

# ESAB PowerCut® Series

## Supplementary Salesman's Information

### Plasma Gouging Performance

*Why ESAB Makes the Best Machines For Plasma Gouging!*

Plasma gouging is catching on as a popular alternative to carbon arc gouging. With low fumes, lower noise level and less post gouge cleanup, many customers are getting turned on to the advantages and capabilities of plasma gouging.

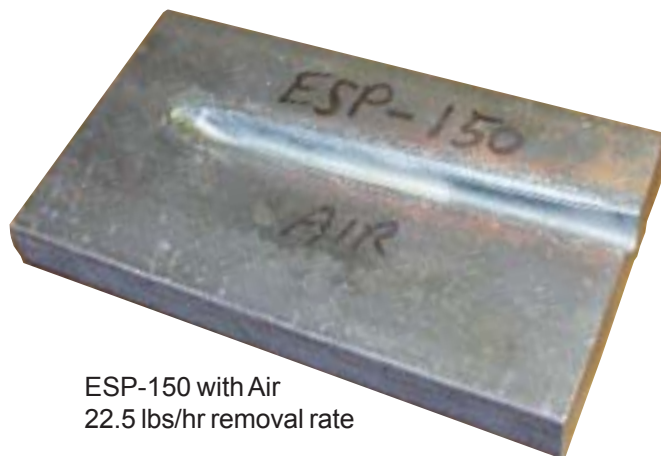
Although plasma gouging is a capability claimed by many plasma machines on the market today, not all machines have the same capability. Output voltage and reserve capacity are extremely important factors, along with the shape of the volt amp curve. All these things combine to produce a machine characteristic that can make a plasma system easy or hard to use. Some degree of plasma gouging can be done with small portable consoles below 100 amps. However, plasma gouging generally requires a machine of upwards of 150 amp capability to get sufficient metal removing power. In addition, it is important for the plasma machine have to significant output voltage capability to deal with the long arc lengths that are required for plasma gouging operations.

The ESAB ESP-150 is one of the premier plasma gouging machines on the market. It has a deserved reputation for performance and durability that is unmatched by any other comparable product. For plasma gouging in a portable system, our PowerCut® 1500 offers meaningful gouging capability in a lower priced unit. A competitive machine that is often encountered is the Thermal Dynamics PakMaster® 150XL. Despite it's misleading name, it is only a 120 amp machine with capabilities vastly inferior to the ESP-150 system or the portable, much lower-priced PowerCut® 1500.

Let's look at the results:

### Plasma Gouging with Air on Mild Steel

As you can see, both the ESP-150 and the PowerCut® 1500 give superior metal removal rates when compared to the Thermal Dynamics PakMaster® 150XL. In addition, the faster speeds obtained give a cleaner gouge with less oxidation of the surrounding metal.



ESP-150 with Air  
22.5 lbs/hr removal rate



PowerCut® 1500 with Air  
16.8 lbs/hr removal rate



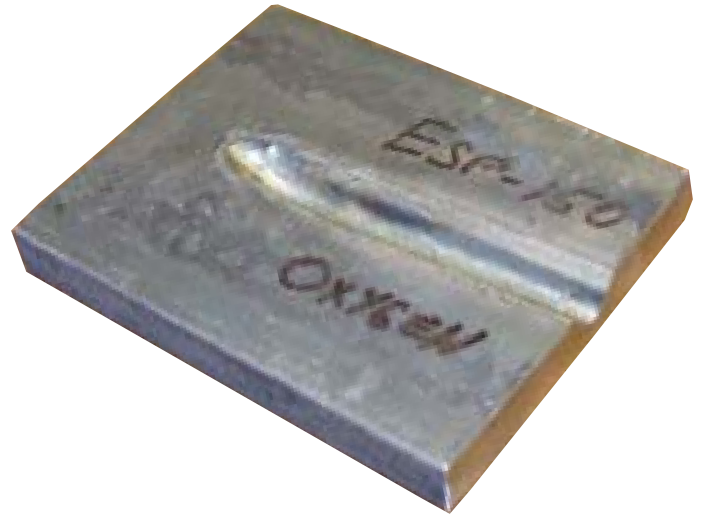
PakMaster® 150XL with Air  
12 lbs/hr removal rate

## Want Even Higher Removal Rates?

Try the ESP-150 with oxygen, something the PakMaster® 150 cannot do!

By substituting oxygen instead of air as the plasma gas with the ESP-150, you can get even higher metal removal rates for faster speeds and higher productivity:

At 30 lbs. per hour, we are at more than twice the metal removal rate of the Thermal Dynamics PakMaster® 150XL ... with a good, clean, well-shaped groove.



ESP-150 Oxygen plasma gas  
30 lbs/hr removal rate

## The Bottom Line

For plasma gouging applications, the PowerCut® 1500 and ESP-150 are an unbeatable combination. The PowerCut® 1500 gives portability and superior metal removal rates at a price far below that of the Thermal Dynamics PakMaster® 150XL. The ESP-150 gives vastly superior performance and metal removal rates at a price comparable to PakMaster® 150XL.



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