Instructions for Meadows 8-inch Granite Stone Grist Mill
To prepare 100% whole wheat flour

1. Prepare the grain
- Check the moisture content of the grain for milling; it should be no more than 12%, and preferably less than 10% moisture.
- Check that grains are free from stones and any other unwanted foreign material.
- Weigh the grains for grinding, into a bowl or bag. The hopper holds a maximum of 10 pounds of wheat grain, which grinds to a volume of flour that three quarters fills a cotton cloth bag (11 x 23 inches). *Flour volume is much greater than the corresponding grain volume. Never overfill the collecting bag because the flour will back up into the mill and block it. Use this batch grinding system until you have well understood how your mill works. Bags can be turned inside out and shaken outdoors to free them from flour. Store them in a clean place such as enclosed in a plastic bag. Wash only after shaking out the flour and only when necessary.*

2. Make a (permanent) guide mark on the stone adjustment screw head, see diagram on page 4.

3. Check the set up of the mill:
- Lubricate if needed
- Hopper closed
- Stone adjustment screw at least one revolution out from the stones touching
- Lock nut several revolutions out from lock position
- Flour collecting bag neatly fixed onto outlet tube with elastic band or similar system, to avoid flour puffing out. Support the bag on the shelf, so that it cannot fall off under weight of flour.
- Power source ready.

4. Power on.

5. Gently and slowly, turn stone adjustment screw clockwise just until you hear the stones touching. Back off by turning the screw very slightly anticlockwise, just enough to not hear the stones touching. Lock the position by turning the lock nut clockwise until it locks the position of the stone adjustment screw. *The stones can be brought very close together using this system, and should not be touching at any time during the milling.*

6. Pour grains into hopper. Open the hopper just enough to allow a single layer of grain to flow onto the shoe. This single layer indicates a suitable flow rate through the mill. *Hard wheat may need to flow more slowly than this to avoid excessive heating due to friction in the mill. Soft wheat can flow through the mill a little faster since there will be less frictional resistance.*

7. While milling, check that the collecting bag is filling without restriction, and that the lock nut is not slipping. Notice whether the casing of the mill is heating up, and whether this indicates that the mill should rest before milling the next batch. *Note that no adjustment of the stones should be attempted during the milling process.*

8. Allow the milling to continue until the hopper is completely empty and you can hear that the grains have cleared out from the mill.

9. Shut down
- Power off
- Close hopper
- Release stones by turning the locknut anticlockwise through several revolutions to release it, and turning the stone adjustment screw anticlockwise through at least one revolution
- Remove flour bag, leaving elastic in place on outlet tube

10. To store mill
- Cover hopper
- Attach a flour bag
- Add a dust cover

These precautions reduce the risk for insect contamination and foreign objects falling into the mill.

11. Continuous milling into a large container
Use the same protocol as for batch milling.
- The air gap between the mill outlet and the top of the container must be covered with woven cotton cloth, of similar material to the cotton flour bags; preferably a sealing custom-made cover. *This is to prevent fine flour dust from filling the mill room. Fine flour dust is a fire hazard, and is easily ignited with a static spark.*
- Aim to stop the mill when there is no longer any grain running through the mill. *This can be achieved by closing the hopper or better, by allowing all the grain in the hopper to enter and clear the mill, before powering off.*
- If the mill casing is obviously heated or the flour temperature is rising too much, bring the run to an end and rest the mill until it has cooled. *Flour enzymes may be damaged if the flour reaches 122°F (50°C).*

12. Troubleshooting

Problem	*Possible cause*	*Solution*
The mill stalls	Grain is being fed into mill too quickly.	Remove flour bag and replace with empty bag, *in case some unground grain comes through when restarting.* Close hopper, empty shoe, loosen stones. Start mill and continue milling
Product contains unground grains and grain pieces	Lock nut was not tight enough and the stones loosened during the milling	Remove flour bag and replace with empty bag. Close hopper, empty shoe, loosen stones. Start mill. If the grains and pieces are to be re-milled, they should be sifted free from flour. *Sending flour through the mill will choke the system.*
Flour has a larger granulation than expected	Stones were set further apart than usual	Such flour should be re-purposed; it should not be sent through the mill again, because it will choke the mill. *The mill is designed only for grain to flow through.*
Flour is velvety but contains large bran flakes	Very soft wheat being milled	This is a typical result
Flour seems finely granulated but sandy in texture	Very hard wheat being milled	This is a typical result
Flour contains an excessive amount of bran.	After it was milled the whole grain flour was not mixed to make it uniform.	Mix the flour well after it comes from the mill to evenly distribute bran and germ flakes.
Flour is not as velvety as expected	Wheat grain may be harder than expected. Or Stones need redressing	
Flour feels hot	Grains are entering the mill too rapidly Or Mill has been running continuously for too long to allow for adequate heat dissipation	Close the hopper and stop the mill according to the protocol above. Allow the mill to cool before continuing. Operate mill in a cool room.