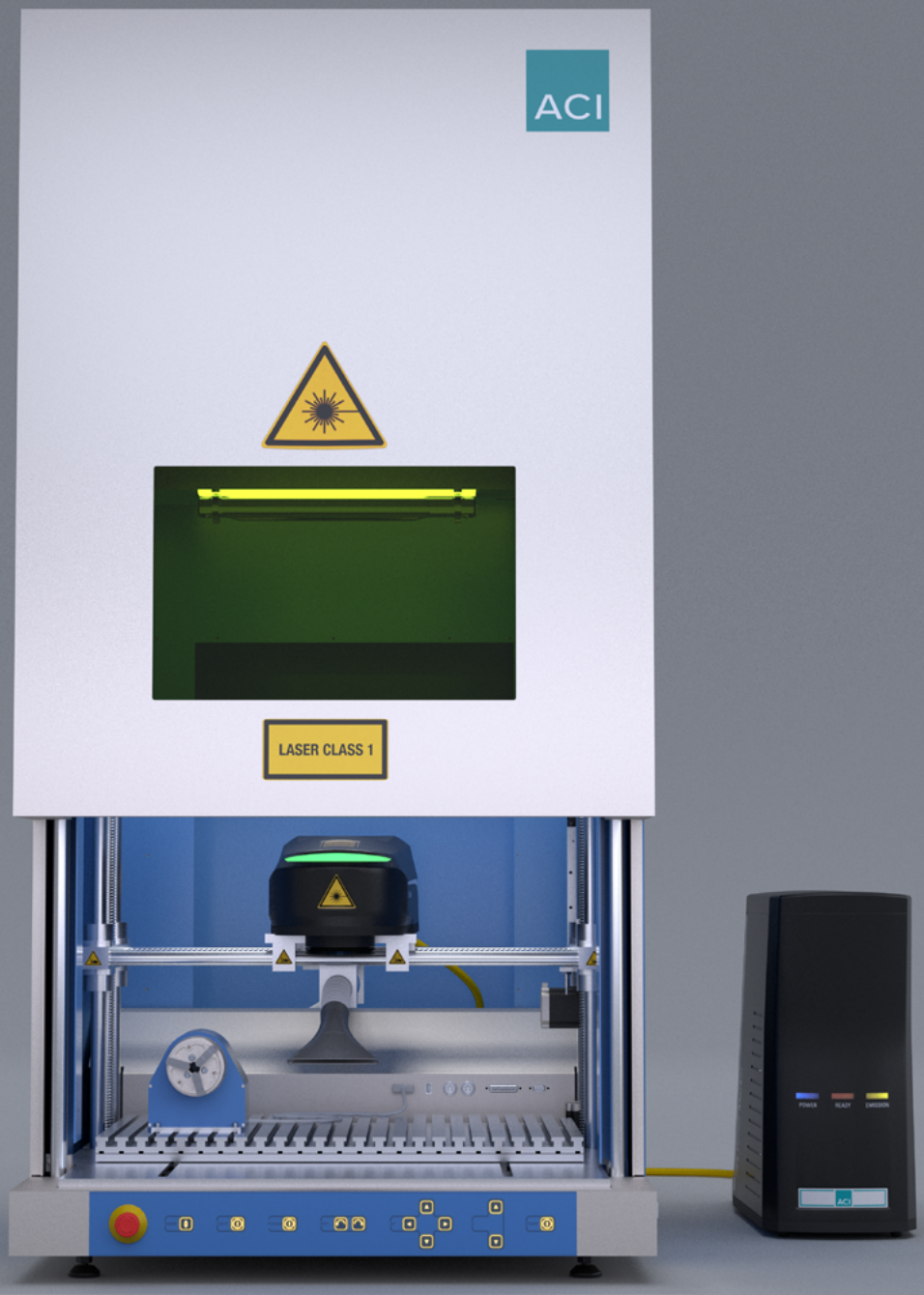
EN

Laser. Marking. Solutions.

ACI



Workstation Professional

The flexible laser station

Laser marking with guaranteed quality

Laser stations from ACI are designed as manual workstations for laser material processing of individual parts and small series, as well as fully automated all-in-one solutions for large quantities.

The **Workstation Professional** is a highly flexible protective enclosure with standard X- and Z-axes, and is an excellent choice for machining large, heavy components and products.
Turnkey system solutions in accordance with laser safety class 1 guarantee maximum safety. No additional safety devices are required. The ergonomically optimised device structure of the benchtop workstations and the practice-oriented functionality ensure excellent user satisfaction.

ACI's laser stations can be used in conjunction with any of our laser markers or laser trimmers, making them suitable for machining virtually any material.

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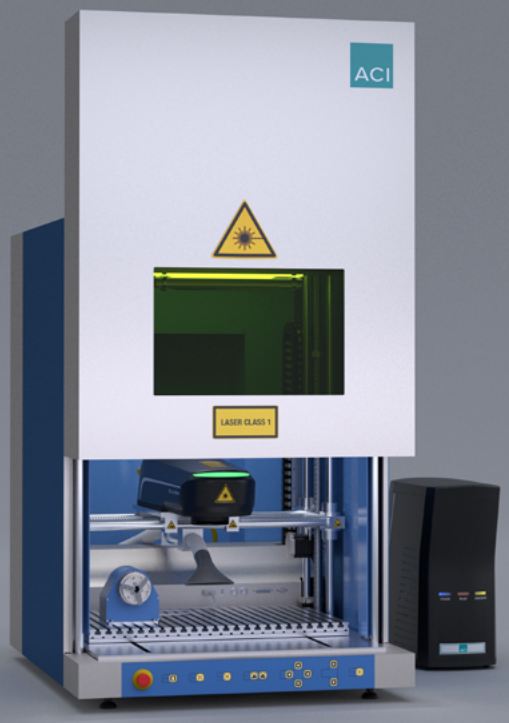


Highly flexible manual laser stations

The **Workstation Professional** is a capable machine – it is suitable not only for series production, but also a wide variety of batch sizes, as well as large and heavy components, or alternatively, large batches of small components, which can be machined in multi-position holders. This manual workstation also boasts a large working chamber.
It is an attractive alternative to conventional marking technologies, even for small companies.

→ Features/properties → Optional features → Technical specifications

Features/properties

- Can be used in conjunction with any of ACI's laser markers *(Economy/Business Diode, Economy/Business Fibre, Business CO_2)*, making it suitable for machining metal, plastic, foil, film, ceramics, glass and organic material
- Laser class 1
- Motorised X- and Z-axes
- Integrated control panel
- Large laser safety window
- Electric door
- Scope for connecting an external extraction and filtration system

Optional features

- Motorised Y-axis, Y-axis table
- Axis of rotation
- Foil/film management foil/film handling system with winding and unwinding devices for marking foil/film labels
- Imaging system (CPM, AOI) for camera-assisted laser marking
- Code- and ID-reading systems (code reader, tool reader)
- Type plate handling system
- Workpiece holder (e.g. prism device, changing device)
- Laser extraction system with control line and suction hose (external)
- Desktop or industrial PC
- Axis of rotation for uniform marking around circumferences

The **Workstation Professional** boasts a large working chamber with a T-slot table on which workpieces measuring up to 600 × 600 × 400 mm (l×w×h) can be mounted. Depending on which laser system and lens are used, an individual marking area of up to 180 × 180 mm will be available.

The **Workstation Professional** has an integrated X-axis portal which, depending on the lens used, can increase the working field to up to 580 mm in the X direction. The integrated, electrically driven Z-axis enables workpieces with height variations to be marked. This allows the laser to travel up to 400 mm along the Z-axis, which is perfect for large and heavy workpieces.

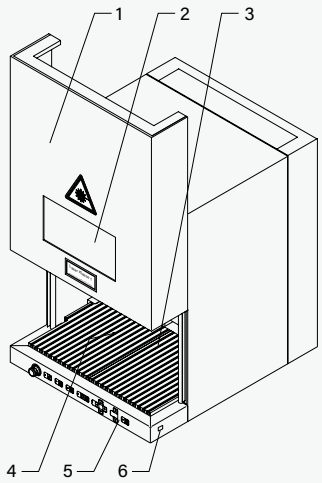
A focus finder, consisting of two pilot lasers, helps the user to find the optimal Z-axis position in no time at all. Within just a few seconds, the correct working distance can be established between the laser and the workpiece. The laser system has an integrated pilot laser preview function, which makes it easy to position marking content in the X-Y direction.

The X-axis and an optional Y-axis table increase the total area available for marking to 350 × 510 mm*, with the result that even parts in pallets can be marked in a single operation in the **Workstation Professional**. The laser travels the entire marking area in a single pass.
The electrically operated safety door makes it easy to change components.

The **Workstation Professional** is a system solution that complies with the requirements of laser safety class 1 and does not require any additional safety measures.

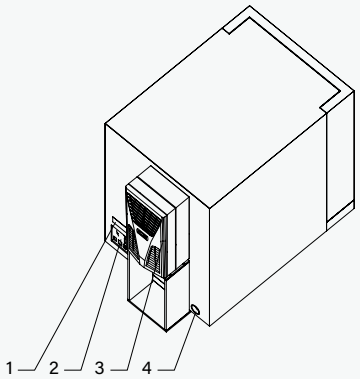
* Depending on system used

Workstation Professional
Views



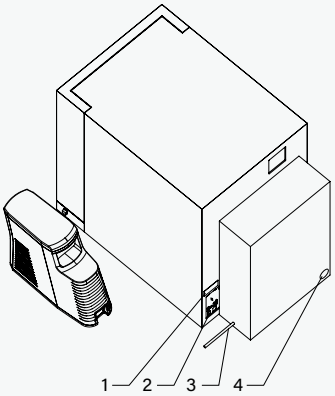
Front view

1 Safety door
2 Viewing window
3 T-slot table
4 Working chamber
5 Control panel
6 Standby button



Rear view*

1 Type plate
2 Rear connection points
3 Climate-control unit
4 Extraction system connection point



Rear view of variant with fibre laser**

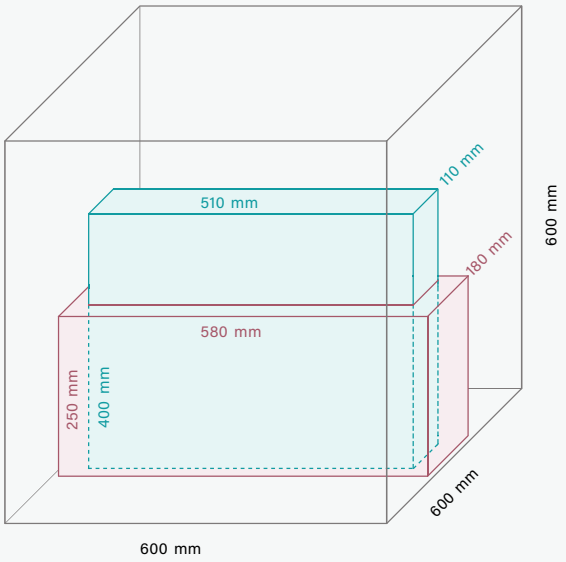
1 Safety door type plate
2 Rear connection points
3 Fibre laser cable output
4 Extraction system connection point

* Embodiments for Business CO_2, Economy Diode and Business Diode lasers with climate-control unit

** Embodiments for Economy Fibre and Business Fibre lasers

Workstation Professional
Marking volumes

Without Y-axis table



T-slot table (fixed)
600 × 600 mm

Working chamber (w×d×h)
600 × 600 × 600 mm

With 163-mm lens

Marking volume (w×d×h)
510 × 110 × 400 mm

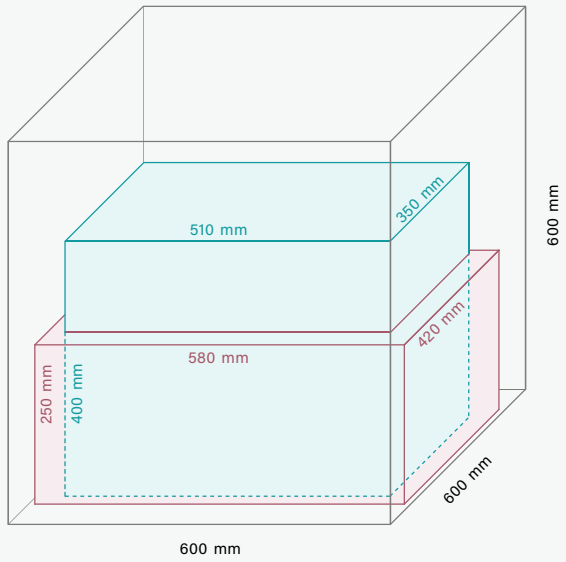
Marking area
110 × 110 mm

With 254-mm lens

Marking volume (w×d×h)
580 × 180 × 250 mm

Marking area
180 × 180 mm

With Y-axis table



T-slot table (mobile)
600 × 430 mm

Working chamber (w×d×h)
600 × 600 × 600 mm

With 163-mm lens

Marking volume (w×d×h)
510 × 350 × 400 mm

Marking area
110 × 110 mm

With 254-mm lens

Marking volume (w×d×h)
580 × 420 × 250 mm

Marking area
180 × 180 mm

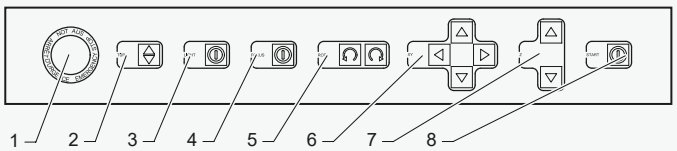
Depending on the lens used, the integrated X-axis can increase the working field to up to 580 mm in the X direction.

The integrated, electrically driven Z-axis enables workpieces with height variations to be marked.

An optional Y-axis table increases the total area available for marking to 350 × 510 mm. The Y-axis travel is 240 mm.

If a standard lens is used, the marking area is 110 × 110 mm. With a larger lens, this can be increased to 180 × 180 mm.

Workstation Professional
Control panel & rear connection points



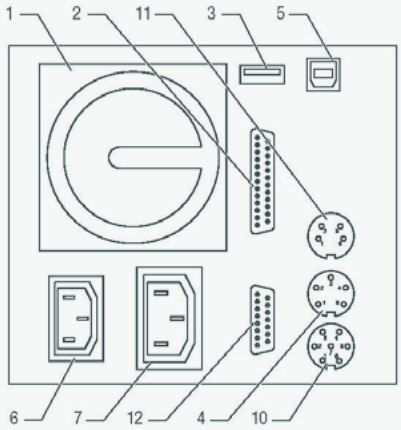
Interior chamber connection points

1 Emergency stop button
2 Door open/closed
3 Light on/off
4 Focus on/off
5 Rotation anti-clock-wise/clockwise
6 X-axis left/right, Y-axis back/forwards
7 Z-axis up/down
8 External start

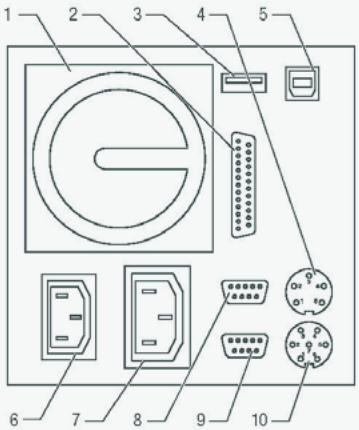
In set-up mode, various functions can be controlled using the buttons on the control panel.

NOTE: The rotation anti-clockwise/clockwise buttons (5) are used to set the direction of rotation for the axis of rotation, and the X/Y-axis left/right/back/forwards buttons (6) are used to position the Y-axis table and X-axis portal.

A



B



Rear connection points

1 Power switch
2 Auxiliary
3 External USB
4 External start
5 USB for PC
6 Power input
7 Climate-control unit power output
8 DSub9, optional
9 DSub9, optional
10 Extraction system
11 Interlock
12 Laser I/O

Drawing A: Embodiment for Economy Fibre and Business Fibre lasers (fibre laser variant)

Drawing B: Embodiment for Business CO_2, Economy Diode and Business Diode lasers (Nd:YAG and CO_2 laser variant)

Technical specifications

Workstation Professional

Dimensions (max.)[1] l × w × h	1295 × 760 × 1072 mm
Mounting plate	600 × 600 mm / with Y-axis table: 600 × 430 mm
X-axis travel	400 mm
Y-axis travel (optional)	240 mm
Z-axis travel[2]	400 mm
T-slot table load (max.)[3]	25 kg; can be upgraded to 40 kg
Software	Magic Mark V3

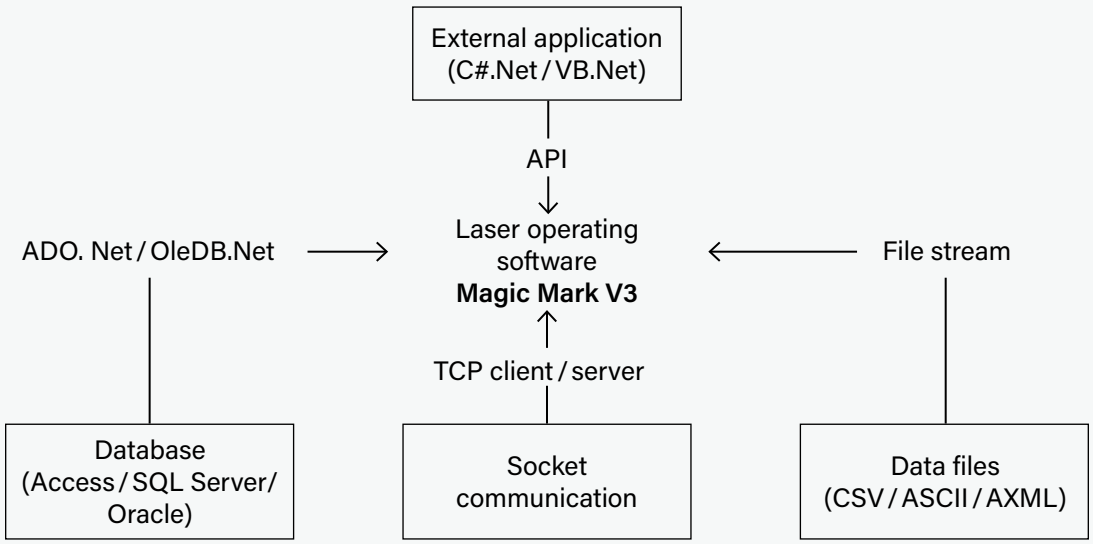
1 Figures listed assume that the safety door is closed and include feet and climate-control unit

2 Height adjustment using focus finder function

3 Assumes evenly distributed load when using Y-axis

Software-based control

The modern software architecture of the **Magic Mark V3** laser marking software enables targeted access to all available functions and allows users to control the laser and laser peripherals (work-station/axis of rotation, etc.).



Internal programming

VB.Net [Winwrap Basic]
integrated into Magic Mark V3

External programming

C#.Net [MS Visual Studio]
Access to class library

Benefits of the **Magic Mark V3**

Software package included with product

Predefinable parameter sets

Plugins allow easy addition of functions

Partnerships with ACI Laser
Benefits for customers

The search for excellent partnerships is at the heart of everything we do. We offer our customers sustainable solutions based on all-encompassing advice, reliability and stability.

ACI Laser embodies:

✓ Made in Germany development and production with over 20 years of experience

✓ Complete solutions from a single source: Laser systems, protective housings, software and accessories

✓ Customisable laser systems

✓ Functions can easily be added to the software using plugins

Made in Germany

Laser. Marking. Solutions.

We would be happy to advise you.

We guarantee you a tailor made, all-in-one solution that meets the requirements of your application. Our experienced sales team provides you with intensive consultation. We look forward to hearing from you.

www.aci-laser.de

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