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# TENCAN

## Product Brochure



### BROKEN SERIES

## Small shredder

**EB**

Small shredder for crushing plastic, rubber, wood, tires. Shears large materials into flakes for easy recycling.

<https://www.labballmill.com/products/broken-series/small-shredder.html>

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## Product Overview

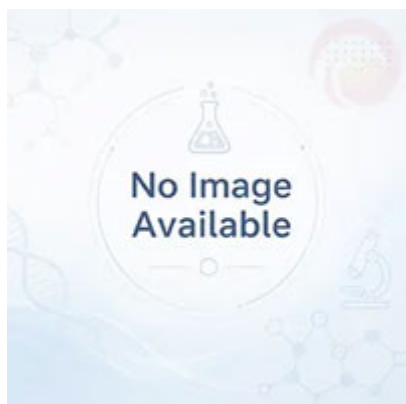
Small shredder for crushing plastic, rubber, wood, tires. Shears large materials into flakes for easy recycling.





## Product Introduction

The shredder can generally be used to shred solid objects such as plastics, rubber, large tires, large nylon materials, rubber head materials, car bumpers, large pieces of fish nets, large pipes, fibers, paper, wood, electrical devices, cables, PET bottles, cardboard, circuit boards, wood, plastic barrels, etc. C shredders are also called scrap metal shredders and double-shaft shredders. Wood shredder, tire shredder, plastic shredder, pipe shredder, garbage shredder, circuit board shredder, rubber shredder, aluminum shredder, etc. The main function of this equipment is to squeeze large pieces of materials and large-diameter barrel metal materials that are inconvenient to transport through the shearing of the shredder, and shred them into sheet materials that meet the requirements.





Crushing Series

# Product Details



Industrial waste/domestic waste - domestic waste, waste wood, kitchen waste, waste products, factory waste, municipal sludge, fiberglass, slurry tarpaulin;

Recycled materials - branches, leaves, straw, corn cobs, wheat straw, bark, garden waste;

Recycling waste materials - waste tires, waste paper, waste plastics, plastic bottles, chemical barrels, aluminum materials;

Product Documentation Destroy a computer hard drive, documentation, substandard products, expired drugs, plastic parts,

Waste treatment - medical waste, radioactive materials, organic waste, hazardous solid waste;

Metal solid waste - paint buckets, paint cans, iron and oil drums, metal scraps, aluminum scraps.

## Technical parameters

| parameter                                         | EB300*200                      | EB400*200                                                                      |
|---------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------|
| motor                                             | 3KW-4, three-phase, 380V, 50Hz | 4KW-4, 1 unit, three-phase 380V, 50Hz                                          |
| Reducer                                           | JL2#-32, 1 unit                | JL3#-12, 1 unit                                                                |
| Electronic control                                | Thermal relay protection       | -                                                                              |
| input speed                                       | 16 rpm                         | 12 rpm                                                                         |
| Input/maximum input torque                        | 1600Nm                         | 2919Nm                                                                         |
| Input shaft diameter                              | Φ50                            | Φ60                                                                            |
| Blade specifications and materials                | Φ180*12, 3Cr13 (food grade)    | Φ180*15 9CrSi                                                                  |
| Number of blades                                  | 24 pieces                      | 26 tablets                                                                     |
| Feed bin, discharge bin                           | 304 stainless steel            | -                                                                              |
| frame                                             | 304 stainless steel            | -                                                                              |
| Other sheet metal and safety covers               | 304 stainless steel            | -                                                                              |
| Feeding port size (MM)                            | -                              | 600*500*300                                                                    |
| Width of unloading opening (MM)                   | -                              | 420                                                                            |
| Height of the unloading port from the ground (MM) | -                              | 200                                                                            |
| Machine dimensions (length*width*height MM)       | 1080*570*1330                  | 1180*650*1450                                                                  |
| Machine weight                                    | Approximately 410 kg           | about 500 kg                                                                   |
| Scope of application                              | -                              | Light metal products, plastic products, food waste, wooden boards, paper, etc. |

## Material property analysis

- **Hardness and toughness:** Use thin blades for soft plastics, and thick blades for hard metals (HRC60° or above)
- **Moisture content:** Wet materials need to add anti-clogging design or choose an open structure
- **Capacity matching**
  - Reference formula: Theoretical output = (motor power × rotation speed) ÷ (material density × crushing ratio)

- Example: 3kW motor-driven dual-axis model, when processing waste mattresses, the output can reach 5-8 tons per hour
- **Site and space restrictions**
  - For narrow spaces, vertical models are preferred, and horizontal designs with dust covers are recommended for open-air operations.
- **Budget and Maintenance Costs**
  - Although the initial investment of high-end models is high, the tool life is long (can be repaired by surfacing welding), and the overall cost is reduced by 20%.
- **Environmental Compliance**
  - Choose models equipped with automatic dust reduction systems and noise suppression technology to meet industrial zone emission standards

## Working Principle

### Feeding stage

- Materials enter the crushing chamber evenly through the funnel-shaped feed port, and large-size materials can be equipped with a pushing device to assist

- **broken stage**

- The motor drives the cutter shaft to rotate, and the movable knife and the fixed knife form a shearing force. With the hexagonal shaft surface design, the material can be torn in multiple dimensions.
- Some models adopt double-shaft reverse rotation, which increases the crushing efficiency by 40%.

- **Discharging and screening**

- The crushed materials are discharged through the bottom discharge port and can be connected to a conveyor belt or screening equipment for particle size classification.

## Product Features

1. The double-cutter shaft mechanism uses multi-piece and multi-claw cutters, and cooperates with the cutter shaft to change angles, saving labor during cutting.

It has strong cutting force and shows strong crushing ability.

2. The motor uses a gearbox transmission system as a transmission structure, with low speed and high torque to complete the crushing.

3. The large transmission wheel is made of high-quality steel and hardened by heat treatment to have a long service life.

4. The gear box adopts an oil-inlet pulley, which has smooth operation, low noise, high torque, and can withstand long-term operation.

5. The design of low speed and high torque provides lower noise and less dust, maintaining a good working environment.

## Accessories & Customization

### Accessories

Grinding jars, heating elements, sample holders, control modules and other matching accessories can be selected according to the product configuration.

### Customization

For voltage, capacity, chamber size, process temperature or application requirements, please contact TENCAN for a suitable configuration.