

Zhen Knife

Universal Instructions

Version 1.0



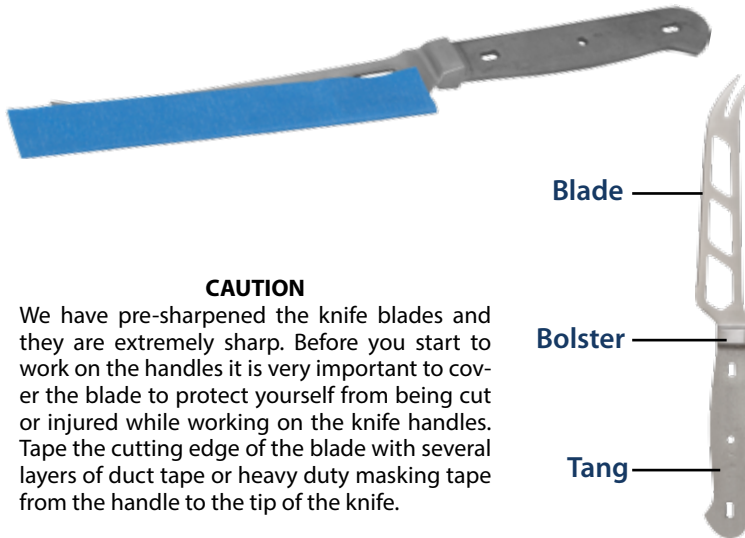
Please read and fully understand any and all safety materials that came with your power tools or machinery before operation. Always follow all safety guidelines set in place by the power tool or machine manufacturer.

Zhen Knife Kits

These instructions apply to the following Zhen knife kits



Before You Begin



CAUTION

We have pre-sharpened the knife blades and they are extremely sharp. Before you start to work on the handles it is very important to cover the blade to protect yourself from being cut or injured while working on the knife handles. Tape the cutting edge of the blade with several layers of duct tape or heavy duty masking tape from the handle to the tip of the knife.

1 Prepare Handle (scales)



The knife handles are also referred to as "scales" can be made from any type of wood or composite you choose, although we would recommend that you choose a high quality hardwood. The reason is that hard, tight grained woods are easier to finish and polish. They will also resist damage better than soft woods and stand up to heavy use. Cut two scales approximately 3/8" thick, at least 1-1/2" wide and minimum 5" long. Please note that the size of the scale will vary depending on the size of the knife style. Choose the best surface to be facing outward and mark the opposite side which will be facing the tang or the inside of the knife blade. Place the tang of the blade on one side of the scale you marked (inside) in previous step and using a pencil trace the outline of the tang onto the scale. Once you complete this on the first scale repeat the process for the other side of the scale.

2

Cut Scales To Shape



Stay outside the line when cutting

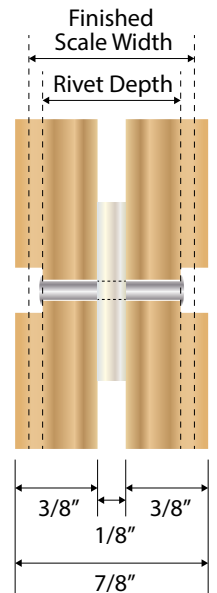


Next cut the scale out by using a band saw, scroll saw or coping saw. Follow the tang's outline from both scale pieces staying on the outside edge of the traced line. Using 120 grit sandpaper on a flat surface sand the sides of the scales that contacts the tang. This step is done to make sure the scale and tang fit flat together for a solid bond. If your scales are going to be flush with the bolster (the thick junction between the handle and knife blade) it is recommended to shape them down within 1/32" flush to the bolster to save time in the final shaping process.

3

Drilling The Rivet Holes

Please Note: If your knife does not require or you choose to not use rivets you may skip step 3. Maximum scale and tang thickness for rivets is approximately 3/4" and minimum total thickness approximately 9/16".



If the knife requires rivets place a few small pieces of double sided tape to bond the interior sides of the scales together making sure the two profiles match up. Place the tang on top of one the scales so that the bolster is against the edge of the scale and matching the profile of the tang and mark the location of the holes for the rivets. Using item #6233 Knife Handle Pilot Drill & Counter bore (sold separately) drill both scales together, this will ensure that the hole's mate perfectly. Depending on the shape and finished thickness of your scale material you will need to calculate the depth for you counter bore. For example; if you scales are 3/8" thick, times two sides = 3/4" plus the tang thickness of 1/8" for a total thickness before shaping of 7/8". Our final finished handle thickness will be 3/4" thick. That means that the counter bore needs to be 1/8" on each side which will leave room for the rivet head to sit flush with the finished handle. Once drilled and counter bored, separate the scales and remove tape. Be sure to remove and remaining dirt, oil or adhesive before gluing in the next step.

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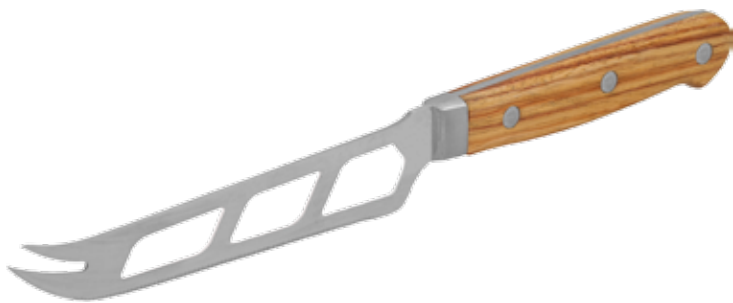
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4 Epoxy the Scales to the Tang



Start by scuff sanding the tang of the knife on both sides using 120 grit sandpaper. Then clean the tang with acetone to remove any dirt or grease. This will allow the epoxy to achieve a better bond to the tang. Once your tang is cleaned mix up the 5 minute epoxy and evenly coat both sides of the tang and begin gluing scales to the tang. Be sure that the scales fit flush tight against to the bolster (the thick junction between the handle and knife blade) and line up with the edge profile of the tang. Clamp the scales lightly and allow for the epoxy proper curing time per the manufactures recommendations. If you are using rivets, follow the same steps as above then using a hammer and punch, set the rivets together until the scale is firmly seated to the tang.

5 Finish the Knife Handle



Once the epoxy has fully cured and dry, you can remove the clamps and begin shaping and contouring the handle. We have found that air filled sanding drums work well along with half round and flat rasps and files can be used to shape handle. After you have the ruff shape and look you want you can begin the final shaping. We have used contour hand sanding pads, flap sanders or sandpaper wrapped around different diameter dowel rods to get the appropriate shape. Be sure not to remove too much material from the center of the scale. Concentrate on how the handle feels in your hand vs how it looks. Once you achieved the feel and look you desire, finish sand the handle starting at 220 grit thru 400 and apply a durable finish of your choice.

How to use and care for your Knife

Now that you have custom made your new Zhen knife it is important to take time and learn how to care for knife so that it will last a lifetime and can be passed on to the next generation.



Kitchen knives will always require some care and maintenance to keep them in the best shape and get the most out of them. Your new Zhen knife is no different. Maintenance is not just about keeping the edge sharp, It is also about how you should use the knife on a regular basis.

Choosing The Best Cutting Board And Cleaning Your Knife

The best way to maintain a good cutting edge is to always be sure to use an appropriate cutting surface. There are many types of cutting boards on the market. Make sure you choose one that will not damage the edge of your knife the best type is an end grain wood cutting board. Stay away from ones that a made from bamboo, glass, ceramic or marble, they tend to be excessively hard on the edge. Do not use your knife to cut extremely hard items like bones, seed or frozen items. Do not try to flex or bend you knife. This can cause chipping or cracking to the blade. We recommend hand washing only with a mild soap in warm water. Do not let the knife soak in the sink for long periods of time. This is hard on the metal or could injure someone reaching into the sink not realizing the sharp edge of the knife submerged in the sink. Putting the knife in the dishwasher can also damage the edge due to being bounced around as well as the high heat can cause the handle to change size or shape.

Storing Your Knife

Once you have cleaned and dried your knife it is recommended to store them in a knife block or case. Due to the very sharp edge we do not recommend storing the knives unsheathed in a drawer, this could be hazards to your fingers or blade edge.

Sharpening Your Knife

To keep a sharp edge on you knife regular honing is a must. There are many types of steel or ceramic rod that can be used. This will help extend the time between sharpening significantly. When the blade becomes dull we would recommend a whetstone to perform this function.