



# *KineMax Extreme*

**This model is the custom combination of two *KineMax* systems:  
holographic and lithographic**

such combination offers precise mixing of the holographic and lithographic features for highest security applications.

The *KineMax Extreme* system contains:

- hologram mastering unit
- Autofocus system
- 12.000 dpi holographic software package
- 120000 dpi litho software package
- System installation
- Initial adjustment of the system
- System operators training provided in Warsaw
- Optics and hardware adjustment training
- High security hologram and lithographic designing workshop

Technical specification of holographic part:

- Graphics resolution: up to 24000 dpi.
- Standard exposing area: 200 x 200 mm (larger exposure area on demand)
- Positioning control: 0,1 micrometer resolution absolute linear encoders
- Focusing: automatic optoelectronic focusing
- Grating pitch: automatically adjusted in range 800 - 1400 or other ranges on demand,
- Number of colours: unlimited - continuous colour range,
- Number of directions: unlimited - continuous angle range,
- Mastering speed: up to 3 cm<sup>2</sup>/hour at resolution 12000 dpi
- Hologram properties: 256 angles \* 256 colours kinetic holograms, colour animation,
- 2D, 2D/3D and 3D 2 - 50 channels / parallax views (stereogram),
- Single narrow or wide angle true colour images, single and animated hidden images,
- microtext down to 20 micrometers,
- special texture images,
- embossed metal effect, watermark, modulated 2D/3D backgrounds with variable depth,
- Holographic lens,
- Hybrid holograms: all hologram properties and features combinations possible,
- Hologram scalability: it is possible to make different size holograms from one design,
- Hologram designing: Easy, user friendly based on any most popular graphics software as (CorelDraw, Adobe Illustrator, Adobe Photoshop etc. - not included).

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## Polish Holographic Systems

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### Technical specification of Lithographic part:

- Graphics resolution: up to 120000dpi.
- Standard exposing area: 200 x 200 mm
- Positioning control: 0,1 micrometer resolution absolute linear encoders
- Focusing: automatic optoelectronic focusing
- Mastering speed: up to 3 cm<sup>2</sup> /hour at resolution 120.000 dpi
- Basic hologram types
- Low and mixed frequencies „white” holograms.
- Binary optical structures of any shape down to 1 micron linewidth
- Microtext down to 10 microns
- Grayscale microstructures
- Fresnel lenses with any curvature
- Fresnel prisms,
- 3D white embossed objects,
- Asymmetric hidden images and computer generated holograms (optional),
- Hybrid structures: all features combinations possible,
- Structure scalability: it is possible to make different size diffractive structures from same design,
- Easy, user friendly master designing based on any most popular graphics software (CorelDraw, Adobe Illustrator, Adobe PhotoShop etc. - not included).

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