



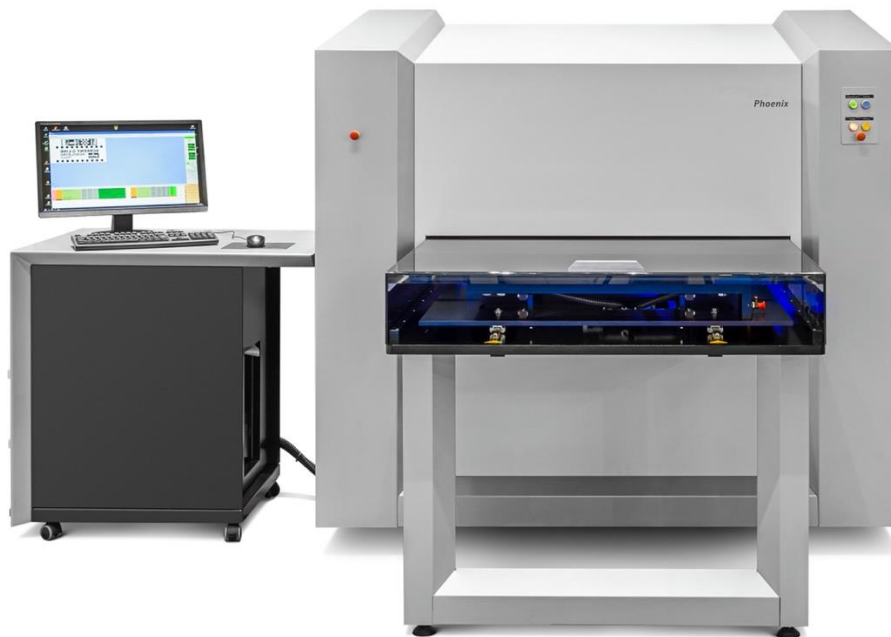
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ADVANTAGE OF THE DROP Phoenix V3

DIGITAL PHOENIX SYSTEM

Computer to Screen exposing unit for the industrial screen printer





Please note that in our Phoenix V3 we are now using a laser head with a few laser diodes that are bundled into a laser beam with a 405 nm range. The LED technology is now only produced on request.

The Phoenix exposure quality has been tested and sold in various applications such as label, glass, stationery, plastic and medical and other applications for screen printing plates e.g., Gallus system or standard screen-printing stencils.

In the glass industry in combination with thermoplastic inks for glass, part of the inks are sharp-edged glass frits, the durability of the screens exposed with Phoenix is significantly better compared to the exposed screens of competitor systems.

- **The other advantages are:**

- Even greater **energy reserves** of bundled laser beams for e.g., thick layers or slow diazo - UV polymer emulsions in combination with thermally dyed polyester fabrics for optimum emulsion hardening and thus high screen lifetimes are achieved.
- The **edge sharpness** could be increased again and leaves no requirements open, also in security printing.
- The UV laser technology in connection with our variably adjustable **High Definition DMD chip** makes it possible to cover all the needs of screen users.
- In the event of a failure of a laser diode, the Phoenix with its **bundled laser beam** does not result in missing exposure strips.
- Exposure system with the **best performance** in terms of speed, resolution and hardening of the emulsion
- **Predictive autofocus** easily detects thickness differences in the emulsion at an early stage and compensates for them optimally.
- **Resolution** 2400 / 2540 dpi or optional 5080 dpi
- In preferential direction **1920 pixels** are exposed at once with a water-cooled HD DMD chip.
- Each pixel is exposed with 96 bundled lasers **800 times** with the HD DMD chip





General answers to customer questions:

- Different designs with different screen fabrics and emulsions can be exposed simultaneously per template.
- Plants are produced in Germany at our partner company, Drop and its partner together produce the most CtS plants in Europe and are sustainably positioned.
- Due to the large area, but slow and repetitive energy input, the emulsion has time to optimally absorb the energy emitted by the imagesetter and to convert it into curing and emulsion hardening of the screen emulsion. This is the great advantage of a High Definition - DMD chip which exposes the spot to be exposed up to 800 times (number of mirrors 1920 x 800) per exposure.
- With the slow and controlled movements of the exposure head, there are no unwanted vibrations caused by fast mechanical movements of the exposure head. In addition, the mechanical wear of the moving parts is considerably lower (wear and tear).
- The Phoenix is the flatbed imagesetter on the market that can deliver the highest amount of energy per cm². This results from the bundled and focused laser beam from several laser diodes.
- The Phoenix imagesetter system is equipped with a unique predictive autofocus system. (1 reading line in advance, the autofocus parameters to be used are measured and provided to the exposure head as a correction).
- The predictive autofocus easily detects thickness differences in the emulsion at an early stage and emulsion and compensates for them optimally. In addition, we have exposure optics that can reproduce high quality edge sharpness.
- The speed of screen imaging is approx. 5 min. for a format of 600 x 800 cm with normal average emulsion sensitivity. Phoenix is currently the fastest flatbed imagesetter on the market, in comparison a Multi DX needs at least 96 laser diodes to achieve almost the same exposure time.
- The energy consumption during exposure including vacuum is reported to be approx. 2.5 kW. In standby mode, the laser head is switched off and only the vacuum, if present, is activated.
- The Phoenix V3 version has a 405 nm laser as energy source with a lifetime of approx. 3'000 pure exposure hours. E.g. (with 600 x 800 clichés and around 5 min. exposure time, over 30'000 clichés can be imaged).



- In addition, the system has exposure optics that can reproduce high quality edge sharpness.
- With the optional X-axis height adjustment, the Phoenix allows us to image screen frames up to a height of 200 mm without any loss of exposure quality. By raising the entire laser unit including the optics, there is no edge blurring caused by the optics.
- Online support and service technicians are provided by DRO P and in cooperation with service units in Germany and USA. Drop is very well positioned worldwide with its partner company and hundreds of machines are supported.
- Screen sizes from 20 x 50 mm to 1150 x 1400 mm can be exposed.

If you have any further questions, please contact us.

Your DRO P Team

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