



The Evolution of TIG

- TIP TIG provides optimum weld heat control and produces TIG welds with the least oxidation, distortion and the smallest possible HAZ on any welding application.
- The TIP TIG agitated weld pool provides the potential to produce the lowest possible internal weld defects, reducing weld cracking, potential stresses and porosity.
- With TIP TIG the welder has consistent control of the weld wire and the welder can use one or two hands on the torch and with TIP TIG the welder will not need a foot control.
- Manual TIP TIG delivers a weld quality that's very similar to automated Hot Wire TIG welds. Examine the manual TIP TIG weld uniformity and continuity with the videos and pictures at www.tiptigusa.com.

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TIP TIG is the logical evolution of TIG into the semi-automated and automated TIG process.



TIP TIG DESCRIPTION: The TIP TIG power source provides the hot wire current.

The unique TIP TIG wire feeder and water cooled TIG torch feeds the hot wire into the TIG arc. The TIP TIG weld arc is provided by a regular TIG power source.



TIP TIG IS A MECHANICAL SOLUTION TO TIG WELD ISSUES: In contrast to regular TIG or Hot Wire TIG, the TIP TIG wire entering the TIG weld pool is mechanically superimposed with an action from the patented wire feed motion that creates a vibration on the weld wire.

The TIP TIG wire is constantly directed to the center of the fluid weld pool, and the wire vibration agitates the weld driving the most fluid part of the weld outwards towards the cooler weld periphery. The TIP TIG mechanical weld action dramatically changes the weld surface tension and dynamics and reduces the sensitivity to the weld receiving the weld wire.



TIP TIG WELD QUALITY BENEFITS:

In contrast to the manual pulsed MIG, regular TIG or the automated Hot and Cold wire TIG processes, irrespective of the alloys welded, the patent pending TIP TIG process has the potential to consistently provide superior quality welds with improvements in mechanical and corrosion properties.



TIP TIG WELD COST BENEFITS: A great weld cost benefit to all weld shops is the TIP TIG process will deliver manual or automated

TIG welds with weld deposition rates typically 100 to 800% greater than traditional manual TIG and the automated Hot Wire TIG process.

Controlled TIG wire feed rates and unique TIG weld agitation creates a domino affect:

The increase in the TIP TIG weld fluid area reduces the weld sensitivity to both manual and automated weld wire delivery. The higher than normal TIP TIG wire feed rates enables higher TIG weld current. The higher weld current combined with the TIP TIG Hot Wire current and agitated, slower solidifying weld provides numerous weld benefits never before attained.



TIP TIG PROCESS BENEFITS

- TIP TIG is the only manual process that has the potential to consistently produce zero weld defects on any application and any alloy.
- Manual TIP TIG is 200 - 700% faster than TIG on most pipe fill passes and can be 500 - 800% faster than TIG for most fillet welds.
- In contrast to all other weld processes, TIP TIG has the potential to consistently produce the lowest possible weld defects on any application and with any alloy.
- Automated TIP TIG is typically 100 to 800% faster than many automated Hot or Cold wire applications.
- TIP TIG, one single optimum weld process for any metal, any weld, and any weld position. TIP TIG will require only 2 or 3 simple common weld settings for all global weld applications.
- On many stainless open root tank and vessel welds, with TIP TIG, no back gouging, no grinding and often no high volume purge gas is required.
- In contrast to all weld processes, TIP TIG will produce the least weld fumes and fume removal equipment on most stainless and alloy applications will not be required.

To find up to date TIP TIG information, news or to register for the next FREE TIP TIG Workshop. Visit www.tiptigusa.com For more information email: ed@tiptigusa.com or tom@tiptigusa.com or call tel: 828 658 3574.