Quick Release Modular Projection Welding Electrode

Our patent-pending quick release modular weld heads offer significant savings over tungsten-faced projection welding heads.

Patents: CA 2,971,042 ; USSN 15/624,869

- **LESS WASTE**
- **LASTS LONGER**
- **SAVES MONEY**

IMPROVED TECHNOLOGY

- The weld face insert or 'washer' is made of industry standard Class 3 copper and has been proven to outperform tungsten copper alloys in weld quality and life, while keeping cost per weld extremely low.
- The liner is an industrial grade polymer used to insulate and guide the locating pins while resisting spatter buildup and binding

MAINTENANCE FRIENDLY

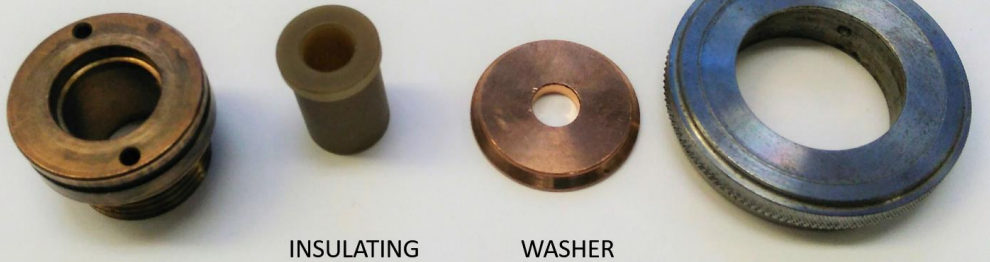
- Replaces traditional one piece heads
- Maintains a constant weld surface height
- No need to re-surface and re-position
- Compatible with all pin materials
- Standard components for rapid maintenance

REDUCE COST

- Each washer replaces one traditional style weld head, at a fraction of the cost and weight.
- Combined with lower pin costs, reduced downtime for maintenance, and an entire modular system based on standard sizes and interchangeable parts to reduce inventory, the modular head is easier, smarter, faster and cheaper.

DISASSEMBLED

The modular unit comprises 4 parts:



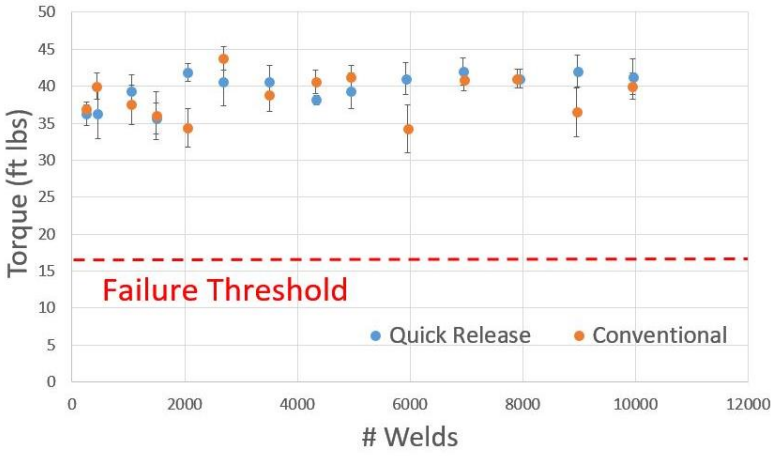
BASE UNIT | INSULATING LINER | WASHER (WELD FACE) | QUICK RELEASE NUT

> The QUICK RELEASE NUT and BASE UNIT are standard size, which makes it more efficient and easier to maintain between different projection welding applications. Standard sizes also makes them easier to replace and keep in your inventory.

> Due to its modular nature, you can easily replace the inexpensive, light, and small INSULATING LINER and WASHER when necessary. This prolongs the lifespan of the entire modular unit.

> Each unit lasts as long as a tungsten-faced electrode, when used in standard application. The QUICK RELEASE design eliminates the risk of worn thread that may occur in a regular modular weld head, which makes it last much longer and easier to maintain.

*Electrode life evaluated by torque tests **



Electrode Performance

- The Class 3 copper washers provide comparable electrode life of tungsten copper electrodes, at a fraction of cost
- The strength of the welds is similar to that made from tungsten copper electrodes
- The weld failure torque is much higher than TWI minimum failure threshold after 10,000 welds
- Smaller heat affected zone (HAZ) due to the better conductivity of Class 3 copper

*Courtesy of Centre for Advanced Materials Joining, University of Waterloo