

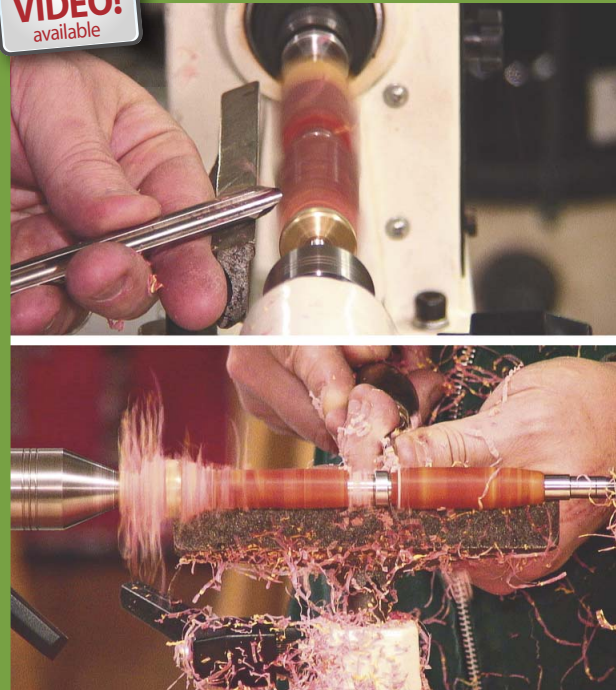
If you are still a little unsure about getting into pen and project kit making, why not come on one of our one day courses here at Axminster.

This is a one day course for anyone who wants to learn the art of pen making and producing objet d'art from project kits. If you are thinking of buying a small lathe or have a lathe, this is the course for you. Gaining a real insight into what can be achieved, after one day you will be able to leave with the completed, professionally finished masterpieces and a multitude of ideas and skills.

For details visit: www.axminsterskillcentre.co.uk
or call: Vicky Turner on 0800 9751905.



Pen Kits The Principles of Turning



www.axminster.co.uk/penmaking



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Empress Pen Kits

Code No's: 951809-951810



Pen Kit Instructions



www.axminster.co.uk/penmaking

Instructions for the pen kits...

Kit No's. 951809-951810 Empress

Pictures of samples of the finished articles, in both timber and acrylic, can be found in our catalogue in the 'Woodturning Projects' Section.

Below is a list of the items required to make the finished items from the purchased kits (Not including the body blanks). If you do not possess these items we have offered our catalogue stock code numbers alongside the items as a quick guide. We have tried to include everything in the list, although we realise that many woodturners will already have most of them.



Fully read manual and safety instructions before use



Ear protection should be worn



Eye protection should be worn



Dust mask should be worn



Foot protection should be worn

Required items...

Alternatives are listed to cater for different lathe configurations.

Deluxe Pen Mandrel 1MT
Deluxe Pen Mandrel 2MT

Code No:
211322
211323

60° Live Tail Stock Centre 1MT
60° Live Tail Stock Centre 2MT
60° Live Tail Stock Centre 3MT

340202
340203
340204

Bushing Set (4 pieces)
11/32" drill bit
15mm drill bit
Axminster Universal Barrel Trimmer
2 Part Rapid Epoxy Resin Adhesive
Alternative Zap-A-Gap Adhesive (Cyanoacrylate)

951820
702557
702584
700265
340282
990095

Recommended accessories...

Quick Action Pen Blank Vice
Pen Blank Sizing and Cutting Jig
Axminster Pen Assembly Press

600771
600623
200205

Preparing the blanks...

Using 19mm (3/4") Square stock; cut the blanks to the length of the brass tubes adding 2-3mm to allow for trimming. A Pen Blank Sizing and Cutting Jig makes this process very much easier.

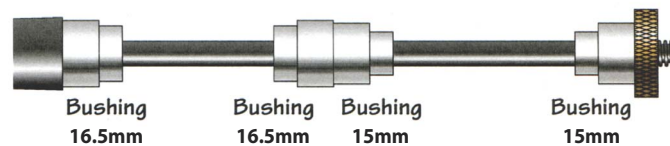
Drill an 15mm diameter hole through the centre of the shorter blank and an 11/32" hole through the longer one. Care must be taken not to force the drill bit, (this may cause it to 'wander' from the centre line), and remember to back out the drill frequently to clear the debris from the hole. If you are using a pillar drill the Quick Action Pen Blank Vice is a very useful accessory for this task, it ensures that the blank is held upright and firmly in position. Moreover, if the vice is clamped to the table of the drill, it will provide accurate repeatability for all the blanks that require drilling.

When the holes are drilled, spread the adhesive randomly over the brass tubes and insert the tubes into the blanks using a twisting motion to ensure the glue is spread evenly between the two surfaces. Over insert the tubes into the blanks by approximately 1mm giving an allowance for the blank to be trimmed to size and the excess glue to be removed. Using the Barrel Trimmer, trim the ends of the blanks squarely and neatly to the ends of the brass tubes; this will also remove any excess glue that may have exuded from the joint. Take care not to undercut the brass tubes.

Setting up the mandrel for turning...

Slide a mandrel spacer bush onto the shaft, add a 16.5mm diameter bush from the bushing set and add the 15mm 'tubed' blank. Next add the matching bush followed by the 15mm diameter bush, add the 11/32" 'tubed' blank and the other 15mm diameter bush.

Slide a mandrel spacer bush up to the assembly and add the locking nut. Tighten the locking nut to allow the assembly to be turned without 'creeping'. **Do not overtighten**, this may cause the assembly to distort and you will not achieve accurate alignment.



Turning the blanks...

Turn both blanks to the desired shape leaving slightly proud at the bushings. Sand the blanks using progressively finer grits of abrasive until the desired finish is achieved then apply your chosen finish. If using polyester or acrylic pen blanks we recommend using Micro-Mesh abrasives used wet.

Pen assembly...

- Layout the parts as in the diagram below paying attention to any grain alignment requirements on the blanks.
- Press the end cap into the back end of the longer tube.
- Slide the trim ring as shown below over the unthreaded end of the nib coupler, then press them into the end of the longer tube.
- Rollerball pen: Insert the spring then the ink refill into the long tube. Fountain pen: Attach the ink cartridge to the back of the fountain nib.
- Thread the Rollerball or fountain nib into the nib coupler.
- Press the cap/clip into the short tube.
- Press the centre band coupler into the other end of the short tube to complete the pen.

(See parts diagram on reverse side)

