

TECHNICAL TIP

DON'T GET DINGED

There is a right way to use the consumable removal tool that comes with your XPR, HPRXD, HPR and MAXPRO power supplies.



Hypertherm's Technical Service Team often hears from operators experiencing poor cut quality, leaking coolant, or torch arcing. They are surprised to learn the culprit is damaged consumables caused by their consumable removal tool, pliers, or vice grips.

The two photos below show an extreme case of surface damage created by using the wrong tool for the job. Though the nozzle orifice is still perfectly round, this nozzle needs to be replaced.



Photo 1

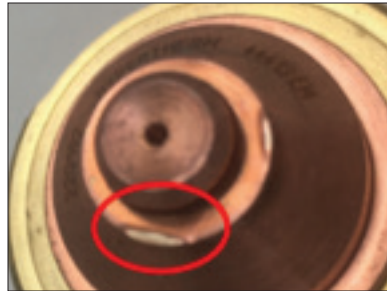


Photo 2



A consumable removal tool (part 104119) like this one is included with our larger plasma systems. If you misplaced yours, you can order a new one from any Hypertherm partner.

You can also damage your electrode, which could cause it to arc out potentially destroying it, and worse, the inside of the torch body. If you look at the HPR electrode shown below in photo 3, you can see where brass from the torch body has melted onto the electrode threads.

This damage, caused by shallow notches on the electrode's copper surface, created corresponding damage to the interior of the torch as shown in photo 4.



Photo 3



Photo 4

How do you use the consumable removal tool the right way? Well, it is important to first recognize the tool's two slots, keyhole, and hexagonal wrench are designed for different types of consumables. Use the part of the tool designed for the specific nozzle you are trying to remove. The hexagonal wrench in the center of the tool is for both removing and installing the electrode.

The letter A in figure 1 notes the hexagonal wrench for electrodes, while the letters B, C, and D indicate the different nozzle removal types.

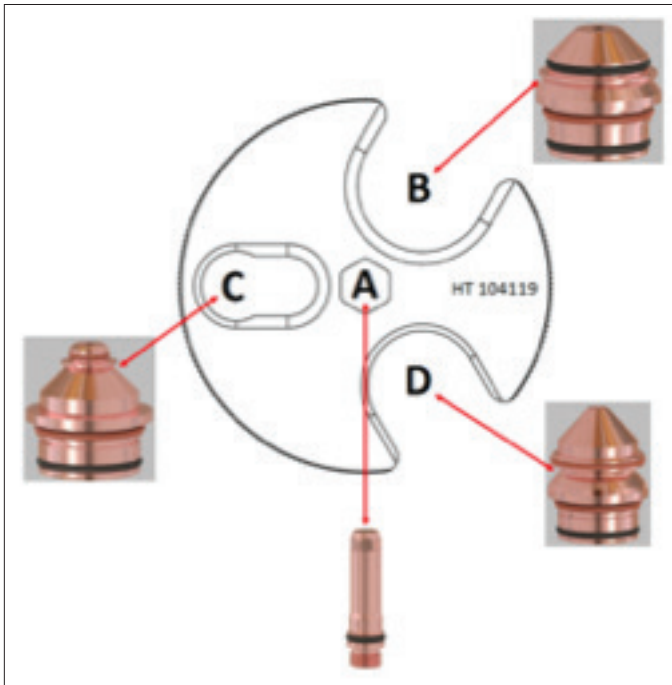
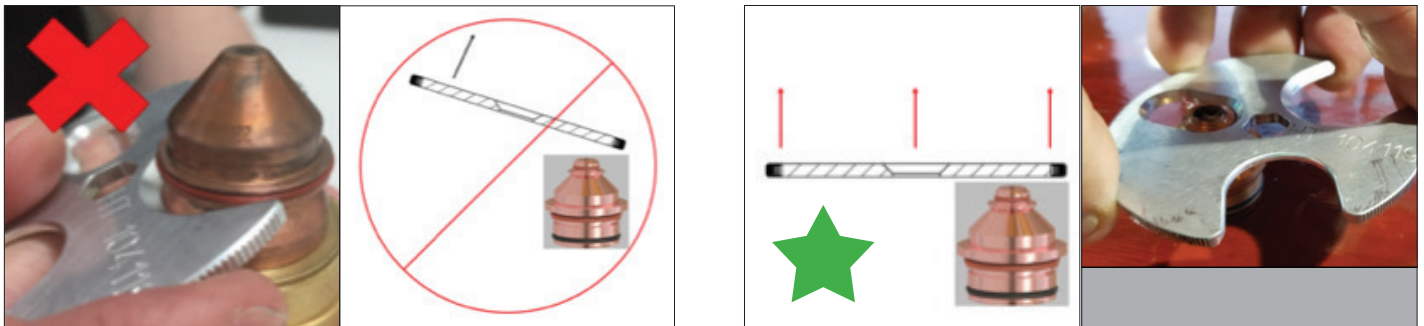


Figure 1



The photo and figure above shows the tool at an angle. Always keep the tool perpendicular or square to the nozzle, electrode, and torch body. Then lift straight up holding the tool with your fingers as shown in the two right hand images.