

## Micro-TIG and Micro-Plasma Systems

### Micro-TIG 80 Micro-Tig Power System



#### Micro-Tig System Capability:

- Precision in Micro-TIG welding
- Ultra low current capability
- No arc wander at low amperages
- Soft TIG arc start will not damage small or delicate parts
- Reduced heat-affected zone
- Accurate, repeatable welds
- Panel programmable start current, upslope, weld current, and final weld current levels
- Manual welding ability

The Most Capable  
Low Amperage  
Welding Systems  
Available.

### Dual-Arc 80 Micro-TIG/Plasma System



#### Micro-Tig System Capability:

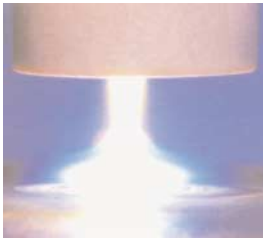
- Precision in Micro-TIG welding
- Ultra low current capability (0.1 amp)
- No arc wander at low amperages
- Soft TIG arc start will not damage small or delicate parts
- Reduced heat input thru built-in arc pulsation
- Accurate, repeatable welds
- Panel programmable start current, upslope, weld current, and final weld current levels
- Manual and Automatic welding ability

#### Micro-Plasma System Capability:

- Micro-Plasma weld process ability offers all of the benefits of the plasma welding process (see p. 2)
- No Restriction to TIG or Plasma, it offers both!
- Modular system can be purchased as a TIG system and later upgraded to include Plasma too
- Short duration weld capability of 0.01 second
- Built-in computer control option

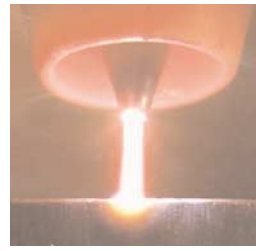
#### Other System Capabilities:

- Interface for external weld controllers
- Built-in computer control option



## TIG Welding Advantages

- Well-known and understood process
- Readily available, low cost consumable parts
- Excellent gas shielding for cleaner parts
- Electrode can be extended for improved weld joint access
- Soft TIG arc can offer benefits for specific applications
- More forgiving of part fit-up problems in certain applications



## Plasma Welding Advantages

- Protected electrode allows for more welds before electrode contamination
- Arc standoff distance not as critical as in TIG
- Gentle Arc Transfer
- Stable, stiffer arc reduces arc wander
- No high-frequency arc starting noise
- Extremely short duration welds possible for spot welding of wires, needles, and micro components.
- Higher weld speeds possible in specific applications

## Applications

Tool, mold and die repair, metal bellows, valves, metal seals, diaphragms, pressure transducers, sensors, implant devices, relay cans, capacitor cans, micro switches, batteries, motors, electronic devices, enclosures, pacemakers, explosive detonators, airbag components, air seals, tube/fitting assemblies, vacuum tubes, electrocautery tools, metal meshes, thermocouples, tube closure, surgical instruments, dental instruments, wires, aspiration needles, injection needles, surgical baskets, catheter metal capsules, guidewires, light bulb filaments, and many more.



Tool & Die



Bellows



Batteries



Solenoid



Switch



Pacemaker



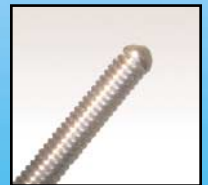
Canister



Thermocouple



Forceps



Guidewire

Free Welding Consultations. Call Pro-Fusion at (865) **671-7682**.