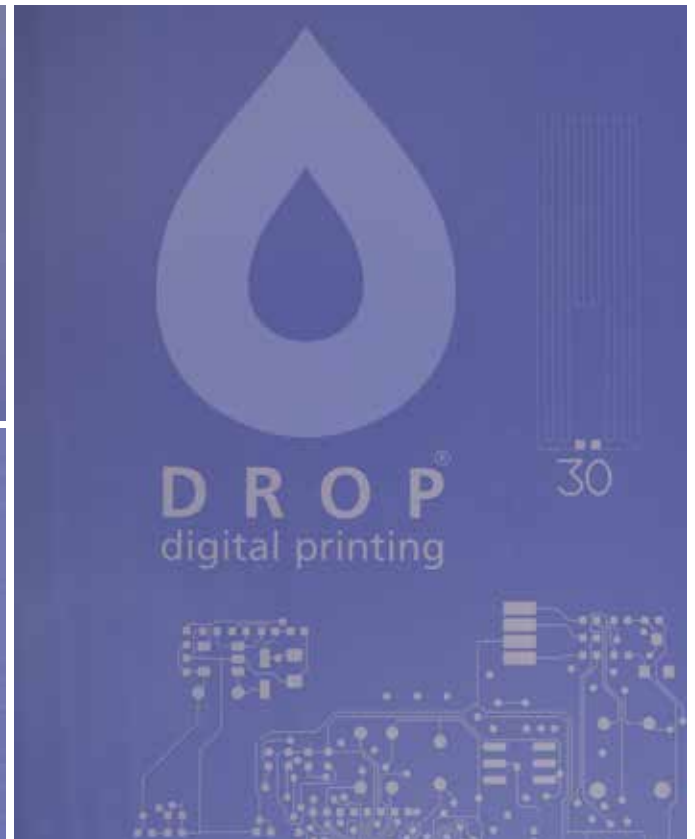




Advanced  
Computer to Screen &  
Computer to Plate Solution

# Phoenix DLES

Direct Laser Exposing System



## **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.

**Screen printing**

**Rotary screen printing**

**Textile printing**

**Offset printing**

**Letterpress**

**Dry offset**

**Magnesium and copper embossing**

**Diazo film**

**Pad printing**

**Flexo printing**

## 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.



# the verticals

Specification Model*	DLES1010V	DLES1213V	DLES1213V DUO	DLES1216V	DLES1725V	DLES2232V	DLES2647V
<b>Application</b>	Textile, Decal, Graphic, Packaging, PCB, Label, Decoration, Automotive, Glass etc.						
<b>Max screen size</b>	1000 x 1000 mm	1200 x 1300 mm	2 x 635 x 915 mm	1200 x 1600 mm	1700 x 2500 mm	2200 x 3200 mm	2600 x 4700 mm
<b>Min screen size</b>	400 x 400 mm		2 x 508 x 584 mm	700 x 700 mm			500 x 500 mm
<b>Max exposure size</b>	900 x 900 mm	1100 x 1250 mm	625 x 905 mm	1100 x 1500 mm	1600 x 2400 mm	2100 x 3100 mm	2550 x 4550 mm
<b>Screen frame thickness</b>	25 - 40 mm (bespoke service is available)				25 - 50 mm (bespoke service is available)		
<b>Imaging System</b>	DMD DLP Technology						
<b>Emulsion thickness (EOM)</b>	Emulsion 1 µm - 500 µm						
<b>Exposure time</b>	120 - 240 s/sqm #350 yellow mesh / 1.270 dpi						
<b>Resolution</b>	1270 dpi / 2540 dpi / 12700 dpi (vector - optional)						
<b>Raster</b>	150 LPI - 2540 dpi						
<b>Focus system</b>	Auto Focusing						
<b>File format</b>	1_bit tiff, Gerber, PDF (vector)						
<b>Laser type</b>	UV laser, wavelength 405 nm or 375 nm						
<b>Laser power</b>	405 nm - 20 W / 25 W / 30 W (optional) / 375 nm - 12 W or 15 W						
<b>Equipment size (mm)</b>	1750 x 1080 x 1965	2000 x 1160 x 2200	2050 x 1050 x 2210	2300 x 1160 x 2200	3200 x 1250 x 2650	4578 x 1569 x 3498	6000 x 1569 x 3900
<b>Equipment net weight</b>	1200 Kg	1500 Kg	1660 Kg	1800 Kg	3200 Kg	4200 Kg	5500 Kg
<b>Structure</b>	Steel		Steel or Marble		Steel		
<b>Conditions</b>	Yellow light room with cleanliness class 100000, temperature 22 ± 2° C, 40 - 70 % relative humidity (no condensation)						
<b>Power</b>	Single phase 220 V, 50/60 Hz, 4 kW, Compressed air: 0.5 MPa Single						

Other machine sizes available on request, for example 1820V, 2020V, 2030V and many more

# the horizontal

Specification Model*	DLES5060	DLES6580 Label	DLES1010	DLES1213	DLES1520	DLES2030	DLES2636
<b>Application</b>	Textile, Decal, Graphic, Packaging, PCB, Label, Decoration, Automotive, Glass etc.						
<b>Max screen size</b>	500 x 600 mm	655 x 800 mm	1000 x 1000 mm	1200 x 1300 mm	1500 x 2000 mm	2000 x 3000 mm	2600 x 3600 mm
<b>Min screen size</b>	50 x 50 mm				700 x 700 mm		
<b>Max exposure size</b>	400 x 500 mm	650 x 800 mm	900 x 900 mm	1100 x 1200 mm	1400 x 1900 mm	1900 x 2900 mm	2500 x 3500 mm
<b>Screen frame thickness</b>	25 - 40 mm (bespoke service is available)				25 - 50 mm (bespoke service is available)		
<b>Imaging System</b>	DMD DLP Technology						
<b>Emulsion thickness (EOM)</b>	Emulsion 1 µm - 500 µm						
<b>Exposure time</b>	120 - 240 s/sqm - #350 yellow mesh / 1.270 dpi						
<b>Resolution</b>	1270 dpi / 2540 dpi / 3600 dpi / 5080 dpi / 12700 dpi and 25400 (vector - optional)						
<b>Raster</b>	150 LPI – 2540 dpi						
<b>Focus system</b>	Auto Focusing						
<b>File format</b>	1_bit tiff, Gerber, PDF (vector)						
<b>Laser type</b>	UV laser, wavelength 405 nm or/and 375 nm						
<b>Laser power</b>	405 nm - 20 W / 25 W / 30 W (optional) / 375 nm - 12 W or 15 W						
<b>Equipment size (mm)</b>	1633 x 1150 x 1650	1937 x 1350 x 1650	1740 x 1600 x 1500	1960 x 1800 x 1500	3070 x 2250 x 1380	4350 x 3000 x 1430	4900 x 3650 x 1430
<b>Equipment net weight</b>	850 Kg	1050 Kg	1300 Kg	1500 Kg	3200 Kg	3800 Kg	4800 Kg
<b>Structure</b>	Steel		Steel or Marble		Steel		
<b>Conditions</b>	Yellow light room with cleanliness class 100000, temperature 22 ± 2° C, 40 - 70 % relative humidity (no condensation)						
<b>Power</b>	Single phase 220 V, 50/60 Hz, 4 kW, Compressed air: 0.5 MPa Single						

Other machine sizes available on request, for example 4050, 7080, 1214 and many more

## 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, 980 nm Laser or in combination

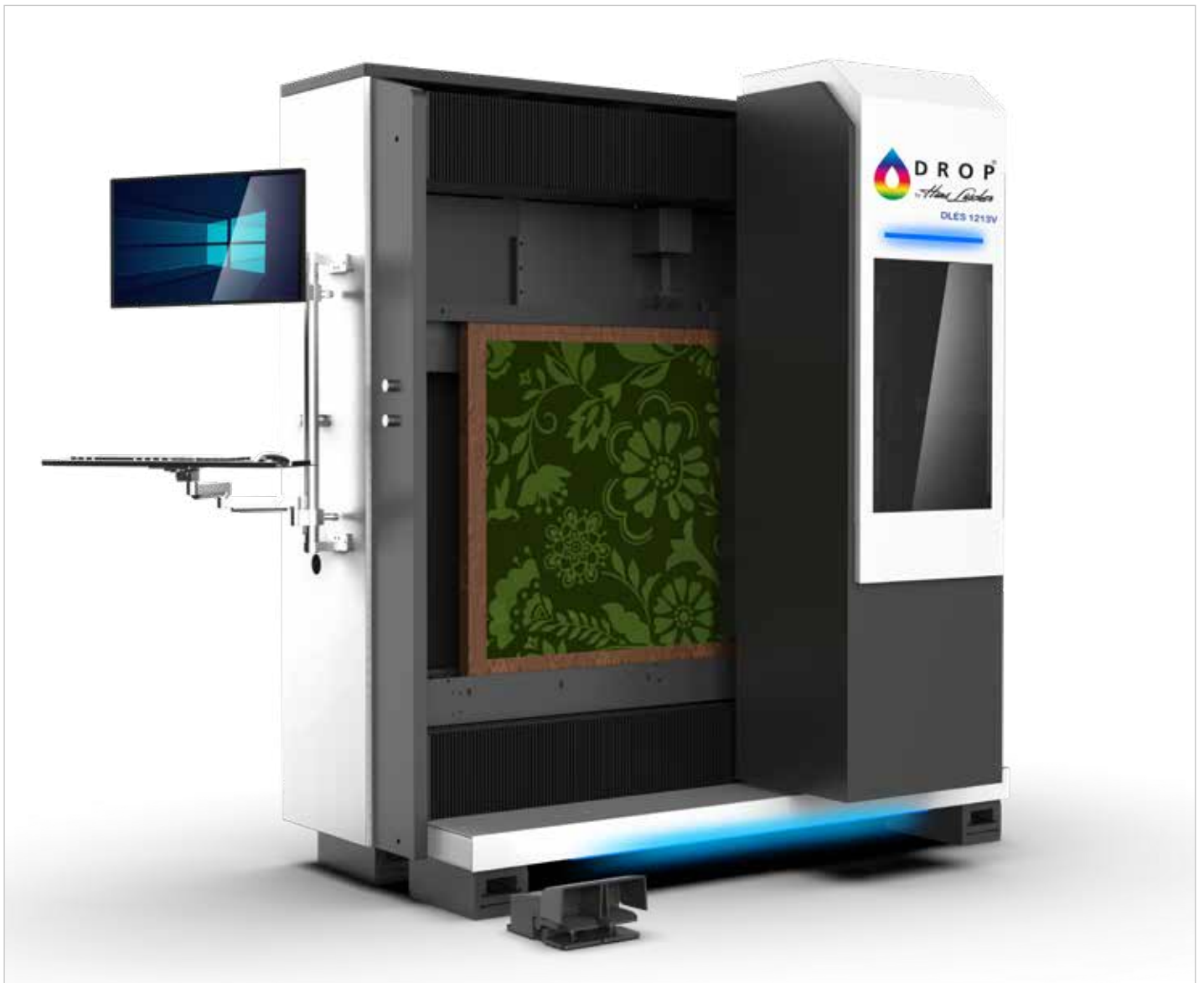
The novel, coupled 375 nm, 405 nm or 980 nm laser illumination system was developed to increase the laser power from 30% to 50% of the conventional laser power.

## 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.



## Digital imaging technology

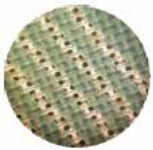
Digital images are produced with a DMD (Digital Micro-Mirror Device) that has more than 2 million micrometers of mirrors that produce clear and sharp square dots.

This advanced digital exposure system has become the new standard in the printing industry.

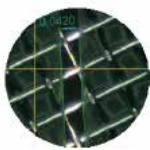


## High resolution

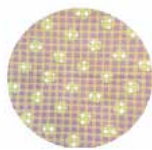
A 1270 dpi optical resolution enables quick and easy creation of high-quality 133LPI raster and halftone dots, while a 2540 dpi optical resolution delivers high-resolution curve lines and perfect FM halftone dots. Other resolutions are available (3600 dpi, 5080 dpi, 12700 dpi, 25400 dpi).



2540 dpi



40 micron line



5% halftone  
120 l / inch



4 colour picture

## PDF vector RIP algorithm 12,700 dpi (Option)

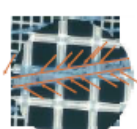
The advanced PDF segmentation algorithm enables high-quality PDF files with a resolution of 12,700 dpi. This method effectively eliminates the problem of jagged lines that can occur when converting vector files, resulting in improved accuracy and smoother, more cohesive images. It meets the high quality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

shrunk  
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](http://www.drop.ch) · [info@drop.ch](mailto:info@drop.ch) · +41 62 544 20 80