

Mill Motor Kit

- Fits all three roller mills with 12mm dia. drive shafts
- Fits William's Three Roller Mill item I13



PACKING LIST

- 1 Motor/Gearbox assembly
- 1 Safety Switch
- 1 Motor Bracket
- 4 5mm Black Hex Nuts
- 4 Washers for Nuts
- 4 Lock Washers for Nuts
- 1 Spider Coupling for 12mm shaft

SUPPLIES & TOOLS NEEDED In addition to plywood and a cart or table to support your finished Mill/Motor assembly, you will need a jig saw, circular saw, drill, and a 2.5mm and 5mm hex key at the minimum. To mount the mill to the base you fabricate, you will also need 4 metric M6-1.00 pitch screws (not included), as well as four 1/4" by 3" machine bolts with nuts to secure the motor to the base you create. You will also need some 1/4" washers to shim the motor (8 or 12 usually) so the shaft is aligned correctly with the grain mill shaft. You will also need a suitable wiring harness with conduit (see the wiring diagram below) to safely wire your finished motorized mill.

3. Now lay out the motor assembly, the mill, and your base (base not included, usually plywood), and devise a mount for the motor that is 1/4" tall. This is typically done with plywood but feel free to use anything to get the motor bracket 1/4" off the base. A bit of 3/4" and 1/2" plywood can be combined to make a base that is just under 1/4" tall, and then you can use washers to shim your motor shaft into exact alignment with the mill shaft.

4. Alignment is critical; you will usually need to shim the motor mount a bit to make sure your two shafts are at exactly the same level. This is usually done with washers under the motor mounting bracket. Drill 4 1/4" holes into your motor mount using the bracket as a guide (don't drill through the base yet) so you can leave your 3" machine bolts in the holes to hold the washers for alignment.

5. Now with your pump base fabricated, you will need to decide where to permanently mount your mill on the board. Cut a 6" by 3 1/2" slot to mount the mill over. To create a template, get a piece of paper and a pencil and turn the mill over. Punch your pencil through the screw holes in the mill base and use this guide to drill your holes in the base. Now mount the mill to your base with your 4 metric M6-1.00 screws.

6. Line up your motor assembly with base, double checking the shaft alignment (when you slide it up the mill, the spider coupler



should be well enough aligned that it just slides into the mill shaft). Tighten the spider coupling, and checking alignment once more to make sure everything is straight; now drill 4 1/4" holes through the base using the already drilled motor mount holes as a guide to mount your completed motor assembly to your base board. Tighten and you are now ready to wire your mill.

7. See the wiring diagram below. If you do not have experience with direct wiring, a licensed electrician should be hired to complete this step. Make sure your wiring is properly grounded (a ground wire must be run from the motor body to your house ground) and meets all local codes and the wiring is properly sheathed in conduit as per your local regulations. Mount the safety switch, wire, and you are done!

8. To turn on your completed mill, twist the red safety switch to bring it to the up position. Turning off is easy – just press the red button down.

ASSEMBLY INSTRUCTIONS

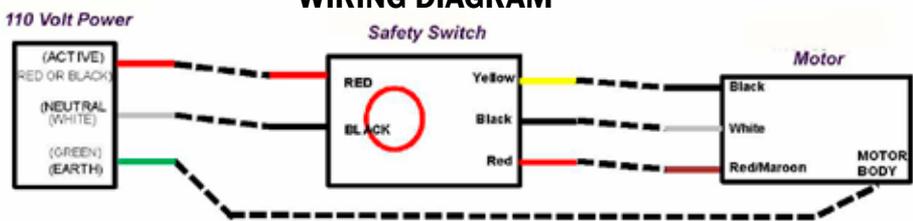


1. Install the motor mount on the motor/gear box assembly with the four 5mm hex key screws and washers so the wire comes out the top when finished. The motor can also be installed so the wire comes out on the bottom, but then you will have to shim up the Mill a 1/4" or so off the base to align with the motor shaft (we have found it is easier to shim up or down the motor than adjust the height of the mill).

2. Remove the yellow plastic cover from the motor gearbox shaft and install the spider coupler with a 2.5mm hex key onto the motor shaft and secure.



WIRING DIAGRAM



B06

Final Inspection by: #4