## RECOMMENDED JEWELLERY TOOLS FOR TRAINING



## Setting up your workshop for Advanced Jewellery Training.

The JTS Advanced courses & Apprentice training caters for students who have basic jewellery making skills acquired from either our beginner courses or from face to face classes that you may have previously completed.

Check the tool list to make sure you have the necessary tools for the project & for training.

To find the specialized tools locally, Google search; 'jewellery tool supplies' or for US students; jewelry For international supplies go to; www.riogrande.com

There is of course one more important addition to the list. A strategically positioned media player to view the JTS lessons.

#### SAFETY FIRST



The most important thing in your workshop is your health and safety. Make sure you have the necessary safety gear on hand. Wear safely goggles at all times, wear a dust mask when using your drill, and extraction or ventilation should be in use over soldering and pickle areas.

### **PLIERS**



Just about all JTS projects require the use of specialised pliers.

To start with you will need; round nose, half round, chain nose (sometimes called snipe nose) and Parallel pliers.

Later you can add a pair of soft jaw (nylon) pliers for minimising tool damage.

#### PIERCING SAW & CUTTING TOOLS



Every jewellers best friend is the piercing saw. 4/0 and 5/0 blades will get you through most advanced lessons.. I recommend that you practice saw piercing so that you limit the amount of blade breakages. Other cutting tools to add to your list are shears & a pair of end or side cutters.

### DRILLING MACHINE



There are three main drilling machine options available for jewellery students, the cheapest being a Dremel rotary tool. Don't be tempted with this as it will not cope with the advanced classes.

I recommend a good quality micro motor or a Foredom pendant drill. (Search on Ebay)

Just be aware that some of the cheap micromotors may lack the necessary torque (power).

#### HAND & NEEDLE FILES



You can start your collection of files with a flat file and a half round ring file. There are different cutting grades, so start with a number 2 cut then add '0' cut files later.

Needle files are cheaper to buy by the set, with all shapes included.

### **BURS & DRILLS**



The list for burs and drills could be a really long one so just make sure your collection includes; Imm I.2mm & I.5mm drills & I.2mm 2mm & 2.5mm round burs. This will get you started. Then later add hart burs bud burs, cup burs & tapered burs for more adventurous projects. You can also perform most of your jewellery finishing with discs & mops. I recommend a Split mandrel, a snap on mandrel (& Moors discs) Silicone carbide rubber polishers, Goats hair brush mops & cotton mops. This can be expanded on later.

#### MARKING TOOLS



For hobby courses marking out is not too important, but to develop your skills you need to have marking tools such as a steel rule, scribe set square and protractor for working out angles. It is really important to use good quality dividers for marking arcs and circles. I also value a scalpel for marking straight lines.

### HAMMER BLOCK & MANDREL



I recommend a steel ring mandrel and a chasing hammer for shaping and sizing rings, and for general forging I use a panel beaters hammer and clamp a flat stake into my bench vice. An anvil is good to have if you can find one.

A steel bench block is good for some shaping tasks. All jewellers have a raw hide or nylon mallet for forming metal without marking it.



#### MEASURING DEVICES



Accuracy is the key to good jewellery making. Traditionally jewellers would generally use a steel Vernier or caliper gauge but there are other options such as leverage gauge or spring gauge. Consider getting the digital or dial type vernier for easy use. They are not that expensive, your local hardware may have them. You will also need a ring size stick and finger gauge if you are making rings,

Note; Some steel mandrels have finger size markings.

# COLLET BLOCKS



Making settings becomes so much easier once you add collet blocks to the list. Start with a 17 degree round block & punch. You can add to the collection

### **EMERY BUFF STICKS**



These are something you can make yourself quite easily. Wooden or MDF off cuts should cost you next to nothing. Make sure you find a piece of doweling too for finishing inside rings. There is a free video on making buff sticks. Type into the search bar 'emery'

The following emery paper grades will get you started. P400 P800 P2000

#### HALLMARK PUNCHES



If you live in a country that allows self stamping then you will need to collect the hallmark stamps or use the plier punch. You could also have a personal initial stamp made to identify your work.

## SOLDERING EQUIPMENT

Not all JTS projects require soldering, but you will eventually need to invest in soldering equipment. Hobby jewellers generally start out with a butane or a gas only torch and the results can be great. However it is extremely difficult to control the heat and perform precision soldering. If you intend to advance further to commercial jewellery making then the torch of choice is 'The Little Torch' This requires an oxygen bottle as well as a gas bottle. Discuss your needs with your local gas supplier.

You will also need a heat resistant surface to solder on such as a charcoal block or a ceramic soldering board. You will also need soldering tweezers a third hand for setting up operation and flux. A popular flux for jewellers is called Tenacity 4A flux paste. The traditional method is a borax cone and dish. To remove the oxides use warm sodium bisulfate & neutralize the acid with sodium bicarbonate all in well ventilated area.

### INGOT MAKING TOOLS



This is not essential for training but once you have a crucible and ingot mold you can salvage your scrap metal and reduce the need to keep buying stock gauge precious metals. This set up is only applicable if you have an oxy/gas set up.

### DRAW PLATES



Start off with a round draw plate 0.5mm-3mm, this will cover most projects, I rarely use anything else. You can use good gripping pliers to pull the wire through, but hand draw tongs make the task easier. I use the bench vice to hold the draw plate. For ease you might prefer to make or buy a draw bench.

### RING BENDER



In some lessons I demonstrate how to form thick rings without a ring bender but I do use my ring bender a lot, so put one on your wish list. The type I use are hard to find but there are a few choices including the plier type. Ensure you buy quality.

## DAPPING/DOMING SET



There are lots to choose from. Just make sure they are good quality from a reputable tool supplier otherwise you will be replacing them when they start denting. It will save you money if you can buy a set that includes other forming shapes such as the swage blocks (as above) They will come in handy for more advanced projects.

## SETTING TOOLS



It is essential that you are a competent jewellery maker before you specialize in gemstone setting. The advanced level sometimes includes demonstrations on how to finish the piece and stone set the projects. You will also be advised along the way on what tools are needed and how to make some of the tools.

The Dremel electric engraver is a favorite tool of mine and not expensive. It will make riveting and setting a lot easier.

I also find that burnishers come in handy for hardening surfaces and applying a bright finish to metal without removing any.

A good quality ring holder saves wear and tear on your fingers, and a Bench-Mate is a great tool to add to your wish list.

#### ROLL MILL



The roll mill is a big investment so make sure that you purchase good quality not the cheapest. Having reduction gears is not essential, but having the combination wire and sheet mill is. Even better if you have the half round rolls too. There are quite a few training tutorials that do not involve the roll mill so you can start training before you commit to buy.

## POLISHING MOTOR



You can spend a fortune on a motor & extractor combination. But you can get by with a standard 2800 RPM I/5 HP motor (a slight variation is fine) Just make sure iyou can fit tapered spindles to fit the mops to. Also be aware that a lot of dust is generated, so mask up. My compound of choice is Hyfin for cutting and Rouge for finishing.

### **ULTRASONIC & TUMBLER**



Its nice to have an Ultrasonic cleaner & a Tumbler for finishing your jewellery, but you can get by without them until you can afford to add them to your wish list.