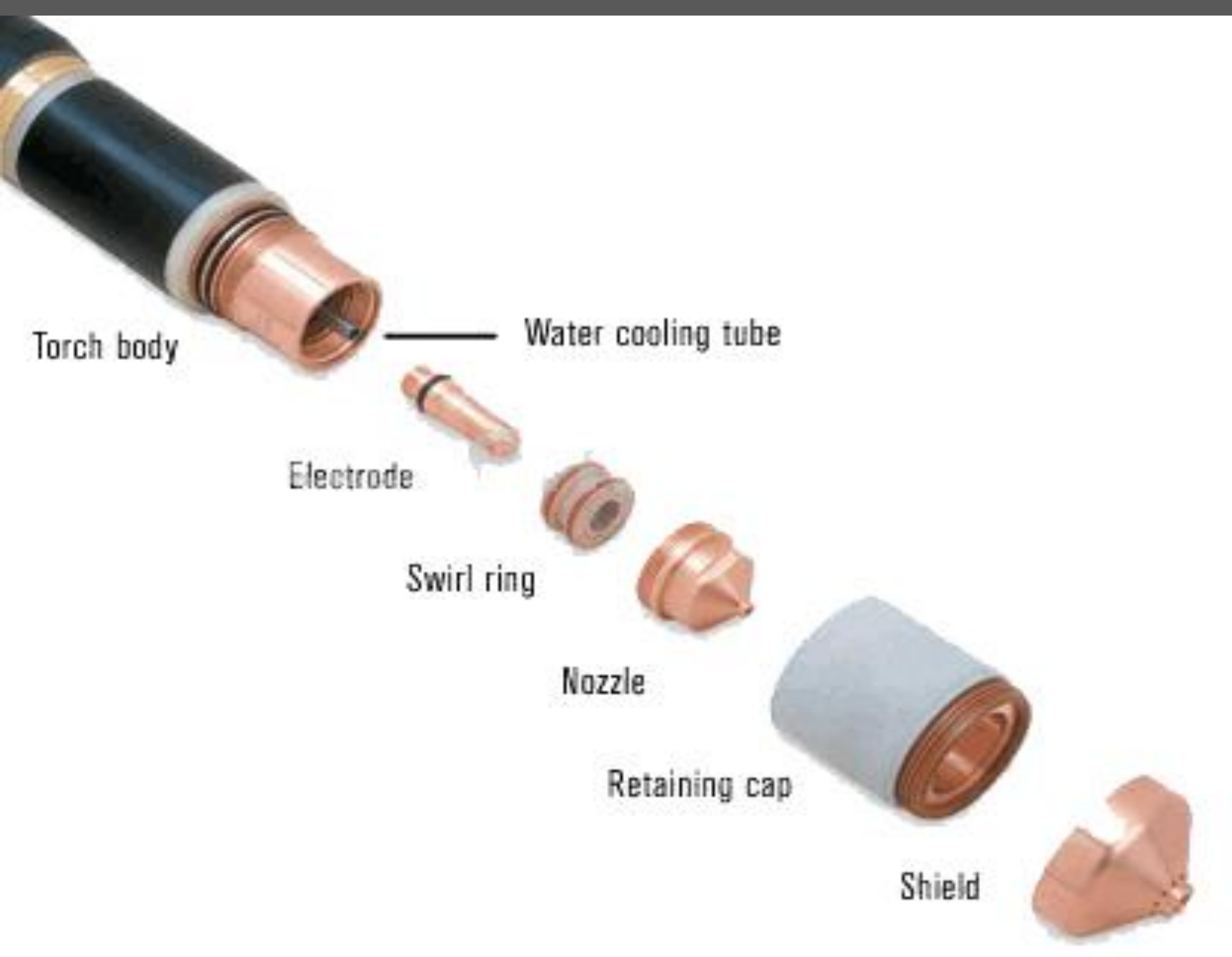
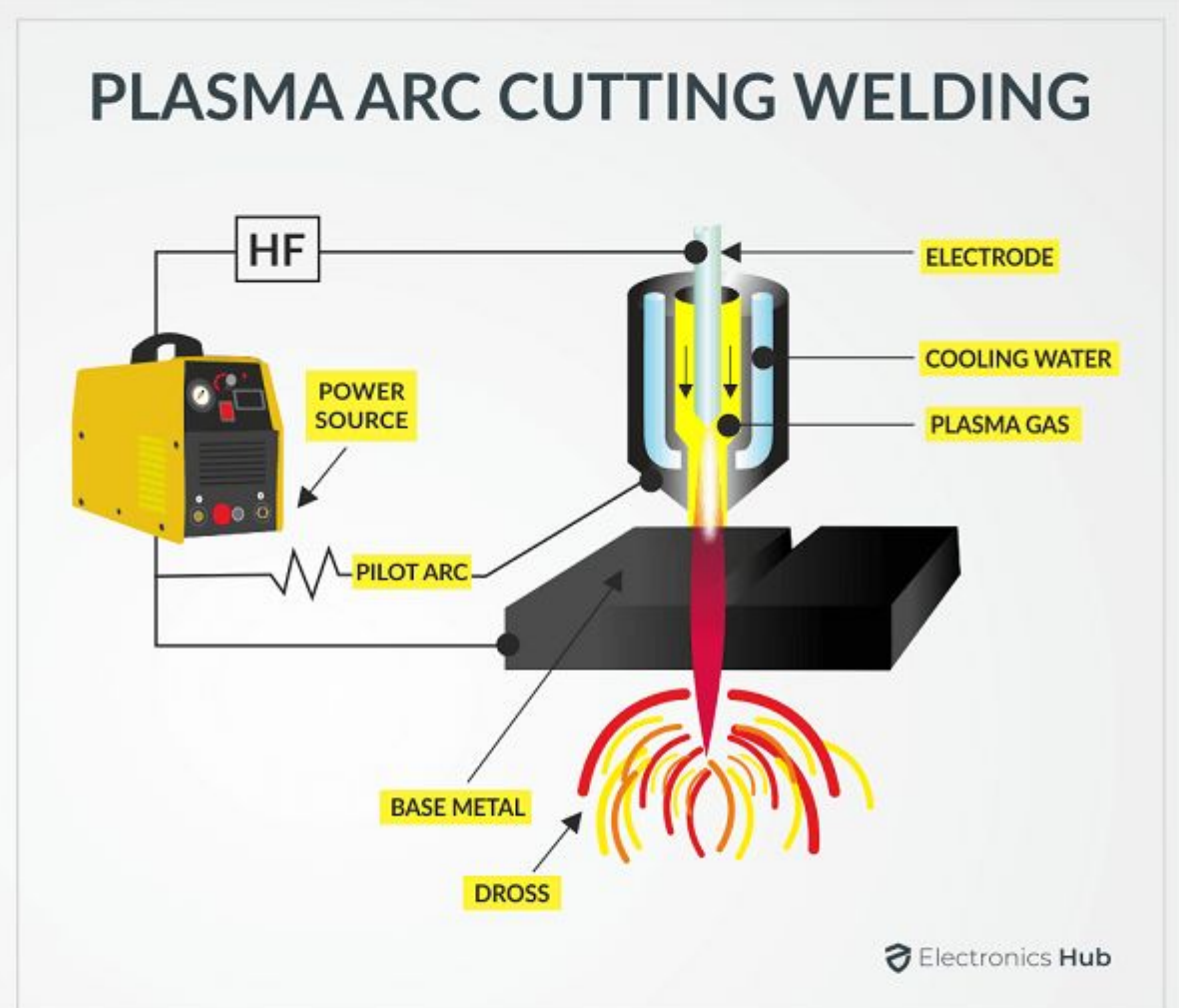


PLASMA ARC CUTTING. PROCESS & PRECAUTIONS

Plasma Arc Cutting (PAC) is a thermal cutting process that uses a constricted jet of high-temperature plasma to melt and expel metal from a joint. It is one of the most versatile and efficient methods for cutting conductive materials, ranging from thin sheet metal to thick structural plates.



Safety precautions for plasma arc cutting focus on preventing severe burns, eye damage from intense UV/IR rays, electric shock, and inhalation of hazardous fumes. Key measures include wearing flame-resistant clothing (leather/wool), using a #5 shade lens or higher, ensuring proper ventilation, maintaining a 35-ft clearance from flammables, and using, safety glasses gloves, and high-top boots.



Power Supply: Converts AC line voltage into a constant DC voltage (typically 200 to 400 VDC) to maintain the plasma arc.

Arc Starting Circuit: Often a high-frequency generator circuit that produces a pilot arc inside the torch.

Torch: The business end of the tool. It holds the consumable parts: the electrode, swirl ring, and nozzle.

Work Lead (Ground Clamp): Essential for completing the electrical circuit between the workpiece and the power source.