

# New vs. Used CNC Plasma Cutting Systems

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In today's economy, many buyers are faced with the choice of buying a new or used piece of equipment to keep up with the steadily increasing demands for their plasma cutting requirements. The attraction of getting "more machine for the money" with a used piece of equipment often overshadows the hidden costs of older machines. Price alone should never be the determining factor when making an investment in long-term capital equipment. Here are some important points to take into consideration if you are looking at a used CNC plasma cutting system:

## **Check The CNC Control**

With a glut of used CNC plasma cutting equipment on the market today, buyers need to educate themselves about the technology on these machines. The first thing a buyer needs to look at is the age of the machine and the CNC control unit on the system. These two factors are important to look at individually because many older machines on the market may have been retrofitted with updated controls. If the system and/or the CNC control is more than 5 years old, there may be problems getting parts and/or service for the control if it fails. The technology in the CNC controls of plasma cutting systems has advanced tremendously in the last three years. If you buy an older system and have to update or replace the control, it is also likely that you will have to upgrade the motors and drives as well. A control upgrade for most intermediate size machines typically will cost between \$30,000-\$35,000.

If an older machine has been retrofitted with a newer CNC control system, it is important to check the quality of the work. Most manufacturers will be happy to provide you with information such as which control was originally on the machine and whether or not the machine was upgraded by factory authorized technicians. Take the time to make a phone call and avoid a costly situation.

## **Check The Plasma**

You can't save money by buying an old plasma power source! Advances in plasma power sources over the last three years have been significant. An old plasma might be cheaper to buy, but it will cost you significantly more to operate than a new system.

The two most expensive factors in operating a plasma cutting system are the cost of consumables and the cost of the electricity the system uses. Advances in plasma power sources and torch design allows today's plasma systems to cut material faster, with less amperage and current than comparably rated units from the previous generation of plasmas. That translates into significant monthly savings on your electric bill.

The current generation of plasma systems has also eclipsed their predecessors in consumables life. Manufacturers rate their current plasma systems consumable life 5x-10x higher than their previous generation plasmas. Some models are rated at more than 2,000 production pierces, compared to several hundred a few years ago.

Manufacturers claim that between the electrical efficiency and extended consumables life, their newest generation of plasmas cost 50% less to operate than older models.

### **Check The Mechanical Components**

It is important to make sure that any used machine has been properly maintained. The most important things to check are the condition of typical wear items such as the rail system, gear rack, drive pinions, and bearings. These are the main components of the drive system that assure the machine moves freely in a linear manner and that the machine can maintain cut quality and accuracy. When neglected, these items can also cause premature motor/drive failure. Plasma cutting systems live in a very harsh environment and proper preventive maintenance is essential. Ask the seller if service logs are available for the machine. Replacing essential drive components can cost upto \$10,000 or more.

You will also want to check the condition of the cables, hoses, cable management system, torch lifters, drive motors, and any other moving parts on the machine. These are all items that require periodic maintenance and/or replacement and the costs can add up quickly.

### **Invest in a Proper Installation**

If you check all of these items and determine that the used machine is still a good value, it is highly recommended that you contact the original manufacturer to install the system. The original manufacturer will be most familiar with the system, have access to parts should anything need to be repaired or replaced, and perform an installation that assures your machine will perform to the best of its abilities. The original manufacturer should also be able to provide training for your operators so that they can become proficient with the system and get the most out of it as quickly as possible.

### **Before You Make Your Final Decision**

Don't end up investing more in a used piece of equipment when you can purchase a new machine with the latest technology and a warranty. Manufacturers such as **C&G Systems** in Libertyville, IL ([www.cgsystems.com](http://www.cgsystems.com)) offer a full line of CNC plasma cutting machines with the latest **Hypertherm** and **Burny** CNC controls, and **Hypertherm**, **Kaliburn**, and **Thermadyne** plasma power sources. Their staff of highly experienced engineers, sales, and service technicians will be happy to consult with you regarding your requirements and provide you with a no-cost, no-obligation quotation for a new machine comparable to any used equipment you may be looking at. They can also advise you on the age and availability of parts for older CNC controls and plasma power sources. Avoid a potentially expensive pitfall by calling **C&G Systems** today at (847) 816-9700 to discuss your particular situation with a helpful member of their staff.