

biomass pulverizer with reciprocating movement of knife frame

Biomass pulverizer is a kind of equipment designed for the processing of agricultural waste and biomass resources, which is widely used in the shredding and processing of crop straw, wood, root and stem plants, vines, grasses and other fibrous materials.

Biomass Pulverizer

The biomass pulverizer is an advanced equipment designed for shredding various biomass raw materials, utilizing an up-and-down reciprocating knife frame mechanism and a stainless steel chain conveying transmission system for efficient crushing and material transport.

Characteristics

1. Optimized structural design: Up-and-down reciprocating knife frame body delivers strong cutting force for rapid and efficient shredding. The chain conveyor system prevents slipping and maintains long-term stable operation.



2. High-quality materials: Stainless steel chain and knife frame provide corrosion resistance and durability, ensuring stability and a long service life even in demanding conditions.
3. Easy to clean and maintain: Stainless steel chain and drive system allow for simple cleaning, prevent material residue, and maintain production hygiene.
4. Efficient material conveying: Robust stainless steel chain system enables rapid material transfer during crushing, preventing jamming and blockages common in traditional equipment.
5. Strong adaptability: Capable of processing a wide range of biomass materials, such as straw, wood, rattan, and more, ideal for diverse biomass processing needs.

Advantages

1. High efficiency shredding: The knife frame's reciprocating movement ensures powerful cutting, quickly reducing material to fine particles and improving crushing efficiency.
2. High stability: Stainless steel chain conveyor avoids slipping and ensures smooth material flow, minimizing downtime due to jams or clogs.
3. Easy to operate: User-friendly design simplifies operation and maintenance, reducing training time and costs.
4. Adaptable: Efficiently processes both fibrous and hard biomass materials, suitable for a range of feedstocks.
5. Environmental protection and energy saving: High-performance with reduced energy consumption, lowering production costs and supporting sustainable, eco-friendly operations.

Working Principle

The biomass pulverizer operates by combining the up-and-down reciprocating motion of the knife frame body with a stainless steel chain conveyor. Material is fed into the cutting area by the chain conveyor, where the reciprocating knife frame delivers powerful cutting action, shredding material into smaller particles. The chain conveyor ensures continuous feeding and efficient movement of material through the system, with finished particles discharged for downstream processing.

Application Areas

1. Agricultural Waste Treatment: Shreds crop straws, root plants, vines, and other waste for further use in feed, energy, or other fields.
2. Biomass Energy Production: Processes raw materials into biomass pellets or fuels for power generation and heating.
3. Feed Processing: Crushes straw, grass, and similar materials to enhance feed digestibility and farming efficiency.
4. Wood Processing Industry: Handles wood and wood chips for pulp production, wood pellet fuel, paper making, furniture, and construction.
5. Environmental Protection Industry: Processes agricultural and forestry waste to support resource utilization and pollution reduction.
6. Biomass Feed Production: Shreds high-fiber plants for preparing quality biomass feed and promoting agricultural recycling.

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Model	X200A
Effective width of cutter	200mm
Cutting length	2 to 25mm(adjustable)
Production rate	150 to 600kg per hour
Motor power	2.2kw
Weight	450kg
Dimensions	1700x800x960mm