



A Basic Overview of How MIG Welders Work

By [Jeff Bowerman](#)

One of the most widely used types of welders is the MIG welder. The process of welding that a MIG welder uses is called gas metal arc welding (GMAW). These welders work by feeding a wire which is the electrode through a welding gun. At the same time there is a continuous flow of inert shielding gas. This protects the weld while it cools.

The most common gases used are carbon dioxide for general purpose welding. It is the cheapest of the welding gases, and creates a good weld. Argon and carbon dioxide is also used in a mixture to have a welding arc with less spatter, giving cleaner welds. Pure argon gas is used to obtain the best welds when welding aluminum.

The GMAW process have a number of advantages over the other common welding processes. The welding gun has a trigger to control the electrode which allows you to position it without accidentally striking an arc. When you have it in the correct place all you have to do is flip down your helmet and pull the trigger.

The inert shielding gases make the welds smooth and clean. There is no slag to chip off. MIG welders are also very well suited to weld sheet metal and thinner metals. This is because they can weld at lower amperage than most welders. MIG welders always use DC current to strike the welding arc. This is because using alternating current doesn't give you a steady arc.

On a MIG welder you can adjust the voltage, amperage and the speed at which the wire is fed through the welder. The tensioner on the welding wire is variable as well They will also have a valve to control the flow of gas.

It is also possible to use a mig welder without the shielding gas. This is called flux cored arc welding (FCAW). Most welders have the option of switching the polarity of the welding arc for use with flux cored wire. In this welding process the welding wire has a hollow core that is filled with flux.

Flux cored arc welding can be done outside, because there is no need to worry about the shielding gas being blown away. The flux core wire has a hotter arc and therefore can be used to weld thicker pieces of metal. The disadvantages of FCAW are that you have to remove the slag from the weld similar to welding with a standard stick welder. It cannot generally be used to weld thinner sheet metal and other light metals.

MIG welders can be used to weld aluminum, tin, copper, zinc and brass., and steel. There are dozens of different compositions of MIG welding wires to choose from. This means you can get the best combination for almost any welding situation. MIG welders are the ideal choice if you only want to buy one welder, and still be able to weld on a variety of metals. If you want to start welding, a MIG welder would probably be your best choice for a welder that is very versatile and easy to learn on.

About the author:

If you are interested in welding, The Welder Shop has an extensive selection of MIG Welders, Welder Reviews and welding. <http://www.weldershop.info/141/mig-welders/>

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