

The ones with the piggy bank



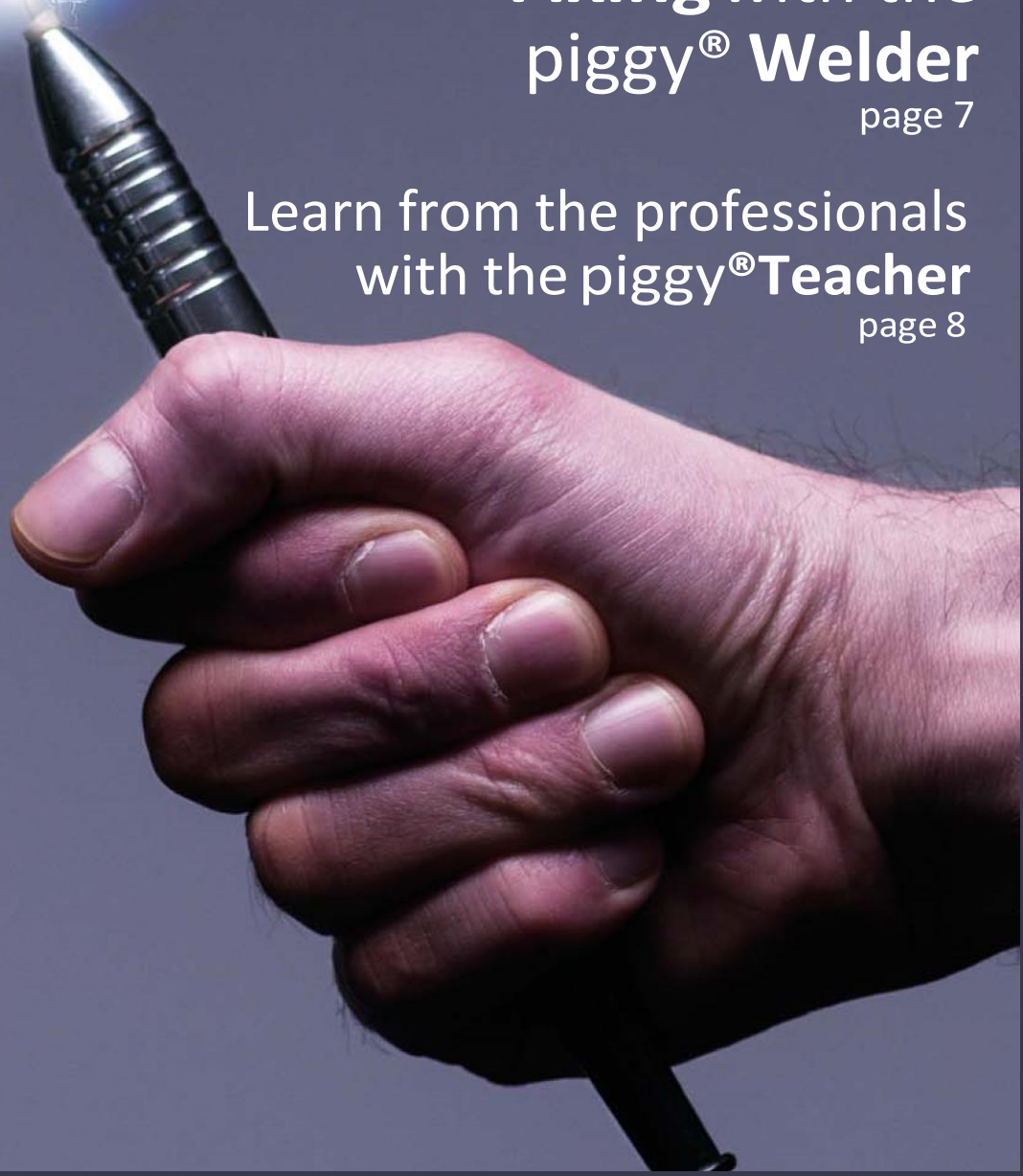
New: piggyWelder[®] 3 power

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piggyWelder® 3 power

the new ease of welding

That is the best piggyWelder® of all times. It was always simple to obtain with a piggyWelder® good results. Now that ensures technological progress for a completely new ease.

So simply you did never weld.

The **piggyWelder® 3 power** has a touch-screen for easy and simple adjustments..

Turn on the argon gas for maximum 2 bar, switch on the device, select the welding material (steel, aluminum or copper) and the job you want to do:

- ❖ surface (much power)
- ❖ edge (little power)
- ❖ groove (arranged welding arc)
- ❖ channel (bundled welding arc) or
- ❖ corner (small power)

On the touch screen you see 2 yellow bars, showing the values recommended for your choice. Regulate the time (in milliseconds) or the power (in %) and start welding.

You will have good results within a few minutes.





The very light hand piece with the thin, highly flexible cable fits well in your hand.

3 electrodes are available: Ø 0.6, 0.8 and 1.0 mm

Now select the right wire und start welding:

You touch with the electrode exactly the place where you would like to weld. (very accurate)

- ❖ the control unit „asks“ the hand piece: „Everything right ?“
- ❖ if no, you hear a beep.
- ❖ if everything is correct, the handpiece starts the welding process.
- ❖ the electrode is pulled by an electromagnetic valve into the hand piece.
- ❖ the microscope is closed for some milliseconds.
- ❖ parallel the welding arc appears and the first welding dot is done.
- ❖ the microscope opens again.
- ❖ you continue with the next dot.



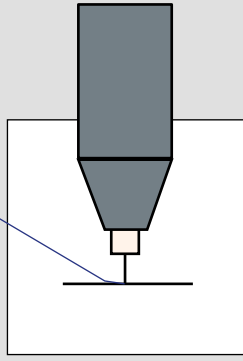
Settings

In the menu you can configure the piggyWelder® according to your desires.

You can change the light intensity of the LED lamp in the microscope, choose between 6 different languages, accelerate the welding frequency, deactivate the audio signal, test the filter and the gas flow etc.

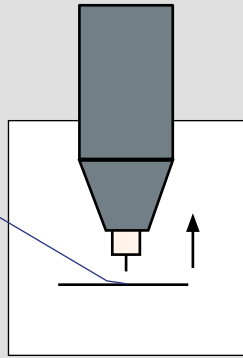
Besides you can activate further menus:

- ❖ the program memory, in order to store your own welding parameter
- ❖ the expert menu for advanced beginners
- ❖ the fixing menu, if you like to fix a wire or a metal foil



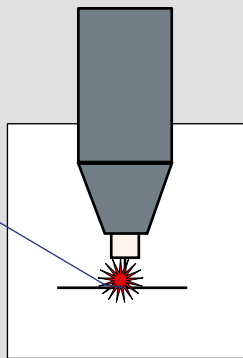
1.

You touch with the thin electrode (e.g. Ø 0.6 mm) exactly the place, where you want to weld.
The welding process starts.



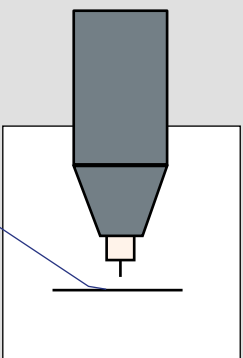
2.

A solenoid system pulls the electrode back in the handpiece.



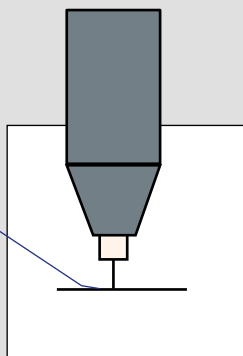
3.

The arc ignites.



4.

The 1. spot is welded.



5. - n

Position the electrode again, and the process starts again.

On the left you see the sequence of welding with a **piggyWelder®**.

Imagine you see everything under a **microscope** with 10 x magnification and you get an idea, how **precise** that is.

So that you can convince yourselves that welding with the **piggyWelder® 3 power is really simple**, we produced a **video** for you.



Or use the following link:

<https://youtu.be/Ojxud5pVFIQ>



You see here a **rod 0.6 mm** and an **electrode 0.6 mm**. Perfect premises for perfect results.



The microscope offers to you:

- ❖ 10 times magnification
- ❖ LED lighting
- ❖ easy adjustable hydraulic arm
- ❖ strong switching magnet
- ❖ comfortable headrest and
- ❖ transparent shield (green).

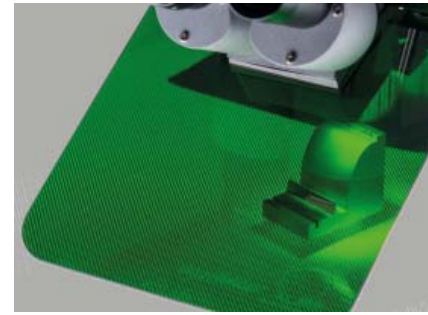
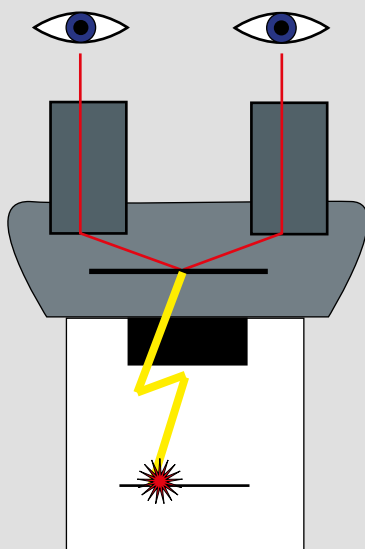
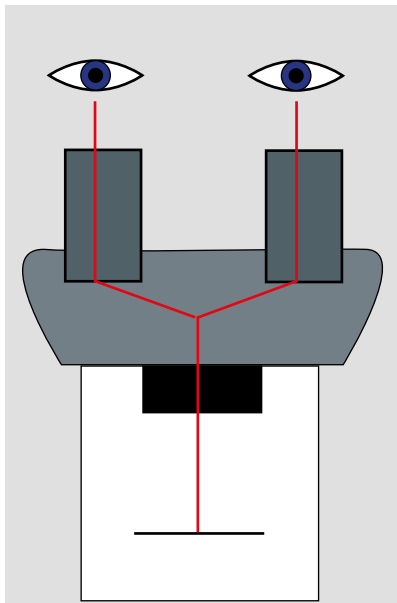
The microscope is controlled by the control unit. Thus your eyes are protected reliable.

With open microscope you see clearly and well lighted the range, within which you would like to weld. The built-in LED light illuminates the entire range evenly. In the menu you can select luminosity: 50%, 75% and 100%. Thus you avoid strong reflections when welding in highly polished surfaces.

When the welding procedure is started, the LCD view guard filter closes the path of rays for the duration of the welding time and your eyes are reliable protected. This all happens in milliseconds.

The microscope head can be positioned by the hydraulic swivel arm fast and simple. Very helpful is the switching magnet.

As an owner of a **piggyWelder®** you get an **additional benefit**. The microscope can also be used for quality control or for very exact polishing in tiny places.



A transparent shield for free view.



You can regulate the inserted LED light in 3 stages.



The hydraulic arm is adjustable into all directions.



The strong switching magnet keeps the microscope reliable at your mould.

Technical data microscope

Enlargement	+5°C to +40°C
Shining means „LED unit“	3W/800mA
Safety class system	III
Insulation class	B
Enclosure	IP 20
Weight	3.5 kg



Microscope 10x



Hand piece



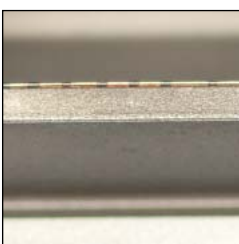
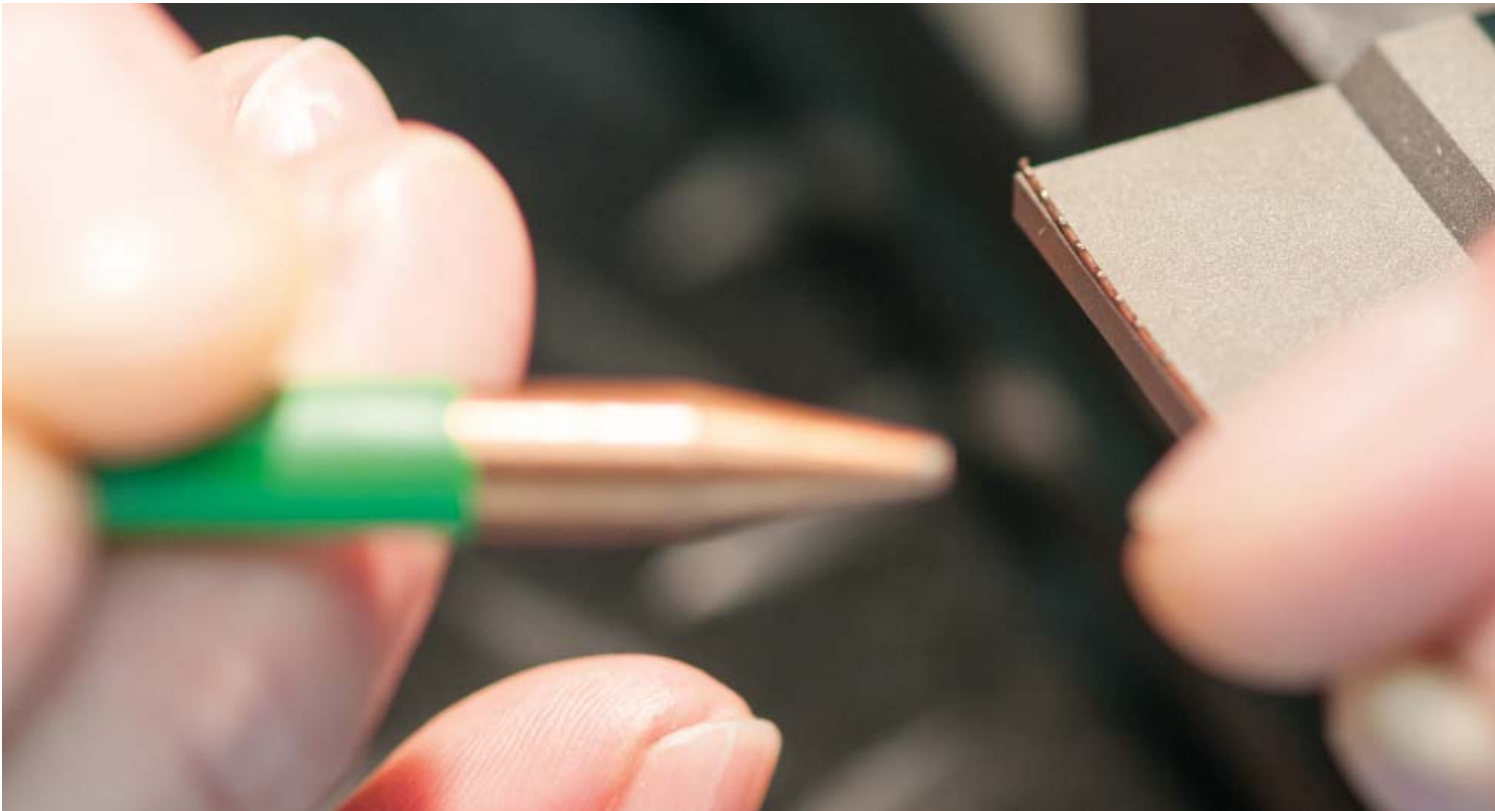
Earth cable with magnet.



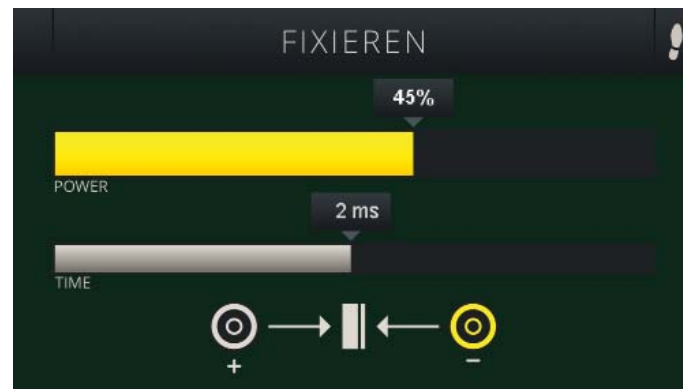
Fixing hand piece



Flowmeter



Fixing



← The symbol shows that you must work here with the foot switch.

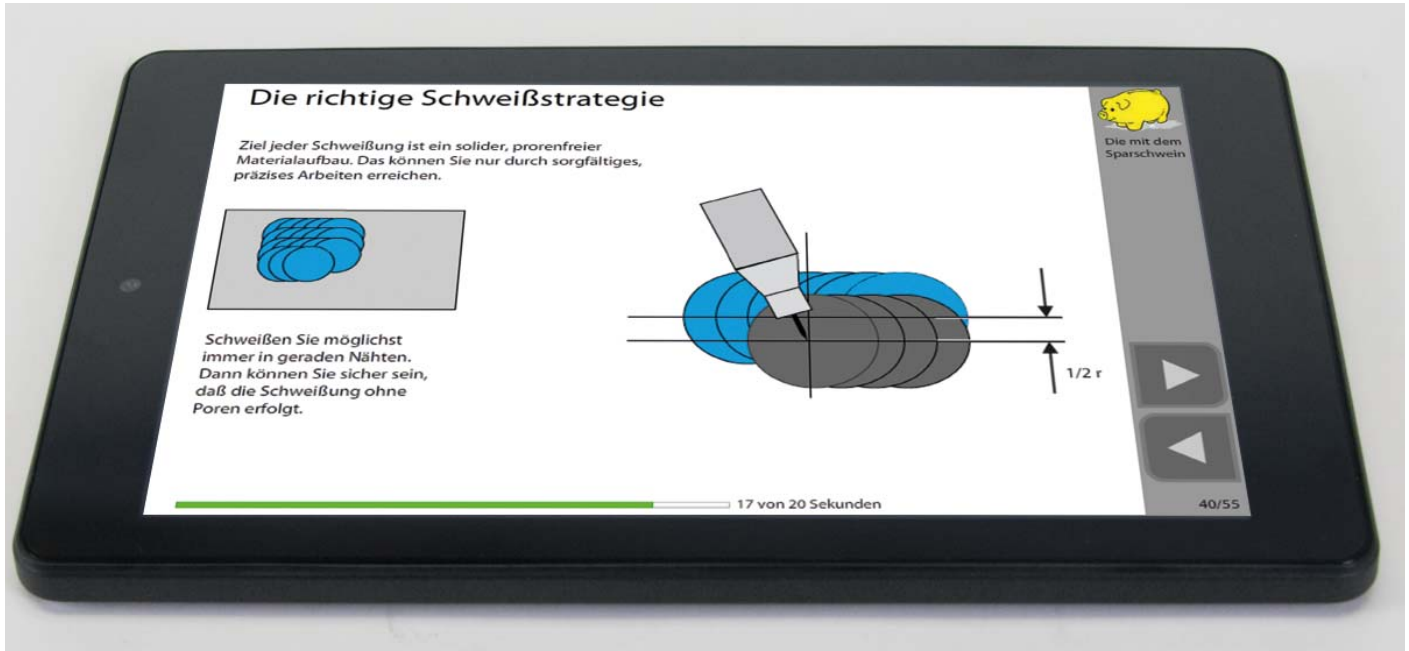
The new **piggyWelder® 3 power** has a higher output and a faster fixing frequency.

The rod is fixed by means of the green fixing hand piece. Fix it in some places and weld an extremely precise seam.

Or attach the rod as **protection** for a sensitive surfaces, e.g. a structure.

Or attach a compensating foil **undetachable**. Makes your life much more easier during assembling and naturally during disassembly.

The piggy®Teacher



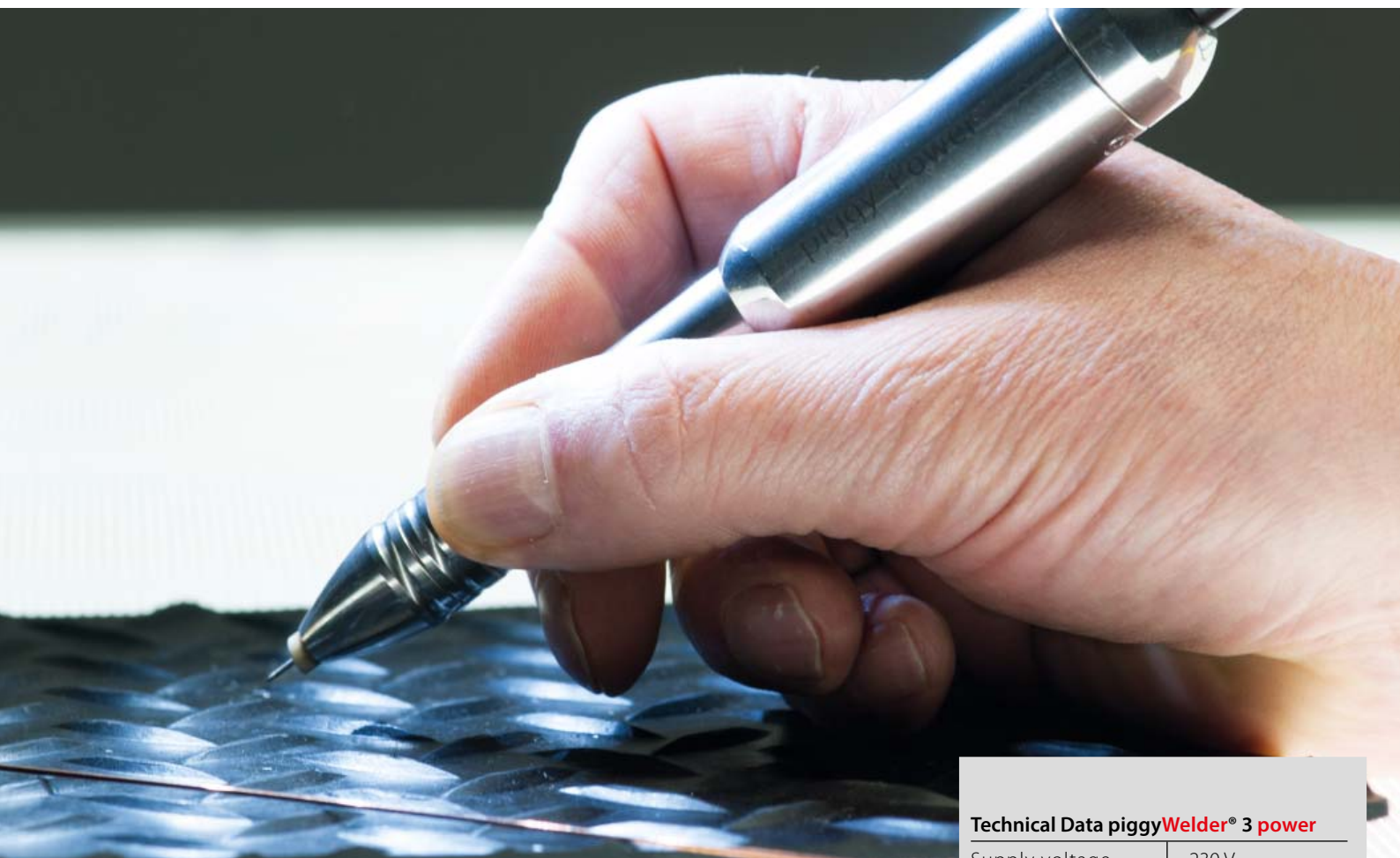
LEARN THE BASES OF THE PRECISION WELDING IN 30 MINUTES WITH THE PIGGY®TEACHER.

The more you know about the **piggyWelder® 3 power** and about precise welding, the better results you will have. Therefore we developed for you a teaching program that runs on an Android tablet. You will learn on the basis of short texts, videos, diagrams and animations how to use the **piggyWelder® 3 power** successfully. The program is full-packed with useful information around welding.

You receive with each **piggyWelder® 3 power** an Android tablet, on which the piggy®Teacher is ready to use installed. Before starting with welding, you should study with the piggyTeacher. This takes approx. 30 minutes, only.

The electrodes are ground fast, simple and accurate.





Technical Data piggyWelder® 3 power

Supply voltage	~230 V 50 ~60 Hz, +/-10%
Fuse	T 3,15 A
Power input	400 VA
Load voltage	30 - 43 V
No-load voltage	43 V
Duty cycle	80%
max. Charge time	0,8 s
Shielding gas	ARGON 4.6
Gas pressure	2 bar
Protection gas	I
Insulation class	B
Safety class	IP 21S
Dimensions LxWxH	320 x 155 x 320 mm
Weight	8,2 kg

Scope of supply:

Control unit with touch screen

Hand piece with cable 1.25 m

1 each collet Ø 0.6 and Ø 0.8 mm

Fixing hand piece

1 each fine welding ceramic nozzle Ø 3 and 4 mm

Earth cable 1,50 m with magnet

Stereo microscope 10 x magnification with electronic shutter LED lighting, hydraulic swivel arm, switchable magnet (1,200 N)

Flowmeter

Brass brush

10 each special electrodes Ø 0.6 mm and Ø 0.8 mm with 1 diamond grinding disk

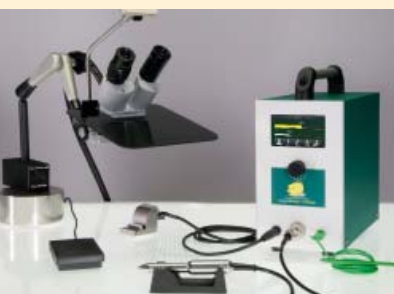
Foot switch

5 m gas hose

Green transparent protection shield.

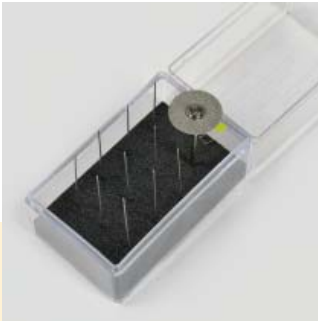
Order-No. | **€ /each**

32-8600-3



All you have to do is to obtain
 ❖ a bottle of Argon 4.6, and
 ❖ the correct fillers for your jobs.

Accessories for piggyWelder®



Electrodes 50 mm
ground on both ends,
Content = 10 pieces
+ 1 diamond wheel on shank



Fine welding nozzle
(ceramic/high-grade steel) for
hand piece



Electrode sharpening motor
complete with diamond wheel
and shank



Rack for hand piece, black



Electrodes 50 mm, single



Long welding nozzle Ø 3 mm



Collet for electrodes



Clamping nut for collets



Hand piece complete
with cable 1,25 m



Flow Meter



Holding device for hand piece
with strong magnet



Shield, green, transparent

Hand piece with long cable
for **piggyWelder® 3 power**
cable length **2,50 m**, with earth
cable and magnet 2.50 m, 2 x
extension cord for microscop-
e with color marking red and
yellow (cable length 2,00 m)



Gas hose Ø 6 mm, black,
length 3 meter



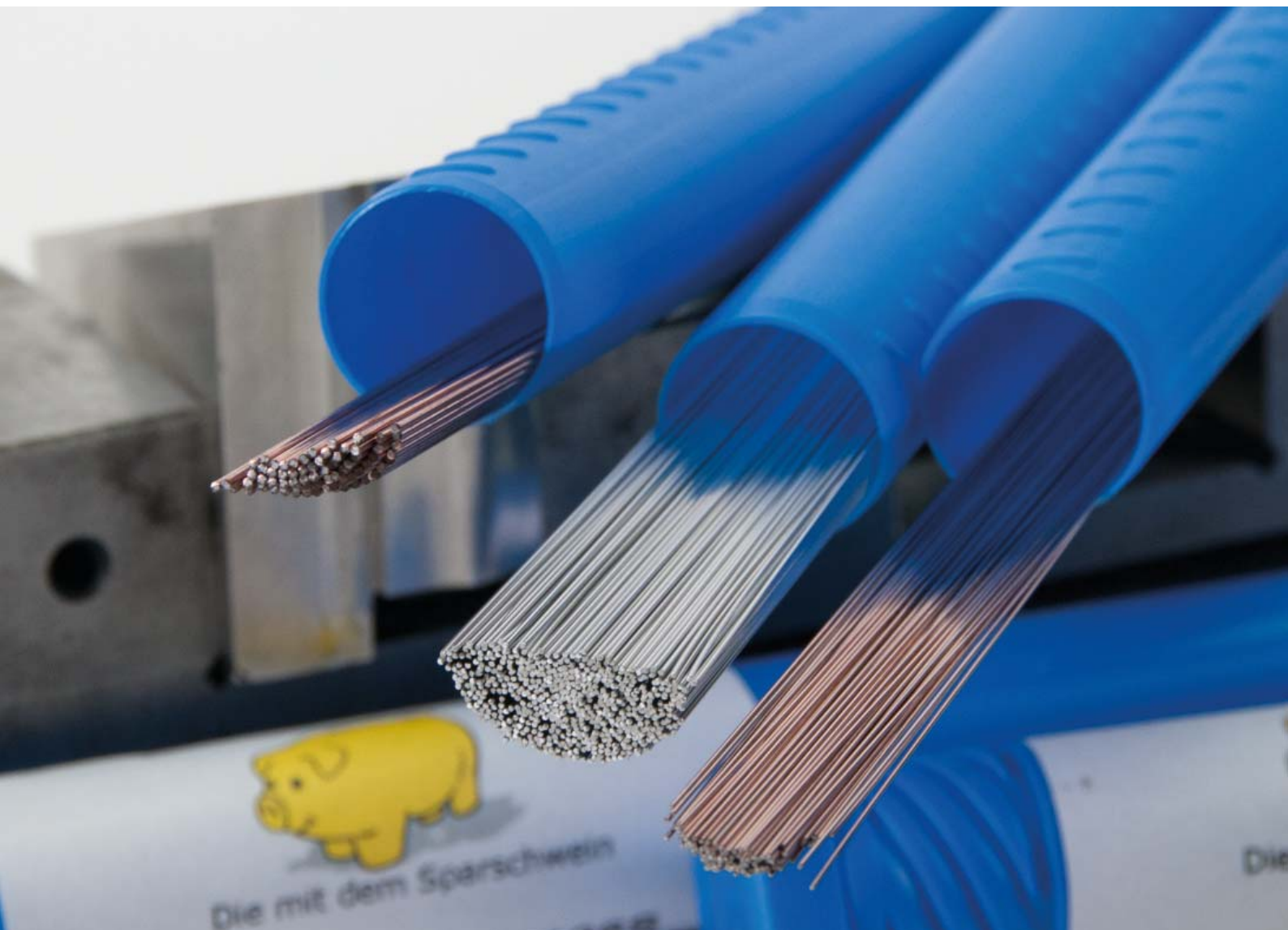
Headrest
for microscope



Laser wire holder
Fine wires can be hold better.



Vice Made of high-quality steel (20CrMnTi), hardened on 58 - 62 HRC
with a parallelism of $\pm 5 \mu\text{m}$.



The choice of the filler rod is essential for good results.

WELDING RODS

Only the right welding rods will ensure good results. You will get good results, if the composition of the welding rod corresponds to your material. Then you have both, good optical and technical surfaces.

You will find on the following pages the most common welding rods.

Our rods are 333 mm long.

Minimum weight = 100 grams.

Coils on request.

Please give us a call, if you do not find the right rod for your application.



Wires with a diameter of 0.8 mm welds the piggyWelder® without problems, with good conditions even up to 1 mm.

Welding rods for piggyWelder®

Welding rods for laser (length 333 mm)



For: 1.2311, 1.2312, 1.2162, **1.2738**

Hardness: soft **Ø** **Order-No.** **€/100 g**

Modifications and repairs to moulds made of 1.2311, 1.2312, 1.2162 and 1.2738. The welding can be eroded, structured, chrome-plated, etched, nitrated, annealed and hardened.

C	SI	Mo	Mn	Fe
0,1	0,6	0,5	1,1	Remainder

0,2	32-1002S	
0,3	32-1003S	
0,4	32-1004S	
0,5	32-1005S	
0,6	32-1006S	
0,8	32-1008S	



For: 1.2082, 1.2083, 1.2343, 1.2367-1.2606, **1.2767**

Hardness: 42 - 46 HRC **Ø** **Order-No.** **€/100 g**

The filler for highly stressed hot working tools which are simultaneously exposed to high mechanical, thermal and abrasive stresses. E.g. forges for hammers and presses, saddles, aluminium die-casting moulds, plastic moulds, hot shearing blades. Processing with tungsten carbide tools. The welding metal is annealable, nitratable, chrome-platable, CVD coatable, polishable and machinable.

C	SI	Mn	CR	Mo	Ti	Fe
0,25	0,5	0,7	5,0	4,0	0,6	Remainder

0,2	32-1302S	
0,3	32-1303S	
0,4	32-1304S	
0,5	32-1305S	
0,6	32-1306S	
0,8	32-1308S	



For: 1.2082, 1.2083, 1.2343, 1.2344, 1.2367-1.2606, **1.2767**

Hardness: 53 - 58 HRC **Ø** **Order-No.** **€/100 g**

For highly wear-resistant weldings on tools, exposed to heavy friction and pressure at high temperatures. Forging tools, roller spindles, hot deburring sections. Processing by grinding or tungsten carbide tools.

C	SI	Mn	CR	Mo	Ti	Fe
0,35	0,3	1,2	7,0	2,0	0,3	Remainder

0,2	32-2002S	
0,3	32-2003S	
0,4	32-2004S	
0,5	32-2005S	
0,6	32-2006S	
0,8	32-2008S	



For: 1.2379, **1.2436**, 1.2601

Hardness: 54 - 60 HRC **Ø** **Order-No.** **€/100 g**

Universal for build-up welding on components exposed to heavy impact and moderate abrasion stresses. Also cutting tools and contours in the automobile industry.

The welding metal is tough and fracture-proof and edge-retentive. Grindable.

C	SI	Mn	CR
0,5	3,0	0,5	9,5

0,2	32-3002S	
0,3	32-3003S	
0,4	32-3004S	
0,5	32-3005S	
0,6	32-3006S	
0,8	32-3008S	

Welding rods

for piggyWelder®

Welding rods for laser (length 333 mm)



For: 1.2082, 1.2083, 1.2311, 1.2312, **1,2343**. 1.2344, 1.2367-2606, 1.2767, 1.2842

Hardness: 53 - 58 HRc	Ø	Order-No.	€/100 g
Now there's a wire according to the „German Purity Law“ (beer drinkers will be familiar with that). Normal laser welding wires are covered with a gossamer-thin copper layer. This layer serves as protection, but results in a good few cases of discoloration in practice.	0,3	32-2103S	
	0,4	32-2104S	
	0,5	32-2105S	
	0,6	32-2106S	

This wire is untreatedly, thus clean **and thus the wire for the high polish.**

Characteristics: For high-wear-firm welds at tools, which are exposed to strong abrasion and pressure at increased temperatures, e.g. Slidegate valve surfaces, guide ways, sealing rims. Good abrasion behavior with glass-fiber reinforced plastics.

C	SI	Mn	CR	Mo	Ti	Fe
0,35	0,3	1,2	7,0	2,0	0,3	Remainder



For: 2.4060, 2.4061, **2,4066**, 2.4068

Ø	Order-No.	€/100 g
Used for build-up and connection weldings commercially available pure nickel grades, including LC nickel, nickel alloys and nickel-plated steels. Materials of this kind are primarily used in pressure vessel and apparatus construction, in the chemical industry, in the food industry and in the energy industry where good corrosion and temperature properties are required.	0,3	32-4003S
	0,4	32-4004S
	0,5	32-4005S
	0,6	32-4006S

C	Mn	Ni	Fe	Ti
0,1	3,5	55,0	Remainder	+



For: GG (grey cast iron) and **GGG** (globular grey cast iron), miscellaneous types of cast iron.

Ø	Order-No.	€/100 g
Used for build-up and connection weldings of ferritic and austenitic cast irons with spheroidal graphite in addition to mixed compounds with non-alloyed and high-alloy steel, copper and nickel alloys. Build-up weldings on grey cast iron types are possible.	0,3	32-4103S
	0,4	32-4104S
	0,5	32-4105S
	0,6	32-4106S

C	Mn	Ni	Fe	Ti
0,1	3,5	55,0	Remainder	+

Welding rods

for piggyWelder®

Welding rods for laser (length 333 mm)



For: Connections of different materials. **1.2316**

For build-up and joint welding on steels which are difficult to weld. For bufferings and connections on cold and hot working tools.

C	Si	Mn	CR	Fe
0,10	0,4	1,6	30	Remainder

Ø	Order-No.	€/100 g
0,2	32-6502S	
0,3	32-6503S	
0,4	32-6504S	
0,5	32-6505S	
0,6	32-6506S	
0,8	32-6508S	



For: Cu-Al **multi-alloy bronzes**, platings on cast and steel materials.

Hardness: 220 HB

For build-up, crack and joint welding on Ampco bronzes, e.g. cooling inserts in plastic moulds, fittings, drawing tools or aluminium-bronze-steel mixed joints.

Al	Mn	Fe	Ni	Cu
7,5	13,0	2,5	2,5	Remainder

Ø	Order-No.	€/100 g
0,3	32-8003S	
0,4	32-8004S	
0,5	32-8005S	
0,6	32-8006S	
0,8	32-8008S	



For: Cu-Al **multi-alloy bronzes**, platings on cast and steel materials, in addition to mixed joints of different materials.

Hardness: 140 HB

For connection and plate weldings on CuAl bronzes. Mixed joints of CuAl bronze with steel in addition to various different materials with one another, build-ups on tool steel or cast alloys. Platings on steel and cast iron materials. Good sliding properties, seawater-resistant and cavitation-resistant.

Al	Mn	Fe	Ni	Cu
8	2,2	2,0	2,2	Remainder

Ø	Order-No.	€/100 g
0,3	32-8103S	
0,4	32-8104S	
0,5	32-8105S	

This overview shows you only a selection of standard welding rods. Other qualities are available on request.