

Developed by goldsmiths.
The **PUK 4.1**



Developed by goldsmiths for goldsmiths, you weld - we take care of the details.

Weld on findings, easily add metal, weld adjacent to stones and pearls, weld silver (alloys), fill porosity, attach workpieces prior to soldering, weld seams, and much more - all no problem with the PUK®.



Operating concept and welding performance



- Extremely simple touchscreen operation
- Select metal - select welding situation - weld!
- Easily review the optimum setting ranges for the selected welding task
- Pre-set programs for standard metals such as gold, silver and platinum, and for common welding situations
- Fixing mode for quick tack welding
- Help and assistance functions accessible at any time

Facts that speak for themselves.

Superior welding characteristics

- Consistently reproducible high-quality welding results with all materials suitable for welding
- Precise positioning of the spot welds
- Very low, controllable development of heat
- Welding possible on even the thinnest of materials
- Welding in protective atmosphere



Simple and intuitive to operate

- Pre-sets for many groups of metals
- Help and assistance functions accessible at any time

Quality „Made in Germany“

- 3 year warranty!
- Manufactured using top quality materials and components, right down to the last detail
- Precision handpiece for precision welding
- Tested and certified product safety: GS & CE marks
- DIN CERTCO certified eye protection in the microscope lens
- Ergonomically optimised for work efficiency



Further PUK® advantages

- Maintenance-free technology
- Low initial costs, excellent price/performance ratio
- Compact size - fits into every workshop
- Welding microscope for precise welding results
- Makes repairs and soldering work faster and easier
- Very low costs of consumer materials
- Low argon consumption
- Practical system add-ons such as the pivot arm, the absorber, welding wires and more; all available to suit your individual requirements



Welding microscope

By using the welding microscope, high-quality welds can be readily produced, hence outstanding results and highest precision made possible.

LED lighting, hand rests and the possibility to adjust working height and angle, all assure optimum convenience and comfort in the work place.

The eye-protecting filter integrated into the microscope is especially designed for welding applications. It gives the user's eyes a highly dependable safeguard whilst welding. By switching automatically from its clear setting (Luminescence DIN3) to its dark setting (Obscurity DIN11), glare from the electric arc is thus prevented.



PUK 4.1 - Fine Welding Device

The PUK precision welding device is a compact and versatile TIG impulse welder with which fine and minute welds can be carried out under a welding microscope.

The operating principles and spectrum of possible applications are very close to those of laser welding. This similarity means that the exact positioning of small, stable spot-welds or welds in hard-to-get-to or deep lying positions poses no problem.

In contrast to soldering, the area of the work piece that is affected by heat is very small when working with the "PUK". So small in fact, that problem free welds adjacent to precious stones or pearls can be handled with ease.

Even the finest of welds are possible. Utilising our welding microscope, the problem free handling of pieces of work right down to 0,2 mm now becomes a reality.

The PUK 4.1 precision welding equipment puts a whole host of possible applications in the jewellery production at your fingertips. Structures made from sheet or wire elements can be just as easily done as tack welds and repairs to jewellery parts. Restoring missing parts or filling of pores by applying welding wire are only a few further examples of the PUK's versatility.

All metals or alloys which can be TIG or Laser welded, are suitable for use with the PUK. In addition to many precious metal alloys, many non-ferrous metals (e.g. copper and tin alloys, many steels, titanium and aluminium alloys, etc.).

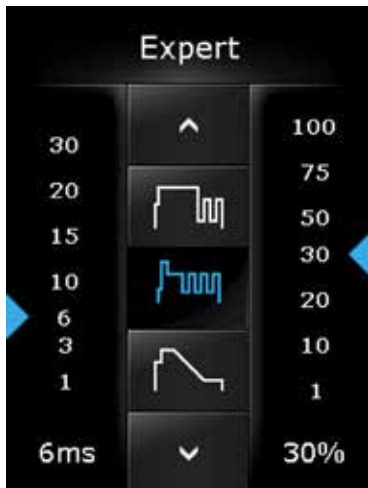
Using the additional function „tack welding“, workpieces made of suitable metals can be temporarily attached to each other.





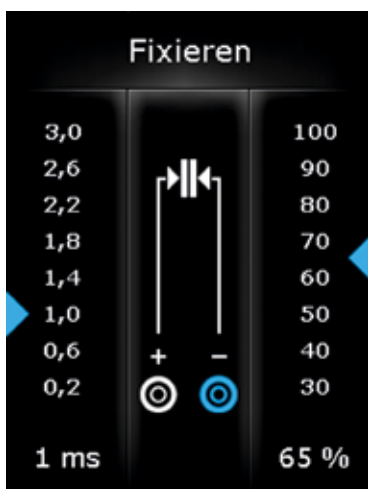
PUK® operation concept

The operation is intuitive and the correct settings can be adjusted in just two steps. In addition the setting range recommended for the selected welding situation is highlighted in blue. The default settings are actuated via the clear and simple touch display. First, the alloy is selected. Then the current welding geometry is selected: Thick or thin material, application of welding wire, welding in angular situations or very fine filigree constructions.



Expert mode

The expert menu for the welding professional allows adaptation to suit individual needs. Welding power and time can be combined in the expert menu with a variety of welding curves.



Tack welding mode

A very simple method to fix or attach workpieces.

Using this process, two metal parts are bonded together at their contact point using resistance welding. The parts are „stuck” together so that they can then be finally attached using PUK welding or so that they can then be soldered.



System accessories

The PUK® flow regulator

An important prerequisite for dependable welding results is the correct flow rate of Argon gas. The PUK flow regulator enables the exact setting of the recommended 2 litres per minute flow rate. It's precise and it's easy but above all, it's reliable!



The microscope pivot arm

Greater flexibility at the workplace. More space for welding with very large objects. Improved use of space in cases of limited availability. Particularly ergonomic working due to the microscope head's height, incline and lateral adjustment facility.



Technical Data: PUK 4.1

Power output (TIG) min./max.	9 - 400 A
Impulse length (TIG) min./max.	0,5 - 34 ms
Power output (Tack welding) min./max.	80 -600 A
Impulse length (Tack welding) min./max.	0,2 - 6 ms
Welding speed	up to 1,5 Hz
Automatic gas-pre-flow time	+
Gas consumption	ca. 2 l/min
Shielding Gas	Argon > 99,9 %
Current consumption „maintaining mode“	6 W
Program memory	30 x
Item number (PUK 4.1 incl. Microscope SM04)	441 010



Technical Data: Microscope SM04

Magnification	10 x
Field of vision / diameter	20 mm
Operating distance	145 mm
Integrated-Automatic-LCD-Filter (Glare shield)	+
Degree of luminescence / obscurity	DIN 3 / DIN 11
UV Protection / IR Protection	> UV15 / > IR14
LED lighting	3 W





User safety comes first

The welder's eye protection systems of the PUK welding equipment have been checked and approved by DIN CERTCO for Lampert.



Accolades for design and technology

Our welding devices have been distinguished many times not only for their innovative technology but also for their design. So, our customers can be sure that they are using leading edge technology, without having to forgo an attractive design.



Device safety: Tested and certified

Safety is paramount to Lampert. All of our machines and devices are „CE“ tested and certified in accordance with the DIN standards and are additionally „GS“ certified (safety-tested). As such, our customers can depend upon the safety and reliability of our products at all times.

Quality for high demands

We place utmost importance on the highest production and quality standards; we maintain close contact with our partners and suppliers, and are aware of the reliability of our devices: Therefore, we proudly stand behind our products - Made in Germany!

Further information about our
welding equipment as well as
components and accessories
can be found on our website:
www.lampert.info



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