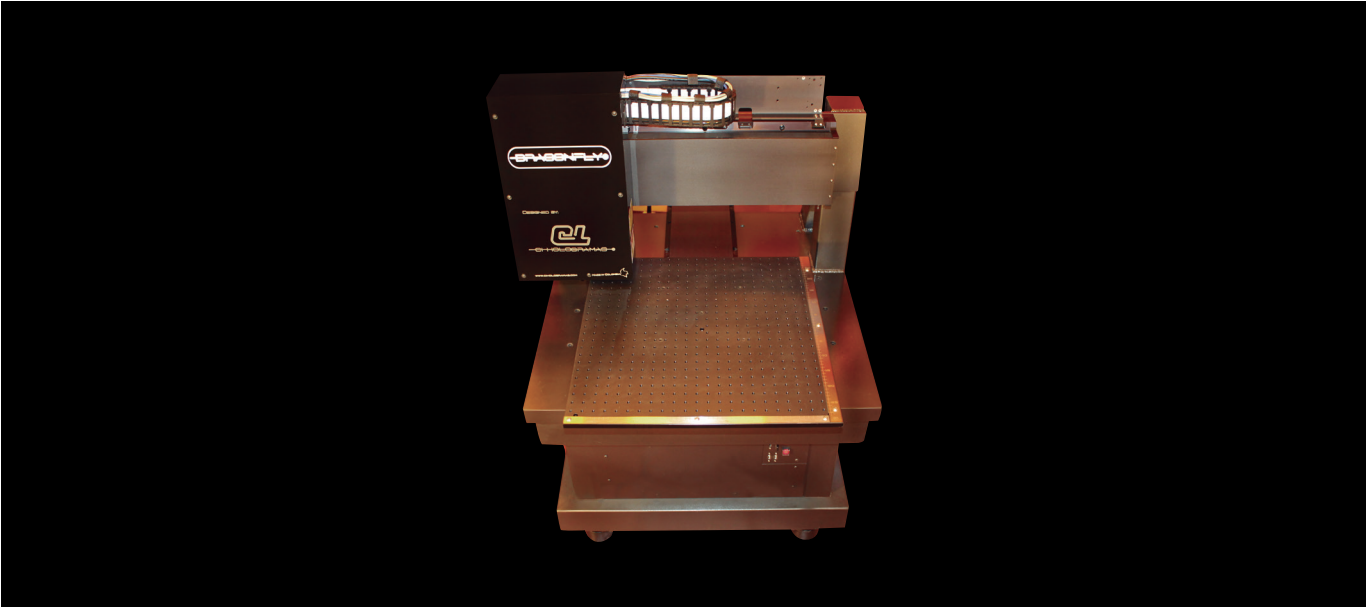




COMBUSTIÓN INGENIEROS S.A.S



**DRAGONFLY®**  
Micro-lithography Mastering System



# DRAGONFLY®

Micro-lithography Mastering System

## DESCRIPTION



Dragonfly® is a state-of-the-art, high speed micro-lithography origination system that has been developed to produce high-quality refractive-like imagery suitable for packaging applications.

Dragonfly® is powered by a dedicated, multi-core, high-end computer with 32 GB of RAM and a version of the LINUX® operating system that is tailored to perform calculations and control tasks. Its operating system selection and configuration make Dragonfly® a truly secure, reliable, virus-free machine.

For origination design, Dragonfly® comes with Project Manager software that uses image files uploaded in standard bitmap formats (such as .tiff, .jpg, .png, and .bmp) to create projects. Each project is saved as a single .holo file, which can be uploaded to Dragonfly® to begin the origination process.



# DRAGONFLY<sup>®</sup>

Micro-lithography Mastering System

## DRAGONFLY<sup>®</sup>'S TECHNICAL SPECIFICATION

Mapping Resolution:

25400 dpi

Translation stage  
travel range:

500 mm by 500 mm

Focusing System:

On-Point, Automatic  
and optoelectronic

Grating Pitch:

>5000 nm

Origination Speed:

Up to 55 cm<sup>2</sup> / hour

Software:

Dragonfly<sup>®</sup> operating software  
and Project Manager for  
multiple computers



# DRAGONFLY®

Micro-lithography Mastering System

## OPTICAL EFFECTS DESCRIPTION



The Dragonfly® micro-lithography origination system is designed to produce refractive-like imagery suitable for packaging applications. Dragonfly® can combine all of its effects through the use of layers, which allow one object to be superimposed over another without needing to mask the original images, and also permit effects and objects to be combined over the same area of a origination while control of the relative brightness of each object remains possible.

**The following optical effects are available:**

- Photo
- Kinetic
- Multichannel
- Fresnel
- Engraved
- LayerMask

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The following optical effects are available:

**Photo:**

A Photo effect is a photographic replica of an uploaded image. Also the object can be given a single depth or 3-D depth range.

**Kinetic:**

When the origination's viewing angle is changed in the Kinetic effect, certain groups of pixels in the object brighten while others darken, creating the illusion of movement.

**Fresnel:**

The Fresnel effect is used to create the appearance of a convex or concave lens. Where the lens can appear as a sphere, cone or pyramid.

**Engraved:**

The Engraved effect creates an object that appears to be a carving placed on top of the surface of the final origination.

**Multichannel:**

A Multichannel object contains a series of objects in the same area of a origination, where each object has a specific viewing angles. This effect allows the creation of 3D images as well as animations.

**LayerMask:**

A LayerMask object is created by a set of binary images that are superimposed on top of each pixel of an origination area, allowing to alter their shape. The images can be added to the object either in order or randomly, and as they can only be seen with an instrument of high magnification, they can be used for Level 3 verification.