

The Latest Technology for Mold and Die Repair the **PUK U5**



Micro TIG welding **made easy.**

PUK U5

Incorporating the latest technology, the PUK U5 offers an easy to use solution for precision mold and die repairs. Utilizing micro TIG technology, the welder produces small, consistent spot welds that penetrate the mold surface. The welded areas are strong and can withstand the pressures and working conditions during the molding process. All heat is concentrated at the spot of the weld thereby eliminating the possibility of distortion and metal stress caused by overheating. Backed by a one year manufacturer's warranty.

Applications:

- Repairing parting lines, mold seams, and three point corners and edges
- Filling in pores and deep scratches on the mold surface
- Weld into slots, corners and ribs
- Repair slides, ejectors, and core pins
- For use on all common tool steels, stainless steels, aluminum and copper

Complete Package:

The system comes complete with microscope, LED light, electrode handpiece, sets of 0.6mm and 0.8mm electrodes, electrode sharpener, ground cables, argon gas regulator, tack resistance welder, and foot pedal.

Item# 830-0957, 110V



The PUK U5 advantage....



Save money

- Keep mold repairs in house! Stop sending out for laser and precision welding.
- Affordable alternative to a laser welder at a fraction of the cost.



Save time

- Repair your molds the same day.
- No pre-welding heat treatment required.
- Welds quickly: 1 spot weld every 0.8 seconds!
- Small spot welds polish out quickly.



Easy to use

- Ready to use with pre-programmed presets for most common applications. Takes the calculations and guess work out.
- Extremely accurate weld placement. Sharp electrode tip touches the exact location of weld spot.



Mobility

- Take the U5 welder to the press for repair!
- Magnetic microscope attaches directly to mold while still in the press!



Minimal heat

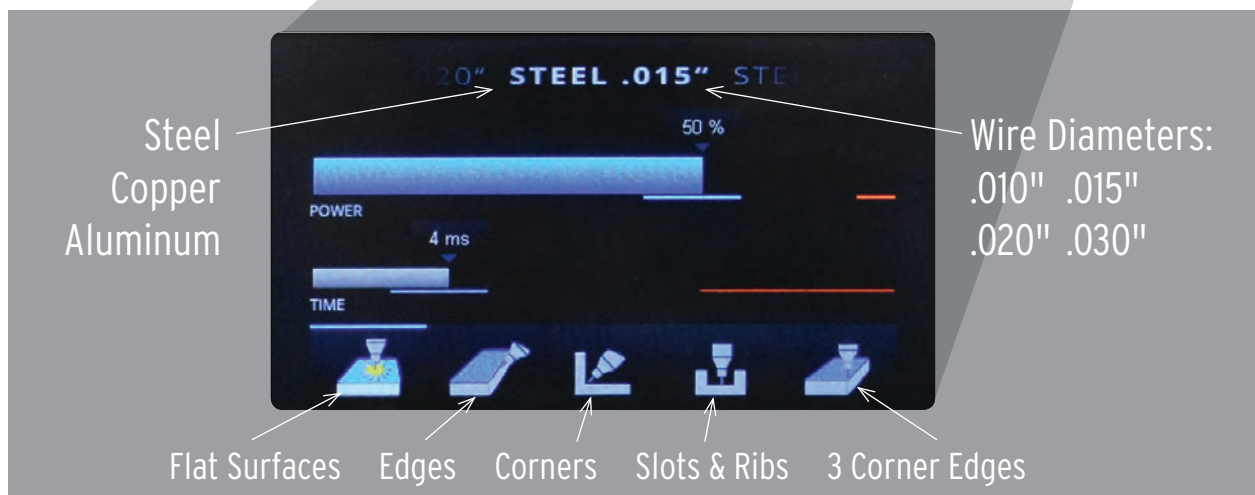
- Prevents damaged caused by overheating of mold, thus increasing life of the tool.
- All heat is concentrated only at the spot of the weld.



Pre-programmed and ready to use... for Steel, Aluminum, and Copper

Take the guess work out! Simply select the pre-program for your mold repair application and start welding! Each pre-program is set to the optimal weld pulse and time lapse for the specified mold repair application. Or if you prefer, manually override the pre-programmed settings to dial in your preferred setting.

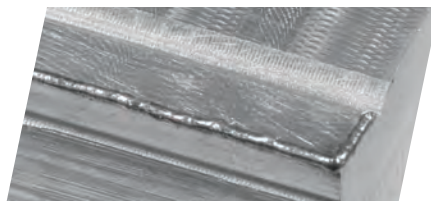
Select with Touch Screen



Steel



Aluminum



Copper



The Microscope...

Maximize Mobility

Weld anywhere on any type of mold large OR small! The adjustable and magnetic microscope base affixes to any metal surface. The microscope arm is extremely flexible to allow for comfortable welding on almost any mold surface. Keep the microscope at your bench or take it to the mold for a quick in-press repair. The 10X microscope comes complete with integrated LED lighting for proper illumination of the welding surface. A protective eye shutter built into the microscope provides protection for eyes. Field of view 20mm.



Microscope can connect directly to your mold base.



Replacement Parts & Accessories

Argon Gas Regulator 830-1516

The PUK flow regulator enables the exact setting of the recommended 2 liters per minute flow rate. It's precise and easy but above all, it's reliable! The argon gas allows for clean, oxidation free welds.



Agron Screw Nut 830-1521

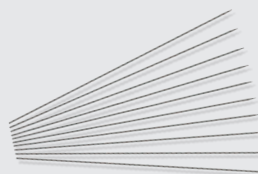


Electrode Collets 0.6mm Collet – 830-0931, 0.8mm Collet – 830-0933



Electrode Sets 0.6mm electrode – 830-1499, 0.8mm electrode – 830-0934

10 pre-sharpened electrodes for immediate use. The thin electrode increases precision by touching the exact spot of weld. Just prior to weld, the electrode pulls back into the handpiece allowing for a clean and precise weld spot.



Handpiece Cap 830-1524



Handpiece Nut 830-1523



Electrode Sharpener 830-1528

For simple and rapid sharpening of PUK electrodes. The diamond disc rotates when the button is pressed allowing for quick and convenient electrode sharpening. The unit plugs into the back of the machine.

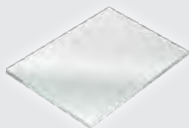


Electrode Sharpener Diamond Wheel 830-1531

Replacement diamond wheel for Electrode Sharpener. See video on gesswein.com for instructions.



Microscope Glass 830-0966



Microscope Rubber Eye Flaps 830-1512



Pin Vise, Double Ended 820-4650

Wire holder capacity: 0"-0.099"



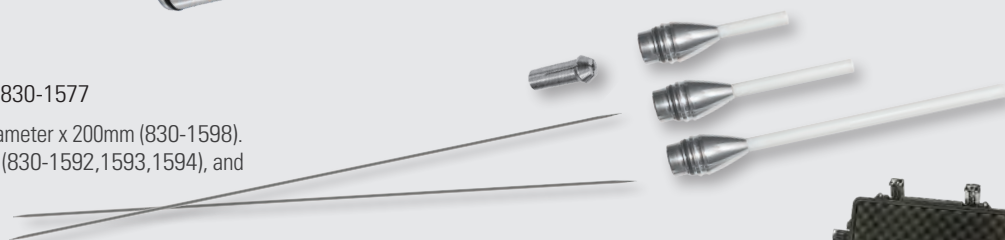
PUK Wire Holder 830-2500

Wire holder capacity: 0.004"-0.025"



PUK Longer Electrodes Kit 830-1577

Kit includes: Extended Electrode Pair, 1.0 Diameter x 200mm (830-1598). three Long Ceramic Tips, 30, 50 and 100mm (830-1592, 1593, 1594), and 1.0mm Collet (830-1503)



PUK U5 Transport Case 830-1558

The durable and functional Transport Case makes moving the PUK U5 convenient. Whether you are carting between molds or between buildings the PUK U5 will be safe and secure. It also works well for stowing your PUK U5 when not in use.



PUK U5 Microscope 830-1599

Now available as a separate item. This high end 10X scope comes with internal shutter eye protection, magnetic base and LED illumination. The multi-adjustable joints enable ease of positioning and user comfort.

Microscope Splitter 830-1555

Use the microscope Splitter to connect the PUK U5 microscope to PUK U4 welder.

PUK U5 Extension Package 830-0939

Extend the reach of your PUK U5 with the PUK U5 Extension Package! For some large molds and in-press repairs, a few extra feet of reach may be necessary. This package includes an extended handpiece, extended magnet ground, and microscope extension cables. The extended handpiece measures approx. 8' (2.5m) compared to the 4' handpiece included with the PUK U5. The extended magnet cable measures 8' in length. The microscope extension cables add on an additional 6.5' in length to the standard PUK microscope, thus totaling 12.5' in overall length.



Welding Wire

Sold in packages of 25.

| Dimensions | Material | Item# |
|------------|----------|----------|
| – STEEL – | | |
| .015"x18" | D-2 | 830-2540 |
| .015"x18" | SS-304 | 830-2504 |
| .015"x18" | SS-308 | 830-2514 |
| .015"x18" | SS-316 | 830-2544 |
| .015"x18" | SS-410M | 830-2554 |
| .005"x9" | SS-420 | 830-2561 |
| .007"x9" | SS-420 | 830-2562 |
| .010"x18" | SS-420 | 830-2563 |
| .015"x18" | SS-420 | 830-2564 |
| .020"x18" | SS-420 | 830-2565 |
| .025"x18" | SS-420 | 830-2566 |
| .030"x18" | SS-420 | 830-2567 |
| .005"x9" | P-20M | 830-2591 |
| .007"x9" | P-20M | 830-2592 |
| .010"x18" | P-20M | 830-2593 |
| .015"x18" | P-20M | 830-2594 |
| .020"x18" | P-20M | 830-2595 |
| .025"x18" | P-20M | 830-2596 |
| .030"x18" | P-20M | 830-2597 |
| .005"x9" | P-20 | 830-2601 |
| .007"x9" | P-20 | 830-2602 |
| .010"x18" | P-20 | 830-2603 |
| .015"x18" | P-20 | 830-2604 |
| .020"x18" | P-20 | 830-2605 |
| .025"x18" | P-20 | 830-2606 |

| Dimensions | Material | Item# |
|------------|----------|----------|
| .030"x18" | P-20 | 830-2607 |
| .005"x9" | H-13 | 830-2611 |
| .010"x18" | H-13 | 830-2613 |
| .015"x18" | H-13 | 830-2614 |
| .020"x18" | H-13 | 830-2615 |
| .025"x18" | H-13 | 830-2616 |
| .030"x18" | H-13 | 830-2617 |
| .005"x9" | H-13M | 830-2621 |
| .010"x18" | H-13M | 830-2623 |
| .015"x18" | H-13M | 830-2624 |
| .020"x18" | H-13M | 830-2625 |
| .030"x18" | H-13M | 830-2627 |
| .005"x9" | A-2 | 830-2631 |
| .010"x18" | A-2 | 830-2633 |
| .015"x18" | A-2 | 830-2634 |
| .020"x18" | A-2 | 830-2635 |
| .030"x18" | A-2 | 830-2637 |
| .010"x18" | M-2 | 830-2643 |
| .015"x18" | M-2 | 830-2644 |
| .020"x18" | M-2 | 830-2645 |
| .030"x18" | M-2 | 830-2647 |
| .010"x18" | S-7 | 830-2653 |
| .015"x18" | S-7 | 830-2654 |
| .020"x18" | S-7 | 830-2655 |
| .025"x18" | S-7 | 830-2656 |
| .030"x18" | S-7 | 830-2657 |

| Dimensions | Material | Item# |
|--------------|----------|----------|
| – COPPER – | | |
| .005"x9" | BeCu | 830-2661 |
| .007"x9" | BeCu | 830-2662 |
| .010"x18" | BeCu | 830-2663 |
| .015"x18" | BeCu | 830-2664 |
| .020"x18" | BeCu | 830-2665 |
| .025"x18" | BeCu | 830-2666 |
| .030"x18" | BeCu | 830-2667 |
| – ALUMINUM – | | |
| .010"x18" | 7075 | 830-2763 |
| .015"x18" | 7075 | 830-2764 |
| .020"x18" | 7075 | 830-2765 |
| .030"x18" | 7075 | 830-2767 |
| .015"x18" | QC-10 | 830-2774 |
| .020"x18" | QC-10 | 830-2775 |
| .030"x18" | QC-10 | 830-2777 |
| .015"x18" | 4043 | 830-2734 |
| .020"x18" | 4043 | 830-2735 |
| .015"x18" | 5356 | 830-2684 |



See videos at www.gesswein.com



Technical Data: PUK U5

| | |
|---|----------------|
| Power output (TIG) min./max. | 4 - 630 A |
| Impulse length (TIG) min./max. | 0.5 - 34 ms |
| Power output (Tack welding) min./max. | 80 - 850 A |
| Impulse length (Tack welding) min./max. | 0.2ms - 3ms |
| Welding speed – Setting #1 | 0.9-1.7 sec |
| Setting #2 | 0.7-1.5 sec |
| Automatic gas-pre-flow time | + |
| Gas consumption | ca. 2 l / min |
| Shielding Gas | Argon > 99.9 % |
| Current consumption "maintaining mode" | 10 W |
| Program memory | 20 x |
| Item number (110V) | 830-0957 |
| (220V) | 830-0958 |

Technical Data: Microscope USM M&D

| | |
|--|-----------------|
| 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 | > UV11 / > IR11 |
| LED lighting | 3 W |

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email: sales@pcs-company.com
www.pcs-company.com

