

GRAIN CRACKING MACHINE

OPERATION MANUAL AND INSTRUCTIONS

A feeding processing machine
specially designed for
grain cracking.

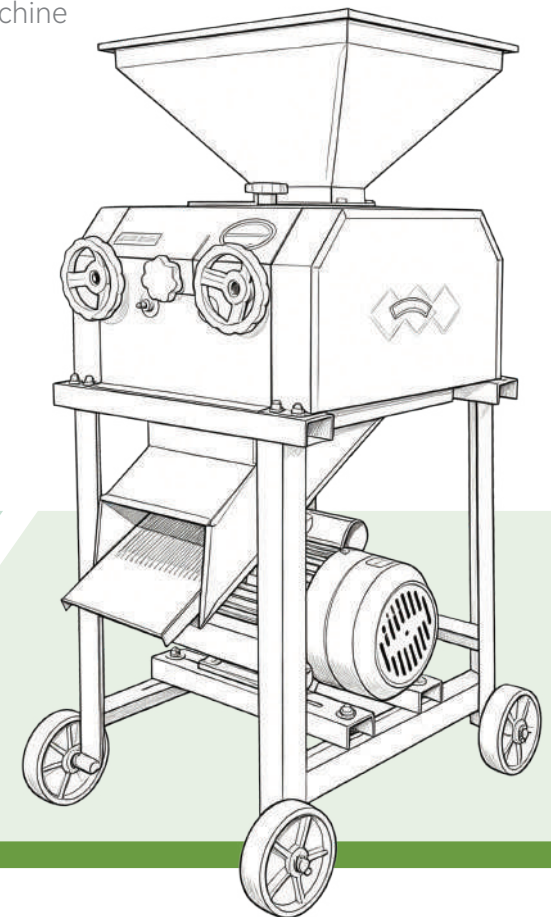


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I. Product Overview

This machine is a Grain Cracking Machine, mainly used for cracking raw grains such as corn, wheat, and soybeans into uniform coarse particles.

Different from traditional grinding equipment, this machine adopts a roller structure and processes materials by extrusion. It does not produce a large amount of powder, effectively preserves the nutritional structure of raw materials, and improves the feed intake and digestion & absorption efficiency of animals.

With simple structure and stable operation, the machine is suitable for breeding farms, feed processing plants, small and medium-sized farms, etc. It is a key equipment commonly used in feed pretreatment.



SAFETY WARNINGS

- ❗ Operators must wear necessary labor protection articles such as safety helmets and protective gloves.
- ❗ It is strictly prohibited to put hands or any body parts into the feed hopper or touch the roller parts.
- ❗ It is strictly prohibited to let hard foreign objects such as stones and metals enter the machine to avoid equipment damage or safety accidents.
- ❗ Do not open the protective cover or disassemble any parts during operation.
- ❗ Cut off the power supply and ensure the machine is completely stopped before maintenance, repair or cleaning.
- ❗ Confirm no one stays around the machine before starting to avoid accidental injury.
- ❗ Overload operation is prohibited; feed materials evenly according to the rated output.
- ❗ Electrical parts must be operated by professionals; do not modify the circuit without permission.
- ❗ Stop the machine immediately for inspection if abnormal noise, vibration or material blockage occurs during operation.
- ❗ Keep the working area clean to prevent material accumulation from affecting operation safety.
- ❗ Untrained personnel are not allowed to operate the machine.

II. Equipment Structure Display



1 Feed Hopper

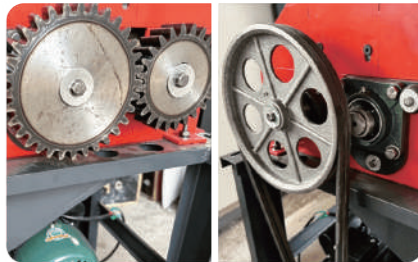
2 Machine Body / Cover

4 Adjusting Fineness Nut

3 Roller Assembly



5 Gear / Transmission



6 Power System

7 Discharge Hole

8 Frame with Wheels

III. First-Time Operation

Before use, refer to the equipment structure diagram to understand the position and function of each main component before performing the following operations.

Step 1. Connect Power or Start Power Unit

- **Motor version:** Connect the power correctly as required (recommended to be wired by a professional electrician), and confirm that the voltage/hertz/phase are consistent with the equipment parameters.
- **Diesel engine version:** Check fuel and engine oil, then start the engine according to specifications.

! **Note:** Ensure correct wiring or starting method to avoid misoperation.



Electric Motor Version



Water-Cooled / Air-Cooled Diesel Engine Version

Step 2. No-Load Test Run

Start the machine and run it idle for 1–2 minutes. Observe whether it runs smoothly and whether there is abnormal noise or vibration.

! Stop immediately for inspection if any abnormality is found.

Step 3. Feeding Operation

After confirming normal operation, start feeding raw materials evenly:

- Control feeding speed
- Avoid excessive feeding at one time
- Maintain continuous and stable operation



Step 4. Shutdown Procedure

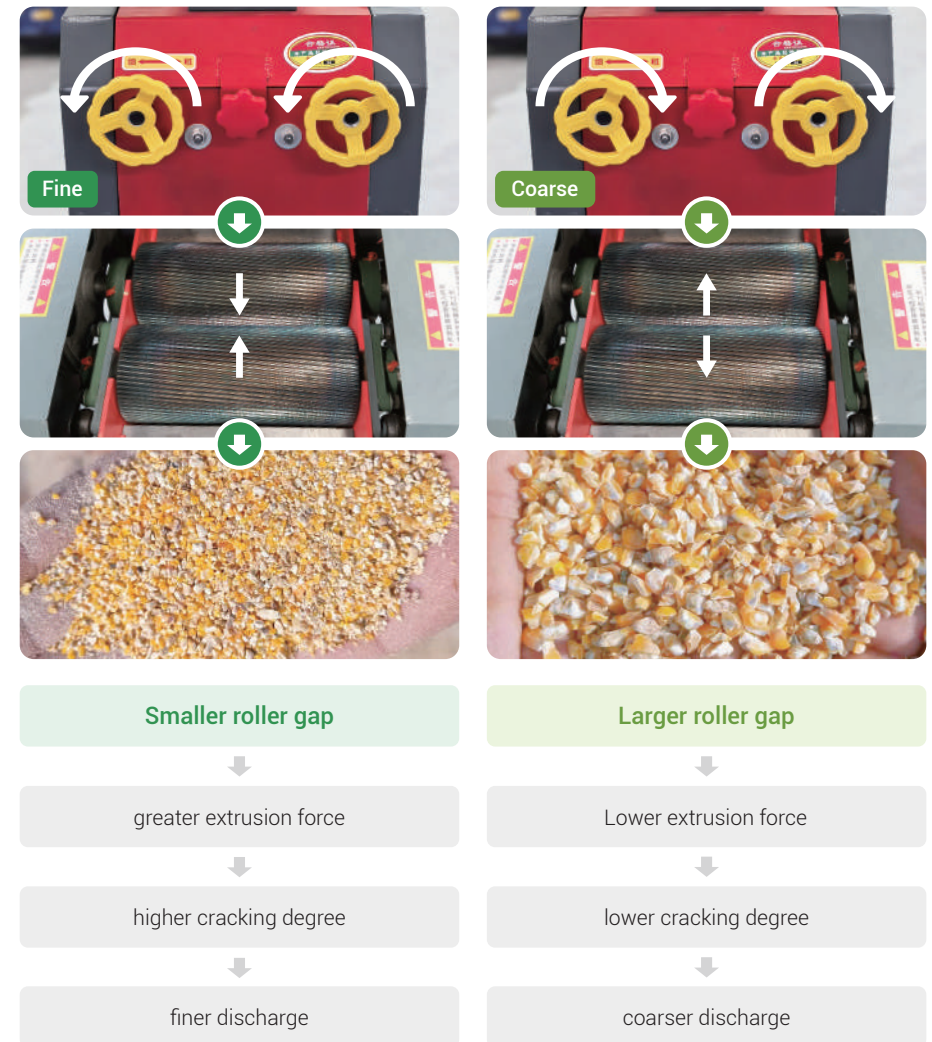
Shut down in the following sequence after use:

- Stop feeding
- Wait for materials to be completely discharged
- Cut off power or turn off the engine

! Direct shutdown with materials is prohibited to avoid blockage or equipment damage.

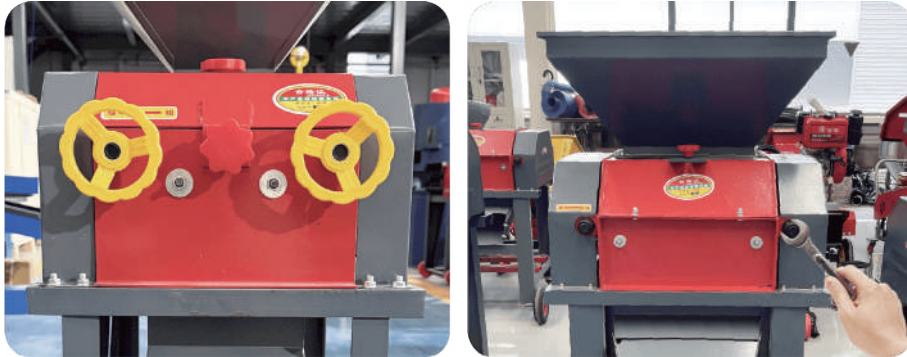
IV. Discharge Particle Size Adjustment

The cracking effect of raw materials can be controlled by adjusting the gap between the rollers to achieve different discharge particle sizes.



Adjustment Method

- 1 Stop the machine and cut off the power supply
- 2 Rotate the adjusting screw with a wrench or adjusting handwheel



- 3 Adjust the roller spacing as required:
 - Increase spring compression (counterclockwise)
 - rollers move closer
 - finer discharge
 - Decrease spring compression (clockwise)
 - roller spacing increases
 - coarser discharge

- 4 Lock the fixing device after adjustment (if equipped)
- 5 Start the machine and run a small amount of raw materials for test
- 6 Observe the discharge effect and fine-tune further as needed

⚠ Note: Adjustment must be done when the machine is stopped. Adjust both sides synchronously and slightly step by step. Avoid large gap changes at one time to prevent material jamming or excessive equipment load caused by too small a gap.

V. Equipment Maintenance

Regular maintenance is required to ensure normal operation and extend service life.

Roller Lubrication

Before first use, add lithium-based grease or lubricating oil to the oil injection holes on both sides of the rollers (four holes in total). Replenish lubrication timely according to usage after the machine runs for a period to ensure good lubrication of bearings.



Gear Lubrication

Keep the gear parts well lubricated. Apply gear oil evenly on the tooth surface with a brush.



Regular Inspection

Regularly inspect key parts of the equipment to ensure good operation:

- Check whether connecting bolts and fasteners are loose; tighten timely if loose
- Check the wear of the roller surface; repair or replace if necessary
- Check whether the transmission system (gears, bearings, etc.) runs smoothly without abnormal noise or vibration

VI. Common Troubles and Causes

Large discharge particles, unsatisfactory cracking effect

Possible cause

Excessive roller gap, insufficient extrusion on materials

Solution

Properly reduce the roller gap after shutdown, test with a small amount of materials, and resume normal operation after confirming the discharge effect

Raw materials flattened but not cracked normally

Possible cause

Excessive moisture content of raw materials, increased toughness affecting cracking effect

Solution

Dry raw materials to suitable moisture content before processing

Belt slipping, weak transmission

Possible cause

Insufficient belt tension or serious belt wear

Solution

Check and adjust belt tightness; replace the belt promptly if obviously worn

Failure to start or run normally

Possible cause

Wrong motor wiring, abnormal diesel engine connection, or abnormal power input

Solution

Check motor wiring, diesel engine connection, and power system

Abnormal noise or vibration during operation

Possible cause

Loose fasteners, worn transmission parts, or insufficient lubrication

Solution

Stop to check loose connections, inspect transmission parts, and replenish lubrication timely

Inflexible roller rotation or obvious temperature rise

Possible cause

Insufficient bearing lubrication or increased component wear after long-term operation

Solution

Check lubrication at oil injection holes and replenish lithium-based grease timely; inspect and replace bearings if necessary

Recommended Flagship Equipment



Flat Die Feed Pellet Mill



Ring Die Feed Pellet Mill



Extruder



Hammer Mill



Forage Chopper



Stainless Steel Mixer



For Any Other Questions, Please Contact Us

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