

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



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.



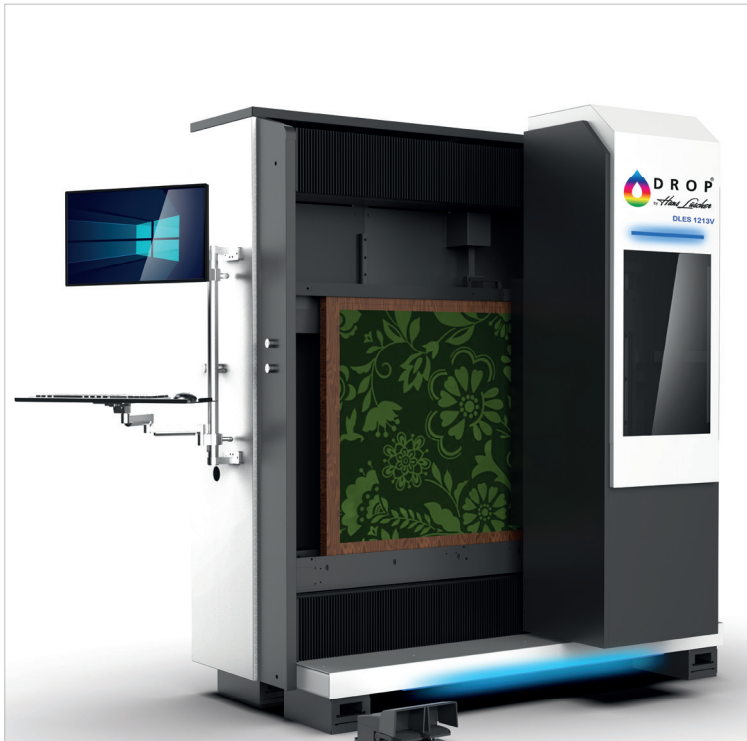
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Advanced
Computer to Screen &
Computer to Plate Solution

Phoenix DLES

Direct Laser Exposing System

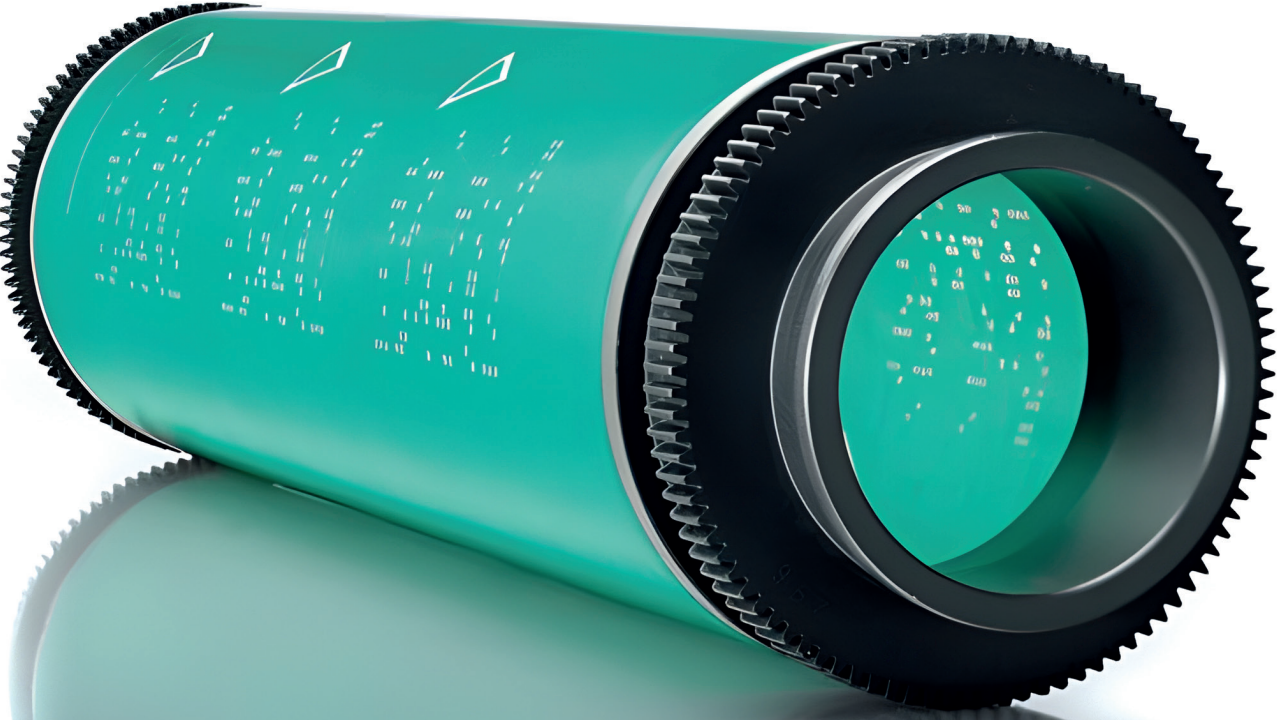


Phoenix DLES

With the Phoenix DLES UV laser direct exposurer, 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.



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

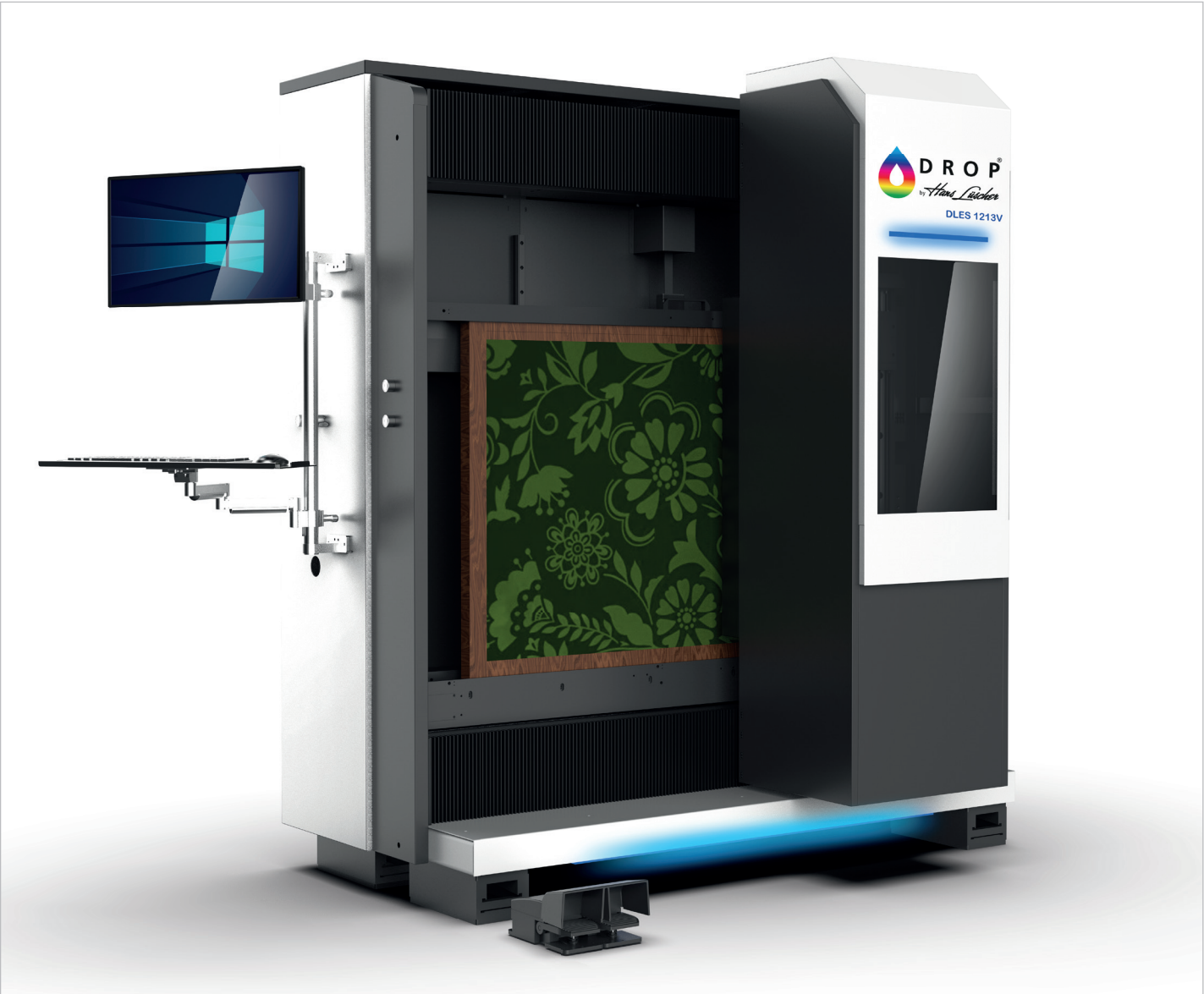
The novel, coupled 375 nm, 405 nm or 830 nm laser illumination system was developed to increase the laser power from 30% to 50% of the conventional laser power.

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 verticals

Specification Model*	DLES1010V	DLES1213V	DLES1213V DUO	DLES1216V	DLES1725V	DLES2232V	DLES2647V
Application	Textile, Decal, Graphic, Packaging, PCB, Label, Decoration, Automotive, Glass etc.						
Max screen size	1000 x1000 mm	1200 x 1300 mm	2 x 635 x 915 mm	1200 x1600 mm	1700 × 2500 mm	2200 x 3200 mm	2600 x 4700 mm
Min screen size	400 x 400 mm		2 x 508 x 584 mm	700 x 700 mm			500 x 500 mm
Max exposure size	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
Screen frame thickness	25 - 40 mm (bespoke service is available)				25 - 50 mm (bespoke service is available)		
Imaging System	DMD DLP Technology						
Emulsion thickness (EOM)	Emulsion 1 μm - 500 μm						
Exposure time	120 - 240 s/sqm #350 yellow mesh / 1.270 dpi						
Resolution	1270 dpi / 2540 dpi / 12700 dpi (vector - optional)						
Raster	150 LPI – 2540 dpi						
Focus system	Auto Focusing						
File format	1_bit tiff, Gerber, PDF (vector)						
Laser type	UV laser, wavelength 405 nm or 375 nm						
Laser power	405 nm - 20 W / 25 W / 30 W (optional) / 375 nm - 12 W or 15 W						
Equipment size (mm)	1750 x 1080 x 1965	2000 x 1160 x 2200	2050 x 1050 x 2210	2560 x 1160 x 2250	3200 x 1250 x 2650	4578 x 1569 x 3498	6000 x 1569 x 3900
Equipment net weight	1200 Kg	1500 Kg	1660 Kg	1800 Kg	3200 Kg	4200 Kg	5500 Kg
Structure	Steel		Steel or Marble		Steel		
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 1820V, 2020V, 2030V and many more

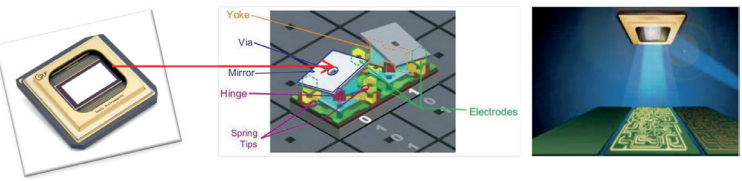
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Specification Model*	DLES5060	DLES6580 Label	DLES1010	DLES1213	DLES1520	DLES2030	DLES2636
Application	Textile, Decal, Graphic, Packaging, PCB, Label, Decoration, Automotive, Glass etc.						
Max screen size	500 x 600 mm	655 x 800 mm	1000 x 1000 mm	1200 x1300 mm	1500 × 2000 mm	2000 x 3000 mm	2600 x 3600 mm
Min screen size	50 x 50 mm				700 x 700 mm		
Max exposure size	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
Screen frame thickness	25 - 40 mm (bespoke service is available)				25 - 50 mm (bespoke service is available)		
Imaging System	DMD DLP Technology						
Emulsion thickness (EOM)	Emulsion 1 μm - 500 μm						
Exposure time	120 - 240 s/sqm - #350 yellow mesh / 1.270 dpi						
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)						
Laser type	UV laser, wavelength 405 nm or/and 375 nm						
Laser power	405 nm - 20 W / 25 W / 30 W (optional) / 375 nm - 12 W or 15 W						
Equipment size (mm)	1633 x 1150 x 1650	1988 x 1350 x 1650	1950 x 1660 x 1550	2150 x1860 x1550	3070 x 2250 x 1380	4350 x 3000 x 1430	4900 x 3650 x 1430
Equipment net weight	850 Kg	1050 Kg	1300 Kg	1500 Kg	3200 Kg	3800 Kg	4800 Kg
Structure	Steel		Steel or Marble		Steel		
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 4050, 7080, 1214 and many more

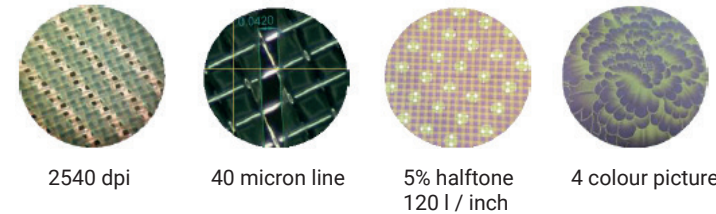
Digital imaging technology

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).



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.



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.

