

LASER WELDERS & ACCESSORIES

WELD BEYOND LIMITS

HTS Mobile Laser Welding System

The HTS laser welder is a device created with the processing of small series and individual details in mind, such as tools and molds of any dimensions and weight. HTS successfully finds application in various areas, including mold and tool construction, the electronics industry, the medical industry, and the aviation industry.



WHY CHOOSE HTS MOBILE?

- **Mobility and precision:** HTS Mobile is a mobile arm-swivel design with a range of 0.9m-1.5m, eliminating vibrations, which guarantees precise processing. Thanks to the combination of a swivel arm, movable resonator, and an optional head with 360° rotary optics, HTS Mobile can work with almost any element, regardless of its size, geometry, or position.
- **Design:** The open construction of HTS Mobile allows for operation without the need for manipulating the workpiece, and the control of the mobile stand streamlines the welding process. Additionally, the swivel arm design enables practical positioning of the laser head, increasing work efficiency.
- **Versatility:** HTS finds its application in working with all available materials on the market, such as steel, bronze, precious metals, nitride steel and other difficult-to-machine materials.
- **Multitasking:** HTS is an ideal solution for cladding large molds, without weight and size limitations.
- **Intuitiveness:** The HTS Mobile device is distinguished by its ease of movement and stable positioning, which is ensured by a digital-analog joystick with a Teach-In (learning) function. The minimal setup times achieved thanks to this advanced technology translate into work efficiency.

LINEAR SYSTEM

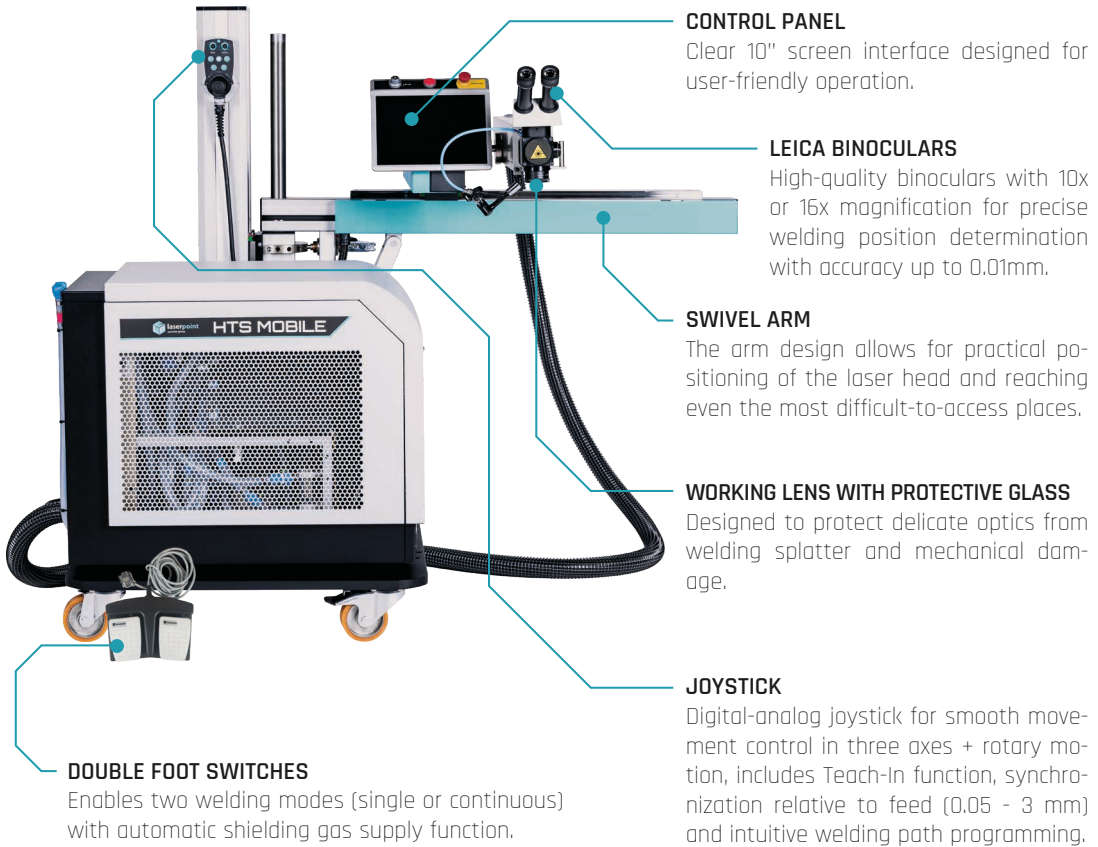
- X / Y / Z axes motorized, driven by stepper motors, controlled by joystick
- Positioning speeds for digital and analog mode:
 - Maximum feed speed for X and Y Axes: 8.9 mm/s | 8.9 mm/s
 - Minimum feed speed for X and Y Axes: 0.19 mm/s | 0.16 mm/s
 - Maximum feed speed for Z Axis: 10 mm/s | 10 mm/s
 - Minimum feed speed for Z Axis: 0.25 mm/s | 0.25 mm/s
- Maximum feed distance:
 - Y axis 760 mm
 - X axis 480 m
 - Z axis 810 mm

LASER OPTICS COMPONENTS

- 10x binoculars (Leica)
- Welding spot diameter regulator
- Directional mirror
- Focusing lens
- Protective glass
- LCD protective shutter

DIMENSIONS AND WEIGHT

- Dimensions: width 950mm x height 1550mm x length 1250mm
- Weight: 370 kg net



CONTROL PANEL

Clear 10" screen interface designed for user-friendly operation.

LEICA BINOCULARS

High-quality binoculars with 10x or 16x magnification for precise welding position determination with accuracy up to 0,01mm.

SWIVEL ARM

The arm design allows for practical positioning of the laser head and reaching even the most difficult-to-access places.

WORKING LENS WITH PROTECTIVE GLASS

Designed to protect delicate optics from welding splatter and mechanical damage.

JOYSTICK

Digital-analog joystick for smooth movement control in three axes + rotary motion, includes Teach-In function, synchronization relative to feed (0,05 - 3 mm) and intuitive welding path programming.

DOUBLE FOOT SWITCHES

Enables two welding modes (single or continuous) with automatic shielding gas supply function.

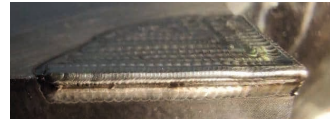
TECHNOLOGY AND EQUIPMENT OF HTS MOBILE:

- Laser resonator with ball mounting
- Laser source utilizing Nd: YAG Crystal
- Interface with system control and monitoring function
- Control panel for adjusting machine operation, including power parameters, pulse time, and frequency
- Efficient, internal water-air cooling system with the option to connect an additional external cooling system
- Protective gas supply controlled by a magnetic solenoid valve

TECHNICAL PARAMETERS	HTS 160	HTS 200	HTS 300
Laser type	Nd: YAG	Nd: YAG	Nd: YAG
Max. mean power	160W	200W	300W
Pulse peak power	9 kW	11 kW	13 kW
Max. pulse energy	100 J	120 J	150 J
Pulse duration	0,2 - 20 ms		
Pulse frequency	0,5 - 20 Hz		
Focus diameter	0,05 - 2,0 mm		
Line voltage (V/Ph/Hz)	380 - 420 V AC / 3 Phase		
No.	HTS-LP160	HTS-LP200	HTS-LP300

ECO Laser Welder

The ECO laser welder is a device created with small series processing and individual details in mind, like tools and molds, weighing up to 120 kg. ECO versatility makes it suitable for various industries including automotive, electronics, medical, jewelry, machine construction, molds and tools, and aerospace.



WHY CHOOSE ECO?

- Precision: The ECO Laser Welder ensures excellent quality of welding processes even for smallest details.
- Construction: ECO is ergonomically designed for efficient operator's work. Its open construction allows easy manipulation of the processed element, while the worktable control function streamlines the welding process.
- Versatility: ECO can work with all available materials on the market, such as steel, bronze, precious metals, nitride steel, and other difficult-to-machine materials.
- Flexibility: Its compact dimensions and mobility enable installation in small workspaces.
- Intuitiveness: The technology used in ECO, an intuitively controlled joystick, and a 10" touch screen ensures exceptionally efficient and comfortable operation.

LINEAR SYSTEM

- Motorized X / Y axes driven by stepper motors, Z axis with a brush motor, controlled by joystick
- Variable positioning speeds for digital and analog mode:
 - Maximum feed speed 3.7 mm/s | 3.7 mm/s
 - Minimum feed speed 0.10 mm/s | 0.065mm/s
 - Maximum feed speed of Z axis 9 mm/s | 9 mm/s
 - Minimum feed speed of Z axis 0.38 mm/s | 0.25 mm/s
- Maximum feed distance:
 - Y axis 210mm
 - X axis 90mm
 - Z axis 300 mm

LASER OPTICS COMPONENTS

- 10x binocular (Leica)
- Weld spot diameter regulator
- Directional mirror
- Focusing lens
- Protective glass
- LCD protective shutter

DIMENSIONS AND WEIGHT

- Dimensions: width 472mm x height 1270mm x length 1160mm
- Weight: 190 kg net



CONTROL PANEL

Clear 10" screen interface designed for user-friendly operation.

LEICA BINOCULARS

High-quality binoculars with 10x or 16x magnification for precise welding position determination with accuracy up to 0,01mm.

JOYSTICK

Digital-analog joystick for smooth movement control in three axes + rotary motion, includes Teach-In function, synchronization relative to feed (0.05 - 3 mm) and intuitive welding path programming.

MOTORIZED TABLE

Allows positioning of the workpiece in three axes with adjustable speed.

WORKING LENS WITH PROTECTIVE GLASS

Designed to protect delicate optics from welding splatter and mechanical damage.

DOUBLE FOOT SWITCHES

Enables two welding modes (single or continuous) with automatic shielding gas supply function.

ECO TECHNOLOGY & EQUIPMENT

- Tiltable and sliding laser resonator
- Nd: YAG crystal laser source
- Interface with control and system monitoring function
- Control panel for adjusting machine operation parameters, including power, pulse time, and frequency
- Efficient, internal water-air cooling system with optional external cooling system connection
- Shielding gas supply controlled by a magnetic solenoid valve

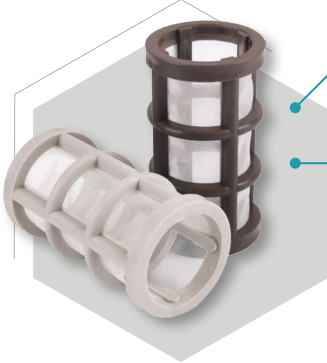
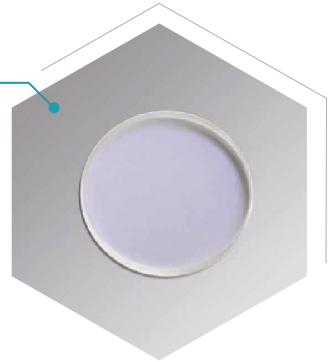
TECHNICAL PARAMETERS	ECO 160	ECO 200
Laser type	Nd: YAG	Nd: YAG
Max. mean power	160W	200W
Pulse peak power	9 kW	11 kW
Max. pulse energy	100 J	120 J
Pulse duration	0,2 - 20 ms	
Pulse frequency	0,5 - 20 Hz	
Focus diameter	0,05 - 2,0 mm	
Line voltage (V/Ph/Hz)	380 - 420 V AC / 3 Phase	
No.	ECO-LP160	ECO-LP200

Consumables

Protective Glass for Lens

Optimal protection of the working lens from splashes during welding. Dedicated for lasers with up to 300 W power.

Dimensions	Order no.
Ø 38mm x 3mm	17-3.264
Ø 40mm x 2mm	17-3.266



Net filter for internal cooling system

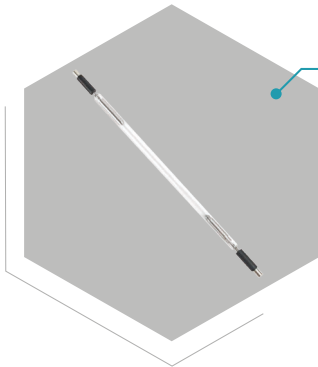
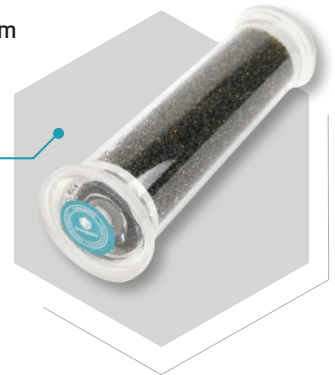
Order no. 17-4.002

Net filter for external cooling system

Order no. 17-4.016

Deionizing water filter for internal cooling system

Order no. 17-4.012



Flash lamps

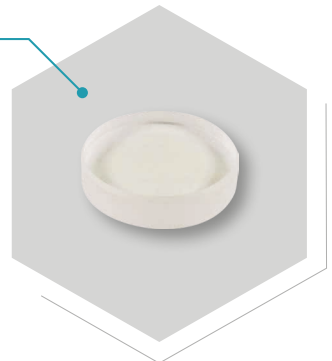
Xenon flash lamps dedicated to all systems. Lamp life averages up to 3 million discharges.

Type	Order no.
ND laser lamp for 120/160W laser	17-3.250
ND laser lamp for 200W laser	17-3.251
ND laser lamp for 300W laser	17-3.252

Front and Back resonator optics

For condensing the laser light within the chamber.

Type	Order no.
50% (Front) for 100-200W systems	17-3.253
100% (Back) for 100-200W systems	17-3.254
100% (Back) for 300W systems	17-3.260

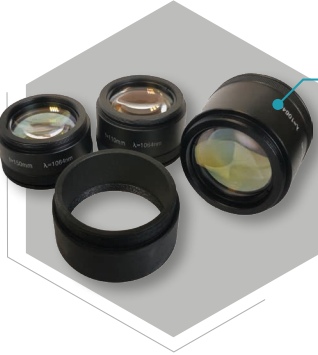


Accessories

Binocular

High-quality Leica binoculars for all Laserpoint machines, providing ergonomic 45° tilt.

Type	Order no.
Binocular Leica Inclined 45°	17-3.100
Okular 10 x 23 mm (1 piece), adjustable	17-3.101
Crosshair graticule	17-3.102
Rubber eyecups for Okulars (1 pair)	17-3.103



Focusing Lenses

Laser lenses in casing, available with focal lengths of: 150 mm, 200 mm, 300mm.

Type	Order no.
Focusing optics F150 mm	17-3.113
Focusing optics F200 mm	17-3.114
Focusing optics F300 mm	17-3.115

360° Rotational Optical Head

Enables welding service in hard-to-reach places with large forms and cumbersome elements, 2 x 360° - horizontally and vertically.

Order no. 2-1.032



Focusing Lens Extension

Extends the focusing position, extension height 100mm.

Order no. 2-1.026

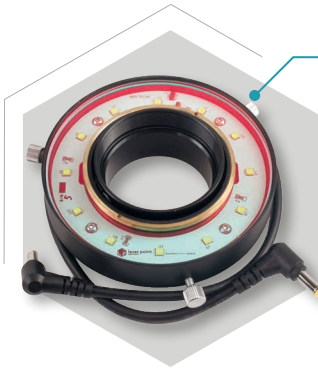
ErgoWedge® ±15° // ErgoWedge 5° - 25°

Leica Binocular addon allowing for adjustment of binocular tilt, even further improving ergonomics.

Type	Order no.
ErgoWedge® ±15°	2-1.254
ErgoWedge® 5° - 25°	2-1.253



Accessories



LED Ring Light

DC 12 V LED ring light with 12 diodes, 760 lm each, 5000K, dimming 0-100%, low power consumption 8.5 .

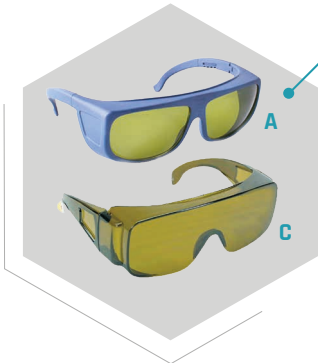
Order no. 2-1.030

LED lighting on a flexible arm

For perfect illumination of the workpiece. Flexible 600mm arm and Ø88mm magnetic foot.



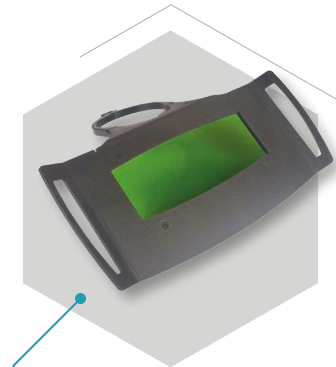
Type	Order no.
Complete LED Lamp	2-1.020
Protective glass with IR-reflection filter	2-1.023
LED plug-in module, white 5700K, spot 6°	2-1.024



Protective glasses

Protection class Fiber / YAG Laser (850-1300nm), essential eye protection.

Type	Order no.
Laser safety glasses (850-1300nm) type C	32-LSG-C
Laser safety glasses (850-1300nm) type A	32-LSG-A



Laser safety shield

A cover plate to further protect against laser reflections and heat, installed directly under binocular.

Order no. 2400040

Protective Gas Reducer (Argon)

Used for welding in an argon shield, designed for optimal setting of the required amount of gas. Regulation from 0-5 L/min.

Order no. 2-1.259



CCD - USB camera

Dedicated to observing and documenting the welding process on the material's surface. Analog camera, PAL format, observation field depends on the working lens.

Order no. 2-1.050

Safety set interlock

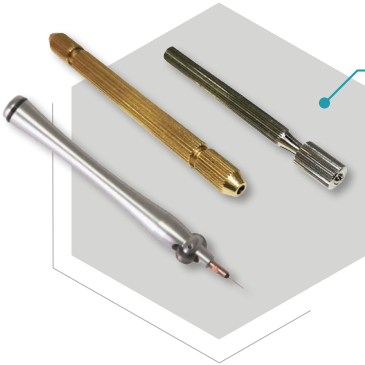
To protect bystanders from laser radiation. The beacon signaling the laser work, together with the door contact switch that turns off the laser when the room doors are opened, is connected to the Interlock socket on the laser. Additionally set includes warning signboards.

Order no. 2-1.250



Holder for fine wires

It facilitates feeding of thin wires, protects the wire against hand sweat - and hands from material heat. Three versions, with an open back for wires from 0.2mm to 1mm, double-sided one for wires from 0.2mm to 0.6mm, and a heavy duty one with rollers for 0.1-0.5mm.



Type	Order no.
Wireholder 0,2-1,0mm	32-LDH
Wireholder 0.2-0,6 mm, two-sided	32-LDH/T1
Wireholder 0.1-0,5 mm, solid with rollers	32-8685-1

Magnetic balls

Magnetic balls of various sizes, designed for easy mounting and manipulation of the detail under the microscope. Their great advantage is exceptionally strong magnets.

Type	Order no.
Ø magn. 100mm, Ø sphere 120mm	6-MCB100
Ø magn. 125mm, Ø sphere 170mm	6-MCB125
Ø magn. 160mm, Ø sphere 210mm	6-MCB160



Magnetic clamping hemisphere with permanent magnet

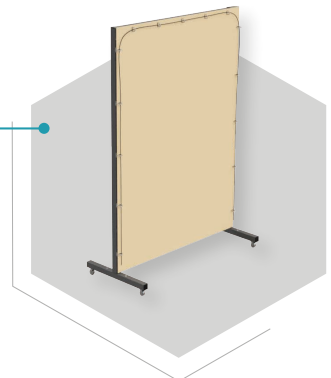
Two sizes : 125mm magnet and 160mm magnet.

Type	Order no.
Ø magnet 125mm	6-MCHB125
Ø magnes 160mm	6-MCHB160

Laser safety curtain

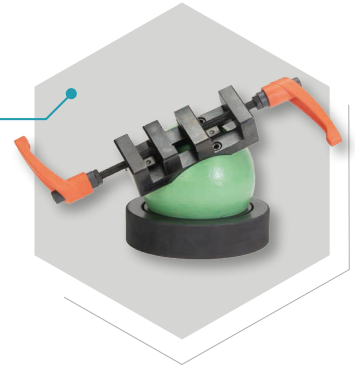
a mobile protective curtain made of durable material complies with the 12254 standard. Dimensions 1.3 x 1.9 m.

Order no. 2-1.255



piggyClamp

Clever ball with a clamping system, two cranks work in opposite directions, so they can be quickly tightened or loosened. A very useful device for welding non-magnetic details.

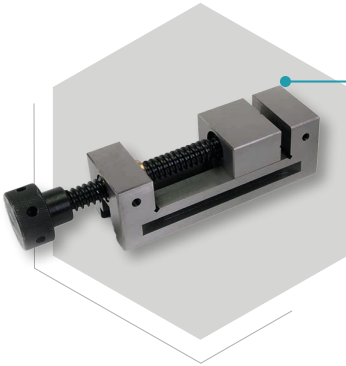


Order no. **6-PC1**

Precision vice

Made of high quality steel, hardened to 58-62 HRC. Parallelism with an accuracy of +/- 5 microns.

Two sizes: small and larger. Perfect clamping in combination with a magnetic ball.

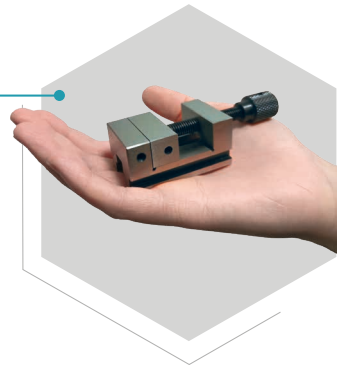


length	W x H	Jaw height	max. opening	kg	Order no.
155 mm	50 x 50 mm	25	65	2,8	37-PSS01
220 mm	80 x 80 mm	40	100	7,0	37-PSS02

Precision mini - vice

Mini vice for mini needlework.

length	W x H	Jaw height	max. opening	kg	Order no.
57 mm	33 x 27 mm	15	20	0,25	37-PSS03

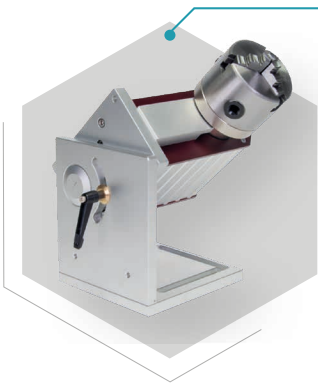


Service kit S- 120/160/200/300

For inspection and cleaning of your laser. Includes laser lamp, protective glass, protective kit for LED lighting, mesh filter, cleaning and inspection buttresses.



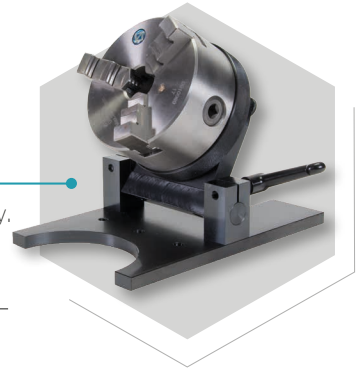
Type	Order no.
Wearing part set S-160	2-1.256
Wearing part set S-200	2-1.257
Wearing part set S-300	2-1.258



Rotary-Tilting Holder, Motorized

The motorized axis rotates the object during welding. Intended for laser welding systems.

Description	Order no.
Ø 80mm	32-MR080
Ø 120mm	32-MR0120



Turning and swiveling device with Ø 125 mm three-jaw chuck

The device is universal, extremely helpful in laser welding, and not only. Precise, axial clamping of the workpiece, the possibility of tilting it.

Order no. **6-DSV1**



Extractor III 200W

Mobile extraction-filtering system designed to absorb harmful combustion fumes, e.g., from laser welding and engraving of metals.

Description	Order no.
Extractor III 200W Mobile extraction and filtering system (without a suction hose)	36-780
Extractor III - mobile extraction system Extractor III 200W (complete with Ø50mm x 2m extraction hose and Ø 50mm x 300 mm segment nozzle on a magnetic base (for open lasers), and 4x pre-filter)	36-780/L1
Extractor III - mobile extraction system Extractor III 200W (complete with Ø50mm x 1.5m flexible (segmented) extraction arm and 4x pre-filter)	36-780/G1

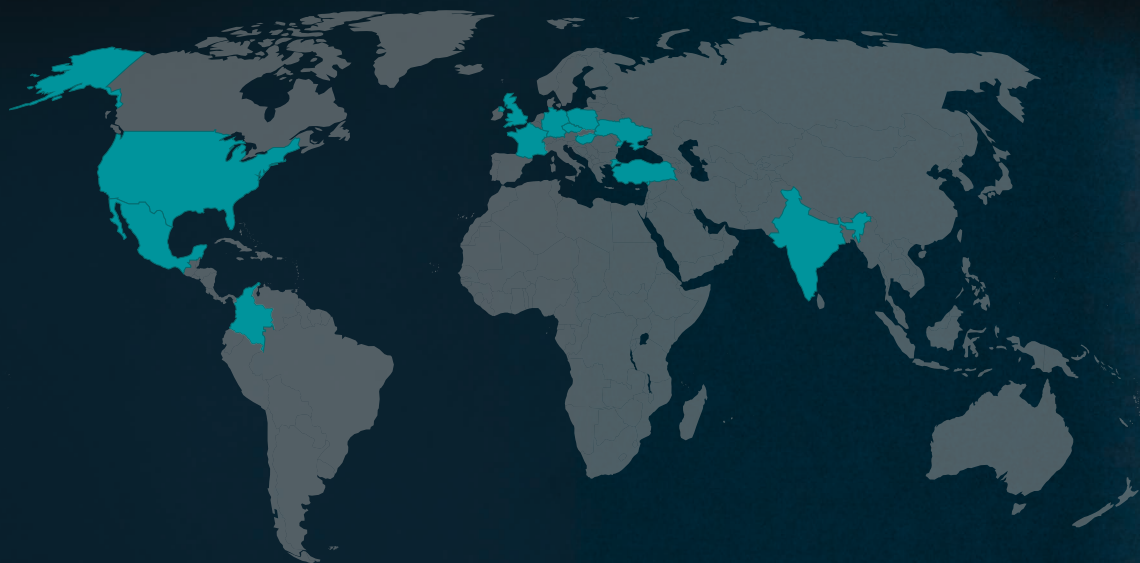


External cooling system

Strongly recommended for heavily used laser systems and necessary for 300W Yag machines.

Description	Order no.
CY- 6000 - Compressor cooling system with a cooling capacity of 3 kW, weight 60 kg, height 920 x width 480 x depth 550 + 120 mm (connectors and hoses), power supply 230 V AC (Single Phase), power: 1135 W.	32-Ch260
CY-8500 - Compressor cooling system with a cooling capacity of 8.2 kW, weight 120 kg, height 1110 x width 610 x depth 750 + 120 mm (connectors and hoses), power supply 400 V AC (Three Phase), power: 3570 W.	32-Ch285

Laserpoint around the world...



HEADQUARTERS

POLAND

Laserpoint Sp. z o.o.

22 Graniczna St., 52-002 Złotniki, Poland

Tel: +48 577 232 628

e-mail: info@laserpoint.pl

www.laserpoint.pl

OUR PARTNERS

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Czech Republic · Ukraine

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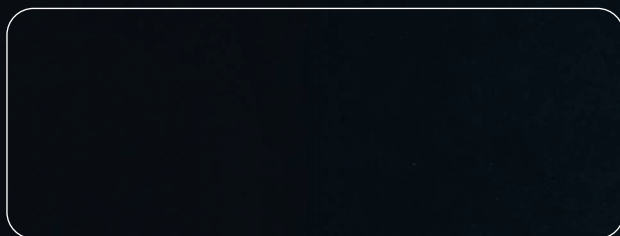
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REPRESENTATIVE:



WELD BEYOND LIMITS

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