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Product Brochure

BROKEN SERIES

plastic crusher

Plastic crusher for recycling, crushing profiles, pipes, films, waste rubber into granules for re-melting.

https://www.labballmill.com/products/broken-series/plastic-crusher.html

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Product Overview

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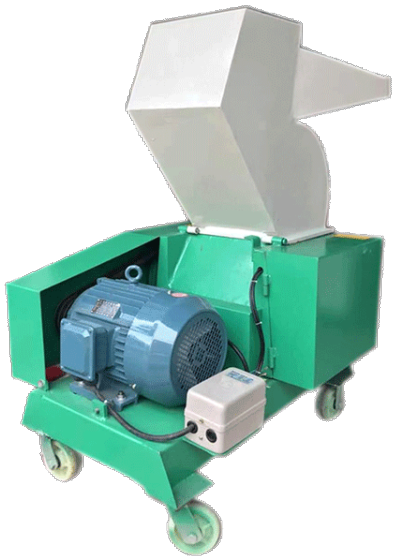

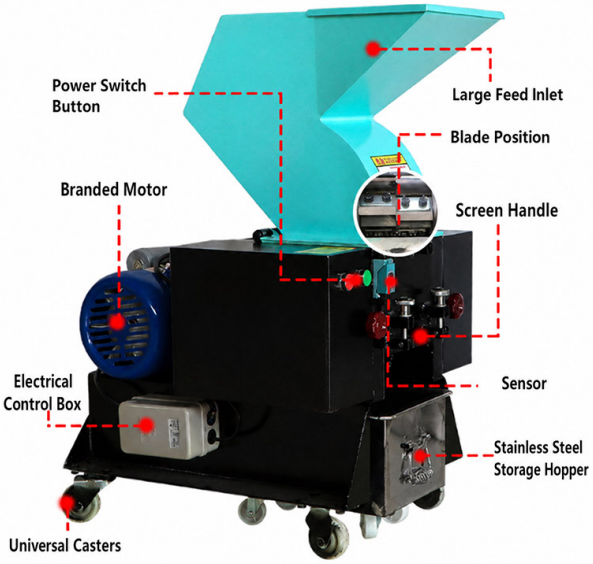

Product Introduction

Plastic crusher is a mechanical equipment specially designed for plastic recycling and reuse. It is mainly used to crush various plastic products (such as special profiles, pipes, films, waste rubber, etc.) into granules for subsequent re-melting and processing. Its core structure includes a feed port, crushing chamber, blade set, screen, motor and transmission system. The high-speed rotating blades shear, impact and tear the plastic, and finally filter out the particles that meet the requirements through the screen. According to the blade type, the equipment can be divided into claw knife type, flat knife type and special type (such as pipe crusher), which is suitable for processing plastics with different hardness and shapes.

Crushing Series

Product Details

Sealed Bearing

Keeps the bearing running well for a long time

Alloy Steel Blades

Produces uniform particle size; blade holder is heat-shrink treated

Long Service Life

Elegant and attractive appearance design

- **plastic recycling** : Dispose of waste plastic bottles, films, packaging materials, rubber products, etc. to reduce environmental pollution.
- **industrial production** : Crush injection molding machine nozzle materials, rubber heads, plates, etc. to realize recycling of raw materials.
- **Special material handling** : Suitable for crushing fiber-added plastics, engineering plastics (such as PVC, PE, PP) and foam materials.
- **Medicine and Electronics** : Crush medical plastics, electronic component shells and other special materials.

Technical parameters

Model (claw knife)	180	250	300	400	500	600
CapacityKG/H	50-100	150-200	200-300	250-450	400-700	450-800
Voltage	380V (three-phase electricity)					
Motor powerKW	1.5/2.2	4	5.5	7.5	11	15
Number of blades	9+2	6+2	9+2	12+2	15+2	18+4
Rotation diameterMM	148	225	240	270	280	350
Screen aperture MM	6	8	8	10	10	10
Import size MM	110*180	250*160	320*200	420*220	520*260	600*240
Overall dimensionsMM	630*520*950	900*700*1050	1000*750*1180	1060*880*1320	1150*1000*1450	1200*1060*1650
Machine weight KG	120	230	330	430	550	780

- **Select according to material characteristics** :
  - **Rigid plastics (such as PVC pipes, rubber heads)** : Give priority to the claw-knife type crusher, equipped with a high-power motor (≥7.5kW).
  - **Film, soft materials (such as PE bags, styrofoam)** : Choose flat blade or SKH-9 material blade, suitable for low-speed machines.
  - **Pollution prevention needs** : Choose stainless steel hopper or fully enclosed design to avoid metal contamination.
- **Choose according to production capacity needs** :
  - **Small-scale processing (<200kg/h)** : Optional small machine with screen aperture of 6-10mm, suitable for low-power motor (1.5-5.5kW).
  - **Large-scale continuous production (>500kg/h)** : Use a large-capacity crushing chamber and a high-power motor (above 15kW).

- **Additional functionality considerations** :
  - **Automation needs** : Optional automatic feeding and discharging system to improve efficiency.
  - **Temperature control sensitive materials** : Choose a model with a cooling system to prevent thermal degradation of materials.
- **Maintenance and costs** :
  - Give priority to models with easy-to-detach knife holders and standardized screens to reduce maintenance costs.
  - Compare energy consumption (kW·h/ton) and tool replacement frequency to select equipment that is economical for long-term use.

Working Principle

- **Feeding and pre-crushing** : The material enters the crushing chamber through the feed port and is initially sheared between the rotating blade and the fixed blade.
- **High speed crushing** :
  - The motor drives the blade set (claw knife, flat knife or hammer blade) to rotate at high speed (500-600rpm), breaking the plastic into small particles through shearing, impact and friction.
- **Screen filter** :
  - The crushed particles pass through the screen under the action of gravity or air flow, and the particles that do not meet the standards are intercepted and returned to the crushing chamber for secondary processing.
- **Discharge and circulation** : Particles that meet the particle size requirements are discharged from the discharge port. Some equipment supports circulation mode to optimize uniformity.

Product Features

1. The structure of the blade type knife can be divided into claw knife and flat knife. The flat knife holder is suitable for crushing bottle preforms and thin PE plastic products, such as PC film, PET bottles, and plates. Claw-type knife holder crusher is suitable for crushing large, hard and easy-to-roll plastics, such as bottles, rubber heads, PVC pipes, wires, bottles, rubber, silicone or curved products.
2. Sealed bearings are used to maintain good bearing rotation for a long time.
3. The knife shape design is reasonable, using alloy steel blades, the product is evenly granulated, the knife base is heat-shrunk and has undergone strict balance testing, and the appearance design is beautiful and elegant.

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.