



JOIN US IN CREATING NEW PLASMA  
WELDING & ADDITIVE SOLUTIONS

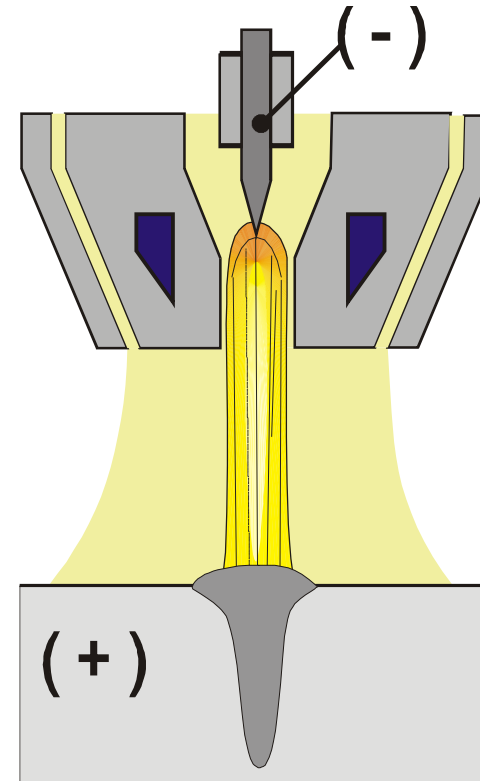


## Facts plasma welding:

- Focused, pillared arc
- Stable arc
- High speed
- Less heat-affected zone
- Less deformation
- Plasma gas for regulate the pressure on the weld pool
- Good arc striking characteristic due a pilot arc

## Distinction between:

- |                     |                   |
|---------------------|-------------------|
| • <b>PTAW Micro</b> | <b>0,2A - 50A</b> |
| • PTAW Soft         | – 450A            |
| • PTAW Keyhole      | – 450A            |



**The microplasma weld process is suitable for sheet thicknesses of 0,05-1,2mm!**

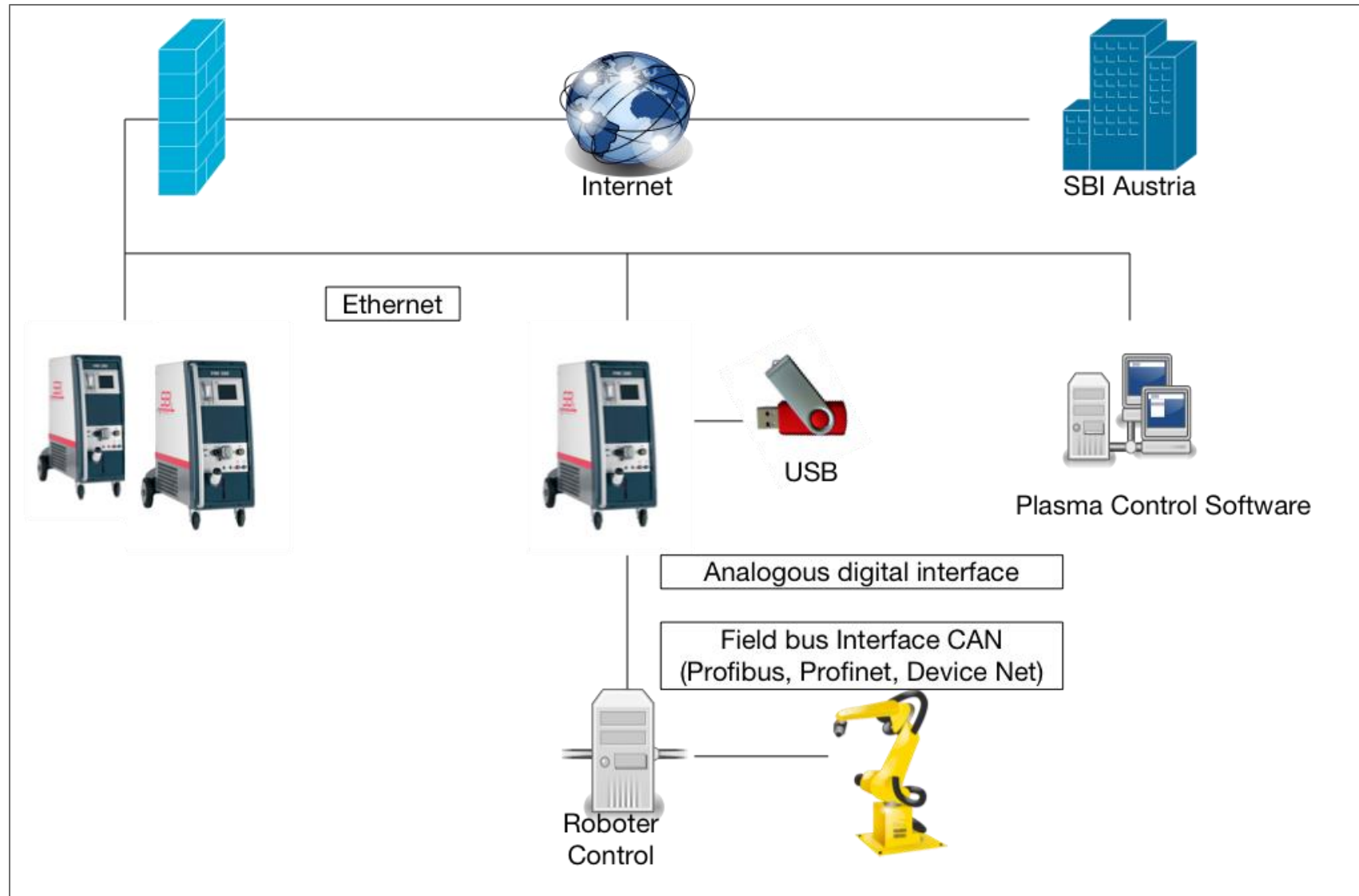
Area of Application:

- Medical Industry
- Automotive Repair
- Tool & Die Repair Industry
- Chemical Industry
- Electrical Industry
- Aerospace, Astronautic
- Measurement & Control Industry
- Watch & Jewellery Industry
- Filter Technology
- Precision Tube Industry
- Valves
- ...



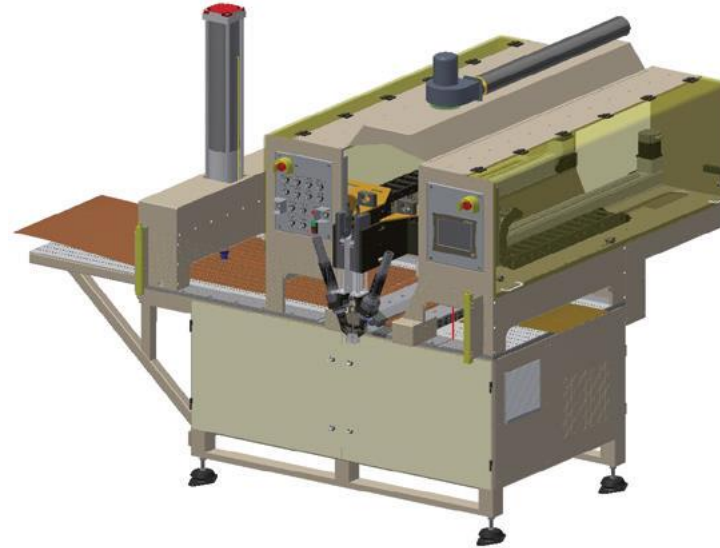
- extremely stable, accurate direction and deflectable arc
- reproducibility
  
- Touch Screen
- Parameter Storage (1000 Jobs)
- Spotwelding Mode
- TIG-Welding Mode
- USB Interface
- Ethernet Interface
- Electronic Plasma Gas Control
- Plasma Control Software (optional)
- Automation (optional)
- Foot control (optional)
- Remote control (optional)
- Wire feeding control (optional)







Robot- Applications

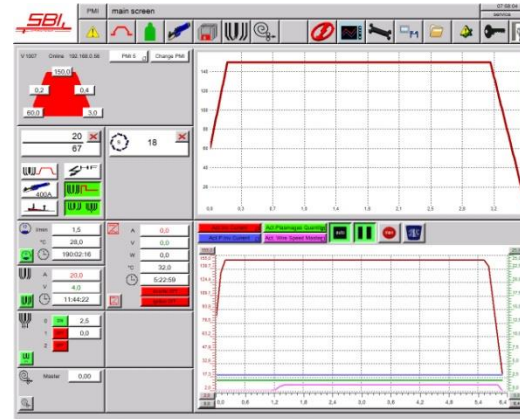


Customized Solutions

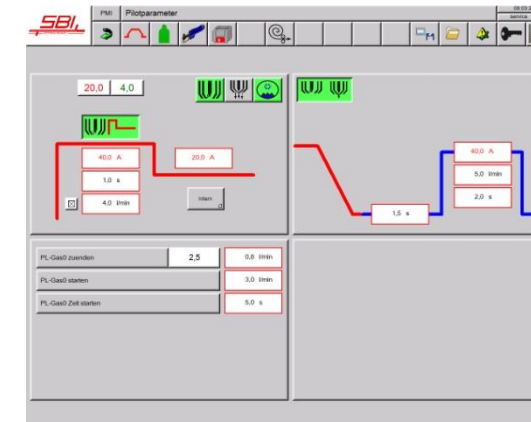


Longitudinal Seam Welding Device „SWD“

- Parameter setup
- Welding data logging and report
- Remote maintenance
- Data storage



Operator: Muehlmann	21.02.2013	19:30:01		
Part Number: 02546	Plasma Gas Type: Argon L2			
Material: 888	Shield Gas1 Type: Argon L2			
Material Thickness: 3mm x 3mm	Shield Gas2 Type: ---			
Seam Type: overlap	Shield Gas3 Type: ---			
Nozzle Diameter: 2.5mm	Mode: plasma spot welding			
Electrode Diameter: 3.2mm				
Description:				
Welding Parameter:				
Start Current: 6.0 A	P2: 1.0 x	P3: 1.0 x	P4: 0.6 x	P5: 1.0 x
Up Speed: 0.6 x	1.0 x	1.0 x	0.6 x	1.0 x
Current P1: 100.0 A	200.0 A	200.0 A	300.0 A	100.0 A
Down Speed: 1.0 x	1.0 x	0.6 x	1.0 x	0.6 x
End Current: 6.0 A				
Pulsing: 1	0	1	0	1
Pulse Time: 10.0 ms	0.0 ms	0.0 ms	0.0 ms	0.0 ms
Pause Time: 0.0 ms	0.0 ms	0.0 ms	0.0 ms	0.0 ms
Power Current: 60.0 A	0.0 A	20.0 A	0.0 A	0.0 A
Gas Parameter:			Wire Parameter:	
Plasma Gas1: 1.0 l/min	Start Delay: 0.0 s			
Shield Gas1: 1.0 l/min	Wire Speed: 1.00 m/min			
Shield Gas2: 1.0 l/min	Wire Speed Rec: 1.00 m/min			
Shield Gas3: 1.0 l/min	Wire Quantity Rev: 0.0 mm			





ABIPLAS® WELD 100 W



PHB 50





ABIPLAS® WELD 100W MT 180°



ABIPLAS® WELD 100W MT 70°



PMB 50 70°



PMB 50 180°

## Precision Tube Industry (Exhaust gas pipes)



Stainless steel 1.4301  
s= 0,2mm

# MICRO PLASMA APPLICATION

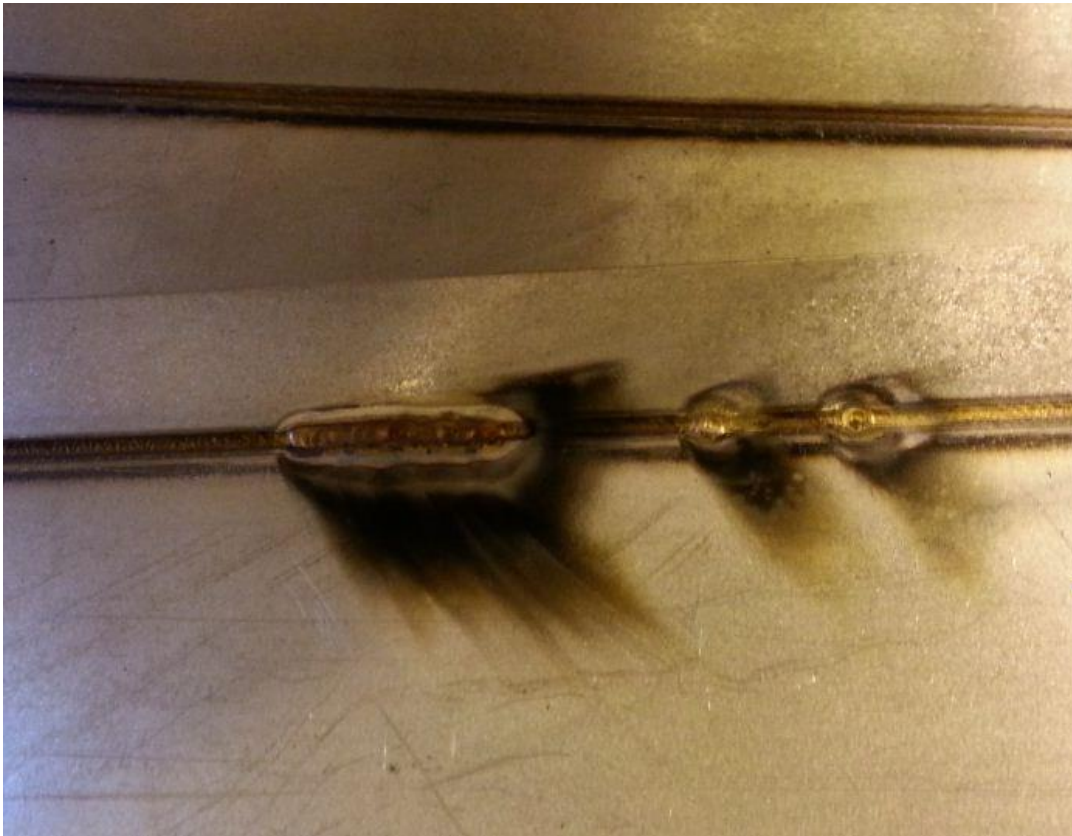
Measurement & Control Industry (temperature sensor)

Stainless steel  
S= 0,2 – 0,7mm  
Ø= 1,0 – 2,5mm

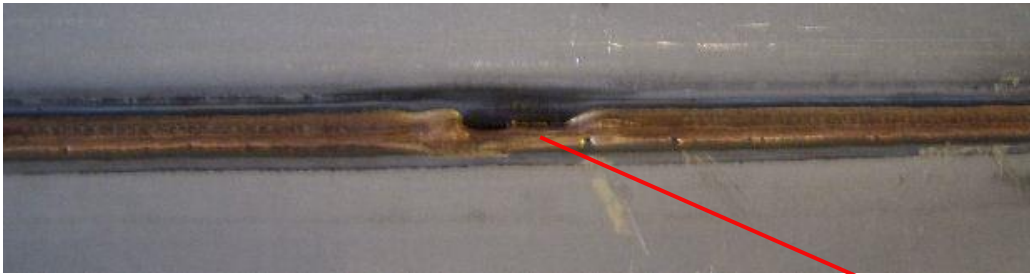
Welding areas



Repair working in the automotiv industry and truck industry



Practical example, from the defect to the endproduct



1. Welding defect from laser-brazing

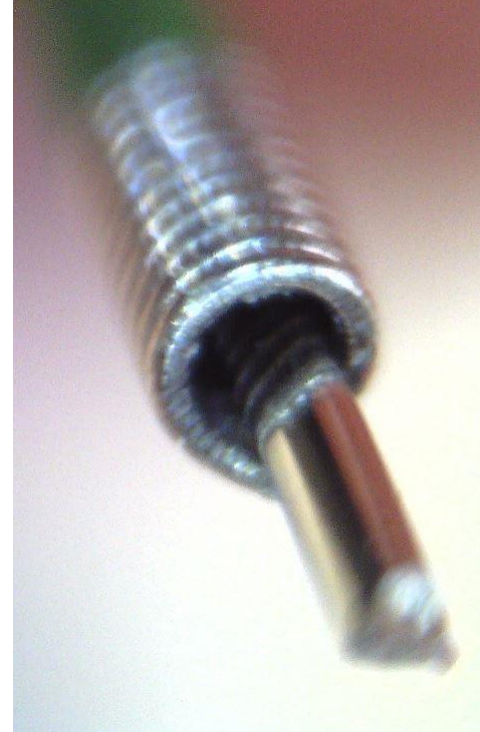


2. Repair with Micro-Plasma

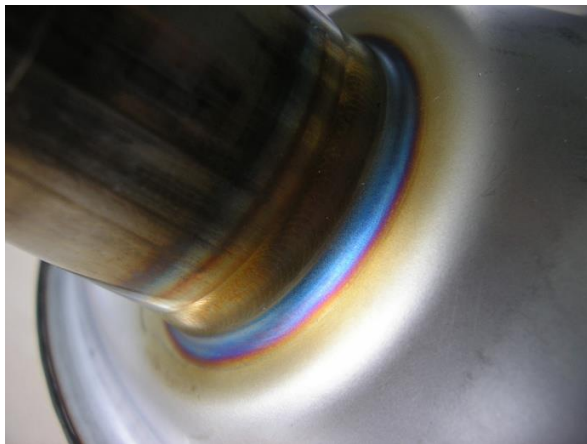


3. End result, after grinding and milling





Different parts for the automotive industry



Stainless steel, 0,6mm;  
MP-Welding



Copper, 0,15 mm;  
MP-Welding



steel, 0,5mm;  
MP-Brazing

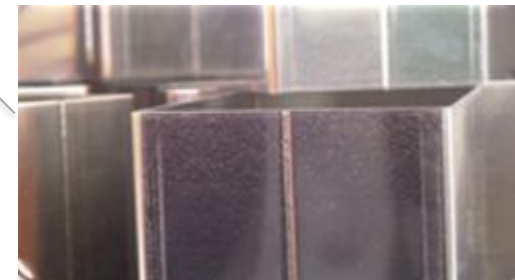
## Materials:

- Stainless steel
- Coated steels
- Carbon steels
- Titanium
- Zirconium
- Nickel materials
- ...



Titanium 0,6mm;  
MP-Welding

Steel, 0,35 mm;  
MP-Welding







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***WE DO IT PLASMA!***