

智慧回收 聰明選擇  
**YOUR**

# SMART

RECYCLING SPECIALISTS



 **GENIUS**



# Genius, Your Smart Recycling Specialists



Genius Machinery Co., Ltd. is a premier expert in turnkey solutions for planning plastic recycling plants. With over 40 years of dedicated experience in designing and manufacturing advanced recycling machinery, Genius has earned a stellar reputation as a trusted industry leader. Since its founding in 1975, we have consistently delivered a comprehensive range of solutions, including plastic washing lines, recycling machines, pelletizers, squeeze dryers, crushers, and shredders—tailored to meet the diverse needs of global clients.

Our commitment to delivering truly one-stop service ensures that customers receive everything necessary for an efficient and streamlined recycling process.

The Genius brand is synonymous with global reliability and innovation, representing our unwavering dedication to quality, technological advancement, and environmental responsibility.

## Innovative Technology



At Genius Machinery, we are firmly committed to sustainable growth and environmental responsibility. Our dedicated R&D team prioritizes exceptional product quality and durability, ensuring every solution exceeds industry standards. By harnessing advanced design technologies and leveraging the expertise of our seasoned professionals, we consistently deliver systems that meet and surpass customer expectations. Our mastery of critical production techniques—such as precision welding and drilling—further distinguishes us in the field of plastic recycling machinery.

## Machining Technology



We invest in ongoing technical training to ensure every team member remains up to date with the latest manufacturing processes, innovations, and best practices. This commitment guarantees strict compliance with standard operating procedures across all production and assembly stages. Each of our engineers brings extensive industry experience and technical expertise, supported by cutting-edge technologies, to ensure that every machine we deliver meets the highest standards of quality and performance.



# SMART RECYCLING, THE GENIUS WAY



## Professionalism

We are committed to achieving excellence in the field of plastic recycling. With deep expertise in comprehensive plant planning, we deliver professional, efficient, and user-centric recycling solutions tailored to our clients' unique needs.

## Innovation & Breakthrough

Driven by a spirit of continuous innovation, we constantly push beyond boundaries. This mindset fuels our agility and empowers us to integrate advanced technologies that help clients elevate their competitive edge.



## Thorough of Mind

We take pride in delivering consistent quality and attentive service. Every recycling system we design is precisely engineered to align with each client's specific requirements, building a brand known for reliability, intelligence, and customer satisfaction.







# YOUR SUCCESS IS OUR PRIDE

## OUR MISSION

To revolutionize recycling with intelligence and innovation—crafting systems that go beyond expectations through sincere dedication and forward-thinking solutions.

## WE PROMISE

We remain true to our founding vision: to deliver cutting-edge recycling technology and customized systems that embody smart, humanized design and measurable value.



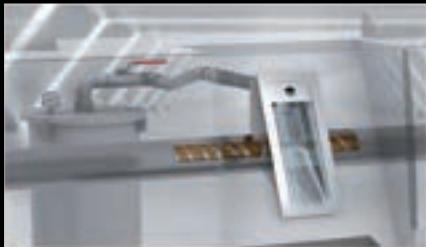
FEEDING



COMPACTING



DEGASSING



FILTRATING



PELLETIZING



VIBRATING



# Cutter Compactor Plastic Recycling Machine

## APPLICABLE MATERIALS

Compatible with PP, OPP, BOPP, HDPE, LDPE, LLDPE, and more.  
Specially designed for processing plastic films, foam, woven bags, raffia, washed and squeezed films, flakes, edge trims, and cut-offs.

## SUPERIOR FEATURES

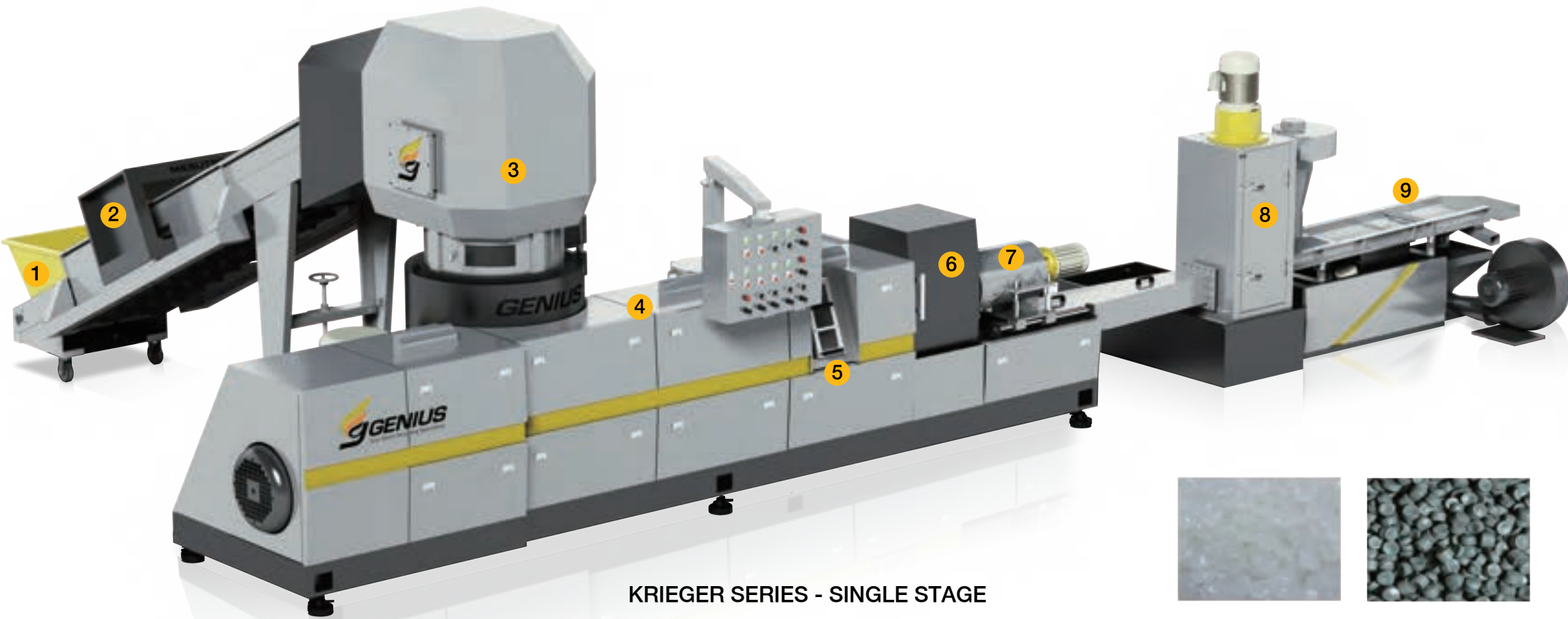
**User-Friendly Maintenance**  
Designed for quick and easy maintenance, our machine features a cleaning door that allows operators to clean the compactor and replace rotator blades without removing the front covers. Two additional access windows allow stationary blades to be replaced without any disassembly.

**Advanced Temperature Control System**  
Our compactor is equipped with a high-efficiency temperature control system featuring three independent cooling mechanisms: air cooling, water cooling integrated into the compactor body, and a water spray system. Each section can be individually adjusted to ensure optimal and consistent processing temperatures.



## COST SAVING

- Energy Cost Saves Up To **20%**
- Labor Cost Reduces To **1~2** operators to operate whole plant.



- 1 Belt Conveyor

2 Metal Detector

3 Cutter Compactor

4 Main Extruder

5 Degassing Section

6 Filtration System

7 Pelletizing System

8 Dewatering System

9 Vibrating System

KRIEGER SERIES - SINGLE STAGE

Model	KR-65	KR-85	KR-100	KR-125	KR-135	KR-150	KR-175
Screw	Φ65mm	Φ85mm	Φ100mm	Φ125mm	Φ135mm	Φ150mm	Φ175mm
Main Drive	30kW	55kW	90kW	132kW	150kW	200kW	300kW
Compactor Drive	22kW	40kW	55kW	75kW	90kW	132kW	150kW
Output (kg/hr)	80~100 ↑	200~300 ↑	300~400 ↑	450~600 ↑	600~750 ↑	700~850 ↑	900~1100 ↑



# Two-Stage Cutter Compactor Plastic Recycling Machine

## APPLICABLE MATERIALS

Suitable for PP, OPP, BOPP, HDPE, LDPE, LLDPE, and more. Especially ideal for plastic films, foam, woven bags, raffia, washed and squeezed films, flakes, materials with high moisture content, and post-consumer waste.

## SUPERIOR FEATURES

### Unrivalled Degassing Efficiency

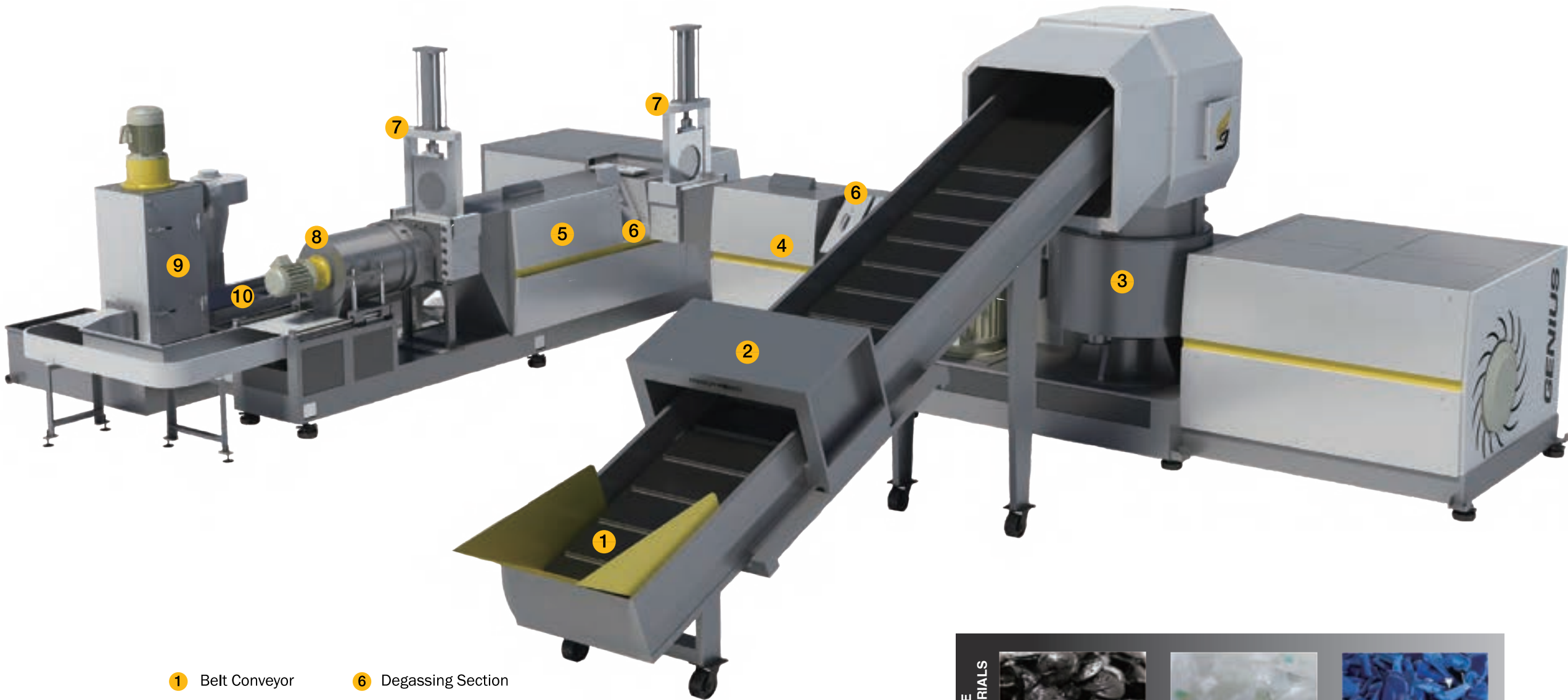
Equipped with up to three vacuum-assisted degassing zones, our machine offers exceptional venting performance to remove volatile substances, ensuring stable output and superior pellet quality.

### Pollution-Free Operation

Featuring a patented fully enclosed two-stage extruder, the system prevents smoke emissions from molten polymers, providing a clean, eco-friendly processing environment.

### Advanced Filtration Options

For optimal product purity, the system supports high-performance filtration with optional Dual-Piston Filters and Self-Cleaning Filters, ensuring consistent quality in the final pellets.



- 1 Belt Conveyor
2 Metal Detector
3 Cutter Compactor
4 1st Extruder
5 2nd Extruder
6 Degassing Section
7 Filtration System
8 Pelletizing System
9 Dewatering System
10 Vibrating System

## KRIEGERi SERIES - TWO STAGE

Model		KR-100i	KR-125i	KR-135i	KR-150i	KR-175i
Main Extruder	Screw	Φ100mm	Φ125mm	Φ135mm	Φ150mm	Φ175mm
	Drive	90kW	132kW	150kW	200kW	300kW
Sub Extruder	Screw	Φ125mm	Φ155mm	Φ155mm	Φ165mm	Φ200mm
	Drive	22kW	55kW	75kW	75kW	110kW
Compactor Drive		55kW	75kW	90kW	132kW	150kW
Output (kg/hr)		300~450 ↑	450~600 ↑	600~750 ↑	700~850 ↑	900~1100 ↑



KRIEGERi Series

# Force Side Feeding Plastic Recycling Machine

### APPLICABLE MATERIALS

Processes PE, PP, PS, ABS, and more.  
Ideal for various plastic waste forms, including foam, woven bags, raffia, washed and squeezed films, flakes, moisture-containing materials, and post-consumer waste.

### SUPERIOR FEATURES

#### Energy-Efficient Performance

Engineered with a proprietary design, this system reduces energy consumption by up to 30% compared to conventional recycling machines.

#### Reduced Labor Requirements

Equipped with an intelligent feeding control system that monitors amperage and automatically adjusts the feeding speed. This smart automation allows the entire plant to operate efficiently with only two operators.

#### Eco-Conscious Design

The unique two-stage recycling configuration operates in a fully enclosed loop, preventing material leakage and air exposure. This significantly reduces smoke emissions, making the system cleaner and more environmentally friendly.

#### Enhanced Production Efficiency

The force side feeding system ensures consistent material flow, keeping the main extruder screw fully charged for maximum throughput, potentially increasing output by as much as 50%.

- 1 Force Feeding System
- 2 1st Extruder
- 3 2nd Extruder
- 4 Degassing Section
- 5 Filtration System

- 6 Pelletizing System
- 7 Dewatering System
- 8 Vibrating System
- 9 Storage Silo



RECO SERIES - SINGLE STAGE

Model	RECO-85	RECO-100	RECO-125	RECO-135	RECO-150	RECO-175
Screw	Φ85mm	Φ100mm	Φ125mm	Φ135mm	Φ150mm	Φ175mm
Main Drive	56kW	94kW	131kW	150kW	200kW	250kW
Output (kg/hr)	200~300 ↑	300~450 ↑	450~600 ↑	600~750 ↑	700~850 ↑	900~1100 ↑

RECOi SERIES - TWO STAGE

Model		RECO-100i	RECO-125i	RECO-135i	RECO-150i	RECO-175i
Main Extruder	Screw	Φ100mm	Φ125mm	Φ135mm	Φ150mm	Φ175mm
	Drive	94kW	131kW	150kW	188kW	250kW
Sub Extruder	Screw	Φ125mm	Φ155mm	Φ155mm	Φ165mm	Φ200mm
	Drive	30kW	56kW	75kW	75kW	110kW
Output (kg/hr)		300~450 ↑	450~600 ↑	650~850 ↑	700~800 ↑	900~1100 ↑



# Shredder Integrated Plastic Recycling Machine



Comprehensive Recycling Solution

The ShredMax system is engineered for superior compatibility, effectively shredding a wide range of plastic waste types. It seamlessly integrates shredding and extrusion, solving the challenge of oversized materials that cannot be directly recycled.

Ultimate Efficiency

Compact yet powerful, the integrated design maximizes output while minimizing space usage and energy consumption—delivering high performance with lower operational costs.

Easy Maintenance

Designed for minimal downtime, the system allows quick and simple replacement of wear parts, ensuring uninterrupted production and extended equipment life.

- 1

Belt Conveyor
- 2

Metal Detector
- 3

Shredder Integrated Feeding system
- 4

Extruder
- 5

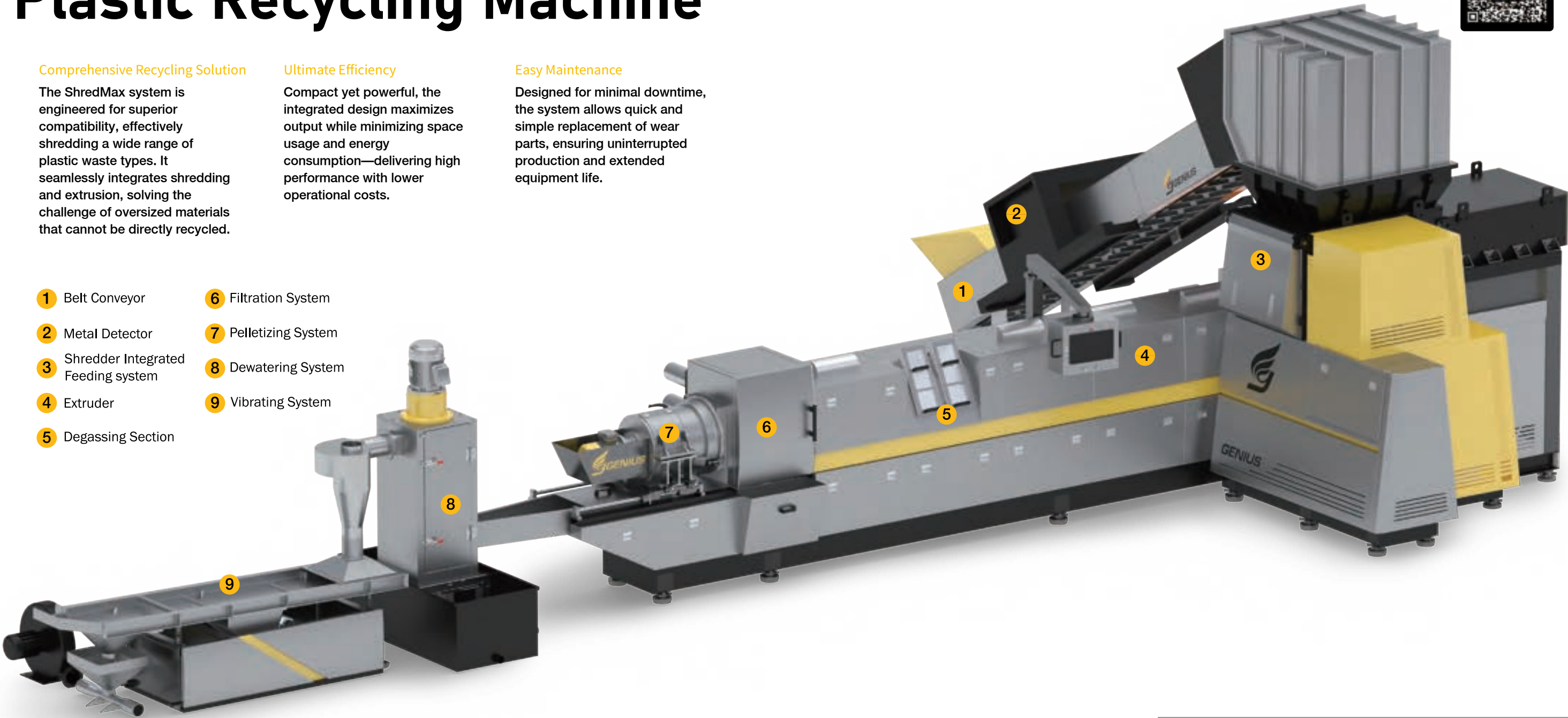
Degassing Section
- 6

Filtration System
- 7

Pelletizing System
- 8

Dewatering System
- 9

Vibrating System

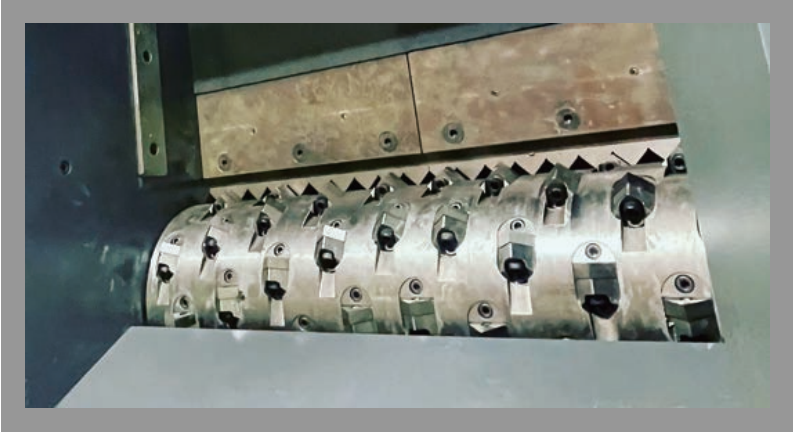


SHREDDER MAX SERIES

Model	SDM-85	SDM-100	SDM-125	SDM-135	SDM-150
Screw	Φ85mm	Φ100mm	Φ125mm	Φ135mm	Φ150mm
Main Drive	55kW	90kW	131kW	160kW	200kW
Output (kg/hr)	200~280 ↑	300~450 ↑	450~600 ↑	600~750 ↑	700~850 ↑

One-Click Start-Up

After automatic feeding of waste into the shredder, shredded plastic materials are continuously conveyed into the extruder.



SHREDMAX Series



# Pelletizing Systems

## Hot Die Face Pelletizing System

### Applicable Materials

HDPE, LDPE, PP, PS, and more.

for more details

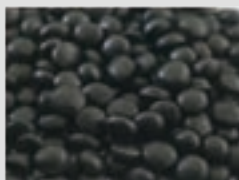


### Cost-Efficient Operation

The molten polymer flows directly from the extruder to the die head, where a rotating blade cuts the material as it exits the die holes. The pellets then drop into a water ring for cooling. This automatic slicing process eliminates manual strand drawing and reduces lump waste, significantly lowering operating costs.

### Greater Uniformity, Higher Profitability

Featuring a universal joint design, the pelletizing cutter automatically adjusts blade pressure during operation. This ensures uniform pellet size, enhancing product quality and enabling higher market value.



## Strand Pelletizing System

### Applicable Materials

PC, PA, PET, ABS, and more.

### Minimize Power Consumption

Specifically designed for high melt index (MI) materials, this system features a high-precision pellet cutter and a custom-engineered vibrating screener—ensuring efficient processing with reduced energy usage.

for more details



## Automatic Strand Pelletizing System

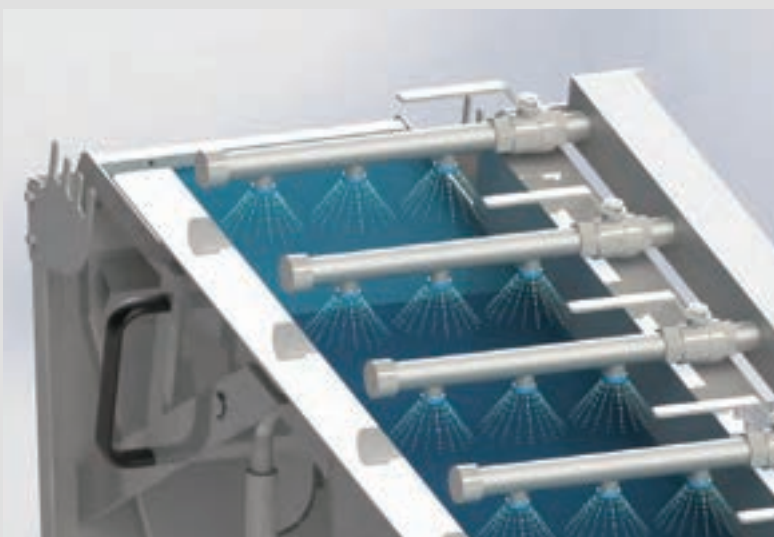
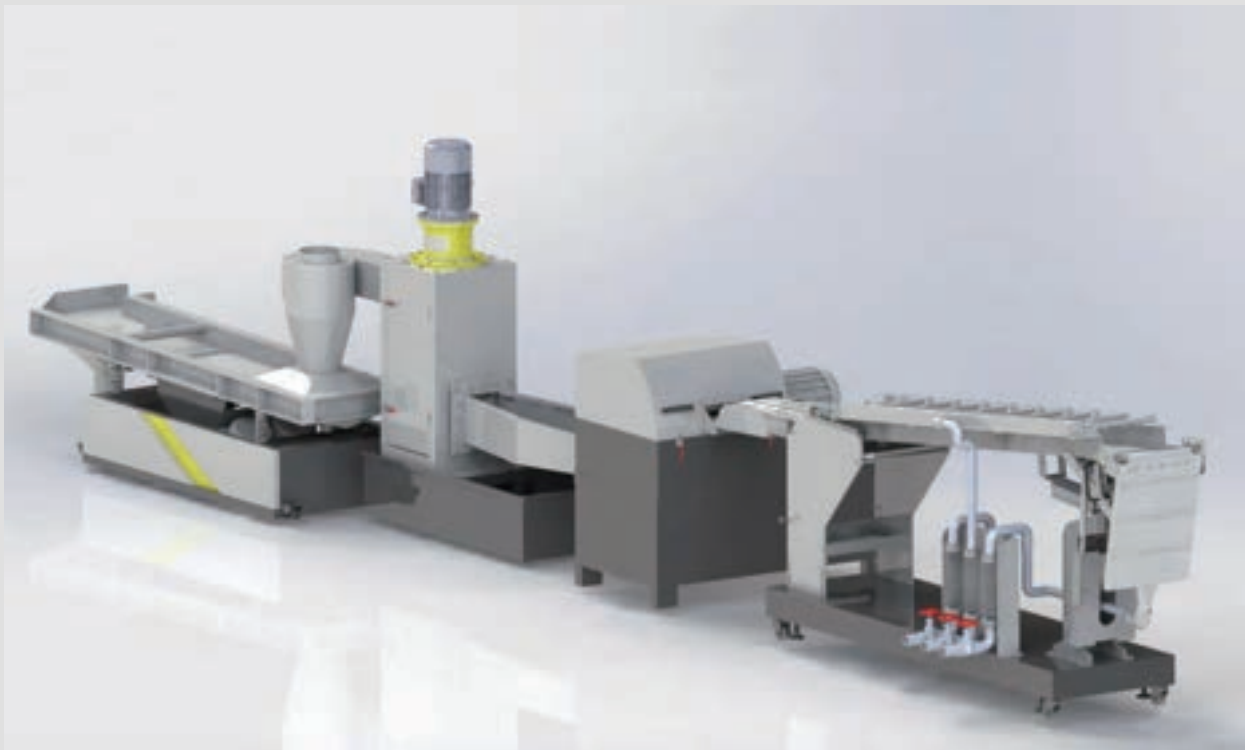
### Applicable Materials

PET, PC, PA, ABS, and more.

### Engineered for Full Automation

Molten polymer extruded from the die is immediately carried by a high-pressure water flow, created by a precision-engineered spray nozzle. This system cools and pulls the strands simultaneously—eliminating manual strand drawing and significantly reducing lump waste before pelletizing.

for more details





# Filtration Systems



## Plate Filter

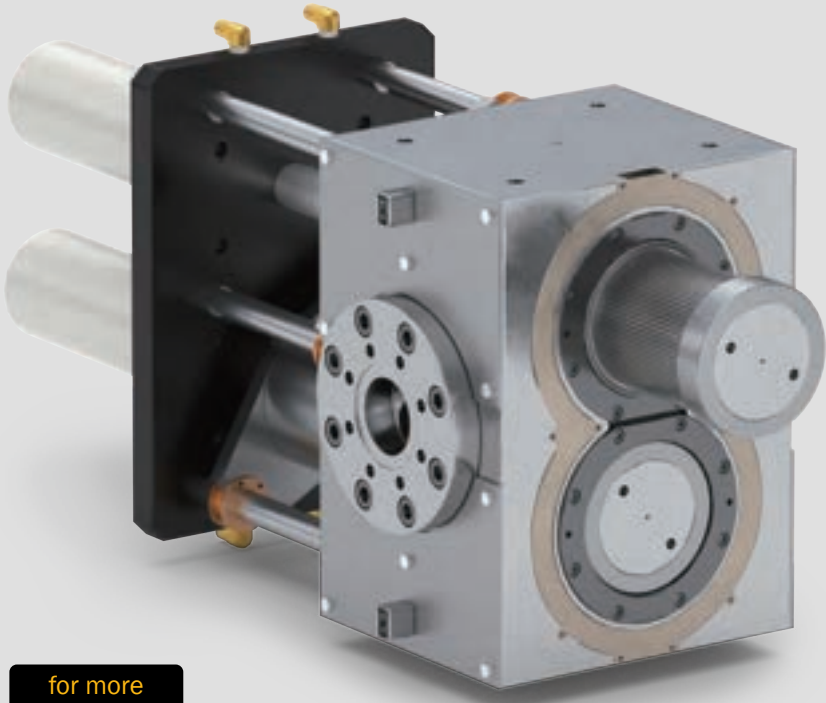
### COST REDUCTION

The mesh can be re-used after cleaning.

### AUTOMATIC SCREEN MONITOR SYSTEM

The filtration system is engineered to effectively remove contaminants such as paper labels, wood chips, metals, and other non-plastic impurities. Screens with varying mesh sizes can be customized to meet specific customer needs.

To ensure timely maintenance, a melt pressure sensor is installed before the filter. When the pressure reaches a preset threshold, the system alerts the user to replace the screen. Various alternative filtration options are available to accommodate specialized processing requirements.



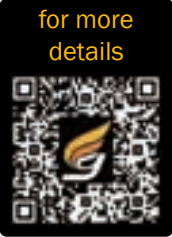
## Dual-Piston Filter

### Larger Filtration Area, Less Frequent Mesh Changes

Compared to traditional slide-type filters, the Dual-Piston Filter offers a significantly larger filtration area. This design reduces the frequency of mesh changes, minimizes downtime, and lowers labor costs—boosting overall operational efficiency.

### NON-STOP DUAL-PISTON FILTER

The Dual-Piston Filter ensures stable pressure during screen changes, resulting in a more consistent and uniform pellet quality. Compared to slide-type filters, it features a larger filtration area, reducing the frequency of mesh replacements and significantly lowering labor costs. Its non-stop operation design also minimizes downtime, enhancing overall production efficiency.



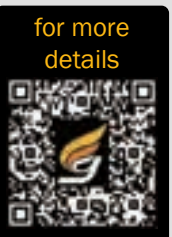
## Self-Cleaning Filter

### HOW DOES IT WORK?

Equipped with dual internal scrapers, this advanced filter efficiently removes contaminants from the surface of a precision-engineered screen. The filtered residues are discharged through the bottom hydraulic screw.

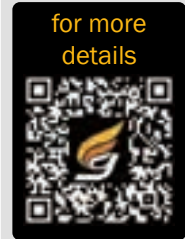
With an integrated pressure sensor and inverter, the system automatically controls the scraping speed, maintaining stable pressure throughout the process. This fully automated filtration system reduces polymer residue by over 80%, significantly improving both production efficiency and material recovery rate.

Eco-Friendly!  
Improved Yield!  
Quality Boosting!  
Labor Saving!  
Cost Saving!





# Blenders



## Scraps Blender

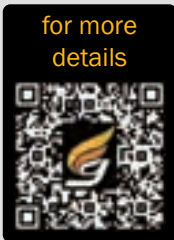
**Pre-Mixing and Temporary Storage Before Pelletizing**

### ANTI-BRIDGE DESIGN

The Scrap Blender features a specially designed stirring shaft that ensures thorough and even mixing of raw materials. It also serves as a temporary storage unit, allowing materials to be held and steadily discharged. This design ensures a consistent material flow into the pelletizing process, supporting uninterrupted and efficient production.

### MOISTURE REMOVAL

Equipped with a hot air blower, the system pre-heats and removes moisture from materials while simultaneously ensuring uniform mixing. This enhances processing efficiency and helps maintain consistent product quality during pelletizing.



## Pellet Blender

**STABILIZE THE PELLET QUALITY**

The screw conveyor transports pellets to the upper discharge point and cycles them back into the mixing zone, creating a continuous circulation flow. This process stabilizes both the color and chemical properties of the pellets, effectively reducing the NPL (Non-Prime Level) ratio in the final product.

### FLEXIBLE OUTPUT SYSTEMS

Designed for versatility, the twin-way output system supports both 25kg small bags and 1-ton jumbo bags, offering flexible packaging solutions to meet various production and logistics needs.



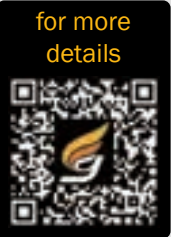
# Conveyors



## Screw Conveyor

**Connecting Washing Line to Pelletizing Line**

The screw conveyor bridges the washing line and pelletizing line, feeding washed plastic scraps directly into the next stage while minimizing manual handling. Integrated with an intelligent control system, it detects the operational load of the pelletizing line and automatically adjusts the feeding rate. This ensures stable, continuous feeding and prevents material overload for efficient, streamlined production.



## Belt Conveyor

**Protection Of Your Machine**

The belt conveyor can be equipped with a metal detector to prevent metallic contaminants from entering the pelletizing system. This protective feature helps avoid potential damage to the machinery, extending its service life and reducing maintenance costs. Additionally, the conveyor provides a stable and continuous material feed into the machine's hopper, ensuring consistent processing efficiency.





# Applications

BOPP  
Printed  
Film



PP  
Flake



PP  
Spunbond  
Fabric



Milk  
Bottles



Chemical  
Drums



Jumbo  
Bags



WEEE Waste  
Electrical  
Equipment



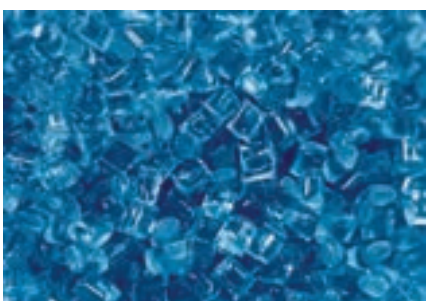
Plastic  
Bags



Drip  
Tapes



PC Water  
Bottles





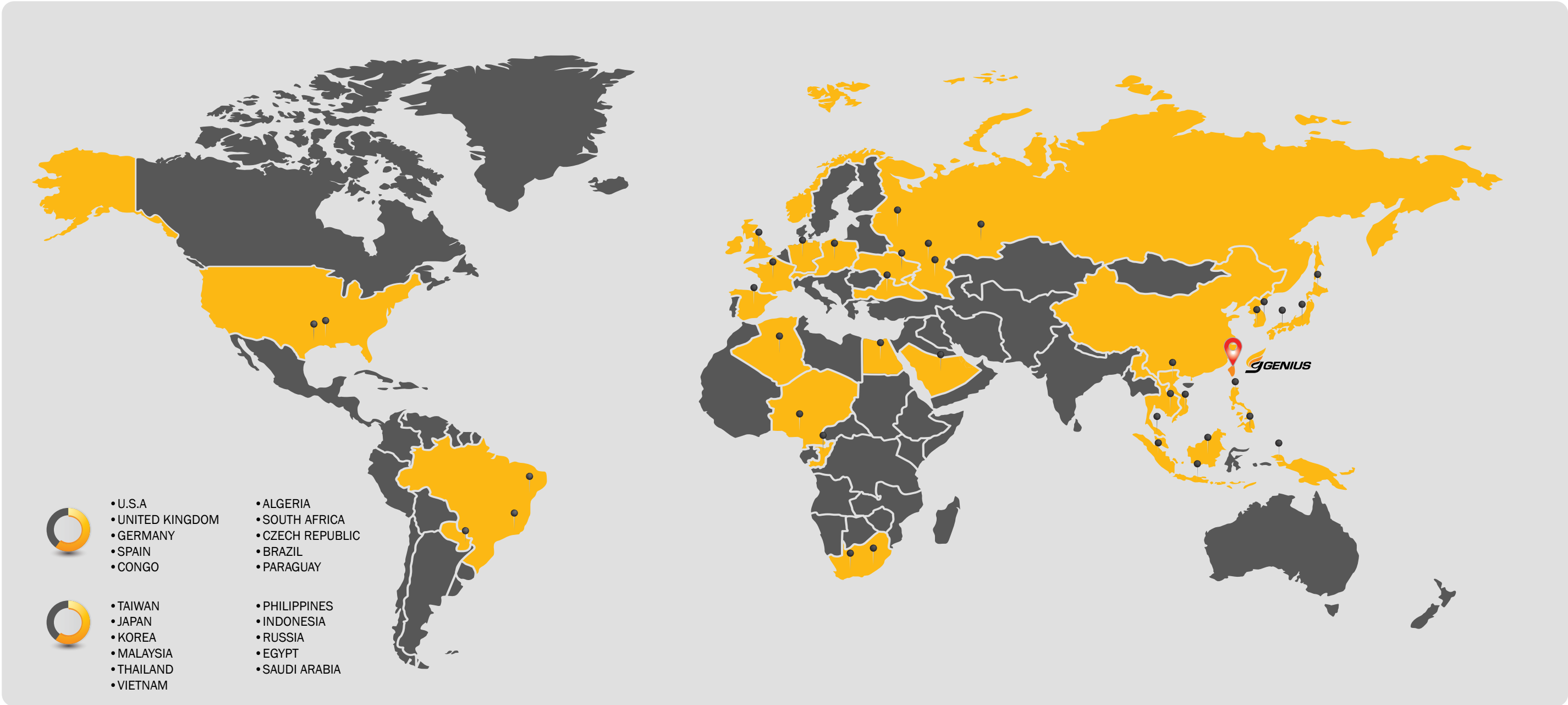




# Global Sales, Reliable after-sales service

Headquartered in Taiwan, the Genius team collaborates with agents worldwide to offer a streamlined procurement process and comprehensive after-sales service. Our machines are engineered with user-friendly designs, outstanding performance, and high production efficiency.

Genius recycling systems have been successfully exported to the U.S.A., Germany, Japan, Korea, South Africa, Egypt, Indonesia, Malaysia, the Philippines, Vietnam, Thailand, Russia, Spain, Brazil, Paraguay, Congo, Saudi Arabia, Algeria, and many other countries and regions. These achievements highlight the global recognition of Taiwan's advanced recycling technology and reinforce Genius as a brand known for reliable quality.





**Smart Recycling, the Genius Way**

**[www.geniusplas.com](http://www.geniusplas.com)**



**長毅機械工業有限公司**

**GENIUS MACHINERY CO., LTD.**

434 台中市龍井區麗水里三港路田仔內巷10-5號

No. 10-7, Tianzainei Ln., Sangang Rd., Longjing Dist., Taichung City 434, Taiwan

**Tel:**+886-4-26301621 **Fax:**+886-4-26301716 **E-mail:**service@geniusplas.com