biomass grinder with high speed relative motion toothed disk

This biomass grinder through the high-speed rotation of the relative movement between the movable tooth plate and the fixed tooth plate, the material will be struck, friction and impact and other multiple effects, to achieve effective crushing of materials.

Biomass Grinder

The biomass grinder is specialized equipment for pulverizing various biomass raw materials, widely used in biomass processing and resource recycling industries.

Features

1. Simple structure: overall design is straightforward and attractive, easy to operate and maintain.
2. Fully sealed design: prevents dust pollution and protects operator health.
3. Corrosion-resistant materials: made entirely of stainless steel, durable and suitable for harsh environments.
4. Stable operation: runs smoothly with low noise, ensuring a quiet production environment.

5. No accumulation of powder: smooth inner wall of the crushing chamber avoids powder buildup and ensures long-term efficient operation.

Advantages

1. High efficiency crushing: intense collision and friction between the high-speed rotating tooth disk and fixed tooth disk achieves thorough pulverization.
2. Flexible and adjustable: replaceable mesh screens allow easy adjustment of crushing size to meet production needs.
3. Energy saving and environmental protection: designed for energy efficiency, reducing energy waste and supporting green production.
4. Easy to clean and maintain: stainless steel and smooth surfaces extend service life and simplify maintenance.
5. Reduced dust pollution: fully sealed design minimizes dust leakage and improves the work environment.

Working Principle

Operates based on the relative motion between a high-speed rotating movable toothed disk and a fixed toothed disk. Materials entering the crushing chamber are subjected to strong collision and friction, breaking them into fine particles. Additional material-to-material collisions further speed up crushing. The final particle size is determined by the mesh screen aperture, which is easily changed to adjust output size.

Application Areas

1. Biomass energy: production of biomass fuel, treatment and crushing of wood chips, straw, and agricultural waste.
2. Feed processing: improves animal feed digestibility and breeding efficiency.
3. Food processing: pulverizes organic matter like grains and beans for food industry use.
4. Paper industry: crushes wood and waste paper for recycling and pulp production.
5. Agricultural waste treatment: processes crop straw, rice husk, dead branches, and other agricultural residues to reduce pollution.
6. Environmental protection: used in waste treatment and recycling, supporting resource utilization and environmental protection.

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Model	**F100**	**F200**	**F400**
Inner diameter	100mm	200mm	400mm
Feed length	⩽6mm	⩽6mm	⩽30mm
Output size	12 to 120 mesh	12 to 120 mesh	12 to 120 mesh
Production rate	10 to 50kg per hour	20 to 150kg per hour	300 to 500kg per hour
grinder power	2.2kw	4kw	7.5kw
Dust extraction motor	0.25kw	0.25kw	0.55kw