WEBFOOT Custom Calls
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C.L.S.

Basic Components of the Crushlok Mandrel:

The CLS consists of five pieces: the holder with a #2 Morse Taper mount, the mandrel rod, a crush sleeve, and two nuts (1/2" x 20 tpi). Using these pieces you will hold your blank by squeezing it between the holder and the crush sleeve.

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.

How the Crush Lock Works:

The Crushlok is a very simple design. The bored blank is put on to the mandrel rod and slid up against the face of the holder in the head stock, then the crush sleeve is placed against the other side of the blank and the two nuts are threaded on. Tighten the first nut with a wrench while holding the call blank with your hands. Be careful not to tighten the nut too tightly or the blank may crack. You will get the feel for this with the various types of woods you use as time goes on. Once the first nut is tight, tighten the second nut against the first to keep it from loosening by using the second nut as a 'jam nut'. Then run your tailstock and live center into the center hole in the end of the mandrel. Tighten the tailstock base, and then the center (quill). Not much force is needed. 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. If the block should come loose while turning because of uneven end cuts or soft wood (hopefully if this happens, it does so in the roughing stage), just tighten the nuts again and maybe with a little extra 'oomph'. Again, practice with some cheap wood such as pine 2x2s or the like to familiarize yourself with how this works and feels. Do not use the crush lock mounting for working on a call that is already finished as it may scratch the surface that is in contact with either the sleeve or holder unless you are planning on refinishing the ends of the call.

The Holder:

One of the nifty features of the MVS 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 ideal as compared to a collet chuck setup, but it is less expensive. Another option is to purchase a collet chuck, and use the collet 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 without removing it from the mandrel. 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:

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 with little resistance (again this is 'by feel'). Try a different bit or run the same bit through it a few more times to clean up any burrs. Another option is to purchase a chucking reamer to true the bore. Not only will you have a more accurate hole, but also a better surface finish to work with. 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. 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).

You can use this mandrel for all kinds of materials; Acrylic, woods, aluminum and brass, and depending on composition, rubber and softer plastics. It is very strong and should last a lifetime if 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 lock pin or crush sleeve and nuts.

If you want to make other styles, lengths, sizes or types of calls, additional configurations are available. Mandrel rods in ½", 9/16", 5/8", 11/16", and ¾", as well as stepped mandrels are readily available. Custom sizes are available, contact WEBFoot for details. 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.