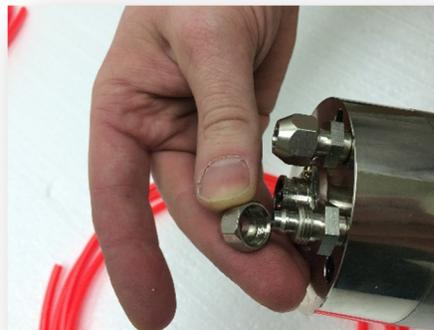


## Spindle Set-up Instructions

1. Shown here are all the included parts needed for the spindle set up. Items Included are; vfd 1.5 kw Inverter, Spindle, 500 gph water pump, water pump hose adapter, 2 spindle clamps, and 2 water pump hoses. You will have to supply a bucket for the water pump, and to ensure the water maintains a cooler temperature we suggest a minimum of 5 gallons.



2. On the top of the spindle are two metal screw heads, which are shown in the image below. These heads are to secure the water pump hoses to the spindle's cooling system. Take both of these off of the spindle.



## Spindle Set-up Instructions

3. Once the Metal screw heads for the cooling system have been removed take them and place one on each of the orange hoses included with the system.



4. Take the orange hose and push it down over the spout that the metal screw head came off of. This should be a very tight fit and to make putting the hose on easier we suggest warming the end of the hose with a heat gun. Be careful not to actually overheat and melt the plastic tube.



5. Once the end of the hose has been secured onto the spout you can slide the metal screw head down over the hose and spout and tighten it back into place using a wrench.



## Spindle Set-up Instructions

6. Screw the plastic spout adapter onto the water pump. Take one of the free ends of the plastic tubing you just attached to the spindle and press it down on the plastic adapter. It does not matter which orange tube you choose as there is no specific direction the water needs to be pumped thru the spindle to cool it.

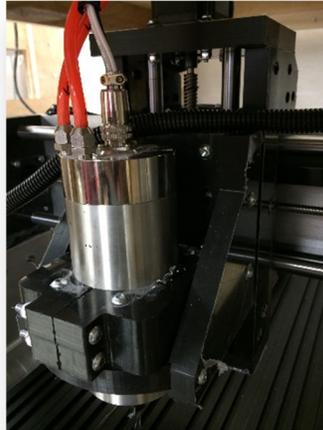


7. Now take the power input cord from the inverter and plug it into the spindle. There will be a groove on the plug that come off the inverter that coordinates with a tongue on the socket of the spindle. Make sure to watch for this to ensure a proper connection. The plug will not fit if these are not matched up.



## Spindle Set-up Instructions

8. Attach the spindle clamps to the cradle of your machine and put the spindle into it the same way you would a router. Make sure that after you have tightened the clamps around the spindle to press up and down on the spindle to ensure you have a tight fit.



9. Place the water pump into a 5 gallon bucket and feed the other free orange hose into the same bucket. Note: Make sure once you have placed the bucket somewhere to jog your machine with the spindle set up to the extreme edges of the CNC bed to make sure nothing is pulled loose during operation.



## Spindle Set-up Instructions

10. Make sure you plug your inverter power cord into a power outlet and not the back of your CNC shark control box. This automated feature of the control box is at this time for routers only.

