

TIG welding Machines *from Lorch up to 500A DC & AC/DC*

Basic knowledge:

With the TIG method (TIG = Tungsten Inert Gas) the electric arc burns between the non melting tungsten electrode and the workpiece. The arc is very intense and can be very easily controlled. A separately supplied argon shielding gas protects the arc and the welding zone from the atmosphere. Filler metals can be fed by hand or with a special cold wire feed if necessary. Steel, stainless steel, copper, titanium, etc. are welded with direct current. The electrode is connected to the negative pole and ground to a point.

Aluminium, magnesium and their alloys should only be welded with alternating current to break open their oxide skin. The electrode is blunt.

During welding it can assume a round or crowned shape. With modern inverter power sources, a pointed tungsten electrode can also be used. The advantages of TIG welding: its easy handling and good control over the arc enable very comfortable and clean working. The low oxidation of the workpiece, small welding zone, omission of fluxing agents and non-spattering arc ensure clean, precise seams with no slag inclusions and no reworking.

- 1- Gas nozzle
- 2- Tungsten electrode
- 3- Shielding gas
- 4- Arc
- 5- Melt zone
- 6- Base material

