The standard and safest Tig welding technique

To use Tig welding machine to ensure safety and bring high efficiency when welding stainless steel, you need to follow the 6 basic steps below.

When working with TIG welding machine will require welders to have high technical skills to produce beautiful welds, standards of durability as well as aesthetics. The following article will guide the use of extremely detailed TIG machines to help welders accumulate more skills for themselves.

Tools needed when implementing TIG welding method

1. TIG welding machine
2. Accessories for welding machines such as electronic welding masks or traditional welding masks, automatic electronic welding glasses.
3. Protective gloves and clothes

6 steps to use and operate the most standard TIG welding machine

When operating and working with TIG welding machines, you need to follow the following steps:

Step 1: Determine the welding material to choose the appropriate welding pliers

The first thing the welder needs to determine what materials he or she will solder? Examples are iron, steel or aluminum. Determining the welding material so that you can choose the most suitable welding rod, the weld will have a deeper, more beautiful penetration.

Welding rods are divided into 2 main categories: aluminum welding rods and welding rods of the remaining materials. The identification feature of the aluminum welding rod is that the solder tip is painted blue. The welding rod for the remaining materials is red. Once you have identified the material to be welded, you only need to choose one of the two types of welding rods and use it.

Step 2: Adjust welding current

When using TIG welding machine you need to adjust the following 3 parameters: arc current, protective air flow and cooling air flow.

These parameters are designed separately to help users to customize them easily. You need to adjust the welding current before turning on the welding machine.

Step 3: Check the accessories connected to the TIG welding machine

TIG welding machines often come with welding pliers, cool clamps, TIG welding guns, power wires. So you need to follow the rules after connecting the TIG welding equipment:

1. When installing these accessories in a TIG welding machine, you should never plug the welding machine's power cord into a power source.
2. Make sure all electrical connections are clean and tight.
3. The power cord must be connected to a separate electrical outlet to prevent electric overload. In addition, it is necessary to arrange wires in a safe place to avoid arc sparks from firing, causing unsafety.
4. Pressure relief valve and protective gas flow meter are connected in the same way as connecting pressure relief valves in gas welding.

Step 4: Before conducting welding, attention should be paid to the following basic operations:

1. You need to put the soldering iron away from the welding material.
2. Proceed to open the coolant valve.
3. Need to open the gas valve slowly.
4. Should hold the torch in hand then proceed to turn on the TIG welding machine.
5. When the machine is turned on, you need to check the air flow by turning off the air valve.
6. Finally adjust the air flow to suit welding materials.

Step 5: Perform welding process

After everything has been prepared, the welder starts making the arc. There are 3 methods to make basic arc:

1. Swipe method: swip the electrode into the solder, only for thin welds and solder that has been punctured.
2. Lift method: When touching the electrode, press the lift switch to create an arc, but it is difficult to bait the arc.
3. High frequency arc primer: Using high frequency to generate voltage, this method is most commonly used.

The welder can choose for himself the most suitable arc method to perform.

Note: In order for the arc to be stabilized, welders need to buy welding machines of famous brands such as BTEC TIG welding machine, Hong Ky TIG welding machine, Jasic TIG welding machine .

After finishing the arc, you conduct welding:

1. The soldering iron must be tilted at about 20 degrees from the vertical of the welding material. The welding rod is also tilted so that the angle of inclination between the torch and the welding rod is 90 degrees.
2. The distance between the welding rod and the welding rod is about 1 - 1.5 times the diameter of the welding rod.

Step 6: Turn off the TIG welding machine at the end of the welding process

After the welding process is complete you need to perform the following processes:

1. Place the soldering iron in a safe place.
2. Close the protective gas valve on the gas bottle.
3. Disconnect the coolant source.
4. Open the water drain valve on the machine to drain the water out.
5. Unplug the TIG welding machine from the power source.

These are extremely important skills for welders when TIG welding. Hopefully, the above article will help welders no longer be surprised when working with TIG welding machine to ensure safety as well as bring high efficiency.

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