



K-TIG 1000 EVOLVE-II

Extreme productivity Keyhole TIG welding

HOW IT WORKS

1 Creates a high-energy-density GTAW arc

Opens & manages a full penetration 'keyhole' through the joint

2

3

Fuses the parent material (with or without wire)



Simple.

No edge beveling. No gap setting. No backing bar.
No orifice. No process drift. Standard welding gas.
No cleaning, grinding or back gouging. No fusion
lines. Negligible wire, gas & power consumption.



K-TIG's mission is simple.



Create exceptional competitive advantage,
extraordinary productivity gains, dramatic
cost savings & increased margins for
our customers.

K-TIG BACKGROUND

High performance, full-penetration GTAW

Exceptional Heritage

K-TIG is a high performance TIG process developed in Australia by the CSIRO (Commonwealth Scientific & Industrial Research Organisation) and the CRC-WVS (Co-operative Research Centre for Welded Structures) and later acquired, further developed and commercialized by K-TIG.

Trusted & supported worldwide

K-TIG is trusted by the world's most productive fabricators in 20 countries, with the USA being the largest customer segment by geography.

Used widely in the ASME vessel, tank, piping, oil & gas, power generation, water treatment, renewable energy, nuclear & defence industries in addition to tube mills, spooling & a wide variety of general fabrication applications.

15 km of K-TIG Welded Pipe

K-TIG PRODUCTIVITY

Single Pass. Full Penetration. Dramatic reductions in time, wire, gas & grinding.

Extreme Productivity

K-TIG is a single-pass, full-penetration welding technology designed to help fabricators to be more productive – by an order of magnitude.

The K-TIG process is a high-speed, high-productivity variant of GTAW/TIG with 8x the penetration of GTAW, allowing it to perform x-ray quality welds in stainless steels up to 1/2 inch (12mm) thick and up to 5/8 inch (16mm) thick in reactive metals in a single pass without the need for edge beveling.

K-TIG makes welding labour exponentially more efficient while significantly increasing productivity, output, quality, consistency and repeatability.

K-TIG can be easily fitted to existing welding automation equipment or integrated into new production lines for both circumferential and longitudinal applications, in 1G and 2G welding positions.

Extraordinary Cost Savings

Relative to conventional TIG/GTAW welding, productivity gains and overall savings of more than 85% are typical.

By way of example, a conventional multi-hour TIG weld in 10 inch schedule 40 stainless steel pipe is completed in less than 4 minutes. K-TIG is a GTAW process which requires no edge beveling, dramatically reduces or eliminates wire consumption, and uses as little as 10% of the gas normally required.

K-TIG TECHNOLOGY

The world's most productive welding technology for corrosion resistant materials.

K-TIG Productivity

- Extraordinary speed and productivity.
- Up to 100x faster than conventional GTAW.
- Multi-hour TIG welds completed in minutes.
- Full penetration, single-pass GTAW welding up to 1/2 inch (12mm) in stainless steels and up to 5/8 inch (16mm) in reactive metals.
- Wire consumption reduced by 85-100%
- Gas consumption reduced by 80-95%.
- Typical overall cost savings of 85%+.
- Eliminates edge bevelling & post-weld grinding.
- Extremely high stability, consistency and repeatability.

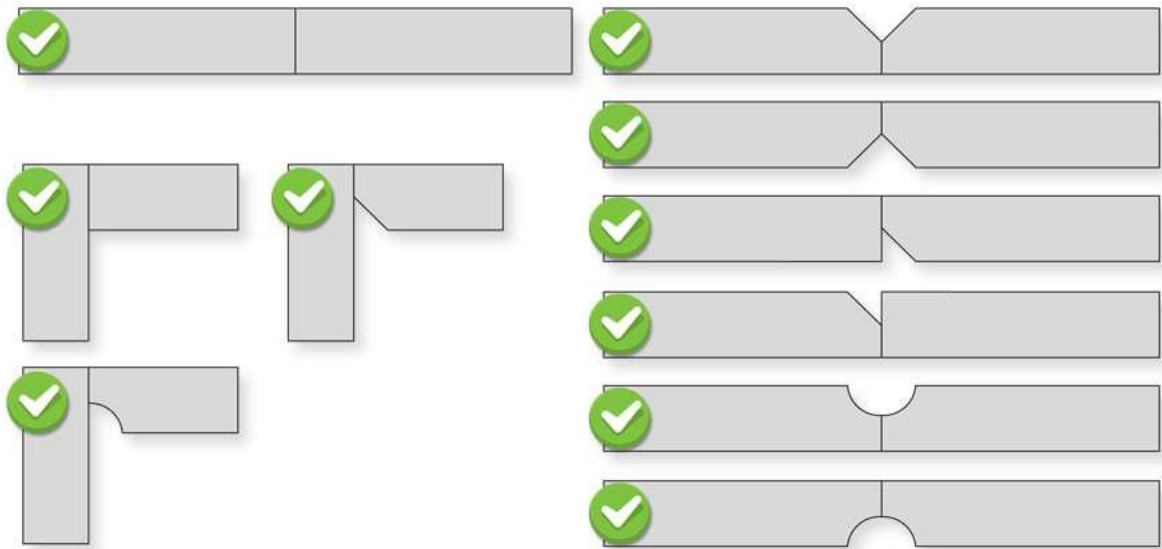


K-TIG Technology

- Simple, intuitive controls delivered via the K-TIG 1000 Evolve II 21" touch screen controller.
- System rated to 1000amps, 100% duty cycle for extreme reliability.
- Cloud-enabled software upgrades, data backups and online support.
- Built-in real-time data capture, reporting and quality management.
- Flexible, suitable for a wide variety of materials, applications & industries.

SUITABLE JOINTS

Versatile & flexible. Suitable for a wide range of applications & joint presentations



SQUARE BUTT

V PREP

U PREP

Y PREP

**SINGLE
BEVEL**

**DOUBLE V
PREP**

**INVERTED
PREPS**

**CORNER
JOINTS**

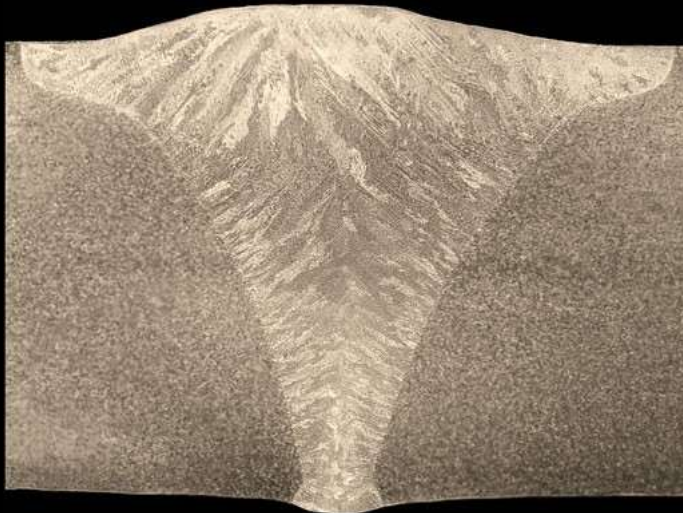
K-TIG welding can be applied to a wide range of longitudinal and circumferential applications from tanks, vessels and piping to boxes and complex geometries.

K-TIG is highly effective with both square butt and beveled joint presentations, can be welded autogenously and with wire, and can be used in both 1G and 2G welding positions.

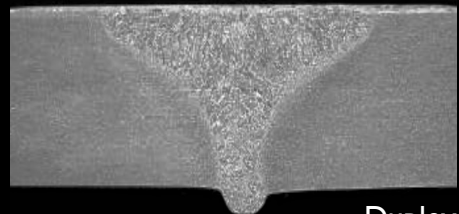
K-TIG WELD QUALITY

Extraordinary Quality

K-TIG produces highly repeatable, stable and consistent x-ray quality welds with superb cap and root aesthetics that typically require no post-weld grinding.



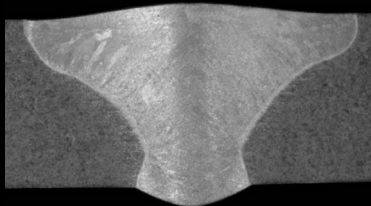
304 Stainless Steel



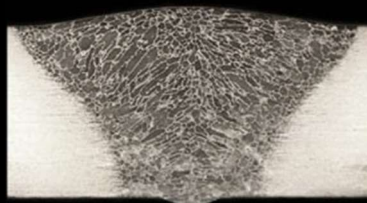
Duplex



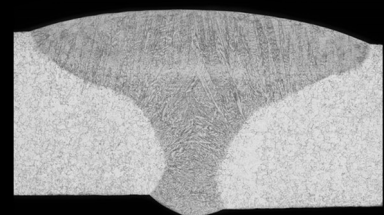
Super Duplex



Hastelloy-X



3CR12



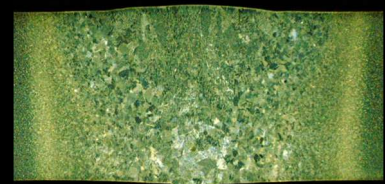
Nimonic 263



Inconel 718



Titanium



Zirconium