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Starting out Pen turning

Turning wooden pens is a very rewarding and enjoyable pastime. In a short time you will be delighting any lucky recipient of your new found skill. Whether you're already a woodturner, or totally new to it,



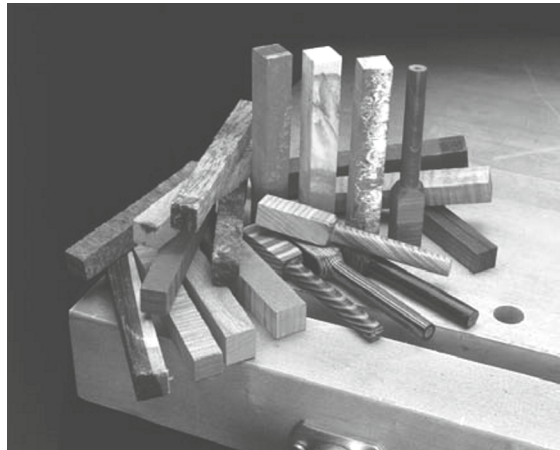
pen turning is a quick and easy skill that requires only a minimum of equipment. There are many different styles available, from the standard ballpoints, rollerballs and fountain pens as well as propelling and click pencils. You will also discover the wide variety of plating finishes, from 24k gold plating right through to Rhodium plating that will last a lifetime. In addition to the wide choice of pen type and plating, there is an almost endless choice of man made acrylics and resin blanks. The basic equipment needed is available from most good woodturning stores along with additional accessories that can further assist you once you have mastered the basics. With all this choice and relative ease of pen turning, the

following is a brief guide to take you through the basics of pen turning, giving you all the information you need to begin in creating a beautiful writing instrument.

Pen blank selection

The choice of blanks is endless and covers the full spectrum of wood available for turning, as well as many varieties of man made materials and natural media such as stone and animal horn.

When choosing your pen blanks try to remember that when turned a pen has very little surface area, in comparison to a bowl for example and can look plain if the material used is too bland. When choosing a wooden pen blank ensure that it has an interesting figuring or if you are going to use a man made material select one with colour contrasting ripples. Also be aware that some woods such as Paduak and Purpleheart have a very vibrant colour when first turned, but due to the effects of sunlight and air they become very dull and uninteresting.



Pen blanks vary in size from approximately 1/2" to 1" square and 4 1/2" to 6" long, so ensure that you select the correct size blank for the specific pen that you are going to turn. If you have any doubt when you are first learning, it would benefit you to use a bigger blank and turn it down, than get a small one only to find it is too small once you have finished turning it.

If you are going to use the more exotic woods such as Snakewood, Cocobolo and Kingwood, ensure that the blank is dry and free from any faults or cracks as these will cause you problems when you start to drill and turn them.

Tools and equipment

Lathes

It is recommended that you turn using a lathe speed of 2500rpm or faster to ensure a clean cut on such a small surface area. Most wood turning lathes have this capability, with small more compact lathes being more suitable to pen turning although pens can be turned on any size of lathe.

Drills

There are many different of types of drill available on the market today for drilling wood and can be used for pen making. Unfortunately many of these drills do not drill as accurately as is needed when pen making, so it is recommended a 'Bullet point drill' is used.

This type of drill reduces the risk of it wandering while drilling, ensuring it drills centrally and accurately to the size required, which is very important due to the final thickness of the wood once turned leaving very little room for error. Always remember to keep the drill moving and clear any shavings away to reduce any heat build up, as this will damage the wood and will cause it to crack and possibly split. Pen blanks can be drilled either in the lathe using a chuck in the headstock and a standard drill chuck in the tailstock or held vertically in a form a vice/clamp and drilled using a pillar/bench drill.

Pen Mandrels

Pen mandrels are a very helpful piece of equipment when turning pens as they ensure the pen runs accurately in the lathe. A pen mandrel is a steel bar machined accurately and is held in the lathe using a chuck or more commonly using a Drill driver (see Drill drivers) although many mandrels already have a drill driver as an integral part. It is recommended you purchase a double pen mandrel, which is long enough to accommodate both parts of the pen. This allows for more accurate turning and consistency in wall thickness, eliminating any problems that may occur when finally building the pen. Due to the different tubes sizes of the many various pens available, there are matching bushing



sets to slide over the mandrel and fit accurately into the ends of both tubes to ensure they turn concentrically. When the tubes and bushes are in place the tailstock is brought up into place and holds everything securely in place ready to be turned.

Drill drivers

A drill driver is used to securely hold the mandrel in place and to drive the mandrel via the lathe spindle. They are available in 1 or 2MT depending on bore of the headstock spindle in your lathe. One end of the pen mandrel fits tightly into the Drill driver and the other normally has a small cup end into which a standard revolving centre fits.



Glues and adhesives

It is important to select the correct glue when making pens. Cyanoacrylate or super glue ensures a strong bond but is expensive and inflexible with a quick setting time with little time for adjustment possibly causing problems and ruining the pen. Polyurethane adhesive is more cost effective, very flexible with a longer setting time and is also a gap filler if required.

Abrasives

When using abrasives on turned pens keep the abrasive moving along the tubes at all times and ensure that the wood does not get hot. If the wood becomes hot this will cause damage to the wood by either creating heat checks, small splits in the surface of the wood or in the case of many exotic woods they may crack and split completely.

Finishes



Waxes can be used to give a high shine but due to a pen being handled so much a wax finish will not last very long and also collects dust and dirt and will spoil the finished item. Friction polish is more durable and gives a high gloss finish and is easy to apply while the pen is still on the lathe.

Health and safety

As with all woodworking it is essential that a form of dust mask and safety goggles be worn due to the hazards of wood dust and shavings. Also ensure that the glue is used in a well-ventilated area and has set, prior to switching the lathe back on, so as not to flick glue into your face and clothes.

Literature and courses

There are many good books on the market guiding you from starting out pen turning through to more complex styles and designs as well as dedicated pen turning courses held in good woodturning shops.

Pen turning is simple to learn and before long you will be creating some stylish writing instruments admired and coveted by all that see them. So, get out into your workshop and start creating and enjoy this wonderful hobby.

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