Buffing and Finishing

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Buffing and finishing a piece is arguably the most critical step in jewelry making. A piece that has been beautifully designed and crafted can be destroyed on the buffing machine in minutes – sometimes seconds. The techniques used in finishing a piece can, with skill, enhance the design of a piece of jewelry. The way a piece of jewelry is finished and the quality of the techniques used can make the difference between a professional looking piece and an amateur looking one. The key of a quality and professional finish is <u>CONSISTENCY</u>.

It is best to "finish" a piece as it's being built:

- It is easier to remove scratches and irregularities from pieces before they are soldered together rather than after. Each piece of metal should be examined carefully and pre-finished (usually to a white diamond finish) before soldering.
- Each solder joint should be cleaned upon completion. This will help prevent cleanup in those hard to reach places later. Wet-or-Dry sandpaper (the dark gray sandpaper) or the 3-M micro finishing paper is recommended for metal.

Steps for Finishing

- 1. Determine the deepest scratch or mark in the metal piece being finished.
- 2. Estimate the equivalent sandpaper grit.
- 3. Sand AGAINST the scratch. For each piece, there is usually a direction that is easier to sand and one that is more difficult. Be sure that the final sanding direction with each grit of sandpaper is in the more difficult direction. This will enable you to sand in the "easy" direction in the next, finer grit of sandpaper and be able to tell when all of the coarser scratches are removed.
- 4. Sand with progressively finer grits of sandpaper completely removing all of the previous sanding marks each time. Work down to #400 or #600grit sandpaper. There should be no marks other than the final sandpaper grit all of the marks from the previous sandpaper should have been removed with the progressively finer sandpapers. NO CHEATING on this part!!! Make sure that the final sanding marks are perpendicular to the direction that the buff will be on the metal.
- 5. It is recommended to buff with White Diamond Compound to remove all of the scratches even if the final finish will be a coarser one. This will provide an even base for the finish and therefore a more consistent look.
- 6. Use sudsy ammonia to clean the compound from the work and hands.
- 7. There are many final finishes from which to choose:

<u>Satin</u>	<u>Other</u>
Scotch Pad	High Polish – White Rouge
Brass Brush	Tumbled Finish
Steel Wool	Sand Blast Finish
Pumice on a Muslin Buff	Acid Etched Finish
Wire Wheel	Oxidized or Patina Finish



Possible finishes:

Frosted surface

Heat and quench in warm pickle. Steel wool or a brass brush may be used to highlight areas.

Sandblasted

Glass beads work best. Over-sandblasting can warp the metal.

Steel Wool

Use 00 (med.) to 0000 (very fine) steel wool. Steel wool can be used dry, under water, or under water with liquid dish soap for progressively finer finishes. Rub in one direction or in an even circular motion. Remember CONSISTENCY is important.

Pumice

Saturate the buff with a paste of pumice and water @1750RPM. Wire Wheel

Use a lubricant of light oil or liquid soap @ 3400RPM.

Bristle Brush

Use pumice mixture or light machine oil @ 600 RPM.

Tumbled Finish

Tumble for ½-3 hours. Use steel shot with lubricant.

Buffing

The buffer is a quick way to polish pieces. BE CAREFUL!! It is also a quick way to destroy pieces! The buffing compound is abrasive – that is why it removes scratches. But it will also abrade the design or edges of the piece very quickly. USE BUFFING SPARINGLY!!

1. Work in the work zone of the buff – below the horizontal centerline of the wheel. Hold the piece firmly. Press firmly against the wheel. Move the piece around. If the piece stays too long in one place, the wheel will cut grooves into the metal. Be sure that the wheel does not catch an edge or sharp piece of metal. Always have the wheel "roll off " the metal.

- 2. Buff until all of the scratches are gone.
- 3. Wash the piece with warm water and sudsy ammonia. Use a toothbrush for those hard to reach spots. For very difficult to clean areas, soak the piece in warm water with sudsy ammonia in it or use the ultrasonic cleaner to shake the compound out.

<u>Safety</u>

- 1. Tie back long hair or anything that can get caught in the buffing machine. Including: necklaces, bracelets, large rings, neckties, baggy sleeves, etc.
- 2. ALWAYS wear goggles, safety glasses (with side shields), or a facemask. A paper dust mask is recommended.
- 3. Do NOT wear gloves or anything else that can get caught in the buffing machine. If the piece is too hot, use a cup of water to dip it in to cool it. The buffing compounds are grease based and the water will not affect them.
- 4. Wash piece and hands with sudsy ammonia and warm water. Buffing compound is a grease-based compound and it should be completely cleaned before the next compound is used.