

PENLAND SCHOOL OF CRAFT

David H. Clemons Demonstration Material List

Are there books you would suggest students read before taking this online demonstration?

There are no recommended books.

What is the range of techniques you intend to cover?

piercing, texturing techniques, grinding, soldering, welding, basic forming, hydraulic press compression forming, tap and die

Is there any additional information that could be useful to students trying these processes in their own studio?

Pewter is a contaminant in silver soldering and annealing processes for nonferrous metals. Prepare a specific area within your studio to execute pewter projects. You can use many of your general metalsmithing tools to work with pewter with the exception of fine files. Ideally, it is best to use tools dedicated to pewter work. Any tools or areas in your studio that may cross over into your general metalsmithing practice should be thoroughly cleaned after the completion of your pewter work. Pewter is a metal with some unique properties lending an immediacy and fun to working with the metal. I look forward to working with you in this introduction to the material.

What should students have for the demonstrated project?

I would recommend having a work apron and the usual safety items normally utilized for metalworking, eye protection, hearing protection, etc.

A hydraulic press is ideal for the compression forming technique demonstrated here, as it offers the most control. If students do not have a press they can use a large vise lined with blocks on either side of the shaker. They would then tighten the vise to create compression. They may have to alter the height of their shaker to allow for the maximum spread of their vise jaws. With this option they would need to perform a repeated method pressing and rotating the form in the jaws.

If students do not have access to an anvil or stake that can be used to bouge a fabricated cylinder, I would suggest procuring a large dowel or piece of pipe at least 1 " and up to 2" in diameter that could be held by a vice. PVC pipe is good as it is easiest to cut and drill if necessary. Metal pipe will work but is more difficult to cut or purchase smaller lengths.

Below is a resource list for materials, tools, and equipment used in the demonstration:

14 Gauge Sheet, 6"x 12" 2 pieces	Contenti Item No. 235-062
Extra Low Temp Solder 1 spool	Stellar Technical Item No. 97-125-20
Harris Stay Clean Flux 1 bottle	Rio Grande Item No. 503032
Flex Shaft or Multipurpose Tool for drilling, texturing, & buffing	Rio Grande Item No. 117534
8" Half Round Bastard File (or comparable) 1	Grainger Item No. 24N367
Friedrich Dick Flat No. 2 Cut File 1	Rio Grande Item No. 114700
Friedrich Dick ½ Round No. 2 Cut File 1	Rio Grande Item No. 114708
Needle File Set 0 Cut 1	Rio Grande Item No. 114258
6" ½ Round Carbide File 1 (optional)	McMaster-Carr Item No. 81725A19
No. 2 Herkules Saw Blades 1 gross	Rio Grande Item No. 110046GR
Utility Tweezers	Rio Grande Item No. 115057
Wire Cutters	Rio Grande Item No. 111825
Metal or Aviation Shears	Rio Grande Item No. 111429
Rawhide Mallets 9 oz	Rio Grande Item No. 112218
Forging Hammer	Rio Grande Item No. 112530

Planishing Hammer	Rio Grande Item No. 112402
Solderite Pad 12" x 12" x 1/2"	Rio Grande Item No. 502052
Blowhorn Stake or 2" Wooden Dowel or Pipe	Hardware Store
8mm Ball Bur	Rio Grande Item No. 345530
Egg Bur	Contenti Item No. 332-951E
No. 49 Drill Bit	McMaster-Carr Item No. 29045A774
No. 7 or 13/64" Drill Bit	McMaster-Carr Item No. 29045A727
¼" - 20 Tap	McMaster-Carr Item No. 2636A27
¼" - 20 Die	McMaster-Carr Item No. 2576A451
¼"-20 Nylon screw	Hardware store
Dap Set	Rio Grande Item No. 112152
Smith Mini Torch	Rio Grande Item No. 500029
Mini torch Tip No.3	Rio Grande Item No. 500080
Smith Air Acetylene Torch	Rio Grande Item No. 500105
Smith No. 0 Torch Tip	Rio Grande Item No. 500156
Smith No. 00 Torch Tip	Rio Grande Item No. 500155
Annealing pan 7" with Pumice	Rio Grande Item No. 502046

Cotter Pins 5/32" diameter x 1.5" long 1 box	McMaster-Carr Item No. 90520A112
Binding Wire Low-Carbon Steel .048" 1 Spool	McMaster-Carr Item No. 8870K12
0000 Steel Wool	Grocery or Hardware Store
Baking Soda, 1 small box	Grocery Store
Assorted Wet/Dry Sand Paper (120-400), at least 2 each	Hardware Store
Hermes Assorted Sanding Pads	Rio Grande Item No. 337398
Leather Working Gloves (no fabric at fingers)	Hardware Store
Jax Pewter Black 1 bottle	Rio Grande Item No. 335295
Simichrome Polish 1.75 oz. tube	Rio Grande Item No. 331126
Sunshine Cloth 1	Rio Grande Item No. 337030