dpi / 2540 dpi / 3600 dpi / 5080 dpi / 12700 dpi and 25400 (vector - optional)		
Raster	150 LPI – 2540 dpi		
Focus system	Auto Focusing		
File format	1_bit tiff, Gerber, PDF (vector) etc.		
Laser type	UV laser, wavelength 375 nm		
Laser power	375 nm - 12 Watt or 15 Watt		
Equipment size (mm)	1450 x 1050 x 1650	1937 x 1350 x 1650	1740 x 1600 x 1500
Equipment net weight	750 Kg	1050 Kg	1300 Kg
Structure	Steel		Steel or Marble
Conditions	Yellow light room with cleanliness class 100000, temperature 22 ± 2° C, 40 - 70 % relative humidity (no condensation)		
Power	Single phase 220 V, 50/60 Hz, 4 kW, Compressed air: 0.5 MPa Single		

Other machine sizes available on request, for example 5060 and 7080

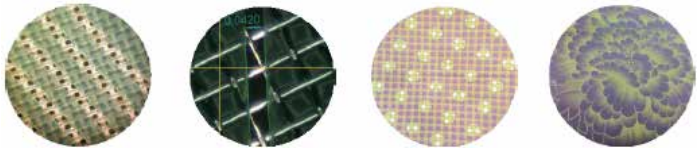
Digital imaging technology

Digital images are produced with a DMD (Digital Micro-Mirror Device) that has more than 2 million micrometers of mirrors that produce clear and sharp square dots.
This advanced digital exposure system has become the new standard in the printing industry.



High resolution

A 1270 dpi optical resolution enables quick and easy creation of high-quality 133LPI raster and halftone dots, while a 2540 dpi optical resolution delivers high-resolution curve lines and perfect FM halftone dots. Other resolutions are available (3600 dpi, 5080 dpi, 12700 dpi, 25400 dpi).



2540 dpi | 40 micron line | 5% halftone 120 l / inch | 4 colour picture

PDF vector RIP algorithm 12,700 dpi (Option)

The advanced PDF segmentation algorithm enables high-quality PDF files with a resolution of 12,700 dpi. This method effectively eliminates the problem of jagged lines that can occur when converting vector files, resulting in improved accuracy and smoother, more cohesive images.
It meets the high quality standards of the precision printing industry, streamlines the file conversion process, and increases production efficiency.

Tiff data | PDF Vector | Tiff data | PDF Vector

Intelligent automatic stretching and shrinking – AI Scanner (Option)

After printing, paper needs to be stretched and shrunk. The conventional method can only be performed by tedious manual work. This method is very time consuming and inaccurate.
AI's latest Stretch and Shrink function (Scanner) can first measure the amount of paper stretch and shrinkage, calculate the deformation, and make a highly accurate and automatic adjustment of the Tiff file to the deformation.

The 1. Step Offset Printing | The 2nd step Screen Printing Finishing | Paper expansion or shrinkage DLES CtS automatic adjusting | expanded paper | shrinked paper

DROP by Hans Lüscher - Switzerland.
We would like to introduce ourselves as an innovative partner in digital prepress.
Phoenix DLES offers the latest digital technologies for the printing industry.

Drop digital Printing
Huobstrasse 3 · 8808 Pfäffikon · Switzerland
www.drop.ch · info@drop.ch · +41 62 544 20 80