

Titanium and Reactive Metals

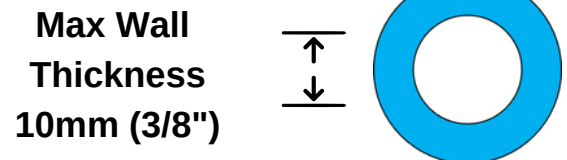
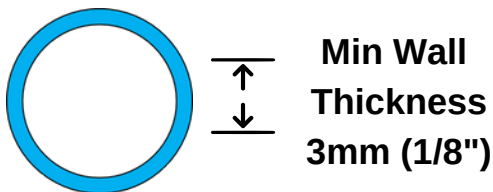
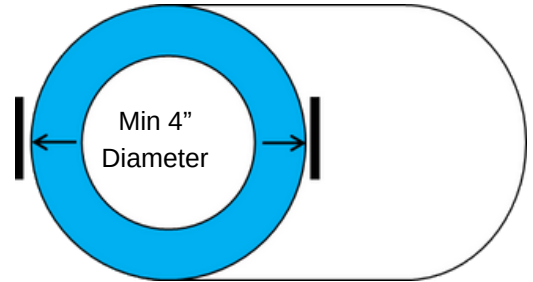
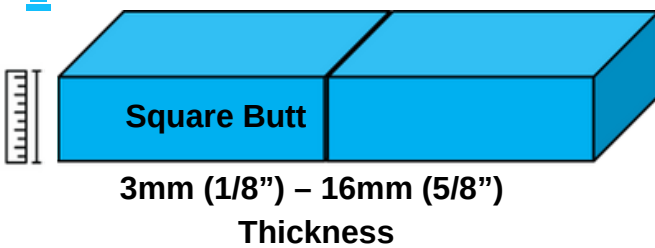
The K-TIG Welding System uses conventional weld forces with a higher current (amps) to create a stable keyhole TIG weld.



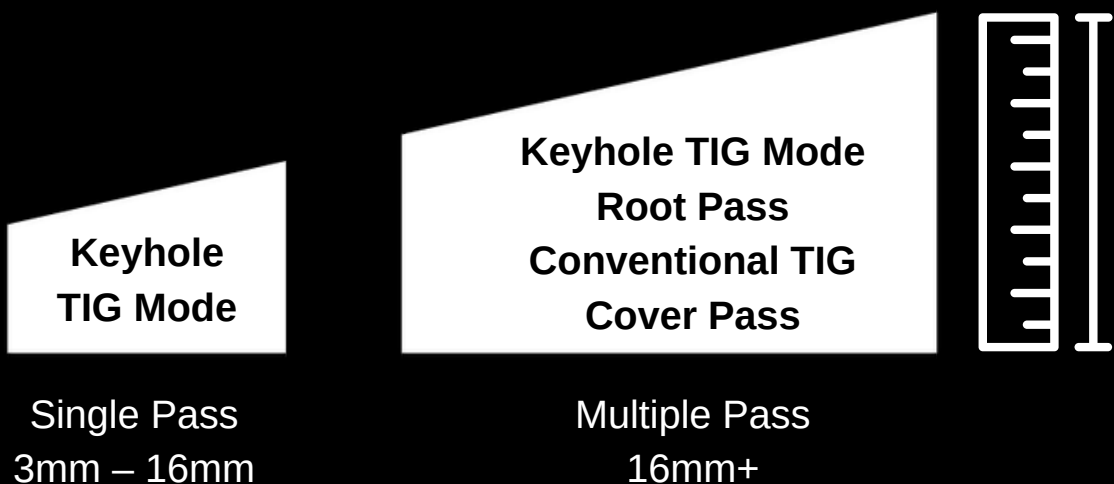
Thickness Ranges Maximum 25mm (1")



Capabilities



Welding Modes



Cover passes required

Material Information Guide

Titanium and Reactive Metals

Titanium and reactive metals are a group of metals that have a strong affinity for oxygen and other reactive elements, and therefore readily react with them to form compounds. These metals are also known as refractory metals because they have a high melting point.



Guide to Average Travel Speeds



6mm root pass

500mm (20") per minute

6mm cover pass

140mm (5.5") per minute

16mm root pass

210mm (8.3") per minute

16mm cover pass

60mm (2.4") per minute



Average Heat Inputs Full Penetration Keyhole Pass

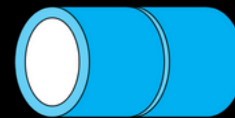


0.33 KJ/mm
(8.3 KJ/inch)



3.5KJ/mm
(90.8 KJ/Inch)

Cover passes/fill passes approx.
1 KJ/mm (25.4 KJ/inch)



1G



Torch Gas Mix

Additional trailing gas required

Gas is material dependant

Weld Position



ADVANCED WELDING SYSTEMS

The values and ranges expressed within this document are intended as guide ranges only and should not be considered absolute values, as materials, equipment, applications and specific environment may impact individual performance