

TIG (Tungsten Inert Gas) Welding

In the TIG (tungsten inert gas) welding process, a tungsten electrode is used to provide an electric arc for welding. A sheath of inert gas surrounds the electrode, the arc and the area to be welded. This gas shielding process prevents any oxidization of the weld and allows for the production of neat, clean welds.

TIG welding differs from MIG (metal inert gas) welding in that the electrode is not consumed in the weld. TIG welding is the preferred method for welding aluminum.

The shielding gas used in TIG welding can be argon, helium or a mixture. Argon is usually a better choice because it is heavier than air and therefore tends to provide a better blanket over the weld.

The flow from the gas supply is controlled by the Mass Flow Controller (MC-20SLPM-D) which is connected to the top of the tank.

The flow rate of the shielding gas varies by the material being welded. Aluminum requires 7-13 SLPM of Argon, while Stainless Steel requires 5-7 SLPM of Argon.

Popular gas blends for welding applications, such as Praxair's Helistar A1025[®] and Stargon CS[®], are included as selections in Alicat's Gas Select[™] feature.

In addition, Alicat's MFC's are highly resistant to electrical noise and other disturbances present in TIG welding environments.

