

## SG Series Shredder

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JUST SHRED IT, THUS SORT IT.

Contact Harden for professional shredding and recycling solutions.

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# JUST SHRED IT, THUS SORT IT.

### About Us

Founded in 2010, HARDEN MACHINERY LTD. is the expert in design and manufacturing of industry shredders, sorting machines and processing lines for various types of solid waste disposal. With its advanced technology, R&D capability, quality products and excellent after-sale service, HARDEN has become one of the leading companies in solid waste recycling industry in Asia and globally.

## Core Advantages of Harden

- Leading enterprise for solid waste processing in China
- Cooperates with European companies
- Full ranges of products

THINT

- Famous brand configuration for core components
- The largest R&D scale for solid waste processing in China
- More than 10 years experience in waste industry
- Perfect solutions for solid waste
- More than 1,400 cases domestic and overseas





### Single-Shaft Shredder

HARDEN SG series large-scale single-shaft fine shredder integrates multiple patented technologies such as intelligent built-in arc pressing, extremely small gap shearing, close-packed granule shaft, and rapid gap adjustment. Adopting advanced European design ideas and concepts, we have pursued greater output, lower operating costs, less maintenance time, and a safer and more user-friendly operating experience from the beginning of the design.

HARDEN has accumulated rich experience in single-shaft shredder. For different material processing, it has corresponding parameter configurations for torque, speed, action program, and size configuration. Whether it is raw materials such as flexible and high-strength leather fabrics or low-density lightweight materials, the single-shaft shredder can handle it calmly with excellent processing effects and production capacity.

### **Product Features**





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### Top opening hydraulic maintenance door

This maintenance door can be used for face-changing or replacement operations of granules, removal of non-breakable foreign objects, and cleaning operations inside the box. Advantages as follow:

Safety: hydraulic safety valve + double mechanical safety clamping plate.

Good accessibility: Fully open operating space + maintenance pedal, easy access to maintenance parts such as spindle and clamp.

Efficiency Improvement: Hydraulic drive saves time and effort.

# Patented close-packed high-efficiency shredding shaft

For light materials with smaller density, in order to meet the demand for large production, HAREDN has developed closepacked blade cutting technology, which increases cutting efficiency by 50% and has applied for a national patent.

For difficult-to-break materials such as textiles, a high-shear force sparsely spindle is also provided.

### Efficient and reliable power transmission

The use of efficient and reliable belt drive combined with a customized reinforced planetary reducer achieves excellent power performance.

Specific advantages include:

Combined belt: high transmission power and smooth operation

Interchangeability: standardized accessories, high interchangeability, short cycle time

#### Intelligent built-in arc pressing technology

Pressing technology is crucial to single-shaft crushers. Based on many years of shreddeding experience, HARDEN has developed intelligent built-in arc pressing technology, which has multiple advantages:

Arm driven, no guide rails required, lightweight, fast and efficient.

Intelligently adjust the pressing speed according to the spindle load.

Intelligently judge the material condition and decide whether to shorten the pressing stroke.

It carries a material distribution structure to maximize spindle utilization. Anti-jamming mechanisms are installed at the front and rear to prevent the material press from jamming.

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### **Product Features**





#### Specially equipped with hexagonal sieve to ensure the shredding particle size compliance rate

The single-shaft shredder is equipped with a screen to control the discharge particle size. Its advantages include: Hydraulic drive, saving time and effort.

Multi-piece structure, single-piece screen is light in weight and easy to disassemble and install.

Hexagonal sieve mesh holes maximize the material passing area.

#### CE level security protection function

The single-shaft shredder has passed CE safety certification and has a variety of safety protection functions:

Automatic foreign object protection function: automatic reset safety clutch with high-precision sensor, when unbreakable objects enter, the safety clutch can automatically disengage and shut down for protection.

Door safety switch: All "doors" of the machine are equipped with safety switches, which are interlocked with the spindle. Once opened, it is unable to operate

## Typical Application Range (Mainly For Secondary Shredding)



Textile & Leather Waste



**Biomaterials Straw** 

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Decoration Waste Combustibles



Waste Clothes





Recyclable MSW Waste(RDF) Paper Mill Light Materials



Construction Templates & Waste Wood





Plastic & Film Waste



SG2200/SG3000 Schematic diagram of the outline



	Model	S <b>G</b> 1800	SG2200	SG3000	SG2200R	SG3000R
	Drive mode	Single motor	Dual motor	Dual motor	Dual motor	Dual motor
	Motor Power (KW)	200×1	132x2/160x2	200x2	160x2/200x2	200x2/250x2
	Hydraulic Station Power(KW)	15KW	15KW	15KW	15KW	15KW
	Shredding Box Size(AxC)(mm)	1850x1600	2330x1600	3030x1600	2330x1600	3030x1600
	Shape Size(LxWxH)(mm)	5150x3430x5312	5630x3430x5312	6330x3430x5312	6100x34 <mark>30x5312</mark>	6800x3430x5312
	Spindle Speed(rpm)	70-120	70-120	70-120	280-320	280-320
	Knife Specifications(mm)	60x60x35	60x60x35	60x60x35	60x60x35	60x60x35
	Knife Quantity	72	90	120	90(Sparsel <mark>y Row)/</mark> 120(Closed <mark>Packed)</mark>	120(Sparsely Row)/ 160(Closed Packed)
	Knife Specifications (mm)	183x112x40	183x112x40	183x112x40	183x112x40	183x112x40
	Knife Quantity	10	12	16	12/24	16/32
	Auxiliary Fixed Knife	Optional	Optional	Optional	Optional	Optional
	Screen Quantity	3	3	4	3	4
	Machine Weight (t)	24.2	27	32.6	28	33.7
	PLC	Standard configuratio S7-200SMART	Standard configuratio S7-200SMART	Standard configuratio S7-200SMART	Standard configuratio S7-200SMART	Standard configuratio S7-200SMART
	Main Electrical Components	Schneider Siemens	Schneider Siemens	Schneider Siemens	Schneider Siemens	Schneider Siemens
	Start Mode	Inverter starts	Inverter starts	Inverter starts	Inverter starts	Inverter starts
	Output Material Size(mm)	50-100	50-100	50-100	30-100	30-100
Ontional: spark fire protection system open hopper						

Optional: spark fire protection system, open hopper



SG2200R/SG3000R Schematic diagram of the outline

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Cases



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### Cases



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