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Pretreatment System of Domestic Waste

JUST SHRED IT

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Contact Harden for professional shredding and recycling solutions.

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JUST SHRED IT **Harden**

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

High Reliability

All parts in world brands / Advanced and mature designs

Trustworthy Brand

900+ successful projects / Wide recognition in market

Aims the best ROI for customers

Batch production saves cost / High Durability Proven

Domestic Waste

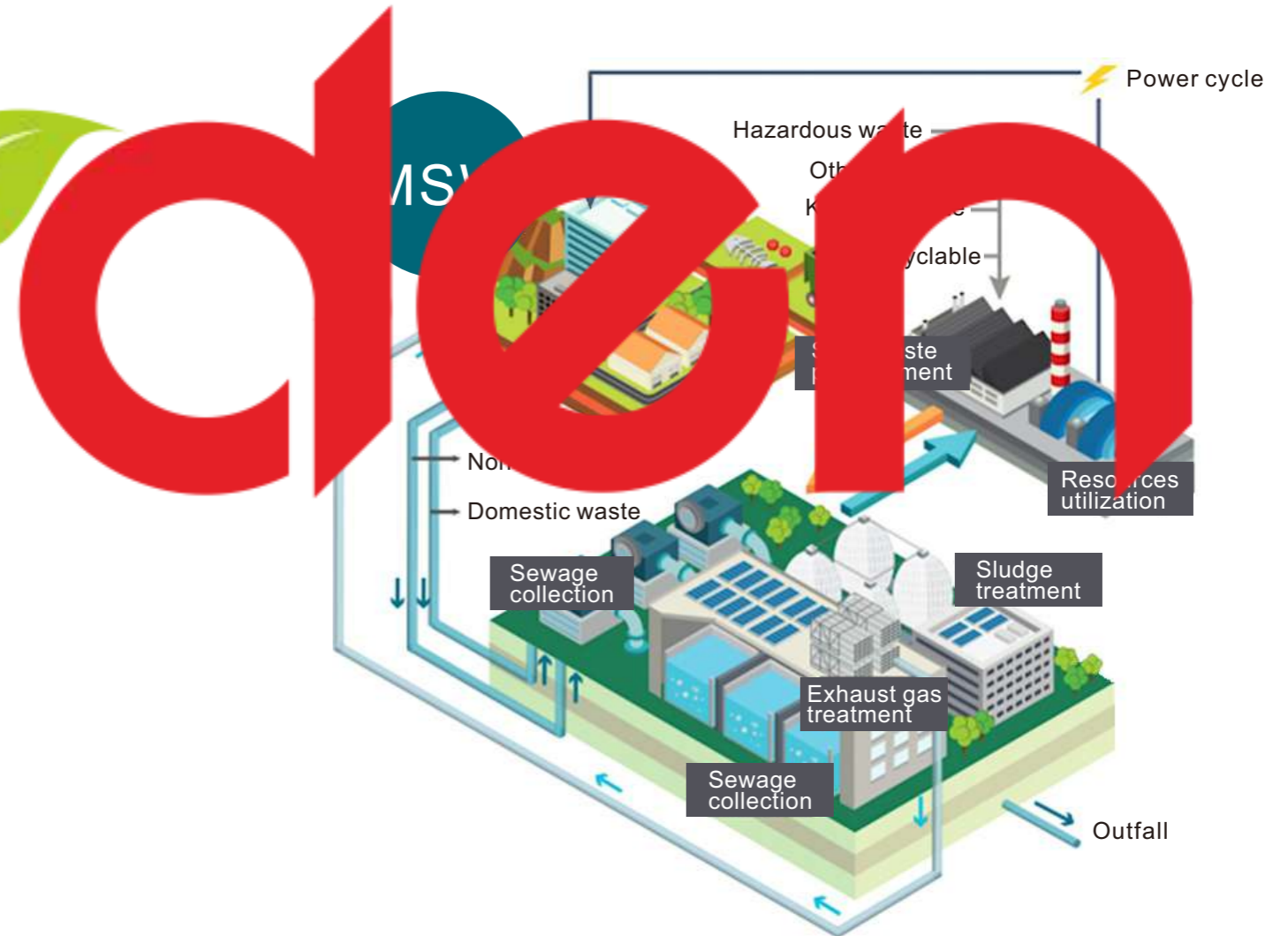


As a equipment supplier of solid waste pretreatment in solid waste processing industry for more than 10 years, arounds pretreatment goal of three mixed domestic waste/other waste in "Recyclable material sorting", "Organic matter extraction" and "Preparation of RDF/SRF from combustibles", Harden can provide reliable technologies, systems and equipment.

A common RDF specifications as shown below:

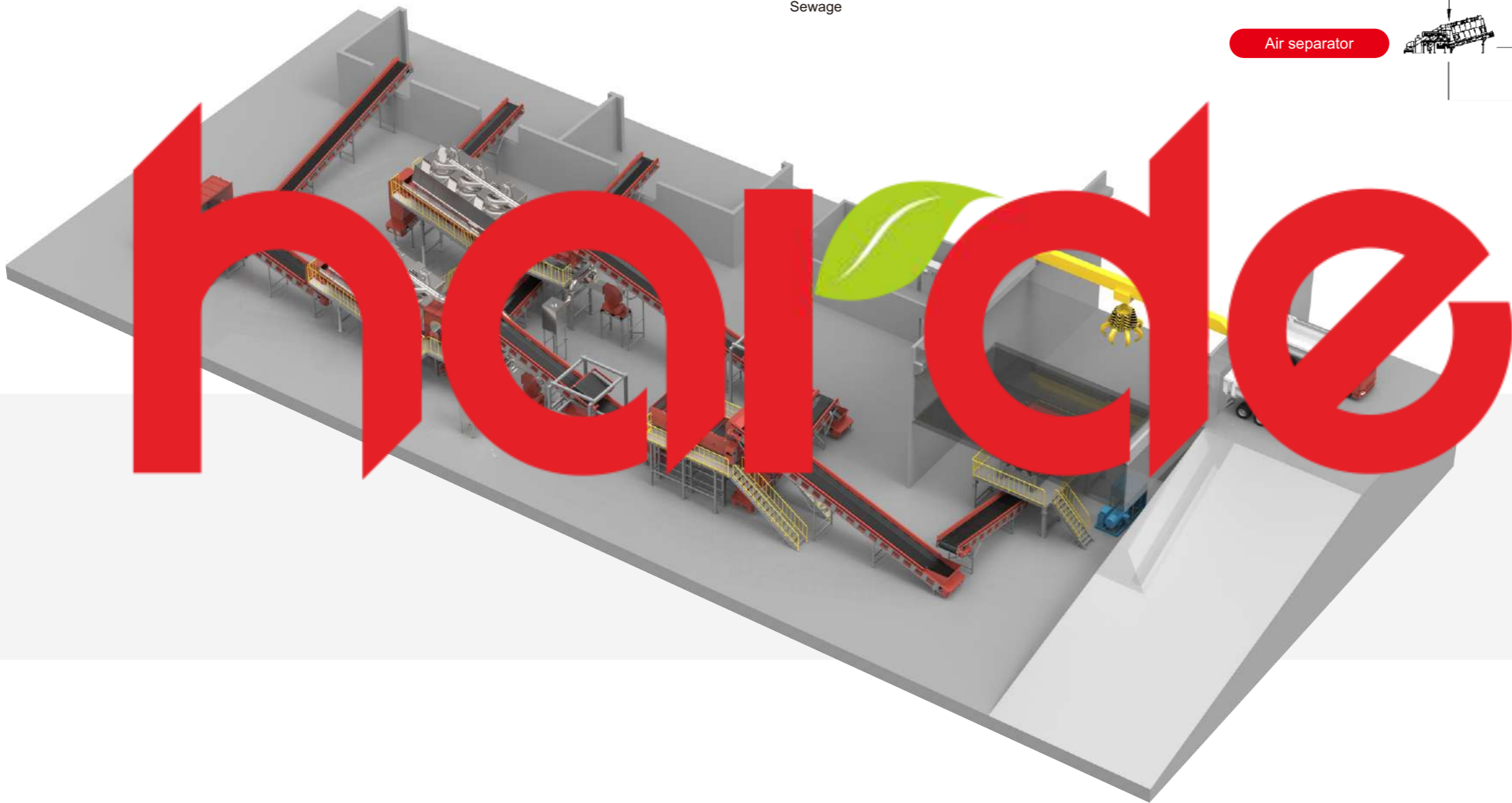
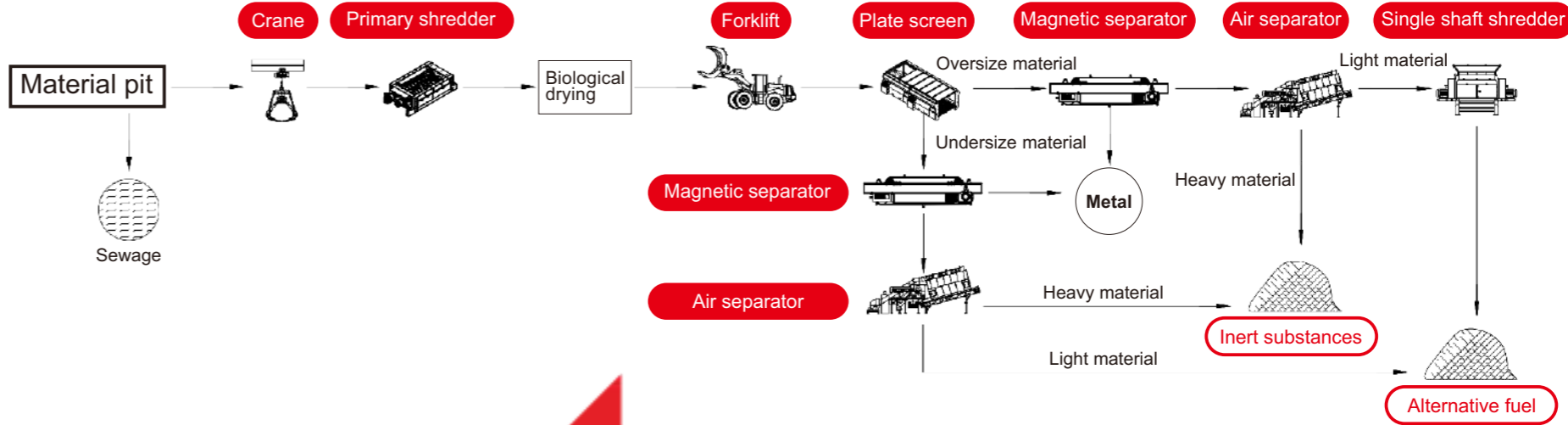
RDF types	Particle size (mm)	Calorific value (kcal/kg)	Density (kg/m ³)	Moisture content	Application
Type 1	50-80	>3000	<250	<20%	pyrolysis fluidized bed cement kiln, etc.
Type 2	20-35	>4000	<150	<15%	Coupling power generation cement kiln, etc.

a large amount of r... bottle, metal, ... municipal ... st...
 The composition of ... waste, mainly kito... , account... -60%, which ca... as bi... e...
 High calorific value ... es that take up the la... portio... oduced into RDF/SRF... es th...



Pretreatment Solution of RDF Preparation

The final products from this pretreatment line include three parts: The high quality of alternative fuel (RDF/SRF) with 98% of particle size less than 60mm, alternative fuel based on inorganic substances, recyclable metal. The whole processing does not need manual participation, with good material compatibility which ensures bulky waste, mattress and other foreign objects. The core equipment such as shredder and sorting machine run smoothly and steadily, to keep the low cost of the RDF preparation.



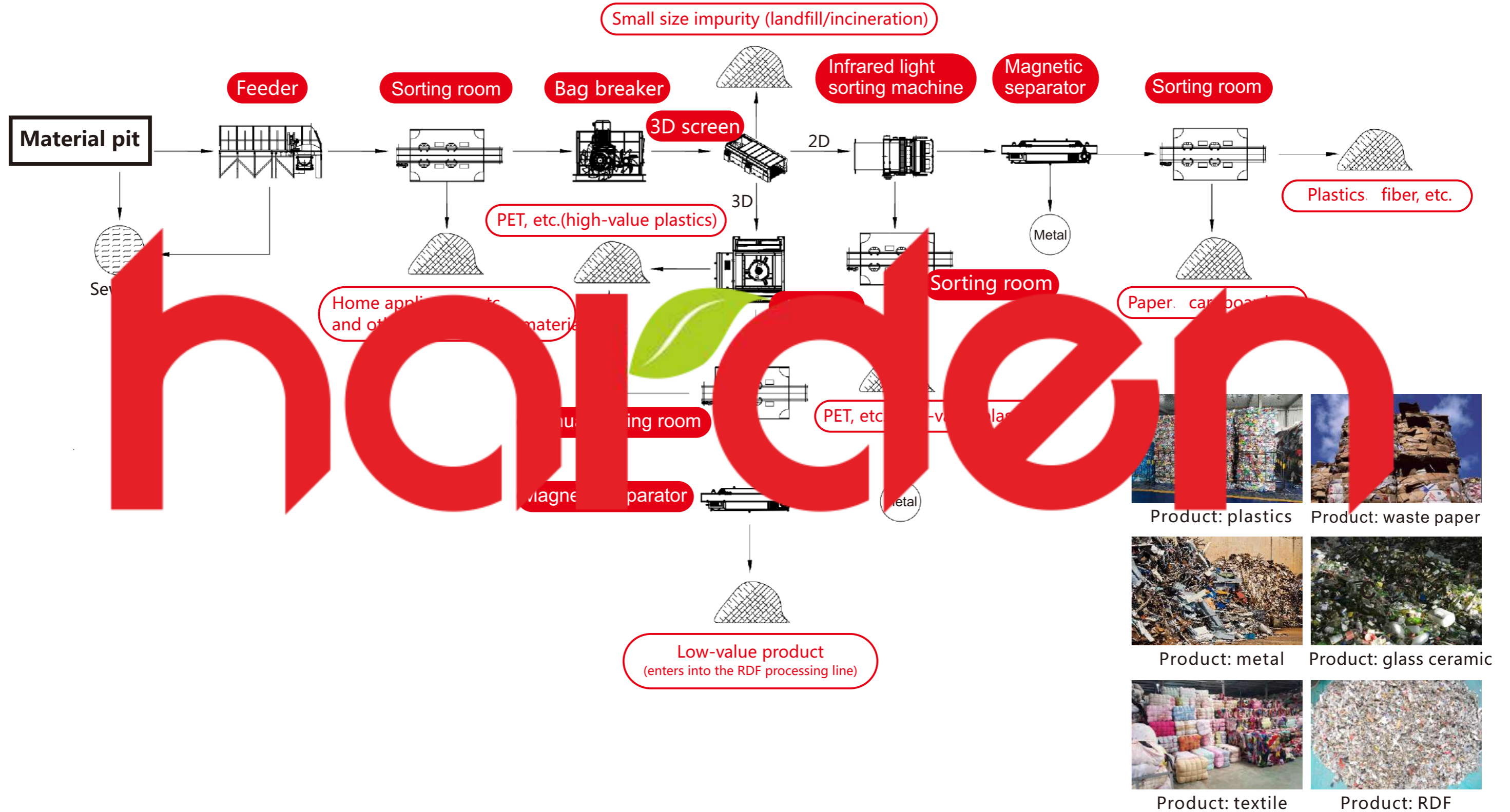
Product: Alternative fuel



Product: metal

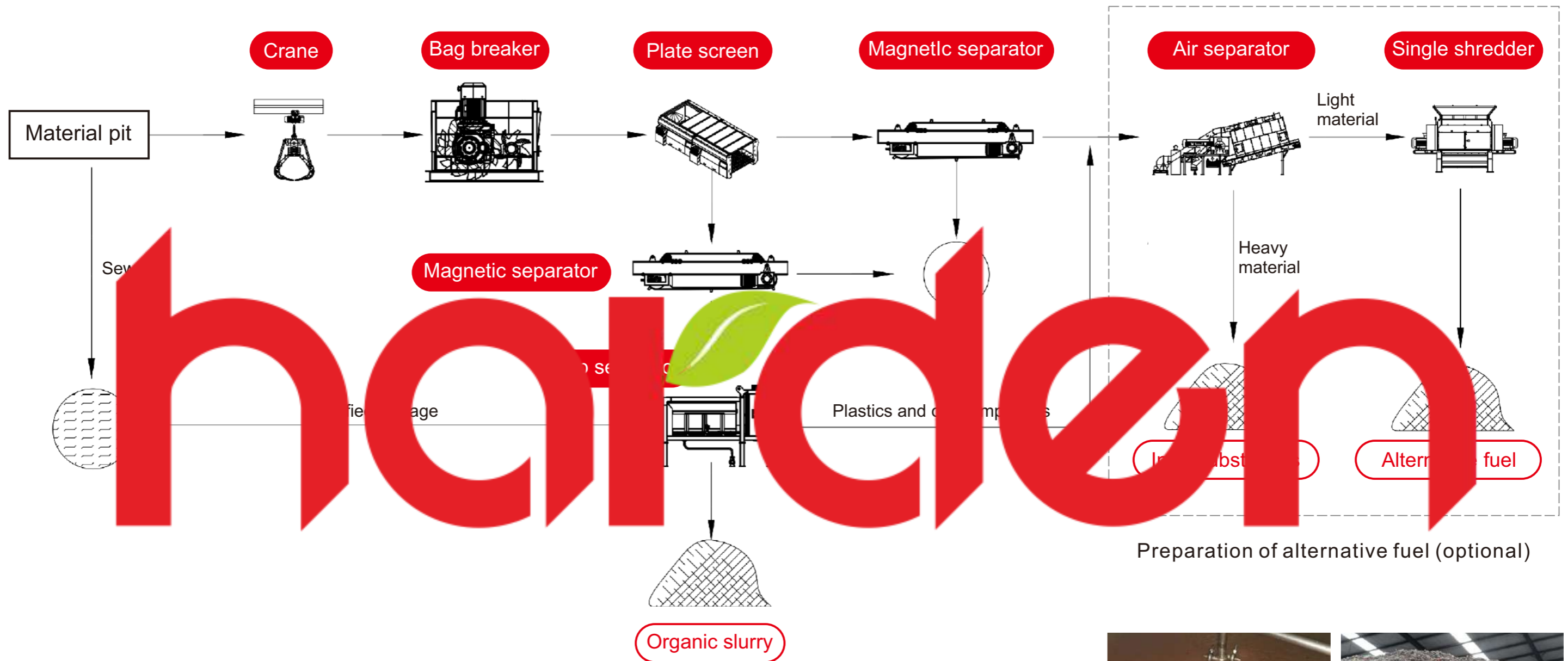
Pretreatment Solution of Recyclable Material Sorting

This pretreatment line aims to realize the maximum recycling of recyclable material. The bag breaking shredder can not only guarantee the high broken rate of packing bags, but also ensure the integrity of high-value recyclable material such as plastics bottles, glass bottles and waste paper to the greatest extent. It can achieve high recovery rate of recyclable material by cooperating with AI robot, optical sorting machine and manual sorting



Pretreatment Solution of Organic Matter Extraction

30%-40% of the unclassified original solid waste is food waste. As a high-quality renewable biomass, the recycling of food waste is conducive to the realization of resources utilization. The treatment line adopts plate screen and advanced pulp separator to realize effective separation and recovery of organic matter.



Product: organic slurry



Product: alternative fuel

Large output hydraulic primary shredder



The large output hydraulic primary shredder adopts the concept of open-ended shredding. In the front end can grab directly feed without vibrating feeder, the output can reach up to 80 t/h. Several types of cutters and running program can be selected in order to meet the domestic waste shredding requirements of different particle size, especially realize homogenous size of material to ensure the sorting effect in the following processes.

Large-scale single shaft shredder for RDF



Single shaft shredder adopts the spindle of large diameter and thick wall, equips with big pulley in power system. The main spindle and big pulley can storage large amount of energy to keep ultimate cutting force and smooth operation. The patent design of dense arrangement blades and blades structure ensure the large output and energy-saving. Built-in hydraulic arc pusher is working cooperated with main spindle, which has the characteristics of intelligent speed control and voltage changing.

Pulp separator of organic matter



The pulping machine applies vertical separation concept, which ensures the separation rate of organic matter over 99.5 % and low moisture content of the discharged material. Metal or other impurities can easily accepted by this machine and without any breakdown. Screw feeding machine and discharging control screw are equipped to keep the smooth operation. In order to satisfy the need of different fermentation system, a variety of different mesh screens are optional for the customers.

Anti-blocking plate screen

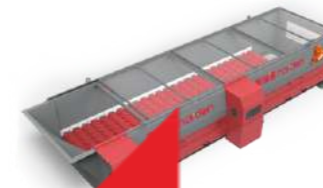


Plate screen adopts multi-angle design which aims to mixed domestic waste, and the mesh is always in the process of dynamic changing to effectively prevent the mesh being blocked by organic matter. The patent designs of anti-winding and anti-jamming effectively avoid the hard objects is falling into the mesh hole, causing the breakdown of the machine. Comparing with the roller screen in the situation of 80t/h, the plate screen only consumes 15 KW.

Intelligent rotary separator



The intelligent rotary separator adopts advanced light and heavy material separation principle. It is equipped with high sorting accuracy, large production capacity, and the position of infeed & discharge is adjustable. The angle of separation can be adjusted for different materials.

Double screen



Double screen machine is suitable for a variety of material, with high quality of screening. It can work at the same time. It adopts double structure design to ensure the screening efficiency.

Bag breaker



The bag breaker adopts the bag broken principle of mutual meshing to ensure that all material must pass through the broken bag. Patented structure of small shaft and hook guarantee a high rate of breaking. In the process of breaking, the recyclable material, e.g. plastics bottles and other material, etc., will not be damaged. If there exist unbreakable foreign objects, the bag breaker can discharge it without breaking which ensures smooth operation.

Step feeder



The step feeder has a large bearing capacity and can be used as a storage box with a width of 4m, a length of 10m and a stacking height of 2.5m. It is driven by hydraulic, with good stability and continuity.

Sorting room



With negative pressure dust removal and ventilation to ensure the manual working environment; Sound insulation design to prevent noise pollution.

Light separator



It's a multifunctional photoelectric sorting machine and be widely used in material sorting, e.g. mixed plastics bottles, mixed packing material, municipal solid waste, construction and decoration waste and mixed paper waste, etc.

Client Cases



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