

In Comparison to Regular TIG

- TIP TIG's wire feed and amperage is constant and stable, allowing for the greatest control of the weld process.
- Improved weld uniformity and repeatability
- Weld wire is consistently directed to the "sweet spot" of the arc in any position.
- Reduced skill level required for all position, all alloy welding.

Values of Heat Input with TIP TIG

Joules Heat Input Formula
(Voltage x Amperage x 60 / Travel Speed IPM)

Conventional TIG Heat Input
 $13 \times 200 \times 60 / 8 = 19.500 \text{ Kj}$

Typical MIG Heat Input
 $25 \times 250 \times 60 / 16 = 23.437 \text{ Kj}$

Typical TIP TIG Heat Input
 $13 \times 250 \times 60 / 16 = 12.1875 \text{ Kj}$

The Total Benefits from TIP TIG

- Highest deposition rates for any TIG process available on the market
- No slag, No Inter pass cleaning = increased Arc on time and weld quality
- Weld fumes and appeal: Lowest possible weld fumes on all alloys with no spatter or grinding
- Lowest possible heat input of any weld process resulting in lowest HAZ and significantly reduced distortion
- Increased corrosion property retention on all corrosion resistant alloys
- Highest quality with the best Metallurgical and Mechanical properties on all alloys
- Simple to learn, Simple to Use, Simple to Teach

For more information visit our website
www.tiptigusa.com or call us at **856-312-8166**

**Distribution regions: North America,
South America, Australia**

TIP TIG | USA

The Evolution of TIG

**Simply Ingenious ...
Ingeniously Simple!**

TIP TIG | USA

155 East 9th Ave., Suite A, Runnemede, NJ 08078
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Manual Shop System



What is the TIP TIG process?

The Tip Tig process is a globally patented TIG process that combines our patented wire feed technology which creates a vibratory effect on the wire in addition to applying a hotwire current to the filler metal prior to entering the weld puddle.

- The vibratory effect is created by a linear forward/backward mechanical motion created by the custom wire feeder system
- The Hotwire current is created by a secondary power source within the Tip Tig unit.

How is the TIP TIG Process Operated?

- The TIP TIG process is operated by using a standard solid MIG wire, a conventional TIG power supply with a minimum of 350 amps with HF start and trigger hold.
- The TIP TIG process can be operated in all welding positions both manually or combined with our automated equipment such as the TIP TIG Orbital and TIP TIG Tractor & Automated Work station are voltage controlled with AVC Control.

Portable Suitcase Feeder



TIP TIG ExtremeCase Feeder

The On Site and Confined Space TIP TIG Solution

Runs on 32 Volts

Ultra Portable,
46x32x22 cm

Uses Standard 10 lb. Spools

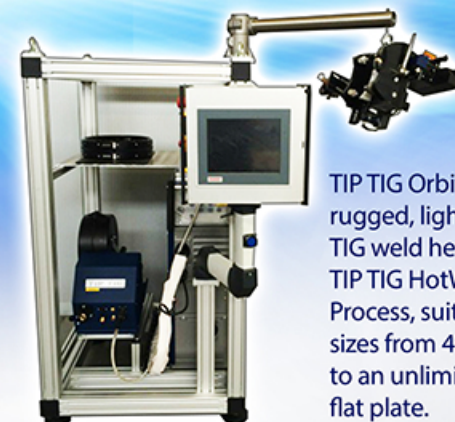
Plug and Play Connections

Works with all TIP TIG Hot Wire Torches

Remote Control

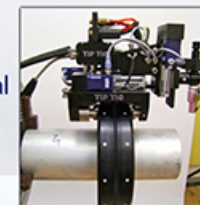
Delivers the same TIP TIG Weld Quality and Speed

TIP TIG Orbital Solutions



TIP TIG Orbital Tractor is a rugged, light weight precision TIG weld head for use with the TIP TIG HotWire Welding Process, suitable for all pipe sizes from 4" (100 mm) pipe up to an unlimited size, including flat plate.

It is primarily designed for field use in the nuclear, shipbuilding, petrochemical and construction industries where exceptional weld quality, high welding speeds and high deposition rates are a strict requirement.



TIP TIG Automated Work Cell

Welding

Cladding

AVC Control

Lowest Dilution

Beckhoff PLC

1st layer < 5% Fe

Programmable Interface

2nd layer 1% Fe at .125"

Cross-seam Steering

Layer Thickness

Torch Oscillation

25 - 30 IPM Travel Rate

5 - 6 Lb Per Hr

