

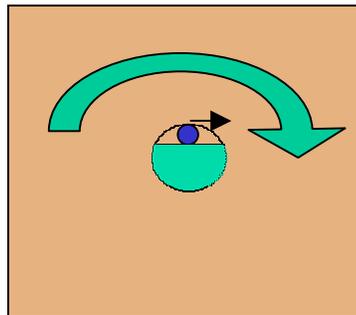
Basic Components of the PLS

The PLS consists of three pieces: the holder with a #2 Morse Taper mount, the mandrel rod, and the pin for the pin lock (.125" x 1" long). Using these three pieces you will be able to hold your blank and turn your part without any interference on the end faces of the call.

To assemble your mandrel, insert the mandrel rod into the holder. The end of the mandrel rod with the two narrow flats cut in the side about 3/8" apart is the end that fits inside the holder and the setscrew rests in one of those two flats. The two flats are machined into the mandrel to add versatility. Insert the mandrel rod into the holder completely and align the setscrew with the locking flat. If you wish to turn a longer part than the original specs, loosen the setscrew and slide the rod out until the setscrew aligns with the second locking flat. This will allow you to use a blank ≈ 1.00" longer. Be sure the setscrew sits in the flat machined into the rod. Do not tighten the setscrew on the main body of the mandrel or it may deform the rod and make removing the rod from the holder difficult or impossible. Once the mandrel is installed, and the blank is on the mandrel, slide the tail stock with live center up to the end of the mandrel and secure it, tightening the quill of the tailstock on the mandrel with slight pressure. It does not need to be "cinched down", just "snugged" up securely and the quill lock tightened.

How the 'Pinlok' Works:

The Pinlok type setup simply uses the supplied pin placed in the pin slot, and the bored call blank slid onto the mandrel. With the blank in the desired position, rotate the blank in the opposite direction of rotation of your lathe while holding the mandrel holder stationary. AS you rotate the blank (usually backwards or away from you), the friction of the ID of the bore on the OD of the pin causes the pin to roll on the flat surface it is sitting on. As it rolls off center it wedges itself between the mandrel rod and the wood, locking it in place. As you can see in the picture below, as the wood rotates, the pin rolls into an increasing smaller area which causes it to wedge, and hold the blank in place. One side note: the wedge effect will work in either direction, but if you lock it in one direction, direction will Be sure if you are turning your work piece by holder rather than the wood so the piece remains remount your way, it may not re-lock in exactly the same spot and may become off center as far as .002 to .020"(in extreme cases), which is more than



enough to cause issues with thinner walled calls. So be aware of where you grip to turn the call manually. Once the blank is locked in place, run your tailstock and live center into the center hole in the end of the mandrel, tighten the tailstock base, and then the center to the mandrel. Not much force is needed. Though too little force will result in the mandrel spinning on the point and 'chirping', and too much force will be hard on your center as well as make your holder very hard to remove from its taper. This is a 'by feel' thing, just enough pressure to keep it from chirping is ideal.

The Holder:

One of the nifty features of the PLS is the 'holder', which is part of the mandrel system. If you remove the mandrel rod from the holder by loosening the setscrew, you have a centered 5/8" hole. So now you can turn your kegs down to the 5/8" diameter, remove the mandrel rod from the holder, insert your mandrel holder into the headstock, and then with a little fitting, slide your keg into the holder and turn the other end. Use masking tape wrapped around the 5/8" portion to create a friction fit inside the holder. Wrapping it in two places will help center the keg even more. Once you have it mounted in the holder, you can cut on it, sand, buff, wax etc. Ever dropped a keg and chipped the end? Now you can re-insert the keg in the holder and refinish the chipped portion. You can also drill your kegs with this holder. If you have a tailstock mounted drill chuck, just insert the drill bit in the chuck, put the keg in the holder, adjust the tailstock up to the end of the keg, lock it down, and feed the bit into the keg to your proper depth. Voila – a centered hole.

Does the fun ever stop? True this method is not as ideal as a collet chuck setup, but it is less expensive. Another option is to purchase a collet chuck, and use the chuck as the mandrel holder. There are various collet chucks available and can add more versatility to your current setup.

Recessed Cuts:

Recessed cuts are an available option for almost all of the WEBFoot mandrels. These additional cuts allow you to turn, sand, and finish the entire face of each end of the barrel. Using a narrow tool, you can actually access and turn from the bore of the barrel to the outside. Typical use of the recessed cuts is to add a small chamfer to the keg end of the barrel to ease insertion of the keg if using o-rings and to add 'bell-mouth' to the mouthpiece of the barrel. Recessed cuts also make it easier to sand and finish areas that are otherwise inaccessible with other mandrels.

Some things to keep in mind:

The PLS and MVS mandrels are designed for use with a 60° pointed live center. Much like the ones you see for metal lathes. Many of the newer – less expensive lathes have started coming out with very small live center points. The only thing one can do is test the fit. If it seats properly in the center drilled end

hole then there should not be a need for a different live center. If the fit is loose, then a different style live center may be required. Many call makers prefer the larger metal lathe style live centers due to the larger point section of the live center, which allows one to actually use the point of the live center on the bore of the barrel – provided it is larger than the bore of the part.

Coating the mandrel with oil or wax is not recommend as it may have a negative effect on the holding abilities of the mandrel, particularly in the area of the center section of the mandrel or Holder Face.

Though drill bits are the same size, each cuts in its own way, so you might find that the blank is too tight on the mandrel and the harder it goes on, the harder it comes off. There are a few things you can do to deal with this. One is to sand the bore until it slides on fairly easily (again 'by feel'). Try a different bit or run the same bit through it a few more times to clean up any burrs. You can also, if you so desire, take a metal file or emery cloth to the entire surface of the mandrel while it is running at a medium speed and reduce the OD of the mandrel by a few thousandths, though this is very hard to do accurately. And lastly, you can send the mandrel and a call blank back to WEBFoot and we will fit the mandrel to the blank (shipping charges may apply).

The Pinlok can be a bit touchy when it comes to bore fit. If it is too loose, the pin will not contact the bore and therefore not roll when the blank is rotated, paying close attention to this, as it too is 'by feel'. Generally, if the .125" pin will not lock, try a incrementally larger pin (use old drill bits and cut them to length), or you can put a piece of scotch tape on the flat surface where the pin sits to tighten it up.

You can use this mandrel for all kinds of materials; Acrylic, all woods, aluminum and brass, and depending on composition, rubber and softer plastics. It is very strong and should last a lifetime if well taken care of.

Depending on the fit of your call to the mandrel, you can sand or polish the call without using any lock method at all. If there is just a little friction between the call and the mandrel, you should be good to go, keeping in mind that it will not hold up to cutting without a locking method in use.

Though this mandrel is extremely strong and easy to use, it does take a certain amount of getting used to, so practice with some inexpensive wood before you move on to your prize collection of ebony or cherry from the tree in your back yard that you grew up playing on. There is a science to building calls, and an art to keeping them in one piece. Don't rush it. If it's important to you, go slow. You will learn the limits of various woods as time goes on.