



FLENEX DLE system

PRODUCT BROCHURE

Simple production of flexo plates with
Fujifilm Direct Laser Engraving technology.



FLENEX

The benefits of FLENEX DLE

Fujifilm's FLENEX DLE (Direct Laser Engraving) system has been designed to produce high quality flexo plates in a simple, efficient and environmentally friendly process. The system includes the FLENEX DLE platesetter and FLENEX DLE flexible polymer plates.

High quality images

A multi-channel laser array in combination with a highly cured polymer plate provides sharp, fine and consistent image reproduction. The FLENEX DLE plate performs well on press with excellent ink transfer on a range of substrates.

Quick plate making

When you install FLENEX DLE in-house as part of your own workflow you can produce new or replacement plates on demand, so you can meet the need for urgent jobs or last minute changes. If a plate gets damaged on press you can produce a replacement quickly, so reducing press downtime.

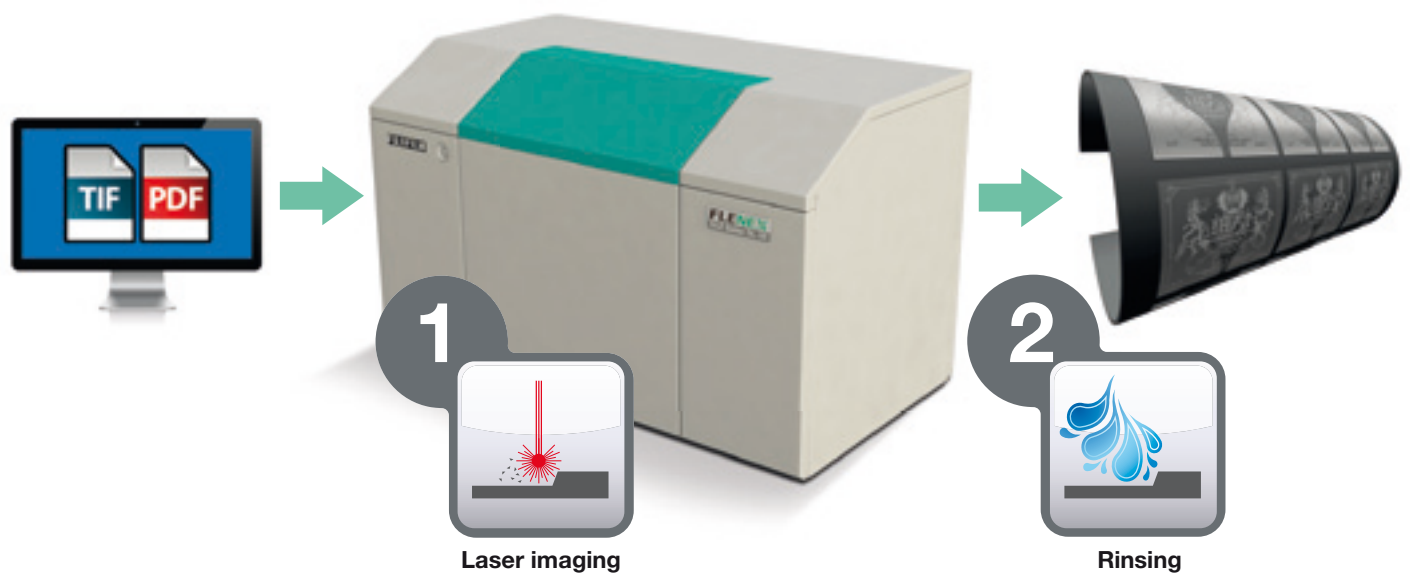
Simple process

A 3D imaged plate is produced in one step, eliminating the multiple processing steps, equipment, variable parameters and labour that are required with LAM and analogue technologies. This results in cost savings on hardware investment, energy, consumables and maintenance as additional equipment such as a UV exposure frame, processor and dryer are not required.

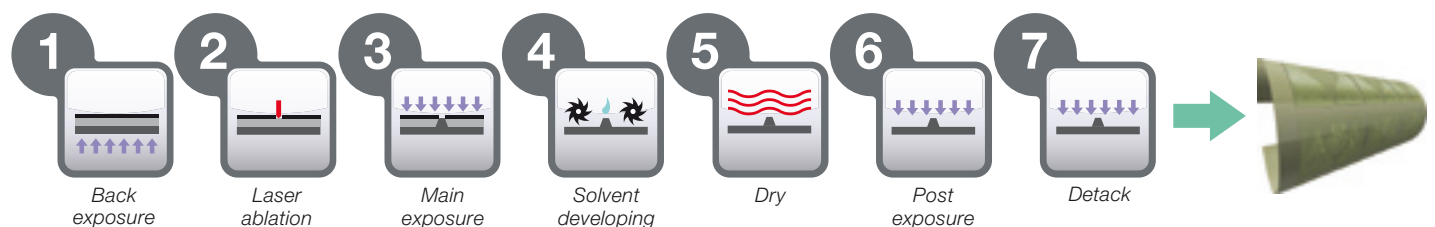
Reduced environmental impact

The FLENEX DLE system uses direct laser engraving to create images on the plate. No volatile organic compounds (VOCs) are used in this process.

DLE simple two-step process



Conventional LAM system process



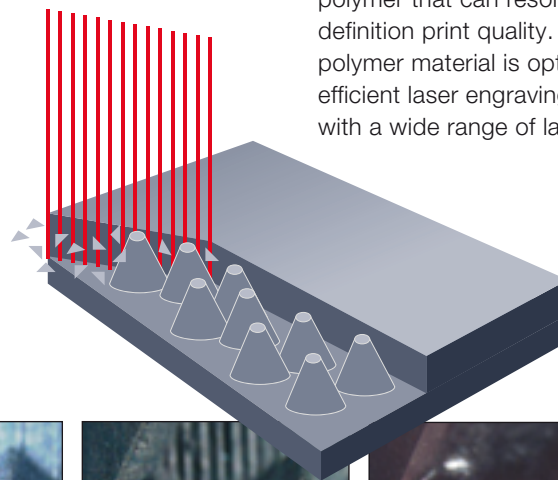
FLENEX DLE technology

Fujifilm's proprietary technologies lie at the heart of a wide range of products for imaging and print applications. The FLENEX DLE system includes polymer plate and laser control technologies that are unique to Fujifilm.

The engraving process and calibration are controlled digitally. This makes it easy to setup and maintain the system or to repeat any job, giving better consistency than processes that use UV exposure or chemical development.

Imaging technology

FLENEX DLE uses multi-channel fibre coupled laser diode technology (FC-LD). Channels are individually controlled to enable precise 3D engraving of the plate surface.

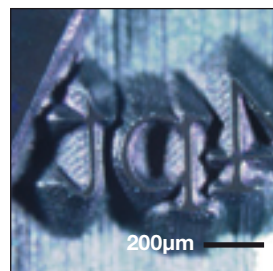


Unique polymer plates

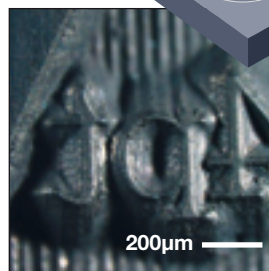
FLENEX DLE plates use a highly-cured polymer that can resolve detail for high-definition print quality. Sensitivity of the polymer material is optimised for the most efficient laser engraving and it is compatible with a wide range of laser wavelengths.

Optimised plate structure

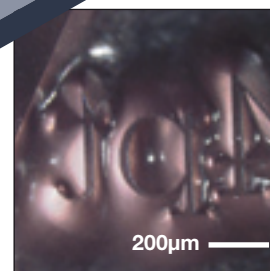
These photomicrographs show the plate structure that is produced by three plate technologies. The FLENEX DLE plate shows the sharp, defined relief structure that results from precise control of the FC lasers in combination with the high resolution of the FLENEX DLE plate. This technology is designed to improve print reproduction of critical elements such as small text or fine lines.



Fujifilm DLE system

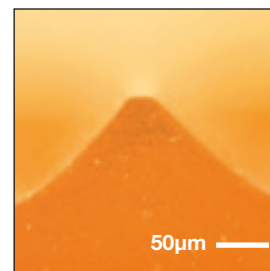
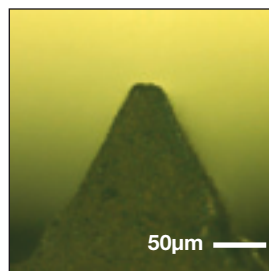
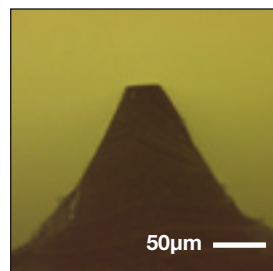


Rubber DLE



LAM system

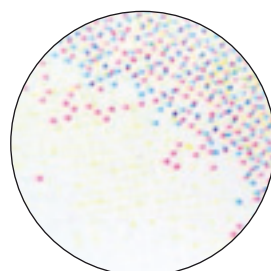
*Fine text
quality - 4pt*



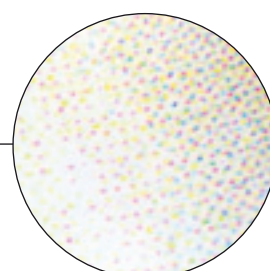
*Fine line
quality - 0.5pt*

Screening technology

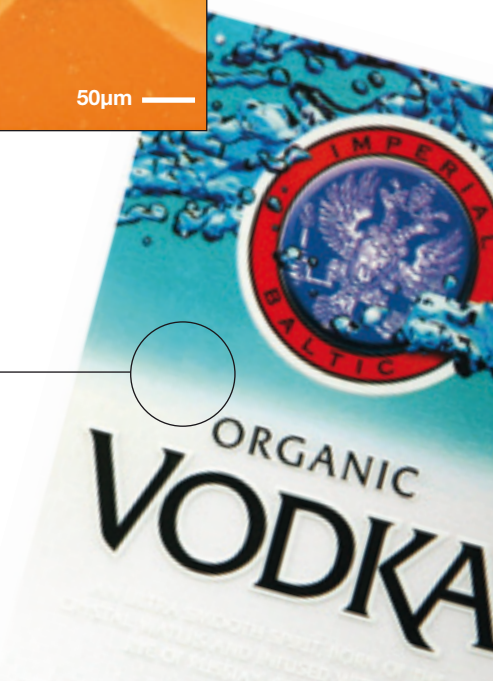
The FLENEX DLE system achieves smooth highlight gradation without any tone jump through the combination of accurate 3D engraving and unique screening.



Standard gradation



*Gradation with Fujifilm
screening*



Specifications



System Components

- ▶ DLE plate
- ▶ DLE setter:
 - DLE Unit*
 - Control PC*
 - Filter System*
- ▶ XMF RIP
- ▶ Rinse Unit

FLENEX DLE Plate WV-1	
Material	Polymer, black
Maximum size	900 x 1200 mm (35.43 x 47.24")
Thickness	1.14 mm (0.045") 1.7 mm (0.067")
Hardness	Hard (79 Shore A at 1.14 mm; 74 Shore A at 1.7 mm plate)
Image reproduction	1 - 99 % at 175 lpi (depending on CTP engine)
Storage	2 years (under normal storage conditions)
Plate compatibility	Water-based and UV inks Any DLE CTP engine, wide range of laser wavelength Fujifilm rinse solution FR-1 (clean after engraving)
FLENEX DLE Setter DL-25	
Exposure system	External drum
Laser	FC-LD (Fibre Coupled Laser Diode)
Plate size	635 x 900 mm (25 x 35")
Resolution	2400 dpi
Screen ruling	85 - 175 lpi
Image reproduction	1 - 99 % at 175 lpi
Productivity	15 min at 150 mm width; 60 min at 635 mm width
XMF RIP	
Compatible data	1 bit tiff, PDF

Please contact your local Fujifilm partner or visit www.powertosucceed.eu/contacts

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