

Bulky Waste Disposal System

JUST SHRED IT

Contact Harden for professional shredding and recycling solutions.

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# JUST SHRED IT

## **About Us**

Harden Machinery Ltd. is a leading manufacturer of industrial shredder and waste disposal equipment in China. With a growing market and hundreds of successful cases we had built, Harden had became the most trustworthy brand in China, also it's being more popular worldwide. Thanks to rich experience and our strong R&D team, Harden always keeps advance in technologies.

Harden supplies competitive shredding machines worldwide, including single shaft shredder, double shaft shredder, quad shaft shredder, primary shredder and mobile shredder. We also offer a wide range of one-step solutions such as MRF system for MSW, SMP system for hazardous waste, shredding disposal system for organic waste, paper mill waste and bulky waste, etc.

## **Core Advantages of Harden**

**Professional Technologies** Focus on shredding technologies from beginning to now

**Trustworthy Brand** 900+ successful projects / Wide recognition in market

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**High Reliability** All parts in world brands / Advanced and mature designs

### Aims the best ROI for customers

Batch production saves cost / High Durability Proven

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# Bulky Waste Disposal System A

System A is mainly suitable for the volume reduction treatment of mixed bulky waste, which has compact layout and full-sealing structure with vacuum dust removal system, can effectively restrain the leakage of the dust, realizes dust-free working environment. The double shaft shredder as the core equipment of this system can easily crush any types of bulky waste by using unique shearing way, which also has the characteristics of large processing ability, stable running performance and convenient maintenance, etc. Multiple sealing structure guarantees the long-term stable operation in complicated condition.

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# Bulky Waste Disposal System B

System B adopts the international advanced technology of primary shredder as core equipment, has the advantages of large shredding space and strong shredding power, can crush different kinds of bulky waste at the same time. Several operating modes can be selected to reset the control program based on the different material properties, ensure that the bulky waste is fully shredded, to achieve significant effect of magnetic separation and volume reduction. The entire sealing structure combines with two sets of vacuum dust removal system, which effectively restrains the leakage of the dust and realizes duty-free working environment.

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### Bulky Waste Disposal System C

System C is mainly suitable for classification and resources utilization process of large quantities waste mattresses and waste sofas. Through the two-stage shredding processes of double shaft shredder and four shaft shredder, the discharged material will go through fine processing treatments such as wind separation, magnetic separation and granulation, etc., the metal included in the bulky waste will be separated with the combustible material, to achieve the maximum utilization of resources. The whole automation system can completely replace the manual dismantling, significantly improves the production efficiency and recycling value of the material, realizes important development from "harmless disposal "to "recycling disposal".

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#### Double shaft shredder

The intelligent double shaft shredder has the characteristics of low speed, and large torque, which can adapt to the shredding work of various bulky waste and ensure long-term stable operation. The tool adopts imported cold work die steel, which has the characteristics of high strength, high toughness, strong wear resistance, strong impact resistance and so on. The detachable tool structure can realize rapid disassembly and multiple blade surfaces can be fully used, with low maintenance cost and short replacement cycle.

#### Primary shredder



The primary shredder is driven by hydraulic power unit, with large shredding space for the material, multiple types of bulky waste can be fed into the shredder at the same time. Different control program will be selected based on the different bulky waste so that the effect of cutting efficiency and volume reducing achieve the maximum optimization.



# Dust separator

Because the dust pollution may be generated in the process of shredding and conveying, the bag dust separator can be selected to collect the dust generated in the system through the pipeline, effectively improves the working environment, protects the staff and equipment.

#### Wind separator

The material is sorted by wind separator based on the characteristics of gravity, the heavier material will directly fall down to the bottom of the separator, while lighter material will be transported to back-end conveyor through air blower. Wind separator can replace manual sorting, efficiently realizes the separation of the light & heavy material, which provides the guarantee for the stability of the baler & granulator and the quality of the finished products.

### Granulator

### Electric control system

Main control cabinet and control platform are independent, touch screen + button control mode, user-friendly interface design, easy to operate; Automatic mode can realize automation operation, manual mode can control the operation of single equipment. According to the actual needs, different modes can be selected at any time to operate. Acousto-optic alarm, fault visualization, automatic reminder of equipment maintenance and other intelligent functions, easy to deal with the fault and maintenance work. The full coverage video monitoring device can communicate with the central control system, monitors the running condition at any moment.

### Remote analysis



#### Four shaft shredder

The four shaft shredder adopts three groups of shearing and shredding areas which are composed of two main shaft and two countershaft, to improve the cutting efficiency. Each shaft of shredder will be driven by an independent motor and equipped with overload protection. The bottom of the shredder is equipped with screen mesh structure which can be customized according to the requirement of customer for discharging size.

#### Conveyor

Feeding conveyor adopts galvanized chain plate transmission, has the characteristics of strong impact resistance, large bearing capacity, strong wear resistance. Discharging conveyor adopts buckle type sealing cover structure, has the characteristics of good sealing effect, simple disassembly, easy cleaning.

### Magnetic separator

The magnetic separator adopts permanent magnet which can efficiently remove the metal so that the metal can be recycled and will not be transported to the backend process.



Granulator is used for pelleting of the end light material, which extrudes the material into RDF particle by the operating principle of high-speed stamping. The RDF particle has the characteristics of high density and it is not easy to loose. The punching rod of the granulator is made of hard alloy steel which is treated by the heat process to improve the surface hardness and wear resistance. Therefore, the service life will be extended.



Harden has established a monitoring and diagnosis system with a central database as the core, which can accurately provide real-time working pictures of the equipment. Component automation expert system provides basis for fault diagnosis, efficient energy saving and efficient decision making; The message push system of equipment information reminder and warning which faces to service-oriented ensures the scheduled maintenance of the equipment, and gives early warning to the illegal operation.

### **Client Cases**









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