

IDENTIFYING COMMON MIG TORCH FAULTS



Technical advice in the original SifTips style which started in 1932.



Why should I test MIG torches?

It is often accepted that MIG torches should work straight from the box, however there are times when they don't and this has often foiled the service engineer investigating a fault, leading to extended service times as a result.

Many end users are calling in the service engineer to establish fault finding with a machine, when a quick and simple test would save this additional cost. If the insulation on a MIG torch is broken down then this could also lead to the welder receiving electric shock, which can be prevented by regular quick and simple tests enhancing product safety.

What is the MIG Torch Tester?

The MIG Torch tester is an all-in-one tool, which allows for quick and effective testing for common faults developed within the MIG torch during day-to-day use. The unit is pocket size and battery operated, so can be used anywhere.

The MIG Torch Tester carries out a diagnostic cycle and will indicate any irregularities to allow the operator/engineer to identify any fault quickly, reducing the need for returning defective torches to a service centre.

By simply inserting the Euro fitting into one end of the MIG Torch Tester and then resting the contact tip on the other then the unit can test:

● Broken Torch Switch/Cable

In applications where the torch needs to be manipulated into multiple geometries during the manufacturing process, it is common for the torch switch cable to fatigue and break. Applications that have lots of short runs and constant start/stops can cause excessive wear on the torch trigger, resulting in trigger failure.

● Damaged Contact Pins

When machines are used in multiple locations it is common for the torch to be disconnected for transportation, which significantly increases the risk of trigger pin damage. Torches with fixed trigger pins are susceptible to pin damage and a fault with the torch fitting can be difficult to diagnose.

● Broken/Damaged Power Cable

Continual movement and manipulation of the torch over an extended period can cause the fibres in the power cable to fray and reduce the conductivity of the power cable. When a torch is used outside of its designated duty

Sifbronzing is an almost universally recognised way of describing the low temperature bronze welding of sheet steel, cast iron and other metals. The reason behind this fact summarises why Sifbronze, the company which first developed and promoted the technique, is generally considered to be a supplier of top-quality welding rods, wires, fluxes and equipment.

'Will The Welder' was a Siftips magazine that was produced in the early 1930's. The aim was to provide users with ideas and tips as to how to get the most out of their welding equipment.

In 2007, Weldability-Sif acquired Sifbronze, the welding consumables division of the Suffolk Iron Foundry, known internationally as Sif. Sif is renowned for its manufacturing heritage and for its complete range of quality welding consumables for MIG/GMAW, TIG/GTAW, Arc/SMAW, Oxy/Fuel Welding and Brazing, which have been used globally for almost a century.

cycle the power cable may over heat and deteriorate at an accelerated rate.

● Torch Insulation

After an extended service period the insulation of the power cable can deteriorate and in extreme cases the inner core can be come exposed and short with the torch trigger lead. Use outside of the torches designated duty cycle can elevate the temperature of the cable insulation beyond its melting point causing it to fuse with the torch trigger lead.

All of the above issues can be quickly and easily established with the Weldability-Sif MIG Torch Tester.

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