

Equipment and Supplies

The Red Bench Women's Workshop Corporation



Welder

- CC/CV 1 phase (or 3-phase with converter) multi purpose welder (~10-38V, up to 450A)
 - Examples:
 - Miller [304](#), [350](#) XMT CC/CV (350 has Dinse connections, though)
 - Miller Millermatic [255](#) (Dinse connections)
 - ESAB Warrior [300i](#)
 - ESAB Rebel [235iC](#)
 - Lincoln Speedtec [215C](#)

Wire Feeder

- *Standard duty 1-spool wire feeder*
 - Examples:
 - Lincoln [LF72](#) Standard Wire Feeder
 - Miller [20 Series](#) basic or digital
 - ESAB [Robust Feed Pro](#)
- *Wire feeder accessories*
 - V-groove drive rolls for .035, .045, .040 that are compatible with feeder

Welding Torch

- Ensure attachments are compatible with welder (lugs or Dinse or Tweco)
- *GMAW*: 250-400 A, ~15' cable
 - Example:
 - Bernard T-Series [MIG Gun](#)
- *SMAW*: ~300 A, ~15' cable, twist or tong stinger
 - Example:
 - Miller SMAW [electrode holder](#)

- GTAW: 150A, ~15' cable, air cooled, flex head
 - Example:
 - Miller [A-150](#) Flex Valve

- Torch accessories
 - GMAW:
 - Contact tips (.035, .040, .045), gas diffusers, nozzles
 - Contact tips and gas diffusers must have compatible connectors, must be compatible with GMAW gun
 - Consumables kit
 - Example:
 - Miller [Kit](#) (Miller gun compatible)
 - Bernard Centerfire [Starter Kit](#) (Bernard gun compatible)

 - GTAW:
 - Foot pedal, must be pin compatible with welding machine
 - ~10-20' cable, 8- or 14-pin connector
 - Example:
 - ESAB compatible [foot pedal](#)
 - Miller compatible [foot pedal](#)
 - Gas lenses and collets (1/16, 3/32, 1/8), cups (#6, #7)
 - Example:
 - Miller Weldcraft [gas lens kit](#)
 - Gas diffusers and collets (1/16, 3/32, 1/8), cups (#5, #6, #7)
 - Example
 - Miller Weldcraft [accessory kit](#)
 - Full GTAW accessory kit
 - Example:
 - Miller full [accessory kit](#)

Filler Wire and Electrodes

- GMAW/FCAW wire
 - .035, .040, .045
 - 44 lb spools preferred
 - Mild steel, copper coated
 - Example:
 - Lincoln [SuperArc L59](#) wire
 - Flux core, general purpose
 - Example:
 - Lincoln [InnerShield NR 23](#)
 - Stainless steel
 - Example:
 - Lincoln [LNM 309LSI](#) for stainless to carbon steel applications

- *GTAW rod*
 - 1/16", 3/32"
 - Mild steel, general purpose
 - Example:
 - Lincoln [LNT 24](#)
 - Blueshield [ER70S-2](#)
 - Aluminum, for 5xxx/6xxx alloys
 - Example:
 - Lincoln [Superglaze 4043](#)
 - Stainless steel
 - Example:
 - Lincoln [ER 308L](#)
- *SMAW electrodes*
 - 1/16", 3/32", 5/32", 1/8"
 - Mild steel, anything in the 70xx, 60xx range
 - Examples:
 - Lincoln [Basic E7018 H4](#)
 - Lincoln [E6010](#)
 - Lincoln [Omnia 6013](#)

Shielding Gas

- 120-244 cu. ft./size 22 or size 50 with XPR top or other safety cap system
 - Pure Argon and StarGold Ar-CO2 mix
 - Example:
 - AirLiquide [Blueshield mix size 50](#)
 - AirLiquide [Argon size 50 XPR](#)
- *Regulators*
 - Female out/male in single-stage valve tank mount regulators
 - Example:
 - McMaster Carr [tank mount regulators](#)
 - Princess Auto [Argon regulator + hose](#)
- *Hoses*
 - Minimum 10' CSA AB-AB standard or heavy duty 1/4" gas hoses
 - Example:
 - Miller 12' [gas hose](#)

Other Equipment

- *Plasma cutter*
 - Examples:
 - Hobart 120V [Airforce 12ci](#)
 - Miller 6.75 CFM [Spectrum 875](#)
- *Portable fume extractor*
 - Example:
 - Miller [Filtair Capture 5](#)
 - Enviroflex [Cleaner Air MAC2](#)
- *Horizontal band saw*
 - Minimum 7in x 12in, 1 HP DC motor
 - Examples:
 - Jet [1HP 115V horizontal bandsaw](#)
 - Grizzly industrial [1HP horizontal bandsaw](#)
- *Welder cart and cylinder rack*
 - Example:
 - Miller [cart](#)
- *Bench grinder*
 - 1/2-3/4 HP ~8" wheel diameter
 - Example:
 - Dayton [3/4 HP bench grinder](#)
- *Angle grinder*
 - 4 1/2" - 5"
 - Cordless preferred (12-18 V battery + compatible charger)
 - Example:
 - Milwaukee cordless [angle grinder](#)
 - 4 1/2" - 5" grinding and cutting discs
 - Examples:
 - Walter 5" [grinding wheels](#)
 - Walter 5" [zip discs](#)
- *Power drill*
 - Any drilling capacity (i.e. 1/2" in steel)
 - Cordless preferred (12-18 V battery + compatible charger)
 - Example:
 - Milwaukee 1/2" [cordless drill](#)
 - Screwdriving and drill bit set (titanium preferred)
 - Example:
 - [136 piece set](#)
- *Welding screens*
 - Shade 8 preferred
 - Example:
 - ULINE [Shade 8 Screen](#)

- *Wire brush*
 - Mild or stainless steel bristles
 - Small and large
- *Pliers*
 - 6" plier set
 - Example:
 - Princess Auto [plier set](#)
- *Hammers*
 - Hammer set including rubber mallet, ball pein, cross pein, and sledge
 - Example:
 - Princess Auto [hammer set](#)
 - Chipping hammer for welding
 - Example:
 - Princess Auto [chipping hammer](#)
- *Wrench set*
 - SAE and metric
 - Various sizes
- *Screwdriver set*
 - Various sizes
- *Socket set*
 - SAE and metric
- *Hex key set*
 - SAE and metric
- *Adjustable wrench set*
 - Various sizes
- *Locking plier set (vise grips)*
 - Various types and sizes
- *Hack saw*
 - 12" adjustable
 - Various blade types
- *Tape measure*
 - SAE + metric, any length
- *Square*
 - Any type and size
 - Magnetic squares of various angles for welding
 - Princess Auto [welding magnet set](#)
- *Level*
 - Magnetic or non-magnetic, any length
- *Bench vise*
 - 8" fixed base bench vise
 - Boltable to tabletop
 - Example:
 - Princess Auto [8" bench vise](#)

- *C-clamps*
 - Multiple sizes
 - Iron bodied
 - Example:
 - Princess Auto [8" c-clamp](#)
- *Marking tools*
 - Soapstone, pencils, etc.
- *Nuts, bolts, screws*
 - Various types, sizes
- *Tool chest*
 - Must be on casters
 - Any size, non-wood tabletop surface preferred
 - Example:
 - Uline [tool cart](#)
- *Workbench*
 - Steel body
 - Example:
 - Miller [Arcstation](#)
- *Shelving Unit*
 - Steel body
 - Example:
 - Princess Auto [4-shelf unit](#)
- *Cabinet*
 - Must be on casters
 - Steel body
 - Example:
 - The Home Depot [freestanding cabinet](#)

PPE and Safety Supplies

- *First aid kit*
 - Type B or C (note: The Red Bench is not a workplace; we are choosing to be as prepared as possible)
 - Examples:
 - Canadian Red Cross [Type C Kit](#)
 - First Aid Canada [Type B Kit](#)
- *Fire extinguisher*
 - Class ABC 10 lb
 - Example:
 - Uline [fire extinguisher](#)
- *Eye protection*
 - Must meet CSA standard Z94.3
 - Safety glasses
 - Eye protection for both prescription glasses and non- prescription glasses wearers
 - Examples:
 - Uline wraparound [safety glasses](#)
 - Uline [OTG safety glasses](#)
 - Face shields
 - Full frame, ratcheting
 - Example:
 - Uline [Uvex face shield](#)
- *Welding helmets*
 - Auto darkening
 - Examples:
 - Miller [DigitalElite helmet](#)
 - Lincoln [Viking 2450D helmet](#)
- *Gloves*
 - Welding gloves with gauntlet
 - Example:
 - Selection of [women's welding gloves](#)
 - Nitrile gloves
 - Small, medium large
 - Example:
 - Uline [black nitrile](#)
 - Shop gloves
 - Leather palmed work gloves
 - Example:
 - Uline safety [cuff gloves](#)

- *Fire resistant welding jackets*
 - Women's FR jackets (small, medium, large)
 - Example:
 - Angelfire women's [FR jacket](#)
- *Disposable earbuds*
 - Example:
 - Uline Laser Lite [earplugs](#)
- *N95 masks*
 - Example:
 - 3M N95 [particulate masks](#)