



Direct Laser Engraving (DLE)

For producing the highest quality
and most cost-effective digital printing forms

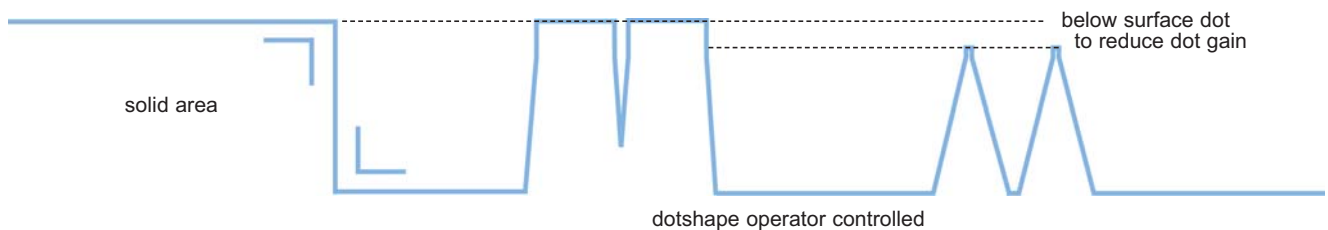
Introduction of Direct Laser Engraving (DLE)

DLE for digital pre-press plates, sleeves, embossing, screens, and more, with better quality and consistency than all competing technologies. With DLE, you can achieve the lowest cost of ownership for your printing and converting process with reduced ink consumption, fastest setup times, and reduced waste. Direct laser engraving offers very distinct improvements in workflow and consistency.

Plate relief can be more shallow with more stable print elements since the engraving can be shaped in the third (z-axis) dimension. For precise contouring of print elements and their support structure.

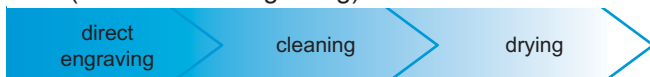
The parameters of total relief depth and dot support within one plate are not fixed as physically given when using UV exposure. They are operator controlled and adjustable to the density in the design. At the same time, DLE provides optimum reverse depth in the image without the need to adjust overall plate relief.

The DLE systems from Stork Prints Austria can be used for printing processes such as dry offset, flexo, letter press and rotary screen printing but also supply, besides the production of plates, a solution for the production of seamless - endless sleeves.



Fewer process steps with DLE compared to CTF

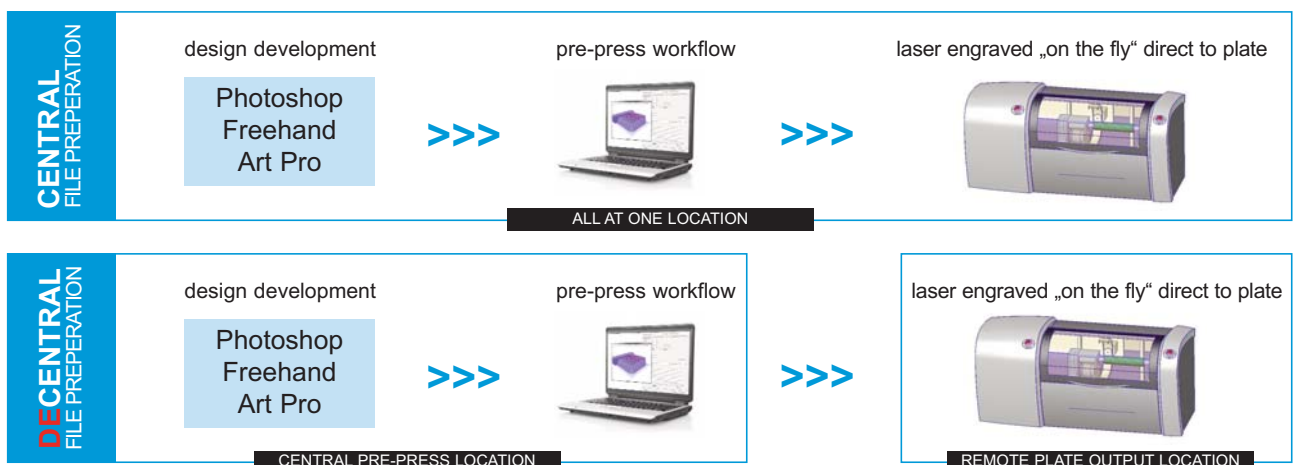
DLE (Direct Laser Engraving)



CTF (Computer to Film)



DLE pre-press workflow



Active 3D-RIP®

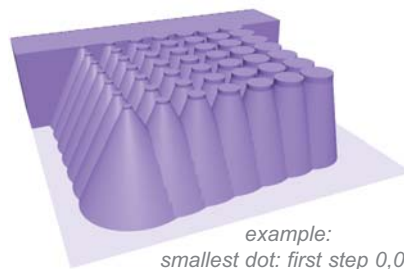
operator controlled dotshape for each tone level from 1 to 99%

flexoPOWER® for direct laser engraving sets new standards for quality, simplifying the workflow, and productivity for flexo, letterpress, dry offset, screen, and intaglio engraving.

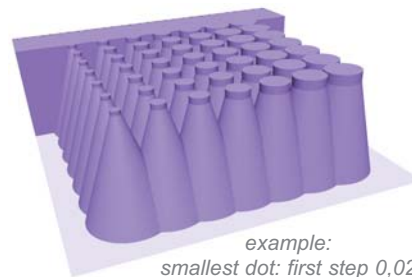
Active 3D-RIP®

With direct laser engraving, the 3D shape of the dot can be tailored to perfectly suit every printing application. The flexoPOWER® software offers a user-friendly, sophisticated way of controlling this 3rd dimension with its Active 3D-RIP®.

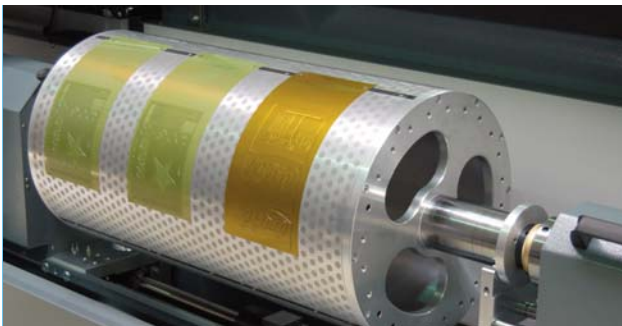
The Active 3D-RIP® allows the control of the third dimension for each tone level from 1 to 99 %. In practise, this means that the undercut (below surface dot), first step and slope of the dot can be varied progressively through the tone range. Smaller dots can be given a wider support shoulder for improved stability while reverses between large dots can be maximized.



example:
smallest dot: first step 0,01 mm, angle 60 degrees
biggest dot: first step 0,05 mm, angle 85 degrees



example:
smallest dot: first step 0,02 mm, angle 70 degrees
biggest dot: first step 0,07 mm, angle 80 degrees



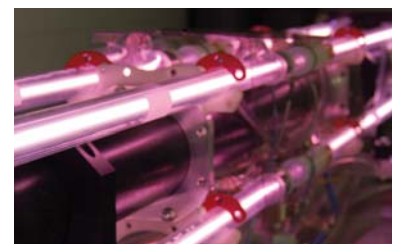
Magnetic drum with integrated registration pins

The magnetic drum can be equipped with the same pin registration system as used in the printing-press. This guarantees perfect registration and reduces changeover time.

Service & Support

Customer Satisfaction is our Commitment!

Stork Prints' Service offers a 24h-worldwide available hotline and field service. Your requests will be answered fast and fully supported by our qualified team in the best way possible. Our longterm experience, permanent improvements and our maintenance & service contracts will guarantee a reliable, DLE production process for your business. We offer you, as our customer, the following services:



pre-installation
consulting

installation and
start-up

customer
training

maintenance and
service contracts

individual product
upgrades

worldwide
service & support

DLE 6510

Dry Offset Specialist



Looking for digital pre-press
for one of the above products?

You can do this with our Direct Laser Engraver
and keep on using your current analog plates.

Advantages DLE vs LAM technology

- active 3D dot shaping
- only one production step + washing
- no chemical processing needed

Excellent plate quality / Less production costs

- longer plate lifetime as result of 3D dot
- quick setup = reduced production waste
- reduced ink consumption

Efficient workflow

Direct Laser Engraving can be integrated as one
production step in your organisation, can be
programmed central but also decentral (best of
both worlds - central CAD no transportation risks
or costs).



DLE 6510

The Stork Prints' 6510 is the first DLE system in the
market dedicated to dry offset. Tube, cup, and can
makers around the world are now able to offer
customers and brand owners the finest quality text,
tones, and smooth tone vignettes - including true
„fade to zero“. No more hard edges on vignettes!
The unique capabilities offered by the DLE system
with its powerful, easy to use software and its simple,
efficient workflow are unmatched. Even printers with
older decorator equipment can produce high quality,
high-screen count images using DLE plates.

Technical specifications

DLE 6510

Laser (class 4)	CO2 single beam 500 W
Resolution	variable up to 2540 dpi
Raster	up to 100 l/cm (depending on material)
Engraving depth	operator controlled

Engraving width	max. 720 mm (28 inches)
Repeats	R 267 - 1206 mm (10.5 - 47.5 inches)
Dimensions	LxWxH: 2850 x 1165 x 1495mm

DLE 7613

Tissue Specialist

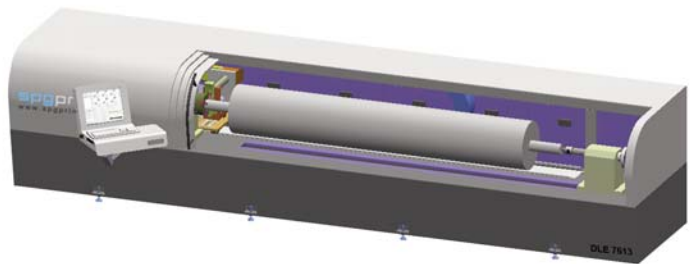


Looking for productivity for rubber sleeve engraving,
for one of the above products?

The DLE 7613 is specially developed for this.

Advantages DLE vs LAM technology

- unlimited life time of the laser
- easy maintenance
- pdf workflow



Excellent sleeve quality with active 3D RIP!

Linking workflow and DLE

In order to optimise the link between the DLE and the existing workflow, the system can import directly 1-bit and 8-bit *.tif files as well as PDF-X3 files.

No changes in the existing repro front-end are needed. The files can be sent to either the engraver or the flexoPOWER® station, where the job can be setup and queued with the job editor while the engraver is in use.

DLE 7613

The DLE 7613 meets the demands for the engraving of larger and heavier sleeves mounted on air cylinders. Its maximum engraving width of 3,2 meters makes the DLE 7613 system particularly suitable for engraving larger printing forms such as those used for tissue printing and larger embossing forms.

The DLE 7613 is equipped with a 580 Watt CO2 laser which provides rapid, cost-efficient, and high quality engraving of larger print and embossing forms covered with a wide variety of materials.

Technical specifications

DLE 7613

Laser (class 4)	CO2 single beam 580 W
Resolution	variable up to 2540 dpi
Raster	up to 60 l/cm (depending on material)
Engraving depth	operator controlled

Sleeve on cylinder / cylinder

Outside working diameter	from Ø 80 - 509 mm (3.2 - 20.0 inches)
Engraving width	up to 3200 mm (125.9 inches)
Fixing length	up to 3500 mm (137.8 inches)
Load weight	up to 2000 kg (4400 lbs.)
Dimensions LxWxH	6200 x 1400 x 1500 mm

DLE 5100 / 5200 M

Large Format - Hybrid System / Sleeve Specialist



DLE 5100 & 5200 M

The DLE 5100 and 5200 M are the fastest laser engravers on the market. Specially suited for engraving flexo material such as polymers and rubbers, this unit makes no compromise in delivering top engraving quality. The key to its excellent performance lies in a unique, patented multi-beam laser system.

Two separate lasers pass over the printing form in rapid succession: the first laser creates a shallow track to define the surface of the print element and the second laser deepens the engraving and shapes the print element along the z-axis. The result is an extremely well defined flexo printing form.



Technical specifications

DLE 5121 / 5122 / 5111 / 5112 & DLE 5222 M / 5212 M

Laser (class 4) CO2 multibeam 2x500W / Singlebeam 1x500W
Resolution variable up to 2540 dpi
Raster up to 100 l/cm (depending on material)
Engraving depth operator controlled

Flexo plates

Plate sizes (mounting area) DLE 51X1: 1206 x 1300 mm (47.5x51.2 inches)
DLE 51X2: 1206 x 2000 mm (47.5x78.7 inches)
DLE 52X2M: 1206 x 1700 mm (47.5x66.9 inches)
Plate thickness all common formats

Flexo sleeves

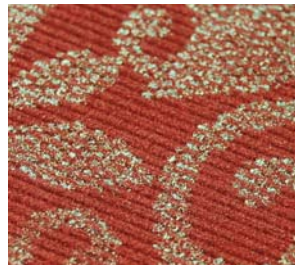
Sleeve outside diameter from Ø 85 - 385 (3.4 - 15.1 inches) (on request)
Sleeve width DLE 51X1: 150 - 1300 mm (5.9 - 51.2 inches)
DLE 51X2: 150 - 2000 mm (5.9 - 78.7 inches)
DLE 52X2M: up to 1700 mm (66.9 inches)

Dimensions LxWxH

DLE 51X1: 4500 x 1440 x 1720 mm
DLE 51X2: 5900 x 1440 x 1720 mm
DLE 52X2M: 6050 x 1440 x 1720 mm

DLE 6200

Wallcovering Specialist



Looking for a multipurpose DLE system, which is especially build for engraving the Stork Prints rotary screens AND rubber sleeves?

DLE 6200 our wallcovering specialist

Advantages DLE

- active 3D dot shaping
- only one production step + washing
- no chemical processing needed

Efficient workflow

Direct Laser Engraving can be integrated as one production step in your organisation, can be programmed central but also decentral (best of both worlds - central CAD no transportation risks or costs).



DLE 6200

The DLE 6200 gives the best of both worlds, enabling direct laser engraving of both flexo printing forms and rotary screen cylinders (except RotaMesh®) on a single DLE system. This all-purpose system engraves polymer and rubber with great accuracy, using a single laser beam to define the print elements. It is also ideal for engraving Stork Special Screens® for applications such as textile and wallcover printing.

Technical specifications

DLE 6211 / 6212 / 6213

Laser (class 4)	CO2 single beam 500 W
Resolution	variable up to 2540 dpi
Raster	up to 60 l/cm (depending on material)
Engraving depth	operator controlled

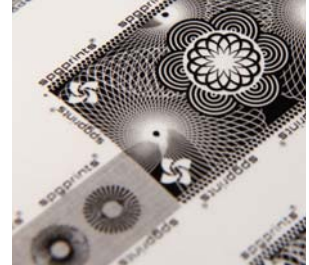
Flexo sleeves & nickel screens

Sleeve outside diameter	from ø 85 - 385 mm (3.3 - 15.1 inches) (on request)
Textile / Wallpaper	R 518 - 1206 mm (20.4 - 47.5 inches) repeats
Sleeve / Screen width	DLE 6211: 150-1200 mm (5.9 - 47.2 inches)
	DLE 6212: 150-2100 mm (5.9 - 82.7 inches)
	DLE 6213: 150-3500 mm (5.9 - 137.8 inches)

Dimensions LxWxH	3605/4505/5905 x 1450 x 1500 mm
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DLE 6010

Small Format - All-Around System



Looking for digital pre-press
that serves all label and narrow web applications?

This DLE system can do:

- rollers, sleeves and plates for embossing
- rotary screens (RotaMesh® & RotaPlate®)
- plates and sleeves for dry offset
- plates and sleeves for flexo
- plates for letterpress

The DLE 6010 has the advantages of DLE 6510
and rotaLEN 5511 plus excellent flexo sleeve and
embossing capabilities!

Efficient workflow

Direct Laser Engraver can be integrated as one
production step in your organisation, can be programmed
central but also decentral (best of both worlds -
central CAD no transportation risks or cost).

DLE 6010

DLE 6010 serves all label and narrow web applicati-
ons and is the first such hybrid engraving solution on
the market. This direct laser engraving system
allows flexo, rotary screen, dry offset and letter-



press forms to be engraved in a completely digital
process with one step (plus post-engraving was-
hing). No solvent processing, no harsh chemicals
to be handled and stored! Furthermore, the system
offers both sleeve and plate engraving in one unit.
Label printers can now have the highest quality print
with a shorter, simpler process with much less
opportunity for errors and reduced waste. Overall
response time is reduced for increased flexibility in
meeting customer demands with no compromise in
quality. Our laser systems are renowned for their sta-
bility and excellent reproducibility.. remakes will be
exactly like the originals!

Technical specifications

DLE 6010

Laser (class 4)	CO2 single beam 500 W
Resolution	variable up to 2540 dpi
Raster	up to 100 l/cm (depending on material)
Engraving depth	operator controlled

Flexo plates / letterpress

Engraving width	max. 720 mm (28 inches)
Repeats	R 267 - 1206 mm (10.5 - 47.5 inches)

Flexo sleeves

Sleeve outside diameter	from ø 85 - 385 mm (3.4 - 15.2 inches)
Sleeve width	150 - 720 mm (5.9 - 28.3 inches)

RotaMesh® / RotaPlate®

Engraving length	max. 23"
Screen length	max. 30" (incl. end rings type RSI)
Repeats	R 12" - 36"
Dimensions LxWxH	2850 x 1165 x 1495 mm

rotaLEN 5511

RotaMesh® & RotaPlate® Specialist



Advantages:

- no more film work required
- complete digital workflow
- 45 % reduction in labour time
- seamless (continuous) images
- excellent reproducibility
- fewer production steps
- chemical free imaging process
- wet area greatly reduced - no washout!
- no UV-free work area required
- prepared screens may be stored and engraved on-demand
- highest security level
- problem of dust on emulsion surface eliminated
- very short reaction time when copy changes



rotaLEN 5511

The rotaLEN 5511 direct laser engraver is a one-of-a-kind within the narrow web industry because it is specifically dedicated to screen printers. The rotaLEN engraves images onto RotaMesh® and RotaPlate® screen material in a fully digital, one-step process. With the shortest time-to-press, no remakes due to film or dust issues, and perfect consistency & reproducibility, the rotaLEN provides label and security printers and packaging converters an ecologically friendly, fully integrated digital solution for rotary screen imaging. It provides reduced time-to-press, increased printing quality and best reproducibility.

The rotaLEN 5511 extends Stork Prints direct engraving concept and is based on our 45 years of application know-how in both screen printing and engraving technology.

Technical specifications

rotaLEN 5511

Laser (class 4)	CO2 single beam 150 W
Resolution	variable up to 2540 dpi
Raster	infinitely adjustable „on the fly“
Engraving depth	operator controlled
RotaMesh®	
Screen width	350 - 1000 mm (13.7 - 13.3 inches) (incl. endrings type RSI)

Repeat range	12" - 36" (repeat kits available)
Screen support system	various tension roller sizes available

RotaPlate®	
Magnetic cylinder	R 666 mm x L 565 mm with adjustable pins
Dimensions LxWxH	3100 x 1200 x 1500 mm

rotaLEX 6630 F

RotaPlate® Specialist



Advantages:

- direct imaging (excluding washing)
- fast turnaround on design changes
- fewer production steps
- rastering „on-the-fly“
- reduced labour time
- no film costs
- no additional mask layer
- fewer rejects
- automatic UV-laser power stabilisation
- easy file-archiving
- easy to integrate into existing workflow



rotaLEX 6630F

The rotaLEX 6630F laser is an affordable, high-speed, compact CTP device serving high quality RotaPlate® screen printing applications in narrow-web printing. The system provides a simplified digital workflow by eliminating the need for conventional film, ablative film, and even ablative plate processing.

Stork Prints constantly seeks opportunities to improve quality levels. The rotaLEX 6630F represents another great leap in speed and quality thanks to its UV multi-beam optic system. Specially developed for the unit, this optical system ensures increased speed and sharpness, while maintaining total stability.

Technical specifications

rotaLEX 6630 F

Laser
Resolution
Raster
Exposure width
Repeat

UV source - multibeam
variable up to 3175 dpi
variable „on the fly“
up to 555 mm (approx. 22")
12" - 25" (304,8 - 635 mm)

Ambient conditions

temperature 16 - 25 °C (nominal 20 °C)
relative air humidity 20 - 60 % (non-condensing)

Dimensions LxWxH

1080 x 820 x 540 mm

The benefits of direct laser engraving are extraordinary.



*Stork DLE 6510
Direct Laser Engraving System*

Stork direct laser engraving systems offer printers an extraordinary array of benefits. With DLE, you can reduce costs of the printing and converting process with reduced ink consumption, the fastest setup times and reduced waste. Direct laser engraving offers very distinct improvements in workflow and consistency. Processing plates and sleeves digitally eliminates the need for film processing, exposing, traditional solvent wash and long drying times. Added benefits include better quality reproduction over longer runs, simple changeover, reduced errors, fast turnaround, more economical and more environmentally-friendly plate production.

The technical support behind it is even more amazing.



When you buy from Anderson & Vreeland, it is the beginning of a relationship, not just a transaction. We're committed to helping you make the best use of our equipment and materials, and your resources. Our Training and Technologies team assists customers to make smooth and easy integration of technical advancements like the DLE 6510. Put our 50 years of flexo experience to work for you.



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