

# Tool List - Metalsmithing

## Bare Minimum for Beginners

SonjaJeanette.com

Category	The following list will allow fabrication of basic flat shapes, rings and applied textures for beginners.	Consider...
<b>Safety</b> an ounce of prevention is worth a pound of cure	<ul style="list-style-type: none"> <li>• proper ventilation!!!!</li> <li>• eye protection (always wear goggles in studio!!)</li> <li>• large box of baking soda (neutralize acids like pickling solution and puts out fires) I keep it at my soldering station.</li> <li>• fire extinguisher</li> <li>• first aid kit</li> </ul>	finger tape (usually green, for burns, cuts and helps with gripping too) ear plugs dust masks
<b>Workbench/Work Area</b>	<ul style="list-style-type: none"> <li>• any stable surface able to tolerate abuse.</li> <li>• bench pin with V notch and C-clamp to attach to work surface (work surface should be jeweler's bench height to relieve strain in neck and shoulders).</li> </ul>	jewelers bench, solid wood top with skirt is best stable chair with wheels fireproof flooring
<b>Pliers</b>	<ul style="list-style-type: none"> <li>• round nose plier (box nose joints are best)</li> <li>• flat chain nose plier (box nose joints are best)</li> <li>• wire cutter</li> </ul>	nylon coated flat pliers (love, love, love mine) flush cutters and any plier of better quality and one that will make you work faster and better
<b>Cutting</b> to cut sheet metal, tubing, wire, custom bezel settings and more	<ul style="list-style-type: none"> <li>• jeweler's saw frame (wider throat is best)</li> <li>• saw blades (size depends on the thickness of your material)</li> <li>• bur lube for blades (can use beeswax or wax crayon)</li> </ul>	metal sheers (un-serrated, like scissors for metal) bench sheer tube cutting jig
<b>Drilling / Piercing</b> • something to drill holes in metal • eye protection is VERY important!	<ul style="list-style-type: none"> <li>• rotary tool like FlexShaft , Dremel or Micromoter (for drilling holes, finishing and polishing)</li> <li>• selection of drill bits ranging (.02mm - 2mm)</li> <li>• selection of rotary bits (a kit may come with rotary tool)</li> <li>• scrap wood (surface for drilling on)</li> <li>• piece of leather, eraser or tape (holds metal, prevent burns)</li> <li>• center punch (or use a nail)</li> </ul>	steel disc cutter - cuts out discs quickly if you find you cut a lot of holes of a consistent size, look into a steel hole punch of some kind to do the job quickly
<b>Fabrication</b>	<ul style="list-style-type: none"> <li>• steel bench block (or any flat piece of steel, non-marred surface is best)</li> <li>• steel ball peen hammer (2" - 3" long head)</li> <li>• nylon hammer or other non-marring hammer (med - large)</li> <li>• scribe (or large sewing needle)</li> <li>• metal mm ruler (T-square if possible)</li> </ul>	ring clamp (wood or metal, your preference) small rotating bench vise digital calipers - can measure about anything steel drafting compass/divider other hammers as needed large brass hammer (use on dapping tools & disc cutter) dapping block for making domes steel ring mandrel, ungrooved w/American sizes metal ring sizers - if you are making rings
<b>Soldering</b> fire-proof surface, ventilation and eye protection is VERY important!	<ul style="list-style-type: none"> <li>• solder brick (kiln firebrick) and/or solderite board</li> <li>• fireproof surface like floor tiles or metal cookie sheet</li> <li>• torch (handheld butane torch is super easy for beginners)</li> <li>• gas for your torch</li> <li>• solder (medium paste is easiest and works for most things)</li> <li>• wood handled cross-locking bent nose solder tweezers</li> <li>• solder pick (titanium is best)</li> <li>• glass dish for quenching water</li> </ul>	turntable easy and hard solder (add flux if using sheet/wire solder) white-out (to protect older solder joints from opening)
<b>Pickle</b> used to clean metal after soldering	<ul style="list-style-type: none"> <li>• copper or wood tongs</li> <li>• pot for pickle (a used covered crock pot will work)</li> <li>• Sparex or PhDown (sodium bisulfate) to make pickle</li> <li>• soft brass brush for cleaning after pickling</li> <li>• acid resistant surface like tiles</li> </ul>	pickle works best when warm, not boiling. stainless steel strainer for smaller items
<b>Finishing</b>	<ul style="list-style-type: none"> <li>• one really nice 8" half-round file (this is not the tool to bargain shop for, get a really good one, medium cut)</li> <li>• one set tiny metal needle files</li> <li>• one set 6" metal files</li> <li>• wet/dry sandpaper: grits 320, 400, 600</li> </ul>	emory cloth more large files (coarse to fine) handles for your files (comfort) rubberized abrasives (used on dremel or flexshaft)
<b>Buffing/Polishing</b> (tripoli to remove very fine scratches and then rouge for a high-gloss finish)	<ul style="list-style-type: none"> <li>• 2 soft cotton buffing wheels for rotary tool (about .75" diameter, one for each compound)</li> <li>• Jeweler's tripoli compound (contains abrasive)</li> <li>• Jeweler's rouge compound (contains no abrasive)</li> <li>• Clean with dish soap, ammonia and hot water (about 1 teaspoon per 500mL of water)</li> </ul>	polishing/buffing machine tumbler with stainless steel shot (do not bargain shop for this either) ultrasonic cleaner 3M Bristel Discs (these are fantastic, easy and come in a variety of grits)
<b>Misc</b>	Tim McCreight's Complete Metalsmith: Professional Edition sharpie, masking tape wood dowels & sticks (for sanding sticks) paper towels plastic shape templates	workshops and classes join local guilds and clubs journal to keep track of progress and projects