

TOOL LIST FOR WELDING TECHNOLOGY

Weld 110 and Above (23-24)

You need all of your personal protective gear no later than the beginning of the 4th week of Weld 110, though sooner is better. We have limited loaner gear available for the first few weeks if you have to order something. A sample of a few local industrial vendors where you can find welding related tools and gear are Airgas, Central Welding Supply, and L.G. Isaacson.

Required Personal Protective Gear

- *Hard hat with hard hat compatible **non-electronic** welding hood **with flip up lens**. Hood should fit over a respirator and contain a shade 10 lens. A shade 12 is also needed.
- *Respirator (Miller Electric LPR100 or equal – be sure it will fit under welding hood)
- *Cutting glasses or a hard hat mounted shaded face shield (shade 4 or 5)
- *Ear plugs
- *Welding jacket
- *Welding gloves
- *Safety glasses or prescription safety glasses
- *Lock for locker
- *Work Boots with 8” minimum height. Leather, steel toe, wedge (flat) sole, and lace-up style recommended (example: Thorogood 804-4364).

Note: Electronic hoods are an option for 2nd year welders.

Protective Gear Approximate Total \$300 - \$400

Tools Required for 1st Quarter Training

- *Tape measure, 25 or 30 foot, 1” wide blade
- *Lineman’s pliers (9” minimum)
- *Tip cleaner, foldout style
- *File, 6” mill bastard (or similar)
- *Cold chisel – medium size (Long handled recommended)
- *Center punch
- *Scribe
- *Pipe wrap (Contour Mfg. for 3”-10” pipe recommended)
- *Grinder, 4 ½” or 5”, 5/8-11 spindle, with 5 each knotted wire wheels, ¼” fast cut wheels, and 40g flap discs (1 grinder required, at least 2 grinders and a 3-outlet cord end adapter recommended. Any new grinder selling for less than about \$60 is discouraged)
- *TI 30X II S calculator (Available in bookstore or downtown)
- *Fillet weld gauge
- *Flash light with batteries (Elzetta, Surefire, Olight, or Stream Light LED type recommended, in that order)
- *Compressed air blowgun attachment
- *¼” Tru-flate / “T-type” male thread/male plug air fittings (2 each, Milton are good)
- *Toolbox with lock, **50” x 20” maximum footprint of box before installing handles**. If you get a roll around, use Loctite on the bolts holding the wheel assemblies on.

Approximate Total for Good Quality Required 1st Quarter Tools \$750

Tools Required for 2nd Quarter Training

*Combination square with 12, 16, or 18 inch blade, 4R graduation, (Hardened blade and heads, contrasting colored numbers and lines, and additional protractor head recommended)

*Torpedo level, magnetic (Stabila type 81 SM recommended)

*Die grinder, ¼", 90 degree head, pad mandrel with at least five 3" coarse "Scotch-Brite" pads, and at least five flap discs (3" diameter x ¼" mandrel, 40 grit recommended)

*¼" Tru-flate / "T-type" male thread/male plug air fittings (2 each, Milton are good)

*Screw driver, Standard & Phillips (4 in 1 or 10 in 1 style)

*Allen wrench set (standard)

*Adjustable wrenches (8" and 12")

*Weld height gage, bridge cam type or homemade

*Pipe wedges - 2 (Armstrong 79-493 or Mathey Dearman D272 or homemade)

Approximate Total for Good Quality Required 2nd Quarter Tools \$550

Tools Required for 4th Quarter Training

*File, 16" half round double cut bastard with handle

Approximate Total for Good Quality Required 4th Quarter Tools \$50

Additional Tools – Recommended But Not Required

Files, 6" 3 square (triangular) and 10" round bastard, with handles

Radius Marker, Flange Wizard #72800

Compass that will hold a standard pencil

Deburring tool, triangular scraper (General #478 recommended)

Automatic prick punch (Starrett or General recommended)

Water pump pliers – "Channel Locks" (Extra large)

Carpenter's squares, 16" x 24" and 8" x 12", graduated in 8ths

12 or 15 inch adjustable wrench with spud

Adjustable wrench (15")

Utility knife

Rubber, dead blow hammer, 3 lb

Ball peen hammer, 12 or 16 oz

Locking C clamp, 3 ¾ opening, 11' long (Vice Grip recommended)

C clamp, heavy duty, 4" or 6" (Bessey or Wilton recommended)

Crow/Wrecking bar, 24 inch and 12 inch or similar size pry bars

Combination wrench set, standard (1/4" to 1 ¼") and metric (8mm to 17mm minimum)

Allen wrench set, metric

Squaring magnets

Sledge, short handled, 3 lb. or larger (Nupla/Strike Force HD-4, 4 lb. or Wilton unbreakable recommended)

Socket set, standard, ¼" drive (down to at least ¼" socket size)

Chipping hammer (Atlas recommended)

Wire brushes, large (V type bristle arrangement recommended) and small stainless

Striker with extra flints

Air slag scaler (Top Cat TC1L or Texas Pneumatic, chisel type recommended)

Die grinder, 1/4", straight, with large diameter parallel sided and "tree" shaped steel burrs / rotary files

Aluminum burr for die grinder

Recommended Tool Approximate Total \$1,050

Note: All costs are based on new good quality tools. The totals can be reduced substantially by purchasing lower grade and/or used tools.

