

## **Welding:**

**Students should bring the following tools to the Welding Competition.**

- a. Hearing and/or ear protection
- b. Welding gloves—full length (gauntlet) for SMAW, GMAW and FCAW
- c. Welding gloves — appropriate for GTAW
- d. Welding cap/beanie
- e. Welding helmet with appropriate filter plate/lens and protective cover lens for tacking and welding; auto darkening filter plate/lens permissible. Spare filter plate and cover lens
- f. Cutting goggles—with shade 5 lens/cover lens for OFC/PAC; helmet with shade 5 capability permissible; face shield head gear with shade 5 permissible. Spare filter and cover lens
- g. Pocket calculator
- h. Fillet weld gauge—standard set
- i. Lead pencil and/or ballpoint pen
- j. Soap stone with or without holder
- k. Scribe with or without magnet
- l. Compass
- m. Protractor
- n. Combination square set
- o. 10-foot (3.1 meters) minimum steel tape measure
- p. 16-ounce (.45 kilogram) ball peen hammer
- q. Center punch
- r. Cold chisel
- s. 11R or 10-inch (254 millimeters) vise grips
- t. 6-inch (152 millimeters) side cutting pliers or diagonal cutting pliers
- u. 6-inch (152 millimeters) needle nose pliers – welpers permissible
- v. Chipping hammer
- w. Carbon steel wire brush
- x. Stainless steel wire brush
- y. Friction lighter (striker) and tip cleaner
- z. All competitors must bring a one-page résumé