



PENWELDER 2.0

Hand-held laser welding system
for processing fine and thin sheets

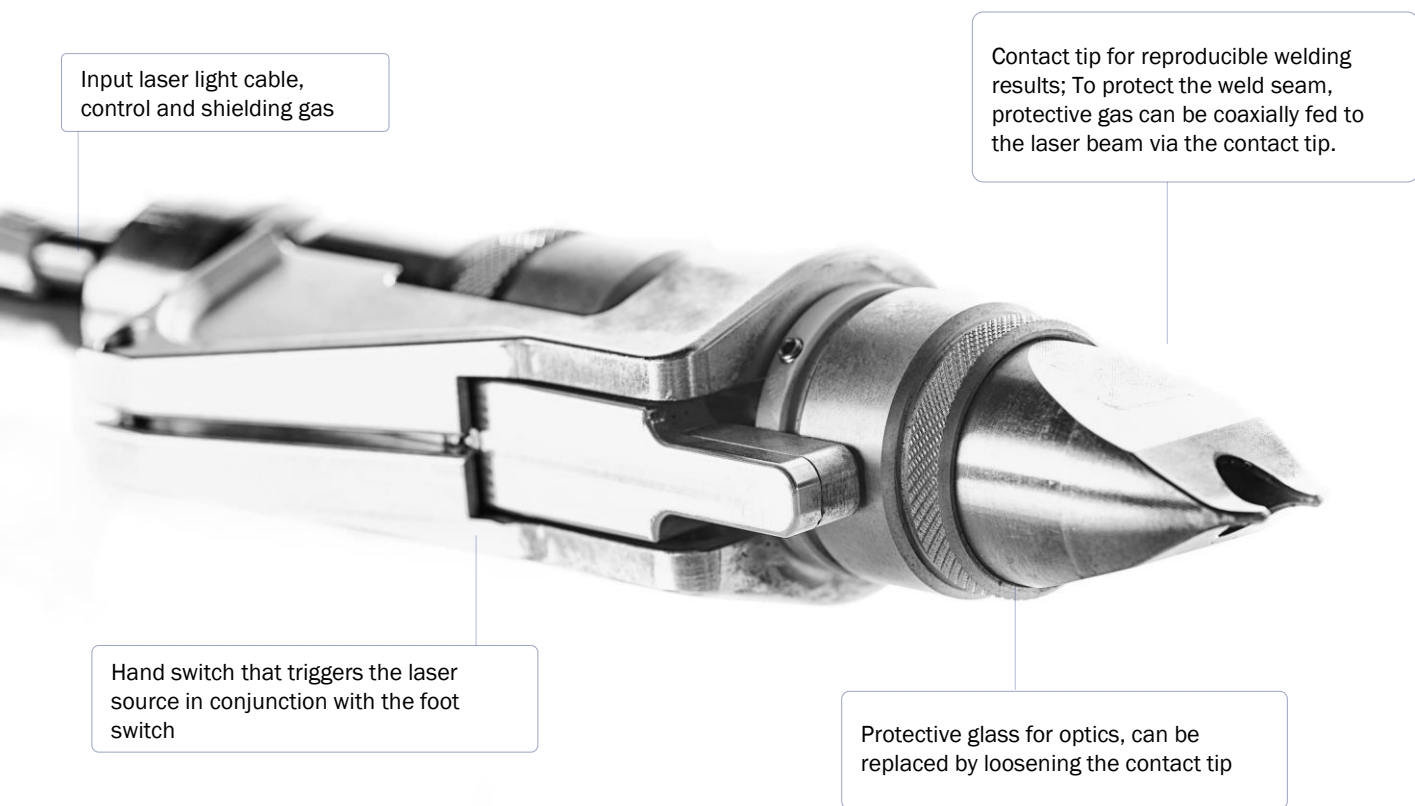
www.bluelasertools.de

COMPONENTS OF

The Hand-held Laser Welding System

The team at Blue Lasertools GmbH has been developing and manufacturing hand-held laser welding devices for more than 10 years. With the PenWelder we are now able to introduce an innovative tool for welding fine and thin sheets with a maximum welding penetration depth of 1.5 mm, compatible with laser sources of TRUMPF, IPG, Coherent and SBI.

>> Laser-Pen



>> Lasersource

The PenWelder can be attached to common solid-state laser sources of existing laser welding systems and thus operated immediately without investment in a new laser source.



>> Control In 2 versions

The safety-related connection between laser source and PenWelder is established using the error-proof Siemens control S7 1200. (Review via PROFIsafe protocol) The control unit can be provided with an optional program selection switch, which provides the operator with 4 preset welding programs.



PenWelder control

>> Laserlightcable

The laser light cable establishes the optical connection between the laser source and the PenWelder. (Cross-section 400/600µm) Depending on the manufacturer of the laser source, laser light cables with plug type LLK-A, LLK-D (TRUMPF) or plug type QBH (SPI, IPG or Coherent) can be used. More plug types on request.



Laserlightcable

>> Safety foot switch

At the control, the foot switch and the PenWelder are connected electrically. Additionally the valve for switching the shielding gas supply is integrated in the control box.



Safety Foot Switch



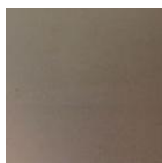
Stumpfnahht Schweißen

Short Ramp-Up Time, Impressive Results

With the PenWelder, high welding seam qualities can also be achieved by untrained workers after only a short training period. All sheet processing companies that have already automated their welding processes and want to operate their process more economically, or those that still want to weld manually (MIG/MAG, WIG) and enter the laser technology at low cost, will find the Ideal solution in the PenWelder. And this system is once again demonstrating its versatility when it comes to materials.



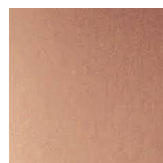
Stainless steel



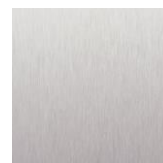
Mild steel



Titanium



Copper



Aluminum

3

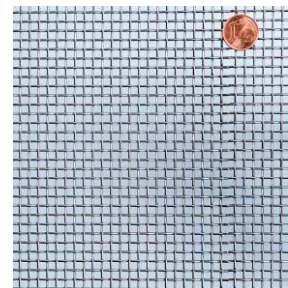
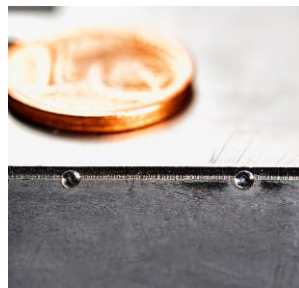
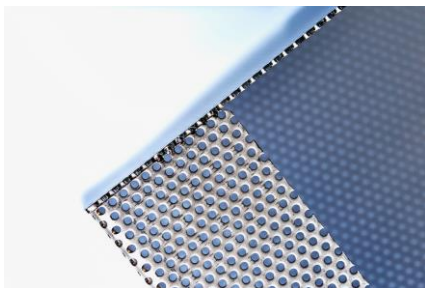
Applications

SPOT WELDING FINE WELDING PART STITCHING



What is special about our laser hand welding system lies in its flexibility and versatility in the application. Whether our customers are welding laser pins, welding entire seams or setting only scattered welding points, the contact tips developed for the specific use case always give you a qualitatively reproducible result.

Advantages of Laser Welding



- Ultimate precision
- Capable of creating complicated joins also with dissimilar materials
- Low heat application, less distortion of components
- Consistent and repeatable welds
- High strength welds





BILDBESCHREIBUNG

More Efficiency. With Safety.

Laser handwelding device is subject to laser protection class 4 in operation. As a result, different measures are required on the customer side to ensure laser safety, such as the appropriate briefing of the employees, the wearing of special protective equipment and the establishment of your own laser safety area.

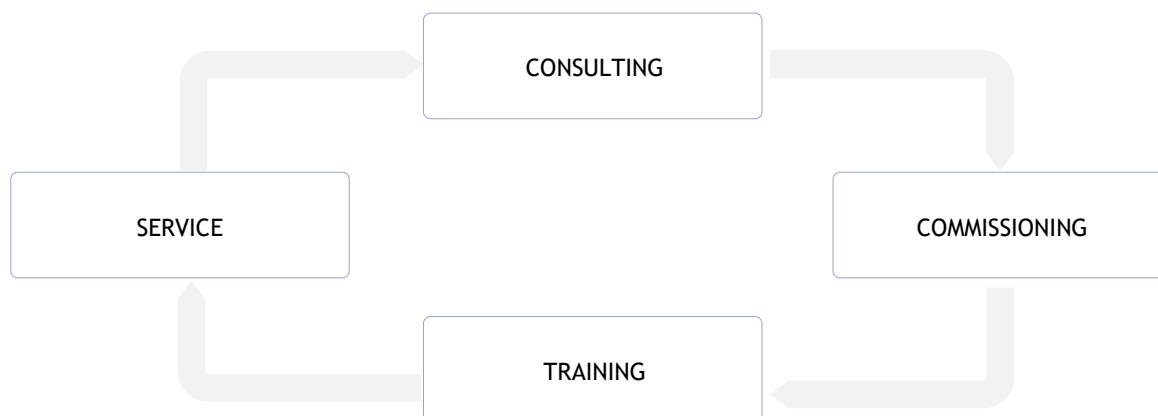


Laser Safety Goggles



Laser Safety Glove

Our services around HAND-HELD LASER WELDING



>> Workshop Laser Welding and laser-compatible Design

Well trained, you can really exploit the potential of the PenWelder. In a one-day workshop on site, we will work together to develop the possible areas of application of laser welding with the PenWelder, taking into account preparatory measures in the work processes.

>> Workshop Laser Safety

If necessary, we will provide you with a state-certified laser protection officer, who will work with you to determine the conditions for a safety-compliant operation of a laser welding system.

>> PenWelder Commissioning and Training

The commissioning of the PenWelder involves installing the system, programming the laser source to your daily welding tasks, training the worker and a basic briefing on the subject of laser protection. In order to ensure the professional handling of the PenWelder, we weld together with your workers for one day.



Dr. Ing. Matthias Busch, Founder Bluelasertools

Our reference customers are happy to provide you with information on how they successfully use the PenWelders in their companies. If desired, we establish direct contact.

CONTACT

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Test the PenWelder

for details see www.bluelasertools.de/roadshow

PenWelder ROADSHOW 2019

We come to you in person and do test welding on your components, present the functions of the PenWelder and let your workers weld with the device. Book an appointment now at www.bluelasertools.de/roadshow!

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