

Pulsed TIG

Process TIG has as main characteristic the concentration of the heat of the arc and, consequently, optimum control of the puddle.

Although low productive capacity, in contrast with the MIG, process TIG allows to carry through laces of weld with excellent finishing, in all the positions and thicknesses of plates.

This characteristic of the TIG is accentuated when it is used pulsated current, that is, during the imposition of a pulse current, it has a more effective fusing of the plate and the material of addition, whereas during the imposition of the basic current, there is a cooling of the puddle, inducing itself better conditions of superficial tension and viscosity, guaranteeing itself better control.



Percent (%) Peak Time Control Setting	Pulsed Output Waveforms
Balanced (50%)	
More Time At Peak Amperage (80%)	
More Time At Background Amperage (20%)	

Higher pulsing rates increase puddle agitation, which in turn produces a better molecular grain structure within the weld. Pulsing the current at higher speeds also constricts and focuses the arc. This produces a smaller heat-affected zone, reduces the risk of carbide precipitation and increases arc stability, penetration and travel speeds. It can also reduce scrap rates and post-weld rinding.

The electric current to use can be AC or DC. However, the welding speed must be such that allows the superimposition of the "points" between 40 to 50%. The materials with more habitual application are the aluminum alloys and brass, inox and steel. It can be an automatic process and that it confers high levels of quality.

