

Single-Shaft Shredder

# Single-Shaft Shredder

The Harden Single-Shaft Shredder integrates advanced proprietary technologies, including an arc-shaped feeding system, intelligent drive, high-precision cutting mechanism, and quick-adjustment cutting gap.

This design ensures efficient operation, stable throughput, and consistent particle size. It enhances product quality, reduces costs, optimizes maintenance, and improves operational efficiency, leading to higher production uptime.



#### SL1500/SL2000/SL2500

Small-Capacity Single-Shaft Shredder

#### **Applications**

This shredder is ideal for plastics, textiles, paper, rubber, biomass straw, wood boards, electronic waste (e-waste), scrap aluminum, batteries, and light fraction combustibles.



















One-Step Single-Shaft Shredder

#### **Applications**

Municipal solid waste (MSW), paper mill waste (pulper ropes, light rejects), commercial and industrial waste (C&I), renovation waste, landfill waste, tyres, textiles, and biomass.













#### SG2200RP/SG3000RP/SG3000RF

Fine Single-Shaft Shredder

#### **Applications**

Commercial and industrial waste (C&I), municipal solid waste (MSW), paper mill waste, wood, textiles, renovation waste, biomass straw, bulky waste, plastics, and cables.



















# Cutting System



#### ► P-Series Cutting System

Features pointed blades that adapt to shredding flexible, brittle, and hard materials. With various blade specifications and configurations, it evenly distributes cutting forces, greatly enhancing efficiency.

#### Applications

Suitable for primary or final fine shredding of complex or mixed materials.

















# F-Series

#### ► F-Series Cutting System

Utilizes flat blades for precise cutting, achieving ultra-fine shredding. The multi-row flat blade shaft enables linear cutting, enhancing efficiency while scraping the screen to boost output and simplify maintenance.

#### Applications

Ideal for processing clean materials or pre-shredded/screened materials, meeting diverse fine-shredding needs.











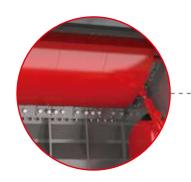
05

#### Output Size (mm)



Output Size (mm)





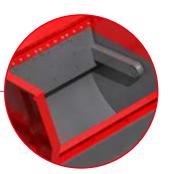
# Discharge System

The system features an inward-opening maintenance door for quick removal of foreign objects and fast production recovery. This design also simplifies blade maintenance and replacement, enhancing operational efficiency.



# Intelligent Feeding System

Featuring an integrated arc-shaped feeding design, it adjusts action logic in real time based on operational data, boosting throughput and preventing overload situations.



# **Cutting System**

The blades are made of high-strength alloy steel, offering excellent wear resistance and long service life, reducing per-ton operating costs.



# Adjustable Cutting Unit

The cutting gap can be quickly adjusted via bolts without opening the discharge door, ensuring consistent production capacity.



the letter lette

#### **Drive System**

The system employs a belt and heavy-duty gearbox transmission, providing robust torque for effortless handling of tough materials. An overload protection device mitigates damage risks from foreign objects, ensuring safe and stable operation.



The screen adopts a modular, quick-change design with multiple specification options, flexibly meeting the processing needs of various materials.



SL1500/SL2000/SL2500

07



### **Intelligent Feeding System**

By utilizing intelligent feeding logic to monitor output thrust and spindle load current in real time, the system maintains optimal feed conditions, significantly enhancing production



#### **Drive System**

Features a unique high-torque drive system for robust power output. Equipped with overload protection, it ensures safe, reliable operation and mitigates risks of abnormal damage.



#### **Screening System**

Different screen specifications enable varied output sizes, enhancing discharge efficiency and throughput. Modular plates facilitate quick and easy replacement.



#### Intelligent Control System

Equipped with advanced features such as temperature control, automatic lubrication, and digital frequency modulation, it ensures a seamless operating experience. The smart design allows one-touch start/stop via the control panel.



The outward-opening design with one-touch hydraulic operation enables quick removal of foreign objects for fast production resumption.



# Adjustable Cutting Unit

Allows quick cutting gap adjustments via bolts without opening the discharge door.



# **Cutting System**

The configuration offers high precision with wear-resistant, high-strength alloy steel surfaces, effectively processing various materials.



#### **Robust Frame Structure**

Constructed from high-quality steel, the frame structure incorporates high redundancy and multiple load transfer paths, providing multi-point support for impact zones to handle shocks with ease.



# **Automatic Lubrication System**

It maintains continuous lubrication, reducing maintenance frequency and simplifying upkeep.



SG3000MP

harden



# **Automatic Lubrication System**

The system ensures that the equipment remains continuously lubricated, reducing maintenance frequency while enhancing the convenience of maintenance.



#### **Drive System**

A high-inertia, variable-torque drive system provides flexible cutting force output. Equipped with overload protection, it ensures safe, reliable operation and mitigates damage risks from foreign objects.



#### Screening System

Maximized screen area enhances discharge efficiency for high output. Modular screen plates enable quick and convenient replacement.



#### **Intelligent Control System**

The smart operating system supports energy savings, remote online management, real-time monitoring, and maintenance alerts for enhanced convenience.



#### SG2200RP/SG3000RP/SG3000RF

# Intelligent Feeding System

The system monitors output thrust, cutting load, and maximum feed rate in real time, significantly enhancing throughput efficiency.



# Adjustable Cutting Unit

The cutting gap can be quickly adjusted via bolts without opening the discharge door, ensuring stable production capacity.



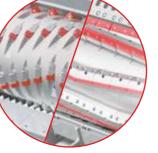
# **Efficient Discharge System**

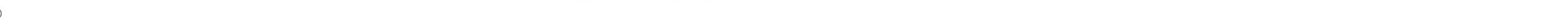
The outward-opening discharge door, equipped with one-touch hydraulic operation, allows rapid foreign object removal, ensuring quick production resumption.



# **Cutting System**

The blades, made of ultra-high-strength alloy steel with a four-sided cutting design, reduce the cost per ton of processed material.









► SL1500/SL2000/SL2500

Equipment Model		SL1500	SL2000	SL2500
Equipment Dimensions				
Dimensions (L*W*H)	mm	3300*3220*4740	3800*3220*4740	4300*3220*4740
Total Weight	kg	14500	16500	19000
Cutting Chamber				
Cutting Length	mm	1500	2000	2500
Rotor Speed	rpm	82	82	82
Cutting System Type	/	Р	Р	Р
Number of Rotor Knives	pcs	54/81	72/108	90/135
Number of Counter Knives	pcs	3	4	5
Number of Screens	pcs	3	4	5
Drive System				
Power	kW	110	132	160
Hydraulic Power	kW	7.5	7.5	7.5
Electrical Control System				
Drive Control	/	Frequency Converter	Frequency Converter	Frequency Converter

<sup>\*</sup>The above are the standard model parameters, including the supporting legs and hopper, subject to modification.









#### ► SG3000MP

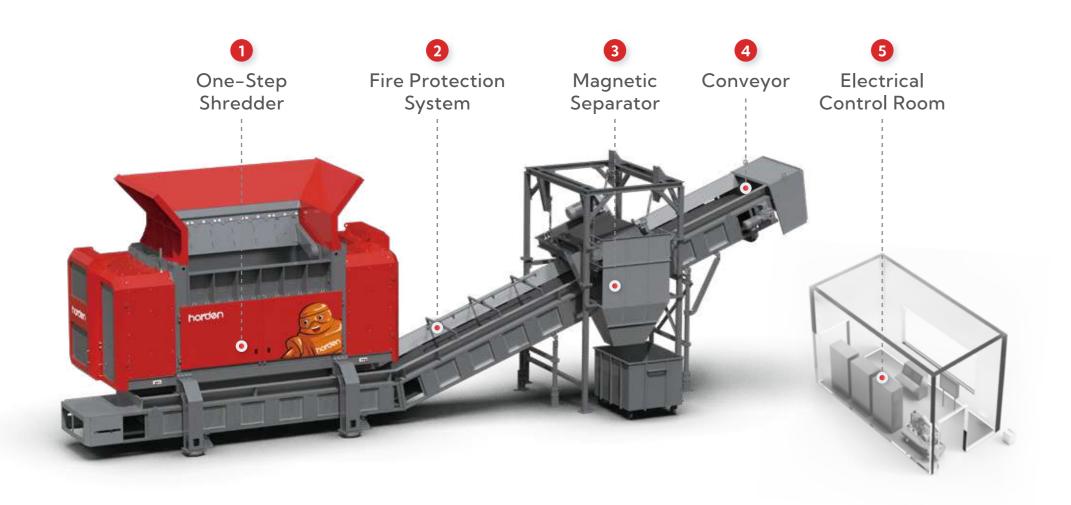
► SG2200RP/SG3000RP/SG3000RF

Equipment Model		SG3000MP	SG2200RP	SG3000RP	SG3000RF
<b>Equipment Dimensions</b>					
Dimensions (L*W*H)	mm	6406*3253*4988	6122*3430*5423	6822*3430*5423	7430*2876*5200
Total Weight	kg	35000	28000	34000	34000
Cutting Chamber					
Cutting Length	mm	3000	2200	3000	3000
Rotor Speed	rpm	133	280	280	280/373
Cutting System Type	/	Р	Р	Р	F
Number of Rotor Knives	pcs	75/90	90/120	100/120/160	80/112
Number of Counter Knives	pcs	12	12	16	16A+16B
Screens	pcs	6	3	8	8
Power Drive					
Power	kW	2*200	2*160	2*200/2*250	2*200/2*250
Hydraulic Power	kW	15	15	15	15
Electrical Control System					
Drive Control	/	Frequency Converter	Frequency Converter	Frequency Converter	Frequency Converter

<sup>\*</sup>The above are the standard model parameters, including the supporting legs and hopper, subject to modification.

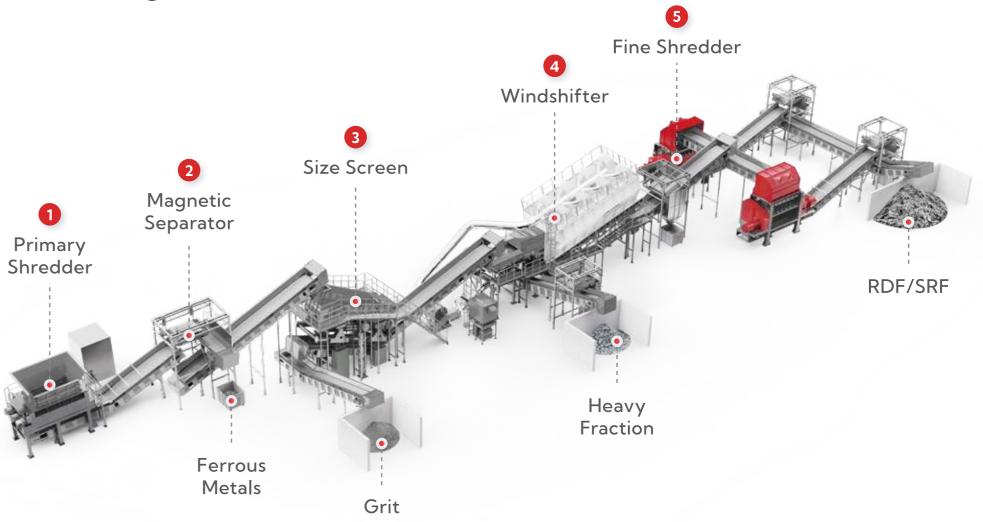
12

# **One-Step Shredding Solution**



# **DSWS**

# **Shredding Solution**



4

# Why Choose Harden



15 Years of Technical Expertise in Innovation



1,500+ Global Success Stories Across 30+ Countries



Rigorous Quality Control for Reliable Equipment



Customized Solutions to Optimize Client Value



24/7 Rapid-response After-sales Support

#### **Contact Us**

#### **Harden China**

#### Harden Machinery Ltd.

Building 8, No. 6 Jingye Road, Torch Development Zone, Zhongshan City, Guangdong, China

Tel: +86 760 8993 5422

Email: info@hardenmachinery.com

www.hardenshredder.com





#### Harden Singapore

#### Harden Machinery Pte. Ltd.

138 Cecil Street, #13-02 Cecil Court, Singapore 069538

Tel: +65 9117 5487

Email: arthur.zhang@hardenmachinery.com www.hardenshredder.com

Harden Machinery Ltd.











SS-202508

Subject to technical changes, revisions, and printing errors. Illustrations are for reference only and may differ from the actual product.