

*Instruction Manual*



**HUMBOLDT**



**H-4199**  
**Soil Grinder**

## **Introduction:**

The Humboldt Soil Grinder is used in place of a soil mortar and pestle to quickly reduce cakes of dry soil for particle-size analysis. It is intended to grind the fraction retained on a designated sieve until the aggregations of soil particles are broken up into separate grains. Continuous grinding is ensured by using the gate below the hopper to feed the soil at a rate that does not stall the motor.

## **Features:**

1. Completely prepares a sample to correct particle size depending upon screen size used.
2. Fast Operations, usually requires only 15 seconds per one (1) pint sample.
3. Completely portable, weighs only 25 lbs., Dimensions: 18" high x 14" deep x 12" wide.
4. Trouble-free direct drive electric motor, 110V/60Hz. No belts to slip or gears to break.
5. Low noise and dust make the machine easy to clean between samples.
6. Will not crush or grind rocks, however, rocks will not cause a malfunction.

## **Procedure:**

**IMPORTANT: DO NOT CONNECT THE POWER PLUG UNTIL READY TO BEGIN GRINDING.**

1. Loosen the front T-handle bolt, which loosens the U-bracket, and, remove the front hopper and chute assembly.
2. Select the screen size for the largest particles to be passed and insert it into the slot underneath the hopper.
3. Replace the hopper and chute assembly, connect the U-bracket, and, tighten the T-bolt.
4. Insert the gate into the slot above the hopper.
5. Place up to one pint of the material to be ground into the hopper.
6. Place a pan sufficient to hold the sample under the chute.
7. Put the lid on the hopper to cover the sample.

**IMPORTANT – DO NOT REMOVE THE COVER WHILE OPERATING THE GRINDER, INSTEAD TURN IT OFF TO INSPECT THE HOPPER MATERIAL.**

8. Check the power cord switch to see that it is off, then plug it in and turn on the grinder using the cord switch.
9. Slide the gate out to let material into the grinding chamber at a rate that allows for steady operation and continuous flow of material.

