

adelco Laser

Introducing an cutting-edge **Computer-to-Screen** solution: Unparalleled precision, unmatched productivity, and a seamlessly intuitive process. Our state-of-the-art direct **screen laser exposure system** crafts flawlessly precise screen plates, setting a new standard in quality and efficiency.

No
Consumables
Needed

Fast & Highly
Efficient

High
Resolution

Compatible with
Conventional
Processes

DMD Exposure
System

Introducing **Adelco's Laser System**, a revolutionary direct screen laser exposure system designed to create **flawless screen plates**. This advanced technology seamlessly translates data files through Computer-to-Screen, transforming them into **high-resolution images**. These images are then transmitted onto screens with precision using **cutting-edge DMD** and lens technology. Witness a new era of perfection in screen plate production.



Experience a consumable-free process powered by state-of-the-art Digital Imaging Technology. Our system employs a Digital Micro-Mirror Device (DMD) boasting an impressive array of over **800 thousand to 2 million micrometer-sized mirrors**, ensuring the creation of impeccably defined square dots with **unparalleled clarity**. This cutting-edge digital exposure technology has firmly established itself as the gold standard within the industry.

● **High Precision and Resolution**

Easy and fast to achieve raster 120LPI and high quality screen dots by the optical 1270dpi, while with the optical 2540dpi, **high definition curved lines** and **perfect FM screen dots** can be realised.

● **High Efficiency**

Three minutes to finish the exposure on screen size 900mm x 1000mm. **Stencil making efficiency** has been greatly improved due to a lot of time saved by the **accurate exposure alignment** and labour reduction.

● **Low Cost**

Elimination of film positives. Litho film is becoming increasingly expensive, and the suppliers on the market are decreasing. One procedure of the **Adelco Laser** digital screen making, **replaces five procedures of using the conventional process**.

● **Excellent laser piercing power**

20W and **25W** twolaser powers are optional, and the thickness EOM μm with solvent resistant emulsions and EOM 150 μm with water resistant emulsion can be achieved for some special screen making such as carbon oil and capillary.

● **Compatible processes with the conventional process**

Data files are directly read by the Adelco Laser and then converted into images which will be transmitted through laser beams onto screens by DMD and lens.

Specifications

| | Adelco Laser | Adelco Laser Plus |
|---------------------------------|--|--|
| Application | Textile, decals, labels, decorations, etc. | Textile, decals, labels, decorations, etc. |
| Max Screen Size (mm) | 1000 x 1000 | 1200 x 1300 |
| Min Screen Size (mm) | 400 x 400 | 400 x 400 |
| Max exposure Size (mm) | 950 x 950 | 1100 x 1250 |
| Screen frame thickness | 25 - 45mm | 25 - 45mm |
| Imaging System | DMD DLP Technology | DMD DLP Technology |
| Emulsion thickness (EOM) | Solvent resistant emulsion 3 μm - 150 μm Water resistant emulsion 3 μm - 350 μm | Solvent resistant emulsion 3 μm - 150 μm Water resistant emulsion 3 μm - 350 μm |
| Exposure time | 120 - 240s /m ² , #350 mesh yellow screen | 120 - 240s /m ² , #350 mesh yellow screen |
| Resolution | 1270dpi | 1270dpi |
| Raster | 120LPI | 120LPI |
| File Format | 1_ bit tiff | 1_ bit tiff |
| Focus system | Wavelength 405 5 \pm nm Auto | Wavelength 405 5 \pm nm Auto |
| Laser Power | 20W/ 25W/ 30W (optional) | 20W/25W/ 30W (optional) |
| Machine size mm | 1950mm x 1660mm x 1550mm | 1960mm x 1800mm x 1500mm |
| Equipment net weight | 1200 KG | 1500 KG |
| Equipment Conditions | Yellow light room with cleanliness class 10000, temperature 22 \pm 2°C, 40 - 70% relative humidity (no condensation) | Yellow light room with cleanliness class 10000, temperature 22 \pm 2°C, 40 - 70% relative humidity (no condensation) |
| Connections | Single Phase 110/220v, 50/60HZ, 3KW | Single Phase 110/220v, 50/60HZ, 3KW |