### HELIOS - PROFESSIONAL CUTTING AND ENGRAVING MACHINES

CNC machined. The closed system switch off the

of carriage motion along X-axis and machine when the



laserengraver made in EUROPE

#### **EUROPEAN** QUALITY

**HIGH-END DESIGN** 





Deep extruded aluminium parts,



 $\rightarrow$ 

Magnetic sensors



Separate protection

of each electronic module .



High-quality parts.

INDUSTRIAL USE

## HELIOS CUSTOMISED ON DEMAND



#### Computer interface - 10 Base-T Ethernet, Full Speed USB 2.0

Unlimited. Connection from anywhere on the network. Proprietary design of he individual components, including the motion system, working head, optics and body. All parts have the highest quality and performance.

HELIOS-PRO LASER ENGRAVER AND CUTTER LARGE WORKING AREA, HIGH POWER, COMPLETE CONFIGURATION

# Speed, reliability, and ease of use Reduced maintenance costs All the parts of the structure are

laser cut and CNC bent. Rigid welded steel chassis.

All aluminum parts anodized

and are CNC machined.

All steel parts are painted in

electrostatic field

The smallest deformation durin processing with high precision execution of all parts.

Tables up to 1550 mm x 3050 mm CO<sub>2</sub> laser power up to 150 W

HELIOS laser cutters and engravers can be produced according to your requests.

CUSTOMISED DEPENDING ON YOUR NEEDS

Rapid and stable will give you an edge over competition especially considering the quality / price ratio compared with the top products in this class.

Great for industrial use through quality provided, HELIOS laser cutters and engravers will ensure increased productivity with a long lifetime.



Easy to use and maintain.

# aser engraver made in EUROP

#### Different lenses for engraving and cutting on the same working head. Two units into one.

The laser engraving and cutting quality mainly depends on the quality of the built in the laser optical path mirrors and focus lenses as well as the type of coating laid on the optical elements. The focus lens is the major part of laser optical system. Focus lenses are made of zinc selenide which has highest transmission ratio of laser beam. The special coating or plating on the focus lens minimizes the laser beam refraction coefficient on the lens surface and increases the capacity of laser beam through a lens. The optical path of HELIOS PRO laser engravers are completed with the high quality mirrors providing high quality transmission of laser beam from laser tube to the working area without any loss of power. On default, on HELIOS PRO laser engravers and cutters 2" focus lens is set in the optical path of laser engravers. You can purchase the additional 1.5" and 2.5" focus lenses as well. Each lens has different focal depth, the spot size and focal distance. The choice of lens size depends on the applications (cutting or engraving). HELIOS PRO laser head, with its proprietary design, allows you to switch between with ease between all those three lens. Just slide the desired lens in place (anodized in different colors) and you are ready to go. The distance between the nozzle head and the material will be the same regardless of the lens used. Mantaining and cleanig are now very easy. Fast switching of lens.



#### Large working tables.

The working area starts from  $2.050 \times 1.050 \text{ mm}$  and goes up to  $1.550 \times 2.550 \text{ mm}$ . All tables are designed for large format materials. The open type is easy to access from all four sides. The loading area is wide, open at the front and the rear. This setup will drive your productivity. The laser class 4 laser can be operated like a laser class 2 system in normal operation mode as the the laser tube lays on the carriage. The laser beam is covered over its complete path.

#### Enclosed working area.

The 2010ST model has a unique housing design, meeting the requirements of a safety class 2 laser. No additional protective equipment is required. The closed system allows dust to be efficiently evacuated.

#### Separate operating console. Key switch and emergency stop.

A big display with touch screen, ergonomic and functional operating console supports the work with all models of HELIOS PRO laser cutters. It serves as control unit of the machine. The operator can change the job parameters while working. The operator can control the positioning of the laser working head using also an integrated keypad. Key switch safe guards the machine for unauthorized use. Proeminent emergency button locate don the top the machine allows the operators to stop the laser and the motion carriage immediately to provide a safe operating environment.

#### Air-flused lens.

The lens are air-flushed with clean compressed air during laser processing. The optics are kept free from dust that is produced during cutting. This is providing a easier maintenance operation and a long life.

#### Slat cutting table. LED illuminated working area.

The cutting table with aluminum slats is mainly used for cutting thicker materials (up to 20 mm thickness depending on the power of the laser) and for parts wider than 100 mm. We redesigned the slats and the angle of the bars is significantly smaller than normal slats reducing laser reflections and delivering clearer cutting edge. Acrylics can be cut with no reflections by exchanging the aluminum with acrylic slats. One can reduce the number of supporting points by removing without tools slats individually, depending on the job.

Built-in LED light module iluminates the working space and makes the cutting and engraving details easy to see.

#### High-definition CCD camera for print&cut jobs (optional).

Achive perfect results when cutting printed materials (acrylic, MDF, polyester, cardboard, and many more). A high-definition CCD camera is mounted on the processing head of the laser and registers the dimensions and position of the printed design by "reading" the registration marks prior to the cutting process.











HELIOS-**PRO** STL series, cutting and engraving CO<sub>2</sub> lasers pag. 2



## HELIOS - PROFESSIONAL CUTTING AND ENGRAVING MACHINES

**Technical specifications** 

O S pro

ΗE

| laser <b>engraver</b> made | in | EU | RO | PE |
|----------------------------|----|----|----|----|
| <b>0</b>                   |    |    |    |    |

| MODEL                                    | HELIOS-PRO 2010 100W/150w   | HELIOS-PRO 1325 100W/150W   | HELIOS-PRO 1525 150W/180W   |  |
|--|---|-----------------------------|-----------------------------|--|
| Sealed glass CO2 tube                    | 100W/150W   | 100W/150W                   | 150W/180W                   |  |
| Working area                             | 2050 mm x 1050 mm   | 1350 mm x 2550 mm           | 1550 mm x 2550 mm           |  |
| Max. height of workpiece                 | 100 mm  | 100 mm                      | 100 mm                      |  |
| Weight (approx.)                         | 360 kg  | 450 kg                      | 550 kg                      |  |
| External dimensions (W x D x H) (aprox.) | 2400 mm x 1400 mm x 1100 mm                                       | 2000 mm x 3400 mm x 1100 mm | 2200 mm x 3400 mm x 1100 mm |  |
| Motors                                   | easy servo  | easy servo                  | easy servo                  |  |
| Maximum speed*                           | 1500 mm / sec   | 1500 mm / sec               | 1500 mm / sec               |  |
| Speed control                            | variable 0,1-100% (software and hardware)                         |                             |                             |  |
| Power control                            | variable 1-100% (software and hardware)                           |                             |                             |  |
| Distance accuracy                        | 0,254 mm or 0,1% of the lenght                                    |                             |                             |  |
| Repeatability                            | +/- 0,01 mm   |                             |                             |  |
| Focusing lens                            | standard 2" (50.8 mm) / optional 2.5"(63.5 mm) and 1.5" (38.1 mm) |                             |                             |  |
| Compatible OS                            | Windows 7, 8, 10  |                             |                             |  |
| Buffer                                   | standard 32 Mb  |                             |                             |  |
| Interface                                | USB 2.0 Full Speed, work offline / Ethernet                       |                             |                             |  |
| Control panel                            | Touch screen and keypad   |                             |                             |  |
| Working table                            | Aluminium slots   |                             |                             |  |
| Working Enviroment                       | 20 C to 28 C  |                             |                             |  |
| Power source                             | 230 V / 15 A  | 230 V / 15 A                | 230 V / 15 A                |  |
| Power consumption                        | 1500 W  | 1500 W                      | 2000 W                      |  |
| Operating environment                    | temperature 20 C - 28 C, 70% R.H. (non-condensing)                |                             |                             |  |
|  |   |                             |                             |  |

\* Maximum speed

Maxium speed will vary depending on job and material.

HELIOS Romania

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