

# *Soil Sample Grinder*

*Model: 210245,210246*



Please read this instruction before moving and installing this machine and attempting to run it.

Remember this machine is extremely heavy and may be unstable before installation completed. Therefore, without using proper equipment may result in severe injuries. Appropriate lifting or hoisting equipment of sufficient capacity must be used to be safe

and secured. For better repositioning, use the hook installed on the upper plate of machine.

- Check out any accessories you have received with your packing list.
- The machine should be in an area of the laboratory without dust, moisture or contaminating fumes, which could possibly affect and accelerate corrosion to machine surface or electrical contacts.
- For service work on the machine, it should be left sufficient space at the rear and sides of the machine (minimum space: 40 cm).
- The machine should be levelled (aligned) any time and in another replacement location.
- The power should be connected to earth wire for electrical shock proofing.
- The machine stands on a heavy-duty steel foot for appropriate height of pouring soils into funnel.

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## 1. Introduction

The Soil Sample Grinder quickly prepares dry soil samples for Atterberg limits, particle-size analysis, and other standard laboratory tests. It is an efficient method for reducing agglomerations of caked soil to individual grains, and much less labor intensive than manual mortar and pestle operation. It preserves true grain size for accurate and repeatable test results. The hopper has a 0.950 (2 pints) capacity and features a manually operated gate to control the feed rate to the grinding chamber. All construction of the grinder and grinder propellers are made of anti-rust S. Steel. operation is simple, just load the hopper, start the grinder, and use the gate to control the material feed. A No. 10 (2.0mm), No.4 (4.75), No.35 wire mesh stainless steel are included to retain larger particles. Most soil types are processed completely in less than 15 seconds per pint. The direct drive motor and grinding device is mounted on a sturdy tripod stand, with an in-line switch to control motor operation motor and grinding unit is mounted on a sturdy painted steel four-pod stand. An in-line switch controls motor operation. A stainless-steel lid covers the hopper during operation. A 2-liter S. Steel container with lid comes with Grinder.

## 2. Specifications and Accessories of Hardware

- Expect the main steel frame, it includes 2 liter S.Steel container and . A No. 10 (2.0mm), No.4 (4.75), No.35 wire mesh stainless steel
- The soil grinder should be leveled and fixed on its foot to the ground for no movement.
- There is a start button to run the grinder.
- Nominal Capacity of mixer is 2 pints.
- Main AC motor connected to propeller directly, the speed of propeller is 1700rpm.
- All parts of grinder made by S.Steel.
- Dimension: 300x450x600 mm
- Weight: 38kg

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### **3. How to Use Grinder?**

- Plug in to appropriate outlet. Be sure that the outlet supports 110/220V, 60/50Hz.10A, 1Ph.
- Place the 2litre container under the discharge of grinder.
- Start the grinder by pushing and holding it while grinding.
- Pour the soil into funnel gradually, open the gate plate on the funnel gradually for grinding soils smoothly.
- Use mask while grinding because of dust cause of soil grinding.
- Open the four screws of grinder cap to change the desired wire mesh screen or clean the internal chamber of grinder.
- Use clean cloth for cleaning the chamber.
- Unplug the grinder if you don't need to grind.

### **4- Maintenance and periodically Inspection**

- Be aware of any abnormal sound while working.
- Keep clean the grinder all the time.
- Check the tear or wear of any rotating parts, especially blades which may cause less efficiency of grinding.

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