NARGESA®

LASER WELDING SAFETY BOOTH

CSL SERIES

WARRANTY 3 THREE YEARS

MADE IN SPAIN

CE

AENOR
INNOVATION MANAGEMENT
ISO 56001

50 years manufacturing industrial machinery

GET A QUOTE

Please complete the following form. We'll contact you in less than 24 hours.
Business days

REQUEST ADJUSTED QUOTATION

SOME OF OUR CUSTOMERS

Our customer's endorsement is our best business card

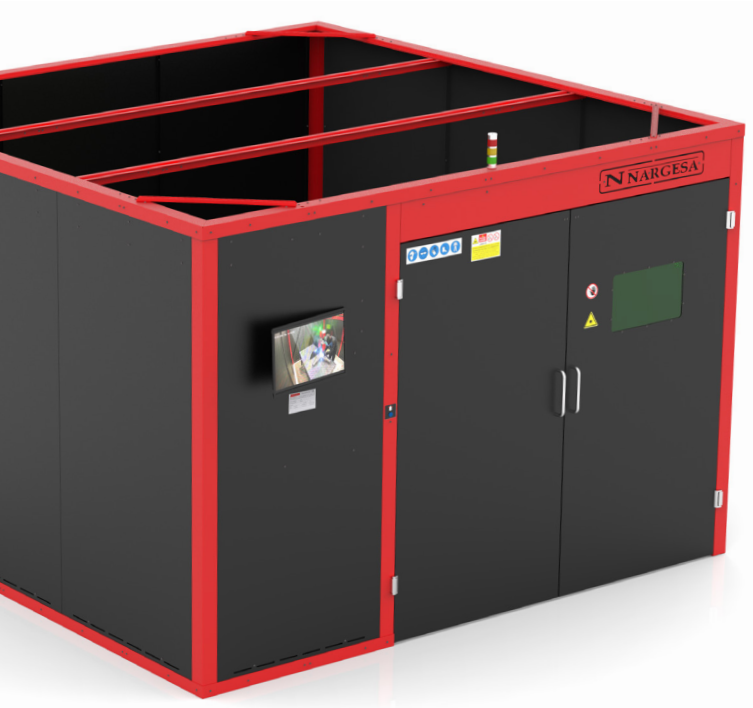
CERTIFICATES AND ACCREDITATIONS

Some of the certificates that support our processes and benefit our customers

AENOR
INNOVATION MANAGEMENT
ISO 56001

INNOVATIVE SME
Valid until May 31, 2029
GOBIERNO DE ESPAÑA
MINISTERIO DE CIENCIA E INNOVACIÓN

CONCESSION OF **AUTHORIZED EXPORTER** AUTHORIZATION
ESEAOR23000312



The CSL Welding Booth range sets the ultimate standard in perimeter protection for laser welding processes.

Built around a **modular system**, these booths incorporate **active safety systems, centralised electrical management and an architecture designed to adapt to the evolving needs of each industrial facility.**

All with one clear objective: **to ensure complete safety for operators and the surrounding factory environment.**

ACTIVE SAFETY

Interlocking system with Pizzato smart hinges

The interlocking system is at the core of safety in Nargesa CSL Welding Booths. The doors incorporate **Pizzato smart hinges** that monitor their position. At the slightest opening, they **send a signal to the machine, which instantly enters standby mode and stops laser emission.** A deliberate manual reset is required before work can resume. This system minimises the risk of accidental exposure and places the CSL series among the **safest solutions on the market.**

EXTREME RESISTANCE

Certified shielding and modular architecture

The CSL Welding Booth Series provides **maximum-safety shielding**, with panels and protective systems subjected to rigorous resistance and **containment testing to certify their ability to protect operators and the surrounding environment** during laser welding. Its modular architecture is available in **four standard configurations — CSL22, CSL32, CSL33 and CSL43—** and allows customised solutions tailored to each facility's layout and process requirements.

RAPID ASSEMBLY

Pre-assembled system for fast installation

Its **pre-assembled design ensures rapid assembly** and straightforward integration into the production facility, minimising production downtime. **The panels arrive labelled and numbered according to their position,** enabling error-free, sequential assembly. The structure includes factory-fitted clips for routing the corrugated wiring conduit and a manifold ready to install in minutes. All interconnections use coded Harting connectors, ensuring fast, intuitive electrical installation with minimal risk of incorrect connections.

EXPANDABLE MODULAR DESIGN

The CSL series features a smart structural design based on standard panels measuring 1,170mm wide by 2,500mm high. For direct integration, **we offer four standard models.**

4 STANDARD SIZES

CSL22
2x2 modules

CSL32
3x2 modules

CSL33
3x3 modules

CSL43
4x3 modules

CSL22
2535 x 2535 x 2500 mm
99″ x 99″ x 98″
300 kg / 661.39 lb

CSL32
3705 x 2535 x 2500 mm
145″ x 99″ x 98″
420 kg / 925.94 lb

CSL33
3705 x 3705 x 2500 mm
145″ x 145″ x 98″
480 kg / 1,058.22 lb

CSL43
4875 x 3705 x 2500 mm
191″ x 145″ x 98″
540 kg / 1,190.50 lb

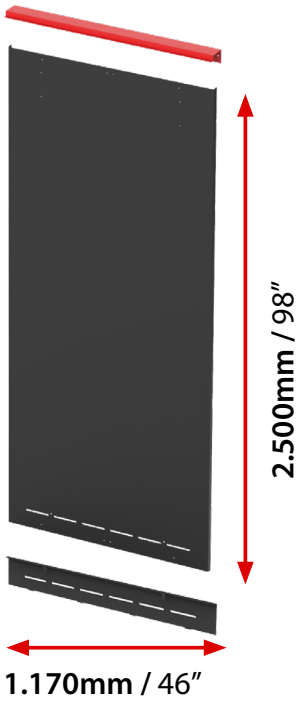
THE BOOTH THAT GROWS WITH YOUR BUSINESS

The CSL system's key operational advantage is its **full scalability**. As production needs grow, you can expand the booth by adding base modules without replacing the original structure. **The booth expands, dismantles and relocates as your factory evolves.**

TAILORED SOLUTION

We design the booth that best suits your production needs.

Using our base modules, we assess the layout, process and available space to define the best CSL configuration for each facility. Each booth is built from two base modules: a modular panel and a safety door.



MODULAR PANELS WITH PROTECTED VENTILATION

Structural safety built into each module

CSL modular panels combine **structural strength, perimeter safety and configuration flexibility**, creating an enclosure built for demanding laser welding environments.

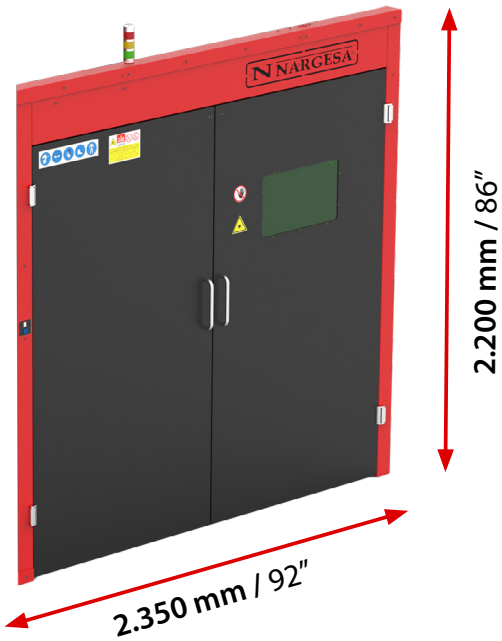
The lower section features a **two-stage indirect ventilation system**, with openings in the main panel and bottom profile. This double barrier allows airflow while preventing a direct escape path for radiation, maintaining the enclosure's protection.

PANIC-EXIT SAFETY DOOR

Instant access with full safety

Front double-access door for easy passage of people, materials, parts and tooling. Includes a tricolour audible and visual beacon, certified laser safety glass (UNE-EN 12254) and safety hinges.

Its **panic-exit design prevents access lockout**. When paired with the **MS20 Laser Welding Machine**, the slightest door opening triggers the hinge interlock, switching the machine to standby without cutting power. Work can resume after a deliberate manual reset.



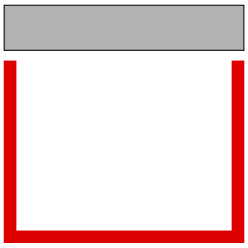
FACILITY INTEGRATION

We use the existing structure

Where technical and safety conditions allow, **the CSL can incorporate existing building walls**, reducing the number of panels needed and **adapting the booth to the available space.** This solution meets the same safety and laser protection criteria as freestanding configurations.

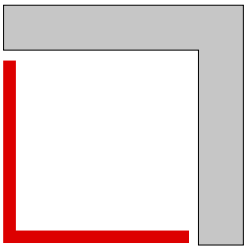
Our technical team assesses each project and verifies in advance that existing walls are suitable for use within the laser protection system.

1 EXISTING WALL



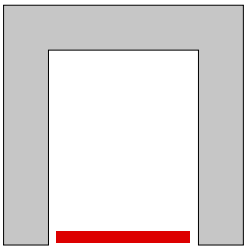
U-SHAPED ENCLOSURE

2 EXISTING WALLS



L-SHAPED ENCLOSURE

3 EXISTING WALLS



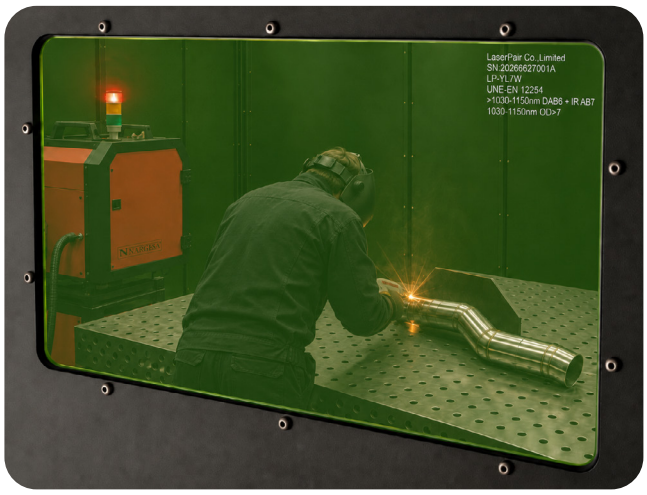
FRONT ENCLOSURE

Does your space have special requirements?

We help you find the best configuration.

CONTACT OUR TEAM

EQUIPMENT



Certified safety window

520 × 320 mm viewing window compliant with UNE-EN 12254, designed to monitor the process from outside while protecting against laser radiation.

> **Range:** 1,030–1,150 nm
> **Protection:** D AB6 + IR AB7
> **Optical density:** OD > 7
> **Classification:** D AB6 + IR AB7
> **Glazing reference standard:** UNE-EN 12254

Signal beacon with integrated sounder

The CSL booth features a **tricolour signal beacon** indicating the cell's operating status:

Green: equipment stopped and area safe
Amber: equipment ready and enabled to start welding at any time
Red: welding in progress

An **integrated sounder** linked to the access push-button alerts the operator when someone requests entry.

Real-time operator safety

The CSL booth includes a 4 MP camera, a 24" Full HD monitor and an NVR recorder for **viewing the interior, helping detect incidents and assist the operator when needed. The system is supplied ready to record, with no storage drive installed.** To enable recording, the customer must add a storage device and **manage its use in accordance with the country's data protection and video surveillance regulations.**

Hik-Connect APP

Extra support for operator safety

The Hik-Connect app provides a live view inside the booth from a smartphone, helping detect potential incidents and respond quickly.

Access bell

The **external illuminated pushbutton** lets users request entry without opening the door or affecting the work cycle. Pressing it activates the beacon's integrated sounder, notifying the operator inside the booth.

This allows **access to be coordinated before opening the door, reducing unnecessary openings during the process.**

Smart hinges + Interlock

Dual-channel safety hinges continuously monitor the door status. If they detect an opening during welding, **the interlock system immediately disables laser operation.**

When paired with the MS20 Laser Welding Machine, opening the door does not cut the main power: the machine removes the Laser Enable signal and automatically enters standby. Once safe conditions are restored, the operator simply performs a manual reset to resume work, combining immediate access, maximum protection and rapid process recovery.

Panic-exit safety door

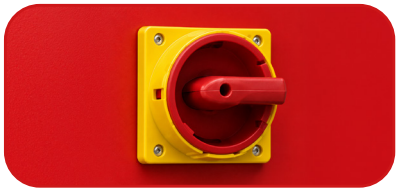
Unlike many conventional booths, **the CSL door does not keep the operator locked inside the cell**. Access remains available at all times, allowing immediate intervention in the event of an incident, while safety is managed by an active access monitoring system.

The dual-channel safety hinges continuously monitor the position of the door. If the door is opened during the process, **the interlocking system acts on the laser enable signal, stopping emission immediately** without relying on a mechanical access lock. This combines unrestricted evacuation, rapid response and safe process control.

CSL ELECTRICAL CABINET

NVR RECORDER

Real-time monitoring via NVR, with recording enabled by adding a USB storage device, not included.

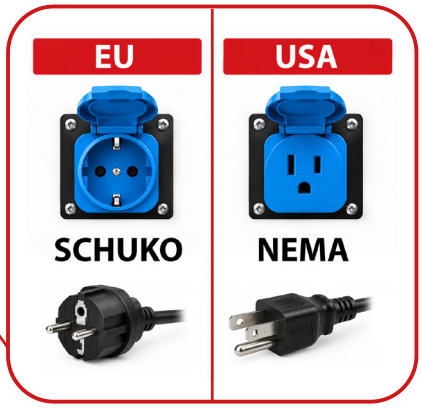


MAIN SWITCH

Switches the power supply to the entire booth, the MS20 Laser Welding Machine and auxiliary systems on or off.

LIGHTING PROVISION

Includes a pre-installed switch for connecting future booth lighting, allowing easy integration and control from the electrical panel.

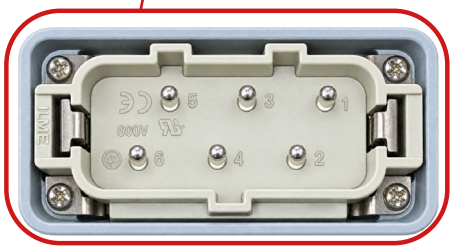


POWER SOCKETS

Two auxiliary power sockets configurable for Europe (Schuko) or the United States (NEMA).

KEYED CONNECTORS

Keyed connection system that prevents connectors from being interchanged, enabling fast, intuitive and error-free assembly.



NARGESA CONNECTION

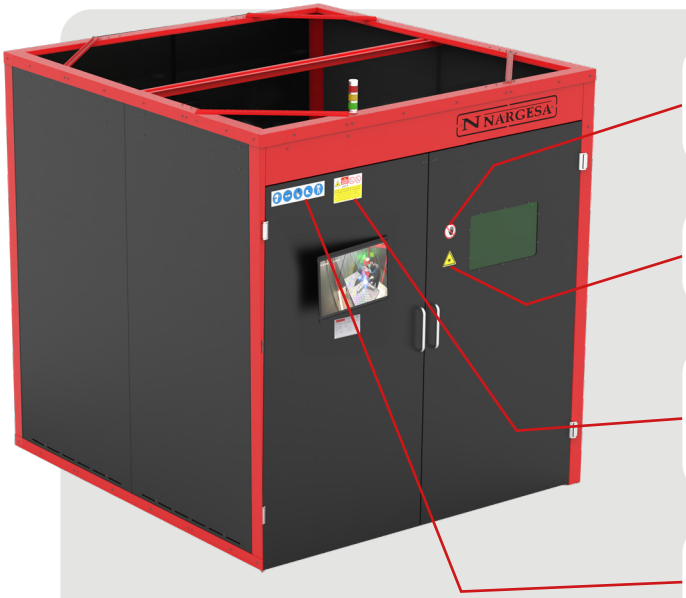
Dedicated connection for integrating Nargesa machinery directly with the booth, ensuring a simple, safe connection ready for joint operation.

IMPORTANT NOTICE!

The CSL booth electrical panel is specifically designed to work with the MS20 Laser Welding Machine. To use the booth with another brand's welding machine, consult Nargesa beforehand to select and purchase the appropriate electrical panel for your equipment.

CERTIFIED SAFETY

The booth includes regulatory signage, active safety systems and dedicated laser protection components. Its design has undergone validation and certification tests to verify the actual performance of the structure and its protective elements under demanding working conditions.



No entry sticker

Laser warning sticker

Class 4 laser warning sticker

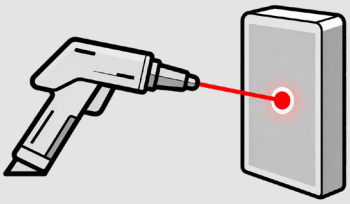
Mandatory action sticker

APPLICABLE REGULATIONS

- **Directive 2006/42/EC** of the European Parliament and of the Council of 17 May 2006 on machinery.
- **Directive 2014/30/EU** of the European Parliament and of the Council of 26 February 2014 on electromagnetic compatibility.
- **Directive 2011/65/EU**, RoHS, amended by Delegated Directive (EU) 2015/863 and subsequent applicable amendments.
- **EN ISO 12100:2010** — Safety of machinery. General principles for design. Risk assessment and risk reduction.
- **EN ISO 14120:2015** — Safety of machinery. Guards. General requirements for the design and construction of fixed and movable guards.
- **EN ISO 14119:2013** — Safety of machinery. Interlocking devices associated with guards. Principles for design and selection.
- **EN ISO 13849-1:2023** — Safety of machinery. Safety-related parts of control systems. Part 1: General principles for design.
- **EN ISO 13849-2:2012** — Safety of machinery. Safety-related parts of control systems. Part 2: Validation.
- **EN ISO 14118:2018** — Safety of machinery. Prevention of unexpected start-up.
- **EN ISO 13857:2019** — Safety of machinery. Safety distances to prevent hazard zones being reached by upper and lower limbs.
- **EN 60204-1:2018** — Safety of machinery. Electrical equipment of machines. Part 1: General requirements.
- **EN IEC 60825-4:2024 / UNE-EN IEC 60825-4:2024** — Safety of laser products. Part 4: Laser guards.
- **EN ISO 11553-2:2008** — Safety of machinery. Laser processing machines. Part 2: Safety requirements for hand-held laser processing devices.

TESTING AND CERTIFICATION

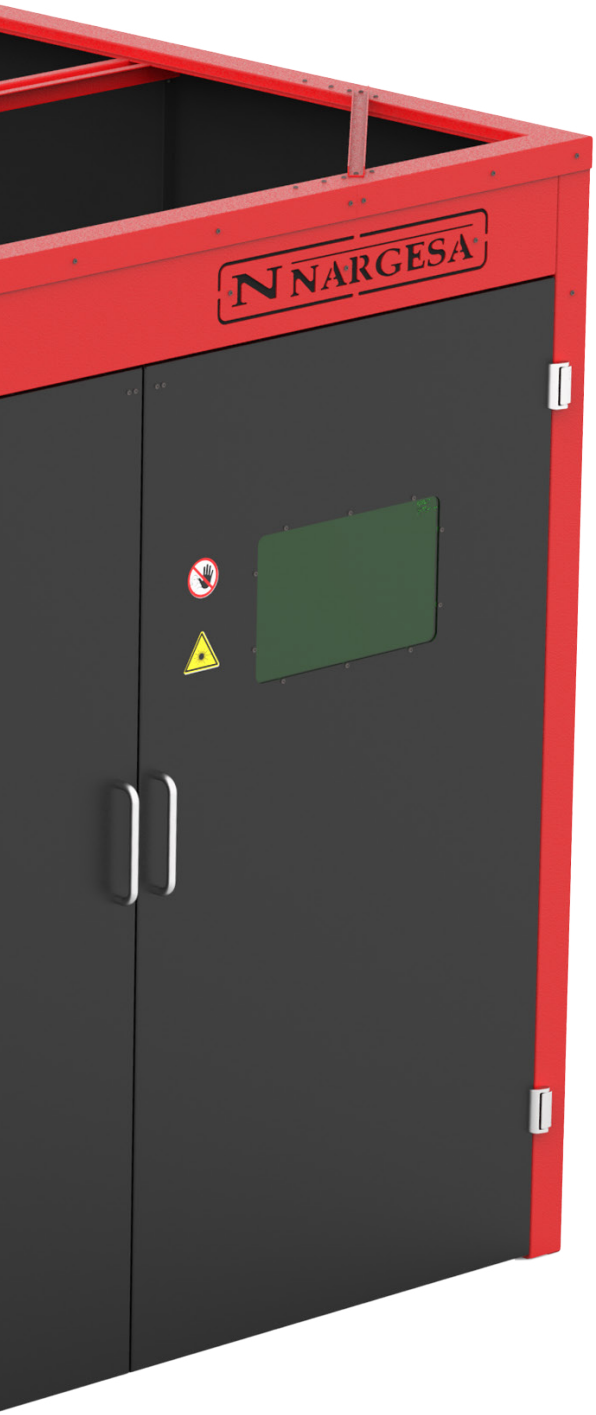
This booth has successfully passed safety and laser containment tests.



The CSL booth has passed rigorous direct laser beam exposure tests, demonstrating the enclosure's resistance to penetration and radiation leakage.

CERTIFIED BOOTH

TECHNICAL SPECIFICATIONS



> **Base modules:** modular panels measuring 1,170 × 2,500 mm.
> **Access door:** double door for easy access and material entry, 2,350 × 2,200 mm (92" × 86").
> **Safety hinges:** dual-channel Pizzato smart hinge system.
> **Safety interlock:** instantly stops laser beam emission if the door opens or unauthorised access occurs.
> **Active safety:** deliberate manual reset required to resume work after safety system activation.
> **Safety window:** 520 × 320 mm window with approved OD7+ protective glazing compliant with UNE-EN 12254.
> **Status light:** red / amber / green stack light indicating the booth's operating status.
> **Access alert:** bell with illuminated pushbutton to notify the operator.
> **Internal camera:** Hikvision 4 MP fixed network camera for real-time process monitoring. High-quality imaging, human detection, 120 dB WDR, built-in microphone and IP67 protection.
> **External monitor:** ASUS 24" Full HD monitor for viewing the process from outside.
> **Video compression:** H.265+ codec.
> **Video recorder:** 4-channel Mini 1U NVR with 4 PoE ports.
> **Storage:** ready for internal storage; storage device not included.
> **Electrical cabinet:** integrated cabinet for centralised safety, power and monitoring management.
> **Main switch:** main power disconnect.
> **Auxiliary sockets:** 2 auxiliary power sockets available in SCHUKO or NEMA versions.
> **Industrial connectivity:** Harting-type multipole connectors with a Poka-Yoke system for fast, error-free assembly.
> **Top enclosure:** open-top booth as standard to promote ventilation. Optional: protective roof with integrated LED lighting.
> **Compatibility:** integration with Nargesa equipment; compatibility with other manufacturers' machines subject to technical validation.
> **Manufacturing:** booths manufactured in Spain.

OUR RANGE OF MACHINERY

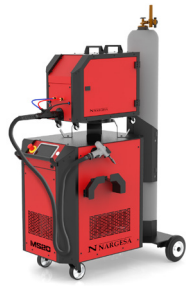
+info IRON WORKERS

+info NON-MANDREL PIPE BENDER

+info HORIZONTAL PRESS BRAKES

+info SECTION BENDING MACHINES

+info CNC SECTION BENDING MACHINES



+info LASER WELDING EQUIPMENT

+info TWISTING/SCROLL BENDING MACHINES

+info HYDRAULIC PRESS BRAKES

+info HYDRAULIC SHEAR MACHINES

+info GAS FORGES

+info IRON EMBOSSING MACHINES

+info END WROUGHT IRON MACHINES

+info BROACHING MACHINES

+info POWER HAMMERS

+info BLACKSMITH FORGING PRESS

WARRANTY

Nargesa machines have 3 years warranty provided that the customer registers it in our website. Otherwise it would be only one year warranty. This one encloses any manufacturing default all along these 3 years for components. Any misuse is excluded from this condition. Labor, back and forth shipping and any eventual repair, are not included in this warranty.

Partner companies

SHIPMENT EVERYWHERE

Nargesa will arrange transport up to final destination, whenever the customers asks for so. There is also the possibility for the customer to arrange the shipment himself with his own agency.

TECHNICAL ASSISTANCE

All our customers have access to technical support quickly and efficiently.
90% of incidences are solved out on the phone, mail, Skype or videoconferencing in less than 24hours. In case of needing presencial technical assistance, we may as well send a technician to the customer's facilities.

Follow us on

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