

## -----EXPERIMENTAL-----

### *Building a rotary tool yourself!*

*After been using the Ferm tool for over a year , its time to create my own toolsetup.*

*The disadvantage I found on the standard hand rotary tools is that the shaft bearings/casing seems to feather, bend away, under the tension of the workloads.*

*For light material this is not much of a problem but specially with tougher materials this is not a wished characteristic. This is why I started looking for alternative solutions, instead of installing a heavy tool ( more power is not needed -100 to 150 W is sufficient -, just a better shaftsetup).*



( A additional wish is to use more professional cutter tools. Good Flutes have a thicker shaft  
Here two cutter types with a 6mm shaft )

**Building a rotary tool yourself gives you the option to create a cheap and sturdy solution on the shaft and cutter-tool end. On the other side its possible to experiment with several available power sources - electromotors, with or without reductions-**

**The cheapest and most simple option is to create the bearings blocks up up out of 20 mm PVC sheet/block and install some quality bearings for the shaft.**

**This construction can be made with simple wood tools.**

**Only for making the drive shaft a accurate lathe working is needed (drilling the hole exactly center).**

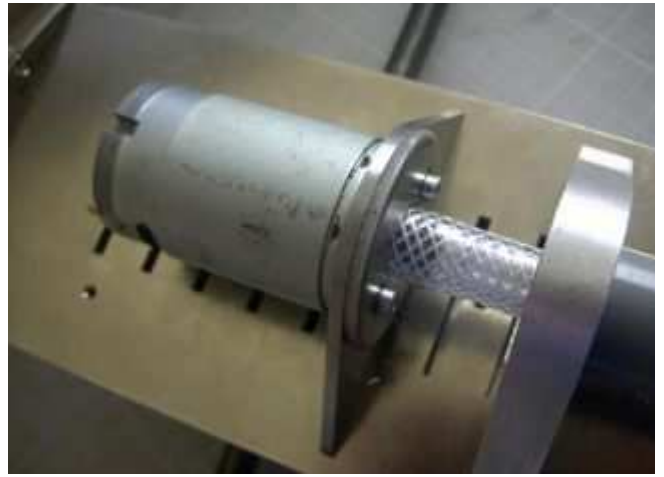
**The original tool clip (holding normally the upper part of a hand tool) is used as a jig to cut out the parts, and is later used for the motor mount.**

**A large metal disk is used as a pressure plate.**

**Center, adjusting of the electromotor can be done releasing the M3 bolts (will be able to shift the electromotor) and let the motor run in low rpms.**

**The sound will tell when its aligned properly. Then fasten the M3 bolts.**

**Here the setup made with aluminum bearing blocks.**







The coupler is a piece standard air hose which has a tight fit around the 8 mm shaft.

A Johnson 600 from an old cordless drill is used here to provide the power (its a standard size).  
On this motor the original gear has a good fit with the hose so no extra adapter for the coupler is needed.

#### ***Vinyl cutting:***

Also there is a provision to install a vinyl cutting tool over the rotary cutter.  
By this the complete rotary tool setup can stay in place while cutting vinyl.

Machine purpose change to Vinyl cutting can be achieved very quickly  
by just adding the unit using two M3 hexagon screws.

#### ***Cutting Results***

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***Be careful!, these kind of tools can be dangerous. Always wear goggles and shut down the machine while servicing  
Its your responsibility!***