K-TIG
ADVANCED WELDING SYSTEMS

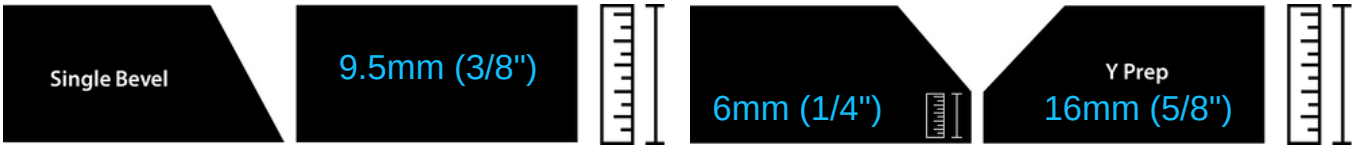
Material Information Guide

Carbon Steels

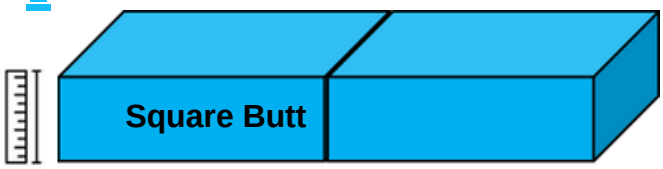
The K-TIG Welding System uses conventional weld forces with a higher current (amps) to create a stable keyhole TIG weld.

Thickness Ranges

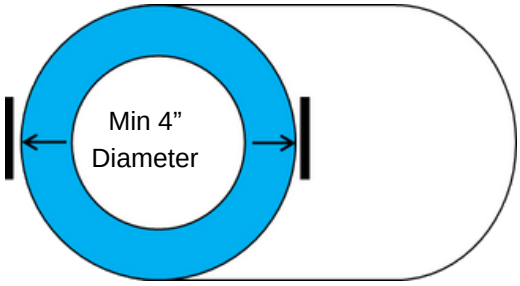
Maximum 25mm (1")

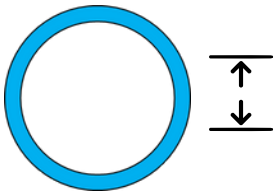


Capabilities



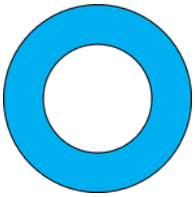
3mm (1/8”) – 8mm (5/16”) Thickness





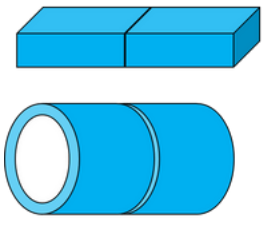
Min Wall Thickness 3mm (1/8")

Max Wall Thickness 6mm (1/4")



Sulphur Tolerances

Square Butt - 3mm - 0.005% / **6mm** - 0.1% / 8**mm** - 0.003%
Single Bevel - 6.5mm - 7.1mm - 0.009% / **9.3mm** - 0.007%



1G

Weld Positon

Torch Gas Mix

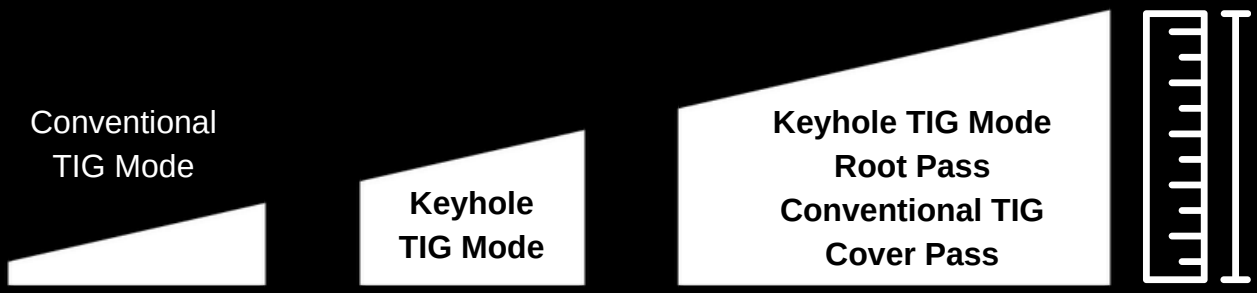
Gas is material dependant

Material Information Guide

Carbon Steels

Carbon steel is a type of steel that contains primarily carbon as the main alloying element, with small amounts of other elements like manganese, silicon, and copper. The amount of carbon present in carbon steel determines its hardness and strength.

Welding Modes



Melt in mode
2mm – 3mm

Single Pass
3mm – 6mm

Multiple Pass
6mm+

Guide to Average Travel Speeds

200mm (8”) per minute

300mm (12”) per minute

Depending on material thickness and joint preparation

Average Heat Inputs

Full Penetration Keyhole Pass

0.8 Kj/mm (20400 Kj/inch)

2.2Kj/mm (56600 Kj/Inch)

Cover passes/fill passes approx.
1 Kj/mm (26700 Kj/inch)

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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