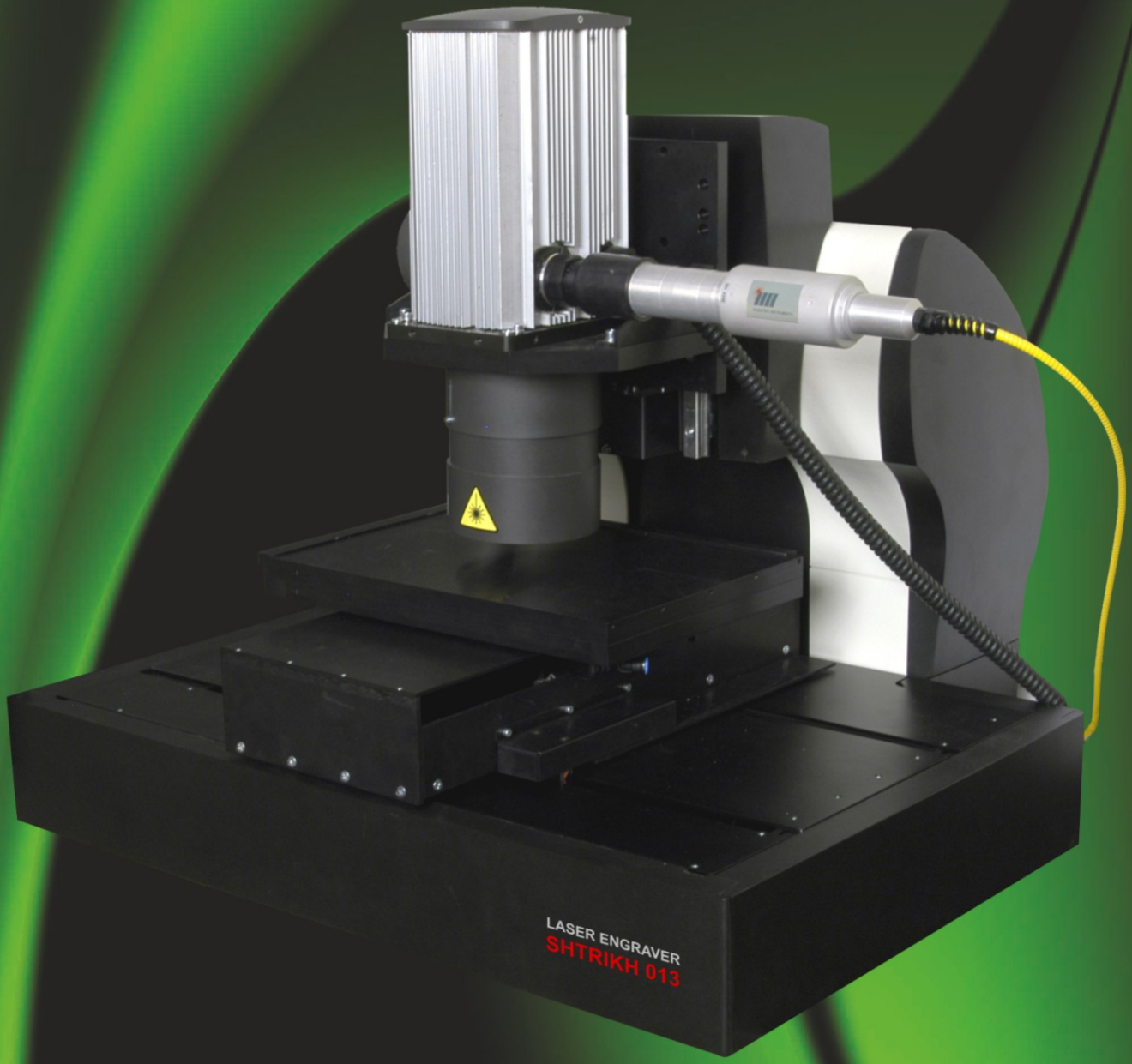
FIBER LASER ENGRAVING SYSTEM
SHTRIKH 013

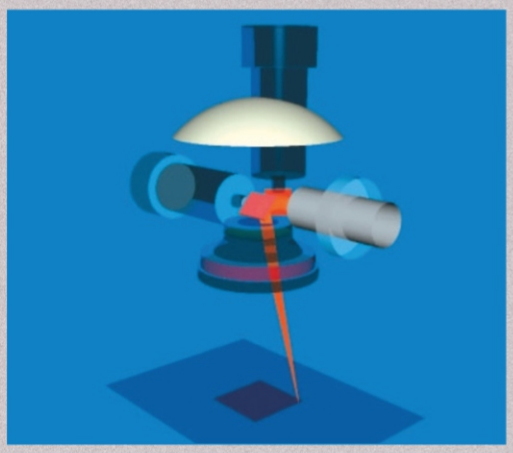
EXCELLENT RESOLUTION
PERFECT PRECISION
HIGH RELIABILITY



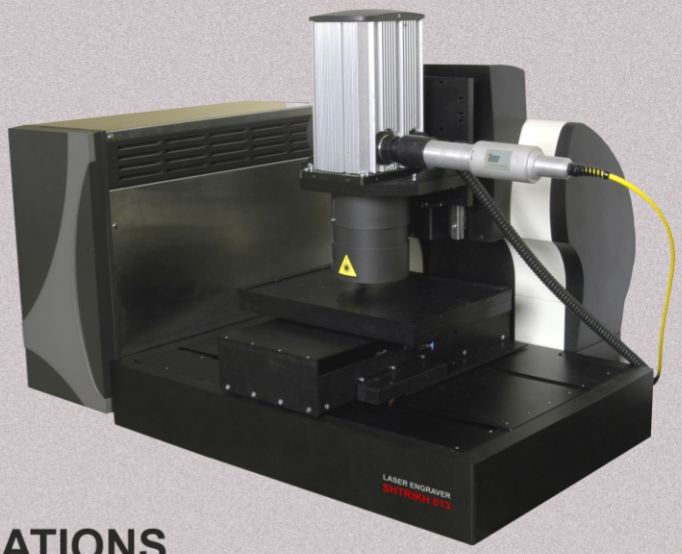
THE WORLD OF HIGH TECH

LASER ENGRAVER
SHTRIKH 013

The laser engraving system SHTRIKH 013 are intended for creating high resolution images on various materials, such as: rubber, plastic, metal, wood, stone, ceramics, leather, paper, cardboard, film, foil, polymers etc. It can be also used for micro marking, high precision cutting and perforation of thin materials. The main condition of possibility of processing the material is ability of this material to absorb infra-red radiation with a wavelength of 1.06 microns.
The laser engraver SHTRIKH 013 are successfully used for creation high-quality images that are resistant to physical and chemical influence. The systems provide high-quality manufacturing of seals and stamps.
Engravers uses maintains-free diode ytterbium fiber lasers which does not need water cooling and has high reliability and endurance. The average output power of used lasers is from 10W to 50W. The repetition rate of laser pulses can be set from 20 kHz to 333 kHz. It allows to choose the optimum processing conditions for various materials.



The processing of materials is carried out by a focused laser beam. An optical system including X-Y galvanic scanners and F-theta lens (a laser head) is used for focusing and scanning of the laser beam.
Systems are equiped by a special tool for moving of the laser head along Z-coordinate. This tool is controled by computer. So, it is possible to move the laser head in time of engraving when multilayer processing is used.
In the main engraving mode the laser beam scanning provides processing of material within a field from 50 mm x 50 mm to 175 mm x 175mm (depend on installed lenses) at motionless processing object. When the object has a larger size, the initial image is divided into fragments, the engraving of which is fulfilled sequentially.



SPECIFICATIONS

Size of the object stage	200 mm x 300 mm
Range of movement of object stage along the axis X	up to 300 mm
Range of movement of object stage along the axis Y	up to 200 mm
Range of movement of laser head along the axis Z	up to 100 mm
Positioning accuracy along axis X,Y	± 5 μ
Positioning accuracy along axis Z	± 2 μ
Scanning area size (depending on installed lens)	from 50 mm x 50 mm to 175 mm x 175 mm
Maximum size of processed surface area	285 mm x 475 mm
Thickness of processed workpiece	up to 100 mm
Engraving modes	vector, raster and 3-D
Maximum resolution of engraving	no less 2000 dpi
Reproducibility of the position of pixels	no worst than 2 μ
Accuracy of geometric dimensions of engraved image	no worst than 50 μ
Processed materials	rubbers, plastic sheets, metals, ceramics etc
Laser type	a fiber pulsed ytterbium diode-pumped
Wavelength	1,05-1,07 μ
Peak power laser radiation	up to 10 kW
Average power laser radiation	10, 20 or 50 W
Frequency of following impulses of laser radiation	from 20 to 333 kHz
Laser resource	more than 50 000 work hours
Cooling	air
Software	a software package, compatible with Windows 7
Format of data	BMP,GIF,JPEG,WMF,EMF,PLT,DXF etc. Automatic import of tasks from Corel Draw, Adobe Photoshop, Adobe Illustrator
Power	single-phase, 220V
Power consumption	no more than 800W
Dimentions of processing center (W,H,L)	560 mm x 485 mm x 485 mm
Weight of processing center	48 kg
Dimentions of control unit (W,H,L)	215 mm x 480 mm x 563 mm
Weight of control unit	26 kg

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