

Basic Welding Tools and PPE

1. **Welding Hood:** A welding hood (don't call it a helmet), protects the welder's face and eyes from harmful ultraviolet and infrared light emitted during the welding process. It typically features a dark lens to shield against bright sparks and heat, as well as built-in filters to provide clear visibility while welding.



2. **Leather Gloves:** Welders use heavy-duty leather gloves to protect their hands from heat, sparks, and molten metal. These gloves offer a good grip on tools and provide flexibility while allowing welders to handle materials safely.



3. **Soapstone:** Soapstone is used for marking metal surfaces before cutting, welding, or fabricating. It creates a clear and visible line on most metals and is preferable because it doesn't leave residue like some other marking tools, making it ideal for precision work.



4. **Wire Brush:** A wire brush is used to clean metal surfaces by removing rust, scale, and slag. Clean surfaces improve welding quality by ensuring a better bond between the materials being joined, which is critical for creating strong welds.



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5. **Ball Peen Hammer:** This hammer has a flat surface on one side and a rounded “peen” on the other. It is used for shaping metal, setting rivets, and other tasks requiring a softer impact, making it useful for specific welding applications and metalworking. Primary use for the ball peen hammer during welding training at FWI is to assist in adjustments during fit up.



6. **Chipping Hammer:** A chipping hammer is specifically designed to remove slag from completed welds. The act of chipping away slag is essential for preparing the weld for inspection or for additional welding, ensuring the integrity of the weld joint.



7. **Half Round File:** This file is used for shaping and smoothing metal surfaces after welding. Its half-round shape allows for access to both flat and curved surfaces, making it versatile for various tasks in metal fabrication. Primary use for a half round file during training at FWI is to remove weld spatter, arc marks and under cut.



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8. **10" Adjustable Wrench:** This tool is useful for gripping and turning nuts, bolts, and various plumbing fixtures. The adjustable feature allows the wrench to fit multiple sizes, making it a necessary tool for making adjustments and repairs in welding setups. The primary use for your adjustable wrench is to loosen and tighten item such as argon flow meters and tig welding parts.



9. **9" Lineman Pliers:** Lineman pliers are used for gripping, twisting, and cutting wire and other materials. In welding, they are primarily useful for cutting Tig wire into and easier to work with length.



10. **Flat Head Screwdriver:** This screwdriver is used to drive screws with a flat head. It is commonly utilized for assembling or disassembling equipment, securing components, and making adjustments to various setups in welding environments. The primary use for the flat head screw driver during training at FWI is to remove and replace 3" cut off blades from the 90 grinders.



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11. **10" Vice Grips:** Vice grips are locking pliers that provide a strong grip on materials. They are useful in welding for holding pieces together while they are being welded or for applying pressure to ensure a tight fit during the process.



These tools collectively enhance the ability of welders to execute their tasks safely and effectively, contributing to the overall quality of their work