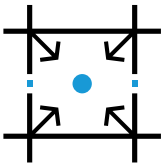




The Orotig Technology in a Compact, Easy-To-Use Laser Engraver

Compact laser engraving machine with an **essential design**, Canova combines **high performance, precision**, and **ease of use** thanks to the proprietary MARKo software.

This **fast, safe and precise** laser is ready to become the pivotal way for your business to offer customers an immersive experience for personalising their jewellery in real time, and can be smoothly integrated in the workflow of your company.



Compact

The reduced size and **patented helmet-style opening of the hatch** make Canova a compact laser ideal for even the smallest spaces.

★ **PATENTED SYSTEM**



Safe

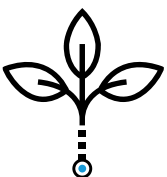
This is a Class 1 laser device. It has a special CE-certified inspection window, which allows safe engraving without goggles with the door closed, and sensors that inhibit operation when the hatch is open, guaranteeing total safety for operators and customers.



Easy to use

Expert operators? No need!

Thanks to the **new proprietary software**, even the least experienced operator can perform engraving in just a few clicks.



Low energy consumption

With a maximum power consumption of only 300 W, Canova engraver is one of the most eco-friendly on the market.

100-K0242-3-402x213
D AB6+IRM AB7 (OD7+) >580-900
D AB6+IR AB7+M AB8 (OD8+) >900-1070
DIRM AB8 (OD6+) >1070-1075
PF CE
S/N:22011059

CE **PROTECT**
SAFETY CLASS 1

Look for this wording on the inspection window of your engraver to check that it complies with the CE safety regulations for class 1!



MARKo: Fast and Intuitive Integrated Software

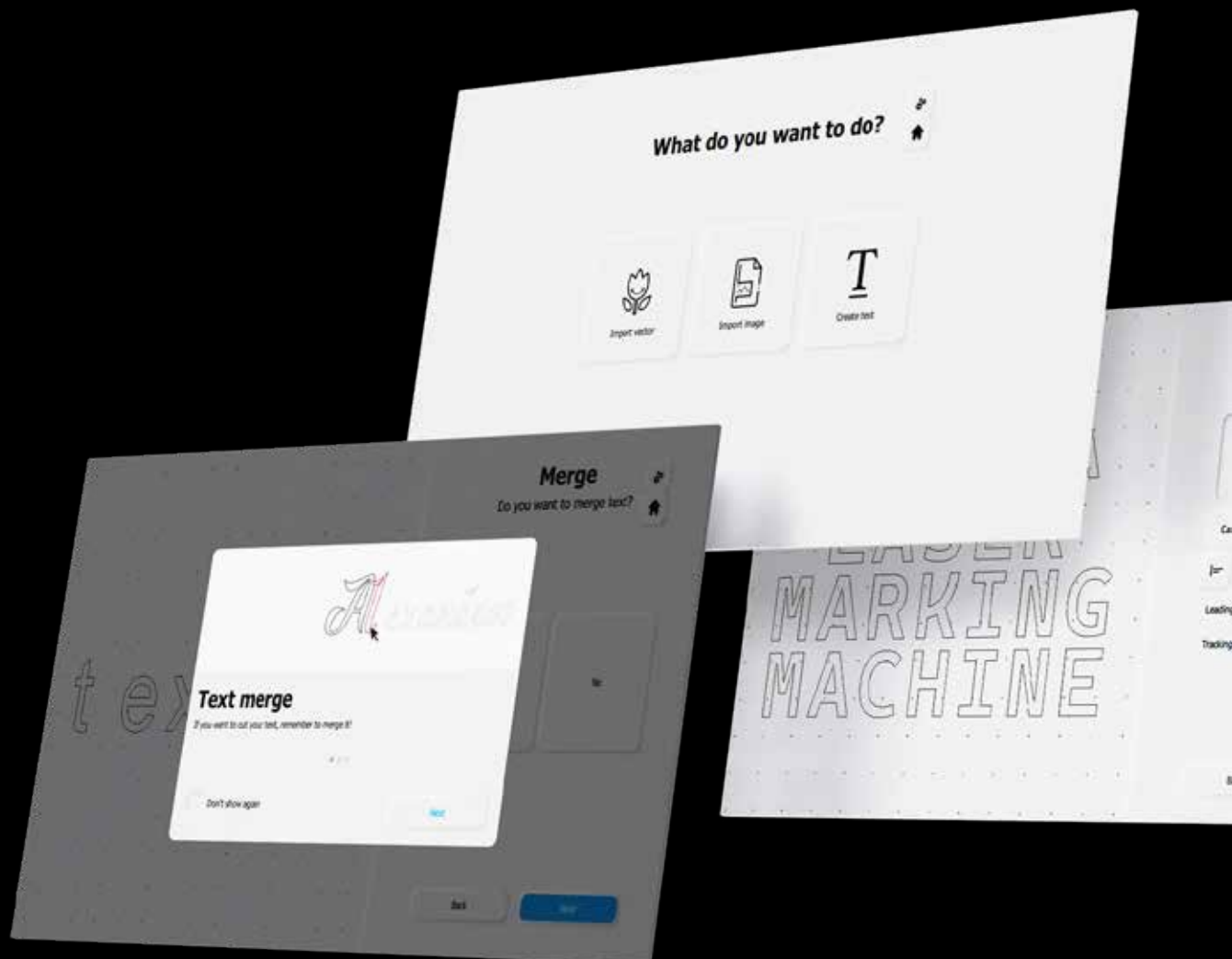
FOR ENGRAVING IN A FEW MINUTES

Thanks to the **new proprietary MARKo software**, even inexperienced operators can **perform engraving in just a few clicks and with no margin for error**.

The **guided procedure intuitively assists the operator throughout the entire process**, allowing them to import an existing file or create text from scratch.

To enable even novices to carry out professional engraving, the operator can set the engraving parameters himself or choose from one of our preset programs, specially designed by our technicians to achieve the best results for the type of metal and work in hand.

☆ **PATENT PENDING**





GUIDED MARKING

Guided engraving paths to guide the operator through the various steps and reduce the margin for error.



ANIMATED TOOLTIPS

Animated tooltips to explain the functionalities of the software even to those using the engraver for the first time.



Focusing System

PRECISION AND QUALITY ENGRAVING

Canova provides a **range of focusing options** to assist operators during the engraving process, streamlining operations and ensuring optimal results.

Digital autofocus (Alternative to the mechanical autofocus system configuration)

Orotig has **developed an innovative autofocus system that enables precise focusing on pieces in the peripheral areas of the work surface**, simplifying the engraving of large items like knives or frames.

The depth camera, equipped with sensors used in autonomous driving systems, scans the field and measures the distance of objects on the work surface. This data moves the head along the Z-axis, assisting the operator with focusing.

Additionally, the digital autofocus can be used in semi-automatic mode, allowing the operator to select the focus point with a click using the depth camera.

Mechanical autofocus

(Alternative to the digital autofocus system configuration)

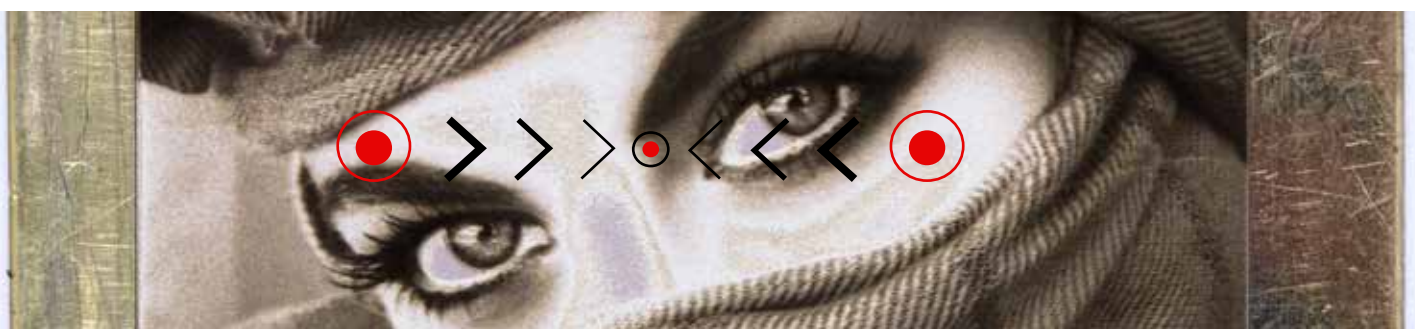
A touch probe **automatically adjusts the Z-axis based on the height detected on the workpiece**, ensuring exceptional focusing precision, even on complex or reflective surfaces.

Available upon request, this system can be added or used as an alternative to the digital autofocus.



Manual focusing system

The manual focusing system features **two calibrated red laser pointers** mounted on the engraving head, angled to **intersect precisely at the focal point**. When the workpiece is out of focus, the laser dots will appear separate. The operator manually adjusts the height of the engraving head until the dots overlap, indicating optimal focus.





FOCUS CONTROL

When dealing with pieces having irregular surfaces or requiring particularly deep engravings, **the motorized Z-axis allows for the automatic adjustment of the axis movement during engraving.**

The software **dynamically adapts the focus based on the predefined increment.**



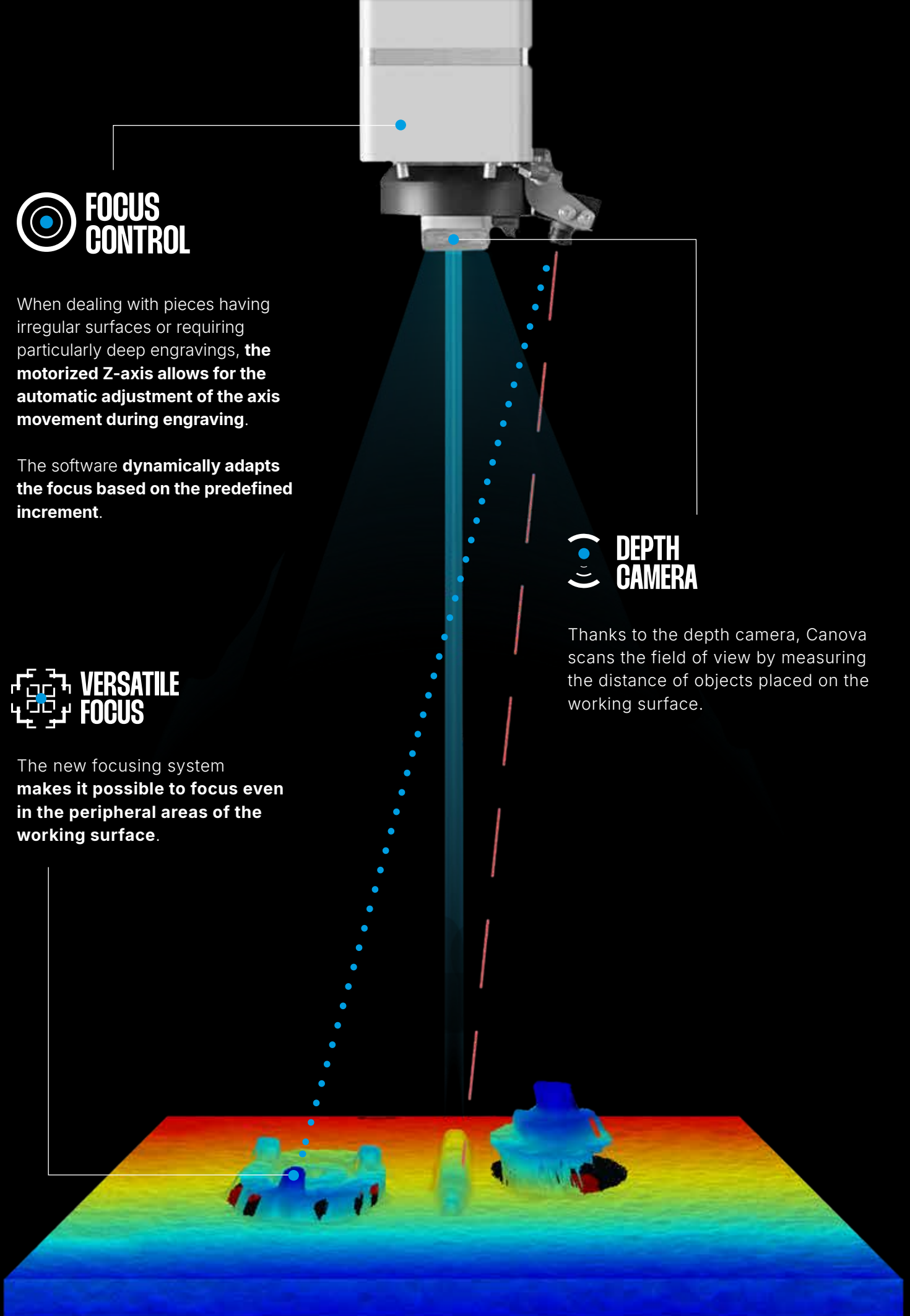
VERSATILE FOCUS

The new focusing system **makes it possible to focus even in the peripheral areas of the working surface.**



DEPTH CAMERA

Thanks to the depth camera, Canova scans the field of view by measuring the distance of objects placed on the working surface.



Two Built-In Cameras

WITH ZOOM UP TO 0.5 MM

Two cameras allow perfect visibility of the workpiece: one angled camera offers a **panoramic view of the part**, while the second has powerful magnification for viewing the smallest details. The operator can **zoom right into the engraving area** and position himself on the workpiece with centesimal precision, and this is particularly useful to perform very small engravings.

To achieve even higher standards of accuracy, Canova also offers the option of replacing the standard 12 mm lens with longer lenses (16 mm and 25 mm), which allow even greater magnification, **displaying details down to 0.5 mm in high resolution.**

Live Preview

FOR MORE PRECISE POSITIONING ON THE WORKPIECE

Do you want to be sure of the result before engraving precious jewellery?

The Canova integrated camera allows you to **preview the desired image or text directly on the workpiece.**

The operator displays the engraving area on the screen and overlays the design to be engraved, creating a real-time preview.

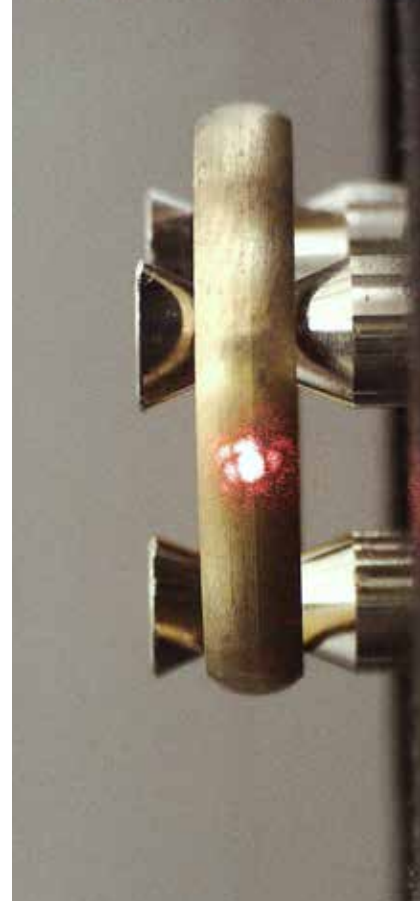


Auto-Centered Design

FOR MORE PRECISE POSITIONING ON RINGS AND BRACELETS

When engraving on the inside or outside of rings and bracelets, it is often difficult to perfectly center the texts being engraved, with the risk of inaccurate engravings on valuable jewellery.

Canova offers a functionality specially developed for our chucks that allows the text to be **automatically centered on the ring to be engraved**: you simply need to set parameters such as ring diameter and thickness and the software not only automatically finds the correct focal distance, but also moves the text to be engraved by the necessary increment to perfectly center it on the workpiece.

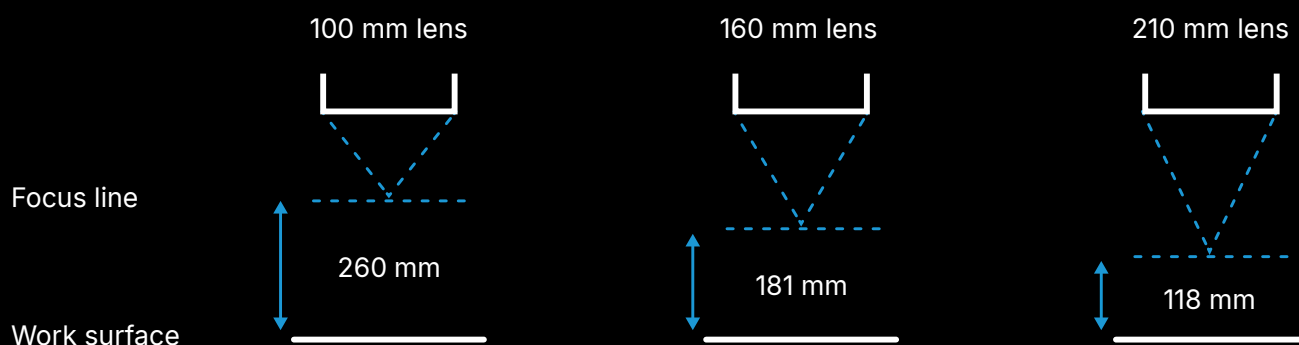


Versatility

A FOCAL LENS FOR EVERY NEED

Canova offers the possibility of installing focal lenses of different lengths, each able to guarantee the best engraving results on various types of workpiece. In addition to the standard **160 mm** lens, one can use a **100 mm** lens, which is perfect for extreme precision and **ultra-high definition of the details**, or a **210 mm** lens, which is suitable for **larger objects** with an engraving area of up to 145×145 mm.

With a Z axis stroke of more than 260 mm and a large work surface, it is possible to engrave **rigid bracelets and necklaces up to a diameter of 118 mm** even with the longer 210 mm lens.



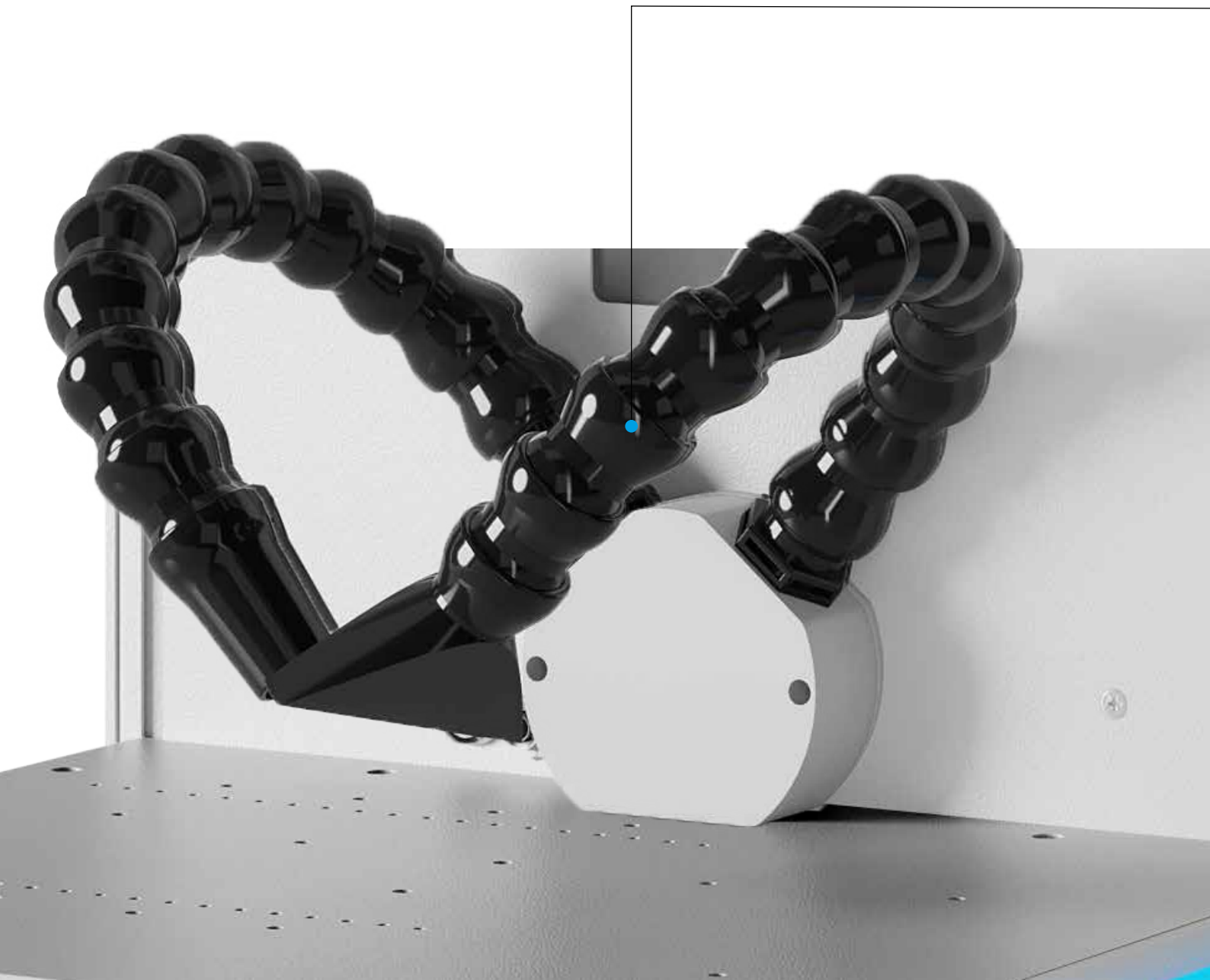
Easy Dust Recovery

FOR CLEANING THE EXTRACTION SYSTEM IN MOMENTS

The extraction system of the Canova has been designed to optimise dust recovery during the engraving of precious metals.

The two flexible hoses allow the suction nozzles to be positioned as close to the workpiece as possible.

The central hose is straight and simple in design and can be cleaned with a rag without detaching it from the machine, or it can also be easily removed from the back without having to disassemble the engraver.



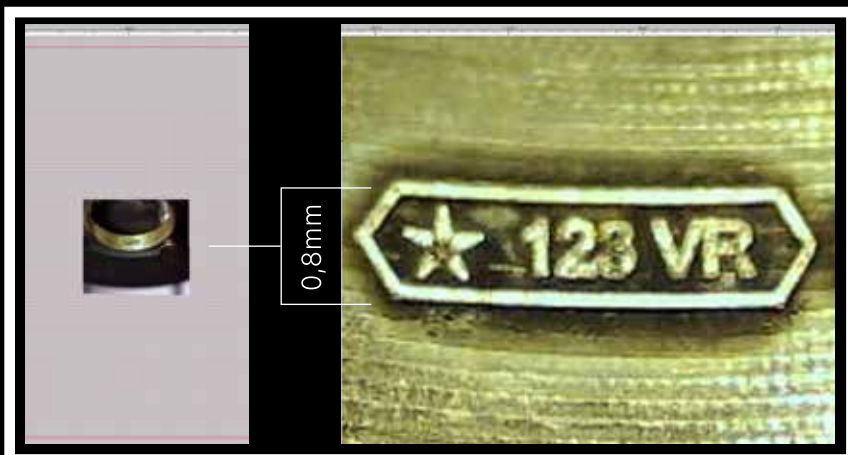


Easy cleaning facilitated by the design of the central tube that **allows it to be easily removed from the back without the need to disassemble the engraver.**



Small Engraving

Canova, enabling high-definition engravings even on very small designs, allows goldsmiths to apply the trademark on jewelry. **4.0 Ready**, Canova integrates flawlessly into Industry 4.0 systems, streamlining processes and improving overall efficiency.



Very High Engraving Quality

TWO POWER SOURCES AVAILABLE

Extremely compact, efficient and low maintenance, Canova is a laser with a fiber source, boasting **precision and high beam quality with an M2 of less than 1.5** (30W).

The wide frequency range allows maximum customisation of parameters to ensure **high performance in high-precision applications**, such as those required by the fine jewellery sector.

The optical component joining system, typical of fiber source lasers, allows Canova to operate without requiring any realignment of the integrated components, up to 15,000 hours of operation (considering medium intensity use).



Accessories



Internal/external ring chuck

The Orotig rotary motor, in combination with 4 different types of chuck, makes it easy to engrave not only the **inside or outside of rings and bracelets**, but also **irregularly shaped bracelets**.

The **stepper motor** and **graduated scale** allows the software to set the degree of inclination and position itself with ease and precision.



3 in 1 clamp

The practical 3 in 1 clamp is a single accessory that can be used to **clamp the most disparate of workpieces**: from sheets of metal to medals and parts of irregular shape. The 3 in 1 clamp is flexible in terms of both shape and size: it can be used for workpieces measuring up to 130 × 130 mm.

Accessories



Tilting angled support

Useful for fast engraving of rings and bracelets, the angled bracket **is manually tilted with reference to a graduated scale** to ensure repeatability of the engraving.



Honeycomb support

The honeycomb support is a useful accessory especially for **cutting**. In addition to protecting the work surface from the action of the laser, the honeycomb support allows for less overheating of the workpiece and for better engraving quality.



Chuck for irregular rings

Engineered for engraving **rings of irregular shapes and settings of various sizes**, this chuck ensures precise engravings even on uneven surfaces, delivering high-accuracy results for complex designs.



Chuck for bracelets

Specifically designed for engraving **regularly shaped bracelets**, this chuck supports diameters up to 80mm, making it ideal for the efficient and precise engraving of a wide range of bracelet sizes.



Touch probe

Accessory that enables **rapid and highly precise focusing of the workpiece**. Ideal for engraving difficult and reflective objects.



Table Support

Engraving machine support table with vacuum system compartment.

OTHER ACCESSORIES

100 mm focal lens

TBH BF 10 S vacuum system

210 mm focal lens

TBH BF 100 R vacuum system

Magnetic cutting ring

Cyclone and prefilter for TBH BF 100 R vacuum system

All-in-One PC

External control for vacuum system

Technical Data

Model	Canova
Type of laser	Diode pumped fibre (Yb) LASER
Power ranges available	30 W, 50 W
Recommended work	Engraving, photo engraving, cleaning, cutting
Type of material that can be engraved	All metals, ceramics, some plastics
Focal lenses available	100 mm, 160 mm, 210 mm
Engraving area	60×60 mm (with 100 mm focal lens) 110×110 mm (with 160 mm focal lens) 145×145 mm (with 210 mm focal lens)
Type of Z axis	With stepper motor that can be controlled by the software and at the pushbutton control panel (SCAPS only)
Stroke of Z axis	263 mm
Max dimensions of workpiece (LxWxH)	326 × 260 × 260 mm (with 100 mm focal lens) 326 × 260 × 181 mm (with 160 mm focal lens) 326 × 260 × 118 mm (with 210 mm focal lens)
Max weight of workpiece	20 kg
Speed	Up to 8000 mm/sec
Frequency	37-600 Khz (30 W) / 40-600 kHz (50 W)
Pulse energy	0.8 mJ 37 kHz (30 W) / 1.25 mJ 40 kHz (50 W)
Pulse duration	200 nS (30 W - 50 W)
M2	<1,5 (30 W) / <1,8 (50 W)
Safety class	Class 1 (hatch closed), Class 3R (hatch open)
Software	MARKo/Samlight or EZ Cad

Cooling system	Forced air
Wave length	1064 nm
Power	115-230 V ±10% 50-60 Hz
Max consumption	300 W
Weight	49 kg

	CUTTING < 0,6 mm	CUTTING < 0,8 mm	CUTTING < 1 mm	CUTTING < 1,5 mm
30 W	●	■	■	X
50 W	●	●	●	■



Suitable



Good

X

Not suitable

Except for titanium and steel, where cutting is only possible for simple geometries with a maximum thickness of 0.4 mm.

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