



An Introduction to Welding

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Welding is one of those construction niches that doesn't get a lot of attention, but is absolutely critical to the completion of any metal structure. Here is an introduction to the subject.

The field of welding is not really a totally modern career born in the Industrial Revolution. Pictures of welders and their ancient tools have been discovered in sealed Egyptian tombs. Welding is the process of joining metals through the use of heat and pressure. Many people credit developments in the art of welding as enabling many of the technological advances that marked the industrialization of the world.

In many cases, welding involves temperatures that are incredibly high. Steel, for example, melts at around 2,800 degrees Fahrenheit. Welding is a very essential part of just about every modern industry. In the year 2000, a total of over 34.1 billion dollars was spent on welding related costs in American industry alone. If you break this down, it amounts to around \$325 per American household.

In 2004, 429,000 professional welders were engaged in welding related work in the United States. They were engaged in a wide variety of different work, but a large percentage of them were working in fields that were extremely vital to the economy and security of the country. The average age of these welding professionals was 54 years old. So, many of these will be reaching retirement age in the next ten years that the United States Department of Labor estimates a shortage of nearly 250,000 welders by 2010.

For the past two decades, the shift in the work force from blue collar to white collar has created a significant shortage in skilled workers. This is especially true of welders. The pendulum will have to shift soon. There will be such a shortage of skilled welders in the coming years as to create a serious industrial crisis. This has only opened up the field to young people looking for a secure and useful trade. Pay scales and benefits of the jobs have risen as a result of the shortage.

There are several different forms of welding used in industry today. The common types that use an "arc" to heat the metals to fuse them are Gas Metal Arc Welding (GMAW), Gas Tungsten Arc Welding (GTAW), and Shielded Metal Arc Welding (SMAW). Another type that does not use an arc, but rather electrical resistance and pressure is called Resistance Welding.

Aazdak Alisimo writes about <http://www.weldingsupplyandequipment.com/welding-information> in his articles for [WeldingSupplyandEquipment.com](http://www.WeldingSupplyandEquipment.com)

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