

Excellence in Engineering



We do more than business.

We are not only responsible for our products, but also for the products produced by our machines. We are the first machinery manufacturing company in the world that granulates and recycles in-factory/post-consumer waste to small-scale waste plastic products.

We are also the only manufacturing company that manufactures mini machines from scrap to plastic products.

We are globally responsible for turning plastic waste into value, and creating conditions for a sustainable circular economy is an important part of ENMA's corporate culture.

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# Consider and Design for Sustainability We Do More than Business

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# Our Vision Our Mission

We are full of passion and confidence in creating the future with plastics. Our mission and vision is what we want to achieve together.

"Become the world's best manufacturer of recycling equipment, and help customers turn waste into value through equipment."

Our mission is "to make our vision a reality".

# We do more than a job As well as a mission

Plastic is a valuable and promising material. However, after its use, too many plastic products end up as waste, and we must change. Because used plastic is not necessarily waste, it is often a valuable source of raw material. ENMA reintroduces plastics as part of circular value creation through advanced mechanical technology.

Whether your recycling is the waste in the factory or post-consumer waste, ENMA's advanced and intelligent equipment can create value for you.

At ENMA, we share your desire for trouble-free operation of equipment, which means you get the most return on your investment against the least cost. For 30 years, we have been focusing on innovating and producing high-quality, safe and easy-to-maintain intelligent shredder recycling systems.

Whatever you crush, whatever you wash,
Whatever you pelletize, whatever you separate,
Having ENMA, you can fully enjoy the value that an excellent recycling system brings to you.

Excellence in Conveyor
Excellence in Crusher
Excellence in Cleaner
Excellence in Cutting compactor
Excellence in Circular Economy
Excellence in Engineering

Junes

Thomas Tong ENMA CEO

# Worldwide distribution



# Machine manufacturing standard:

European CE ISO9001

### Location:

French Headquarters: Research and Development

Asian Company: R&D/Manufacturing

International marketing organizations: USA, Japan, UK, Poland, Egypt, Czech Republic, Germany

- Headquarter
- Distributor
- R&D/Manufacturing

# FNMA **Be the first**

### EnMa C series 1 shaft crusher

The demand for waste recycling in the factory is increasing. We started to develop the 1 shaft crusher to pre-crush large materials to reduce the pressure of the granulator, also named with the initial letter of Crusher, C series. The model is: EnMa C1000 1200 1600 2000, etc., and it was first launched at the K show in Dusseldorf, Germany.



### Origin from France, root in China

ENMA expanded the Asian market and merged with JIAZHENG Machinery, a company specializing in the production of plastic granulators in Shanghai, China, and established ENMA Machinery (Shanghai) Co., Ltd. Mr. Thomas Tong is the shareholder of ENMA France and served as the CEO of Asian area.



### 1 brand, 5 products

ENMA is a globally operating crushing and recycling equipment manufacturing group. Our strength is attributed to 5 product brands:

Conveyor (EnMa Conveyor), Crusher (EnMa Crusher), Cleaner (EnMa Cleaner), Pelletizer (EnMa Cutting Compactor), Recycling system (EnMa Circular Economy) five major products. Any ENMA customer can find their own satisfactory recycling solution from a single machine or a complex recycling system, or the recycling system of the entire factory, which are produced by ENMA.



# 2020

New brand of ENMA

additionally:

New branding, typography changes,

and commitments to our customers

Excellence in Engineering, is also the

meaning of E in ENMA's name. We chose to

launch our new logo for the first time at the

Environmental Exhibition in Tokyo, Japan.

highlighting our emphasis on recycling,

1990

2002

2005

2008

2009

2019

# EnMa G series granulator was born

The first plastic granulator was born, named G series, which is the first letter G of GRANULA-TOR. Subsequently, EnMa G300.400.500.600.700 series were developed and sold in global market.



# EnMa ST/SF enter recycling market

With the generation of waste plastics in the market, there is an increasing demand for recycling in factories and after consumption, as well as crushing and recycling technologies in other special fields, we strive to develop sustainable environmental protection technologies to maximize the recycling of these materials or wastes. We launched EnMa ST 2 shaft shredder and EnMa SF 4 shaft shredder to meet the needs of the recycling market.



We have the strongest management team. ENMA talents, whether in France or China, are always our most important assets. They have completed many important projects at Chinese market, such as online film crushing and recycling, PVB automotive film crushing and recycling, PP filter plate crushing and recycling, waste wires, home appliance recycling and separation, etc.

### **Innovation Never Stops**

The new EnMa G / EnMa C series is jointly designed by Chinese designer Director Ou and Italian designer Paolo. The unique cutting rotor and modular body design are very convenient for installation and maintenance.

With the efforts of President Goto, ENMA's products have continuously expanded the market share in Japan. In order to better serve Japanese local customers, we established ENMA Japan Co., Ltd.

# 1 company5 products



# **ENMA Crusher**





**EnMa C300** Linear Series Small 1 Shaft Crusher 300/600 800

For shredding all kinds of wood such as chipboard waste, solid wood and other wood waste.



EnMa C400/600/800 Linear Series

Modular 1 Shaft Crusher 400/1000 1300 1600 2000 600/1200 1600 2000 2500 800/1600 2000 2500 3000

This model is ideal for almost all plastics and paper as well as hard and abrasive materials as well as larger plastic bales.



**EnMa C600/800** Arming Series Modular 1 Shaft Crusher

400/1000 1300 1600 2000 600/1200 1600 2000 2500

The EnMa C Arming Series can handle any form of waste including dirty material. It is ideally suited as a secondary shredder in an integrated system.



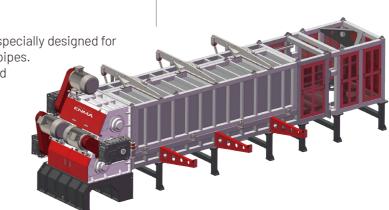
**EnMa C400/600** Pro Series High Performance 1 Shaft Crusher 400/1000 1300 1600 2000 600/1200 1600 2000 2500

EnMa C Pro Series adds a silent system cover to the existing C Arming Series models, and is suitable for crushing and recycling defective products in factories.

**EnMa P** Series Pipe Crusher 800 1000 1500 2000

EnMa P series Crusher is specially designed for crushing large-diameter pipes.

The pipes can be shredded directly through hydraulic automatic feeding without cutting.



# **ENMA Crusher**





**EnMa G** Series 200 Low-speed Granulator

EnMa G200 series of slow speed granulators are mainly used for online recycling of nozzle materials in the injection molding and blow molding industries. The recycled particles can be immediately transported to the production line for c ontinued use.

**EnMa G** Pro Series 300 500 700 High performance silent granulator

The EnMa G Pro series of high-performance silent granulator adds a sound insulation system to the EnMa G series, which is suitable for the recycling of defective products in the factory.

**EnMa T** Series 800 1200 1400 1600 2000 2 Shaft Pre-Cut Shredder

EnMa T Series 2 shaft pre-cut shredder.

No matter what kind of material - such as special waste, metal flakes, e-waste or bulky items, even materials difficult to be shred. Bulky materials are no match for these two powerful cutting shafts. Fibers, plastics, elastomer and rubber materials can be ensured of a perfect cut.

**EnMa G** Series 300 500 700 Multi-functional.High-efficiency granulator

EnMa G series is a modular multi-functional and high-performance granulator designed and developed based on the actual experience of customers around the world, which can be used in all types of plastic granulating, waste recycling in large factories and films, profiles, pipes and sheets, injection molding items.

**EnMa GH** Series 600 700 800 1000 heavy granulator

The EnMa H series is a heavy-duty/high-efficiency granulator designed for the recycling industry, ideal for shredding post-consumer materials and films.



# **ENMA Crusher**





**EnMa F** Series 1000 1200 4 Shaft High-efficiency Shredder

EnMa F series 4 shaft shredder is the industrial shredder with a low speed, high torque, four shaft and rotating system, used to recycle wood, plastics, packaging, paper board and metal materials, etc. One large hopper, two active rotor shafts and two passive rotor shafts are available, allowing definite sized material output through screen. It is the ideal solution with single machine, and with a complete set of recycling equipment.

# **EnMa M** Series 300 500 800 Fine Pulverizer

EnMa M series pulverizer is available with disc diameter with 300, 500, 800mm, for further process of PVC/PE pipe, profile and sheet after granulated. The output size is ranging from 20 to100mu. The material to be pulverized after granulated is introduced through vibrating feeder to high speed rotating disc. Centrifugal force carries the material though the grinding areas and the resulting powder is collected with a blower and cyclone system. Depending on the application of the machine, it can be equipped with one piece milling disc or grading segments, together with vibrating screener and dust collecting system.



# **ENMA Cleaner**



Through years of accumulated experience, ENMA helps and supports customers to get profit from advanced washing and recycling equipment, so that we can solve the recycling of plastic materials such as: PP, PE, PET, PS and ABS through modular equipment combinations.

- ·PET (Bottle, Package)
- ·PP(C) (Bottle lid, Battery, Crate, Bumpers, Planters, Light Vehicle Shredder Score-ASR)
- ·HDPE (Bottle lid, Oil tank, Bottle)
- ·WEEE & PS/ABS (Hanger, Refrigerator plastic, Electronics and household appliances waste plastic)
- ·PVC (Cable wire)
- ·Others (Combination of plastic&metal and plastic&paper combination)

### EnMa G Series Granulator

EnMa G series granulator is with the modular design, which makes your materials more refined and uniform.

# EnMa CT Series washing

**Washing Separator** 

**EnMa CT Series** 

separator is ideal for PET bottle recycling. For example, the PET flakes go down to the bottom of the machine, and other materials (such as plastic packaging materials or bottle cap flakes) will float on the water. The equipment effectively plays the role of cleaning and separation.

### De-watering Machine EnMa DM series dewatering

EnMa DM Series

machine can reduce the water content of the material during the cleaning process, separate the impurities (such as sand, paper fiber, glass, etc.) through the screen, and discharge the material through centrifugal force.



# each other.

# Feeding Belt Conveyor

Mainly used for material transportation, through modularization to the combination of various of equipment for using.

### EnMa C Sereis 1 Shaft Crusher

EnMa MS Series

**Metal Separator** 

EnMa MS series metal

separating equipment after material crushed, making metal and plastic separating

EnMa CB Series

**Outputting Belt Conveyor** 

Outputting belt conveyor is

with lower bending design,

anti-skid conveyor belt, and

can be equipped with iron

separator.

which is with wear-resistant &

separator is a metal

EnMa C series crushes the waste materials more evenly through advanced rotor and blades, transporting the crushed materials to the next process.

### EnMa CS Series **Horizontal Outputting** Spiral Conveyor

EnMa CS series horizontal outputting spiral conveyor is used for material transportation after wet crushing.

### EnMa CS Series Inclined Outputting **Spiral Conveyor**

# EnMa FM Series

EnMa FM series friction machine dissolves and separates the impurities attached to the product (such as paper fiber, sand, small particles, etc.) through the friction between the rotor and the fixed screen, and can also add the washing liquor for intensive washing.

### EnMa CP Series **Dust Suction Collector**

EnMa CP series suction unit adopts pneumatic power to deliver the materials after dewatering to the storage bin or packing bags.

# EnMa CB Series

specifications and models

# **Friction Machine**

EnMa CS series inclined spiral conveyor is used to connect to the horizontal conveyor, and the material is to be transported to the granulator for the next procedure of crushing.

# **ENMA Cleaner**

**EnMa** CLEANER



ENMA has a high expertise in soft material treatment. From conveying, crushing to cleaning and separation, it is perfectly matched and combined by modular single machines to ensure the material quality. Powerful and high-end crushing, washing and drying technologies are the key to smooth 24/7 operations, achieving low maintenance requirements and consistent high production, making that the worst materials you input, getting the most valuable output materials.

·BOPP/BOPE/BOPA/BOPET (Film) ·PP (Woven bag) ·PET (Waste fiber)

### EnMa C Sereis 1 Shaft Crusher

EnMa C series crushes the waste materials more evenly through advanced rotor and blades, transporting the crushed materials to the next process.

### EnMa MS Series Metal Separator

EnMa MS series metal separator is a metal separating equipment after material crushed, making metal and plastic separating each other.

EnMa CB Series

**Outputting Belt Conveyor** 

Outputting belt conveyor is

with lower bending design,

& anti-skid conveyor belt,

and can be equipped with

iron separator.

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# EnMa DM Series De-watering Machine EnMa DM series dewatering

machine can reduce the water content of the material during the cleaning process, separate the impurities (such as sand, paper fiber, glass, etc.) through the screen, and discharge the material through centrifugal force.

# EnMa CP Series Dust Suction Collector

EnMa CP series suction unit adopts pneumatic power to deliver the materials after dewatering to the storage bin or packing bags.

transportation, through modularization to the combination of various specifications and model

Mainly used for material

Feeding Belt Conveyor

EnMa CB Series

specifications and models of equipment for using.

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# Cutting-compactor



## Loop C Series

Cutting-compactor-extruder combination

If the recycled flake or film material has a high moisture content, the plastic recycling system Loop C series is the ideal solution. In addition to the powerful cutting function, the material can also be dried and compacted by the friction.

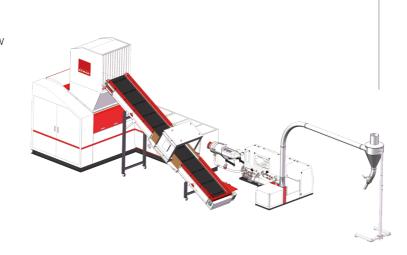


### Loop S Series

Shredder-feeder-extruder combination

Loop S series is for the recycling of solid and hollow products, coil or stamping waste, block or scrap.

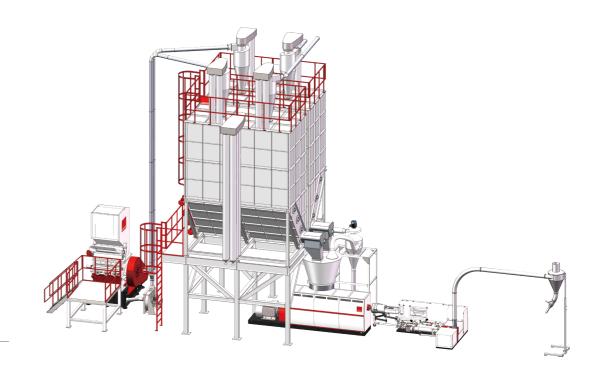
Loop S series shredder-feeder-extruder combination can also produce perfect plastic pellets.



# Loop G Series

Granulator-storage-extruder combination

Loop G series is mainly aimed at online and offline film recycling. The film trimming of both sides are conveyed to the granulator through negative pressure for crushing. After crushing, the uniform flakes are continuously sent to the storage bin through negative pressure to avoid the problems caused by bridging.



# **ENMA Conveyor**



### EnMa CB Series

Modular Smart Belt Conveyor Solution

The EnMa CB range of modular belt conveyors comes in a variety of different sizes to suit your process needs, ranging in width from 400mm to 1500mm.



# EnMa CS Series

Efficient Screw Conveyor

EnMa CS series screw conveyors are the most reliable for conveying bulk materials, with low cost and high efficiency, such as: plastic granules, powder, chemicals, sand, gravel, etc.



# EnMa CP Series

pneumatic conveyor

EnMa CP series pneumatic conveyors are used to convey crushed materials, which are reliable, low in use cost and high in efficiency.



# EnMa MS Series

Industrial separation system

The EnMa MS system mainly separates metal from plastic through strong magnetism



# Circular Economy



**EnMa CG** Series 600 1000 1300

Crushing + granulating machine

Innovations in the recycling and processing of die stock and bulky materials.

The EnMa CG series crushing + granulating machine can recycle all kinds of plastics, films, heavy plastic blocks or lightweight oversized containers, all of which can be converted into the tiniest particles for further processing. It occupies a small space, which is convenient for customers to install in the existing factory building.

At the same time, the closed integrated two-step recycling system effectively reduces the site area and the risk of contamination compared with the traditional conveyor belt-connected two-step recycling system.

EnMa SG Series 800 1200 1600 2 shaft shredding + granulating machine Bulky material shredding to shredding solution

The EnMa SG series 2 shaft shredding+granulating machine can recycle all kinds of plastics, films, larger plastic blocks or extra-large containers, all of which can be converted into the smallest particles for further processing. It occupies a small space, which is convenient for customers to install in the existing factory building. At the same time, the closed integrated two-step recycling system effectively reduces the site area and the risk of pollution compared with the traditional conveyor belt-connected two-step recycling system.



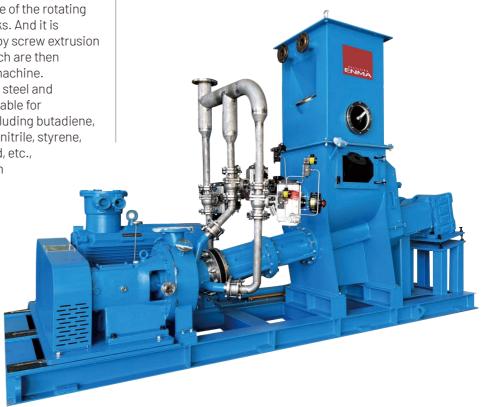
### **EnMa GM** Series

tough rubber.

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Rubber crushing and grinding powder recycling solution

EnMa GM series is specially designed for crushing and grinding rubber blocks. The rubber pulverizer can crush standard-sized synthetic rubber blocks at one time. When the rubber blocks fall into the inlet of the hopper, the sharp edge of the rotating hammer will bite the rubber blocks. And it is discharged from the mesh plate by screw extrusion to produce smaller particles, which are then pulverized by a grinding colloid machine. The machine is made of stainless steel and double-sided alloy materials, suitable for processing various materials, including butadiene, high-impact polymers, isoprene, nitrile, styrene, natural rubber, butyl and recycled, etc., production Capacities range from 1000KG-5000KG/H, depending on the type of raw material, and we also provide heavy-duty designs for exceptionally



# Circular Economy



# **EnMa CC** Series Cable & Wire Waste Recycling Solution

ENMA CC series cable recycling system is known for its high performance, low production costs and minimum metal loss. The whole system and single device are the technology-developed based on environment friendly with years of experience in this field. Due to precutting, crushing, sorting and separation techniques, cables are classified according to different type: soft wire and cable, household cables, power cables, underground cables, copper and aluminum cables and high voltage cables with V-PE sheath, in essence, the wire core is very valuable as a recycled raw material because of the high metal content.

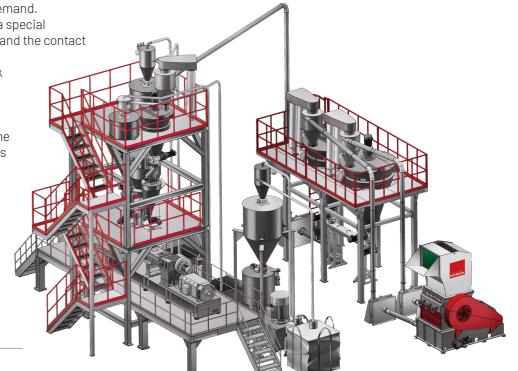


# **EnMa PR** Series PVB Film Granulating Recycling solution

With the increase of automotive film and architectural glass film in the market, ENMA introduces advanced solutions for PVB online and offline granulating, stirring, pelletizing and recycling into Chinese market, adopting the new modular conveying, granulating, stirring, pelletizing of EnMa PR series complete set of production line, which also can be used as a stand-single machine according to customer demand. The cutting rotor adopts a special

double V-shaped design, and the contact with the material adopts
German special non-stick material. The body of the granulator is cooled by water, which effectively solves the problem that the heat of granulating causes the materials sticking together and cannot be transported.

ENMA designs more valuable PVB production lines for you through experience.



# **Circular Economy**



### EnMa FR Series

Film Online/Offline Recycling Solution

Let the defective products in the factory regain "new life".

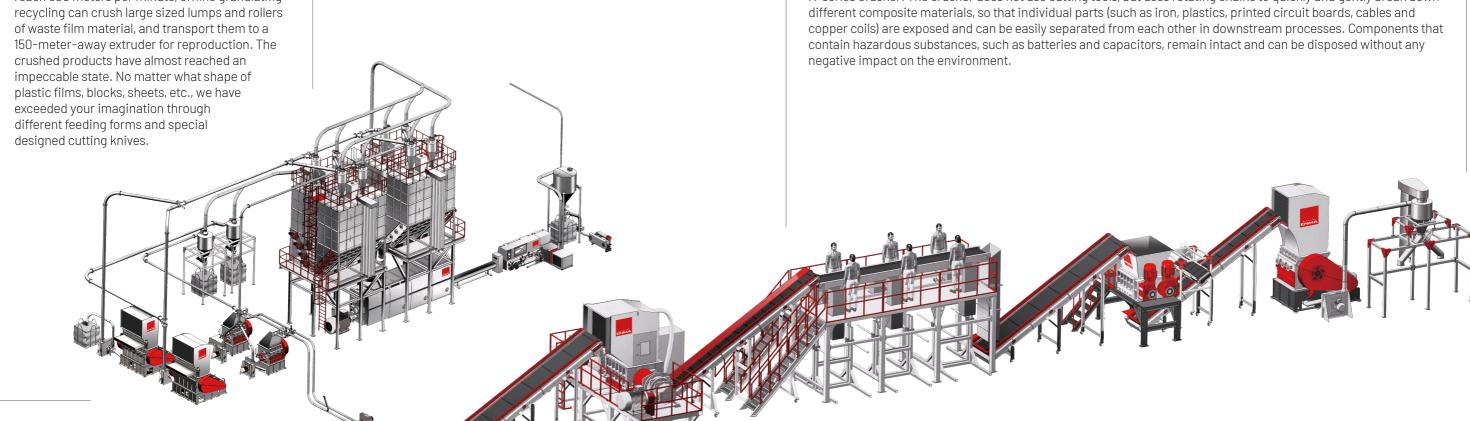
EnMa FR series film online and offline recycling technology, online granulating recycling can reach 600 meters per minute, offline granulating of waste film material, and transport them to a 150-meter-away extruder for reproduction. The crushed products have almost reached an impeccable state. No matter what shape of plastic films, blocks, sheets, etc., we have exceeded your imagination through different feeding forms and special

### **EnMa WE** Series

Electrical and Refrigerator Recycling Solution

With the proliferation of electrical and electronic equipment, electronic waste has become the fastest growing wastes in the world. Disassembly and safe recycling of components is a challenge due to the presence of potentially hazardous materials in electronics, which ENMA has successfully overcome with equipment.

ENMA has successfully hammered and shredded electronic waste through the innovative technology EnMa K-series crusher. The crusher does not use cutting tools, but uses rotating chains to quickly and gently break down



# **Circular Economy**



### **EnMa GM** Series

Rubber granulating and pulverizing recycling solution

EnMa GM series is specially designed for granulating and pulverizing rubber blocks. The rubber granulator can crush standard-sized synthetic rubber blocks at one time. When the rubber blocks fall into the inlet of the hopper, the sharp edge of the rotating hammer will bite the rubber blocks, and it is discharged from the mesh plate by screw extrusion to produce smaller particles, which are then pulverized by a grinding colloid machine.

double-sided alloy materials, suitable for processing various materials, including but adiene, high-impact polymers, isoprene, nitrile, styrene, natural rubber, butyl and recycled, etc., production capacity ranges from 1000KG-5000KG/H, depending on the type of raw material, and we also provide heavy-duty designs for exceptionally tough rubber.



### **EnMa TR** Series

Twisted rope crushing separation recycling system

Manufactured by Enma, let your waste become valuable.

According to the statistics of the paper industry, the "papermaking waste" produced by recycled paper production plants with an annual output of 1.5 million tons is about 180,000 tons per year,

and the waste generated by recycled paper production

reaches 18-22 million tons per year. Good realization of resource recycling

and reuse, so that the waste in the factory can get the maximum value.

### **EnMa PF** Series

PVC Floor Recycling System

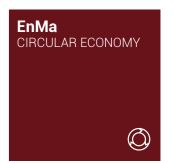
EnMa PF series plastic floor on-line/off-line recycling system is ENMA's unique cutting technology, with a processing capacity of 1000-5000KG per hour, and the screen selection is 3.4.5.6.mm. Through uniform and efficient cutting technology, your floor surface can be made the pattern with more textured.

We can design online crushing and offline crushing according to the requests.

The main machine adopts a water cooling system and a material collection and dust removal system.



# **Circular Economy**



### **EnMa RR** Series

Radiator Recycling System

EnMa RR series radiator recycling system adopts a multi-stage crushing solution, and the fully automatic crushing and separation system can quickly separate aluminum, copper, iron, plastic, etc. The production line adopts completely enclosed design, which effectively reduces the noise and dust during the crushing process. Through the actual operation and experience of multiple production lines all over the world, the four-shaft shredder technology has been innovated.

It can effectively guarantee your output size and increase the separation effect.

### EnMa WC Series

Waste Cloth/Waste Silk Recycling System

Waste cloth/waste silk recycling system is an integrated solution from conveying, shredding and pelletizing. The rotor diameter of the shredder is 600mm and the length is 1600mm.

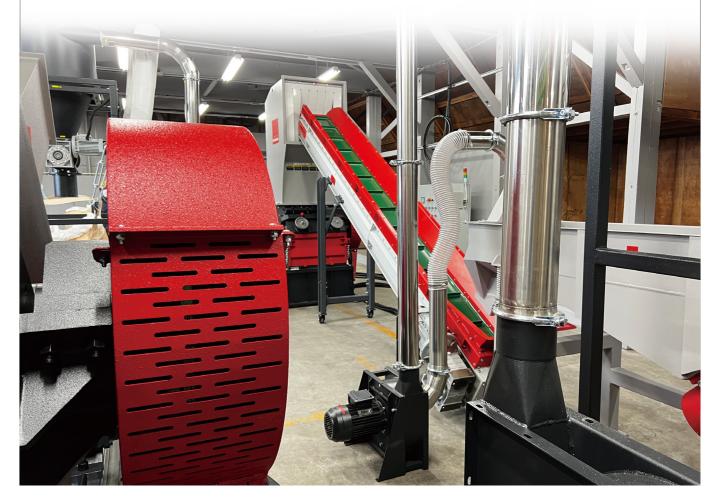
The cutting blade is made of special wear-resistant steel. The material is transported to the pelletizing machine after shredding.

The design of the special screw and reducer allows you to convert the same waste into high-quality

materials efficiently.

### **EnMa WR** Series Wallpaper Recycling system

EnMa WR series wallpaper recycling system adopts advanced separation technology of plastic and paper, which has been widely used in Japan and has applied for Japanese invention patent. This recycling system adopts pre-shredding, crushing, sorting and separation technology without melting or chemical treatment. The extracted material can be used as raw material for cat litter.



# Notes



# Notes



ENMA reserves the right of final instruction and modification for all the content. All the products pictures, appearance, technical parameters and function description shall refer to the physical objects. If there is any configuration and parameter adjustment due to technical updates, you will not be notified additionally.



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