RESOURCE REGENERATION
INTEGRATED SOLUTION VR VISUAL EXPERIENCE

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RECYCLING FOR BETTER LIFE

BESTON GROUP CO.,LTD.

BESTON
RECYCLING FOR BETTER LIFE

CONTENTS

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ABOUT US

COMPANY PROFILE

FOCUS ON RESOURCE REGENERATION

+

Beston Group Co., Ltd. is the Environmental Protection Division of Henan Golee Holding Group, responsible for the promotion of resource regeneration solutions, equipment manufacturing and project implementation in the global market.

Beston was established in 2013, mainly engaged in: waste tires, plastic pyrolysis equipment, oil sludge pyrolysis equipment, waste oil distillation equipment, biomass carbonization equipment, sludge carbonization equipment, municipal waste sorting equipment, medical waste treatment equipment. As well as packaging technical solutions, installation and commissioning services, project operation services, etc.

R & D AND MANUFACTURE

The manufacture factory covers an area of 16000 ㎡ , has more than 10 sets of advanced machining equipment, and has more than 20 senior professional and technical personnel, including 2 doctors, 5 professors and 5 associate professors, and more than 10 senior technical engineers. and more than 30 production technicians.

MARKETING

10 members team for online promotion and operation, 30 members team for international trade, and 8 members domestic business team, and 12 members after-sales team (more than 10 project operation engineers with foreign language skills and more than 5 years of experience).

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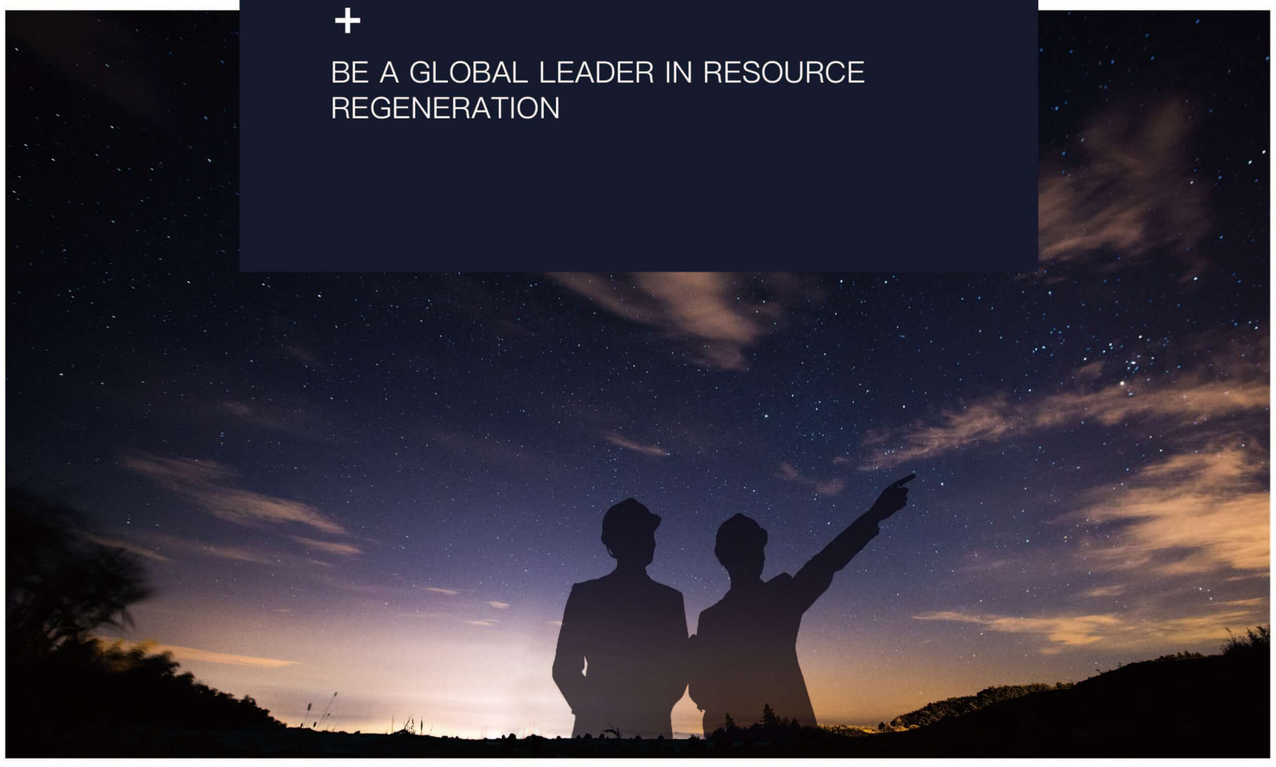
BE A GLOBAL LEADER IN RESOURCE REGENERATION



CERTIFICATION AND QUALIFICATION

A ISO9001 quality management system certification.

B ISO14001 environmental management system certification.

C More than 15 inventions patented technology.

D Product safety qualified through CE certification.

E **Government certification:**
national high-tech enterprise, partner of Zhengzhou University, vice-chairman unit of Henan Internet Business Association, and member unit of China Rubber Industry Association.


质量管理体系认证证书


QMS CERTIFICATE OF REGISTRATION


环境管理体系认证证书


EMS CERTIFICATE OF REGISTRATION

COMPANY STRATEGY

100+

Overseas exports to more than 100 countries and regions in the world.

30+

Stable markets in more than 30 countries.

07

Set up overseas branches and offices in 7 countries.

With the mission of "focusing on the field of resource regeneration, continuing to provide customers with optimal solutions, and improving the global ecological environment", Beston adheres to the core values of "Customer-centric, Striver-oriented, Persistent team collaboration, Adhere to innovative management", and is committed to environmental protection industry.

In addition to mainland China, Beston has exported equipments to Russia, Central Asia, South Asia, Southeast Asia, East Asia, Middle East, Eastern Europe, Africa, Latin America and Australia, more than 100 countries and regions in the world, and had gained stable markets in more than 30 countries. In order to promote the pre-positioning of Cross-border e-commerce and Overseas customer service localization, Beston has set up overseas branches and offices in Romania, Brazil, Pakistan, Uzbekistan, the Philippines, Indonesia, Sri Lanka and other countries to continuously meet the diverse needs of overseas customers and provide customers with the best solutions and business success solutions. At present, Beston's projects in operation in the domestic and foreign have won customers and local government's unanimous praise.

COMPANY CULTURE

MISSION

To focus on the fields of resource regeneration, to continuously provide our customers with optimal solutions and improve global ecological environment

VISION

Be a global leader in resource regeneration

VALUES

Customer-centric, Striver-oriented, Persistent team collaboration,
Adhere to innovative management

DEVELOPMENT HISTORY

2013

In 2013,
created international brand-BESTON;

2014

In 2014, the first oil sludge pyrolysis project was completed in Nigeria and officially entered the African market;

2014

In 2014, the first waste tire pyrolysis project was completed in Brazil and officially entered the South American market;

2015

In 2015, Henan Beigong Machinery Manufacturing Co., Ltd. was established, and the environmental protection equipment realized the integration of industry and trade;

2015

In 2015,
Russia Novosibirsk branch was established (joint venture);

2016

In 2016,
Pakistan,Philippines branch was established to start the operation of overseas warehouse projects;

2016

In 2016, expanded business in Spain and other European and North American markets, and increased sales in the global market;

2017

In 2017,
we set up a branch in Tashkent, Uzbekistan. Layout of central Asian market;

2018

In 2018, the waste plastic pyrolysis project was completed in Romania, and Romania branch (joint venture) was established;

2019

In 2019, the process-based organizational transformation will created "iron triangle" marketing team(product manager-project consultant-delivery manager);

2020

In 2020, fully work resumption in the fight against the COVID-19 epidemic, and improve the online marketing and online after-sales service system;

2021

In 2021, Export sales of pyrolysis and carbonization industry ranked first, and egg carton industry ranked third.

02

INTRODUCTION OF SOLUTION

MUNICIPAL SOLID DOMESTIC WASTE SORTING

Garbage is a "misplaced" renewable resource. Collecting waste garbage for harmless recycling can effectively recycle the available resources in garbage, which not only saves natural resources, but also improves the living environment of human beings.

The sorting equipment is widely used in the harmless and resourceful disposal of municipal solid waste. Mainly used for fresh domestic waste, stale waste, industrial waste, construction waste and other wastes. Sorting is a special equipment that uses sorting technology to realize automatic and efficient sorting and collection of garbage and waste by mechanized and professional means. Garbage and waste can be classified into two categories: recyclables and non-recyclables, among which recyclables mainly include: various types of plastics, various metals, glass, paper, combustible mixtures, organic mixtures, building inorganics, etc.

FIVE SYSTEMS

SORTING AND PROCESSING SYSTEM

The waste materials are successively processed by plate homogenizer->manual sorting->crushing->screening->magnetic separation->eddy current->photoelectric separation->AI intelligence->wind separation->compression, etc. Sorting and collecting all kinds of recyclables, loading combustible mixtures, organic mixtures or non-recyclables into trucks, the former can be directly sold or processed, and the latter can be incinerated for power generation, composting or landfill, so as to achieve the so as make to achieve Resource, Harmless, Reduce.

ELECTRONIC CONTROL SYSTEM

It can be divided into 3-level modes according to requirements, ① debugging and emergency intervention, ② panel control, ③ WINCC control. Each mode is suitable for different working conditions, and the control level decreases in turn, In daily life, the WINCC control model is normally used.

MONITORING SYSTEM

In order to monitor the operation status of production line, a certain number of monitoring points are often placed in key stations, and video signals are collected on the large screen in the central control room through cables, so that the central control personnel can discover unexpected problems in time and carry out necessary safe actions.

DEODORIZATION SYSTEM

In order to prevent the secondary pollution of the environment caused by the odor of garbage, the negative pressure collection + biochemical treatment + photoelectric deodorization technology are used to collect and purify the odor from the site, and discharge it safely after reaching the standard.

LEACHATE TREATMENT SYSTEM

In order to prevent secondary pollution of landfill leachate to the environment, biochemical + infiltration technology are used to purify the leachate and discharge it safely after reaching the standard.

FREQUENTLY ASKED QUESTIONS

Q

What are the main disposal methods of solid waste in the world today?

The main methods of garbage disposal include: (1) landfill; (2) incineration for power generation; (3) resource recycling.

Q

How many models for garbage sorting equipments that our company are selling? What is the processing input capacity?

The currently available garbage sorting equipment mainly includes: BFX-100, BFX-200 two standard specifications, and their designed processing capacities are: 10-15TPH, 20-25TPH. At the same time, we also provide customized design services according to the specific application needs of customers.

Q

What sorting technologies are used in the company's sales of waste sorting equipment?

In the sorting equipment, the sorting technologies that can be used include: bag breaking, crushing, screening, magnetic separation, eddy current, photoelectric separation, AI intelligence, wind separation, compression and other technologies. We can provide professional scientific configuration services according to material content and disposal requirements.

Q

What are the main core equipment systems included in the complete set of garbage sorting equipment?

At present, the core equipment of the standard waste sorting production line produced by our company mainly includes: plate homogenizer, belt conveyor, manual sorting station, bag breaker/crusher, trommel screen, magnetic separator, comprehensive air separator machine selection, hydraulic baler, electronic control system, monitoring system, ventilation/deodorization system and leachate treatment equipment, etc. In addition, commonly used auxiliary equipment also includes: eddy current sorting machine, photoelectric sorting machine, bouncing screen, weighing scale, special transport vehicle, etc.

Q

In the garbage sorting project, how to purify and dispose of garbage odor?

According to the characteristics of garbage odor, combined with relevant local environmental protection standards, we can adopt customized odor purification and disposal process.
In most projects, the commonly used purification and disposal process: negative pressure collection + chemical washing + biological filtration + chemical filtration + high-altitude discharge.

Q

In the garbage sorting project, how to deal with the landfill leachate harmlessly?

The common treatment processes of landfill leachate mainly include the following three categories:
1. Biological treatment + membrane treatment process
Process flow: pretreatment - microbial treatment - membrane adsorption and filtration;
Typical process: mesophilic anaerobic system +MBR+RO.
2. Full-membrane adsorption and filtration process
Process flow: pretreatment - two-stage reverse osmosis membrane filtration;
Typical process: two-stage DTRO reverse osmosis treatment process.
3. Low consumption evaporation + ion exchange treatment process
Process flow: pre-filtration - vapor compression to separate water - absorption of gaseous ammonia;
Typical process: MVC evaporation +DI ion exchange.

PROFIT ANALYSIS

200TPD domestic waste pre-sorting / back-end plastic granulation						
Introduction	Project daily income analysis data					
NO.	**Income and expenditure items**	**Sub option Assessed value**	**Sub option Unit**	**Accounting price**	**Income and expenses($)**	**Remark**
01	Waste treatment subsidy	200	T/D	$27.36/T	$5,472.00	
02	Recyclable metal	1.6	T/D	$182.37/T	$291.79	External sales
03	Recyclable cardboard	5	T/D	$379.94/T	$1,899.70	External sales
04	Recyclable glass	3	T/D	$75.99/T	$227.97	External sales
05	Plastic particles	12	T/D	$379.94/T	$4,559.28	External sales
Total daily income: $12,450.74 **Daily comprehensive processing ton income: 81920/200=$62.25/ton**						
Introduction	Project Daily Expenditure Analysis Data					
01	Daily electricity consumption	14253	Kw/d	$0.18/kw/h	$2,599.24	Sorting line: 8h/day; granulation line 24h/day
02	Office expenses	54711.24	Dollar/year		$182.37	
03	Labor wages	328,267.48	Dollar/year	$759.88/month	$1094.22	15 people in the sorting line and 21 people in the granulation line
04	Water expense	27000	Ton/year	$0.46/ton	$13.68	per day: 30 tons of water
05	Accessories, Materials, Consumables	75,379.94	Dollar/year		$254.31	
06	Equipment maintenance fee	50,258.36	Dollar/year		$167.48	
Total daily expenses: $4,308.21 **Accounting daily income: $8,141.64**		**Daily comprehensive processing ton cost: $4,308.21/200=$21.54** **Net income from ton processing: $8,141.64/200=$40.71**				

MODEL PARAMETERS

Model	BFX-10	BFX-20	Remark
Raw material	Municipal solid waste, industrial waste and obsolete landfill waste.		
Capacity	10-15t/h	20-25t/h	
Total power	337KW	365KW	Including exhaust gas and leachate treatment system
Plant area	1800㎡	2200㎡	Can be designed according to the site
Production shift	1-2 shifts	1-2 shifts	
Use labor quantity	15-20people	15-20people	

WHOLE AND COMPONENT DRAWINGS

OVERALL VIEW OF SORTING EQUIPMENT

Plate homogenizer

Bag breaker

Manual sorting

Feeding belt conveyor

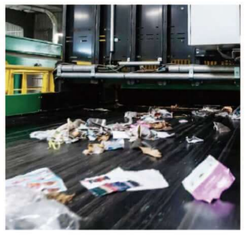
Air sorter

Trommel screen

Magnetic separator

Hydraulic press

MAIN EQUIPMENT OF SORTING LINE



Photoelectric sorter

Eddy Current Sorter

Crusher

Electronic control system

surveillance system

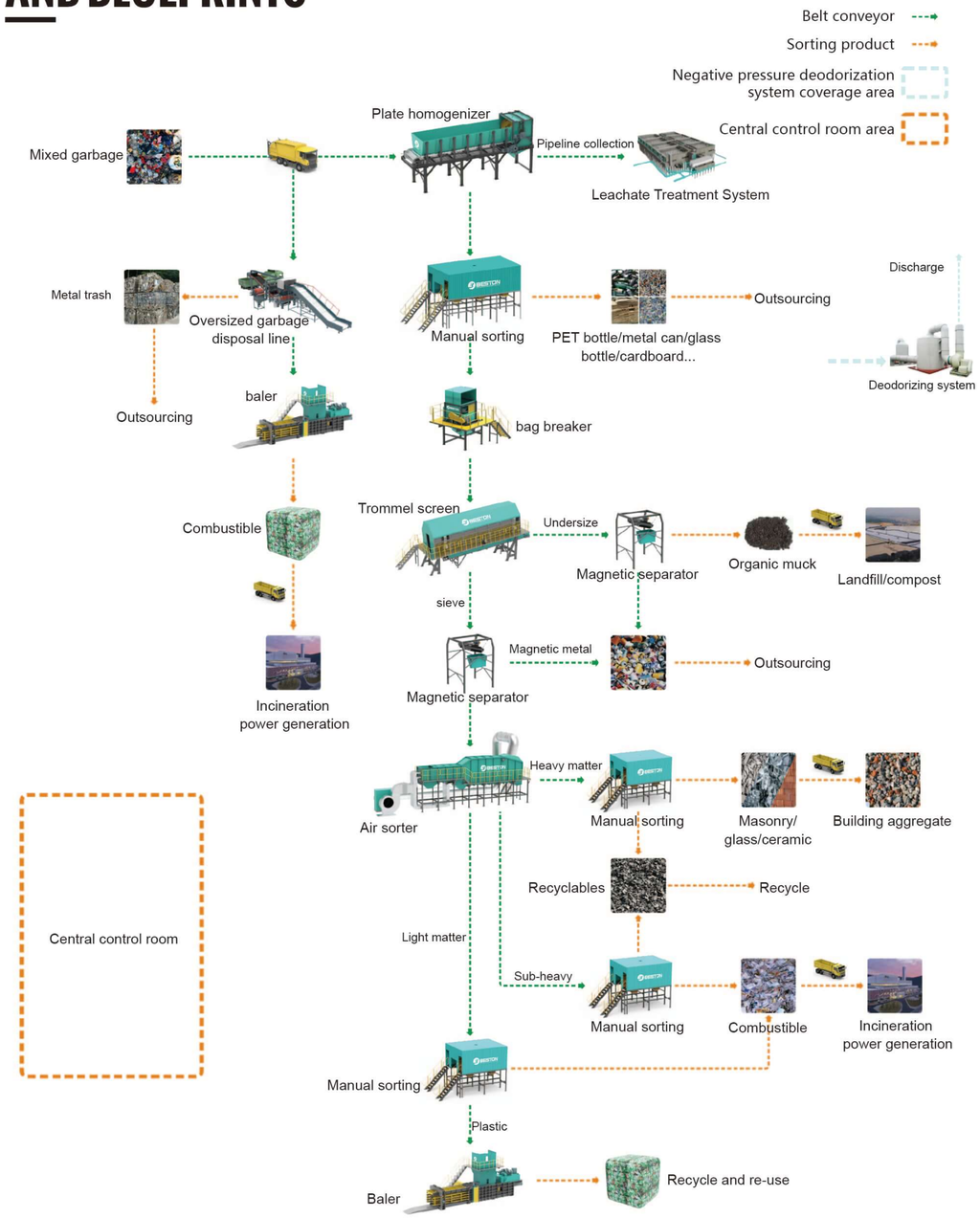
Deodorizing equipment

PC control system

Leachate Treatment Station

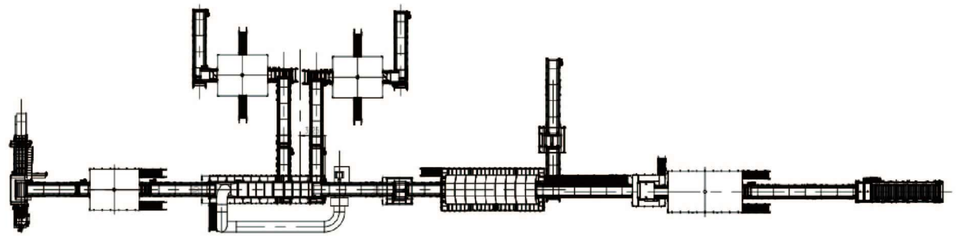
SORTING LINE GROUPED EQUIPMENT

FLOW CHARTS AND BLUEPRINTS



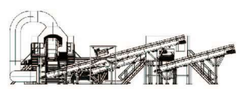
DOMESTIC WASTE SORTING FLOW CHART

FRONT VIEW OF HOUSEHOLD WASTE SORTING



TOP VIEW OF HOUSEHOLD WASTE SORTING

DOMESTIC WASTE SORTING LEFT VIEW



RIGHT VIEW OF HOUSEHOLD WASTE SORTING

PROCESS DESCRIPTION

1. First, you need to plan the site to install 1 domestic waste sorting line. The minimum planned area of a production line is about 20*90=1800㎡. When you have all the facilities in the workshop, garbage collection trucks and manpower ready, you can start sorting garbage.

2. All the garbage is collected and transported to the workshop by the garbage truck and unloaded to the hopper of the plate feeder. Under the action of the back-end equalizer, the garbage is evenly transferred to the feeding belt conveyor.

3. The feeding belt conveyor transports the garbage to the former manual sorting station, and the workers sort out the sorting substances such as plastic bottles, cardboard and large interference objects. Plastic bottles, cardboard can be recycled directly.

4. Next, the garbage enters the bag breaking machine to shred the bagged garbage (it may also be a coarse crushing equipment, depending on the characteristics of the material), which is convenient for subsequent better processing.can be sold directly for recycling.

5. The crushed waste materials are transported by the belt conveyor into the trommel screening machine. The trommel screening machine is a volume sorter, which can separate the materials according to the volume of the materials. Generally, the design aperture of the sieve plate is 30-60mm (depending on different materials and different process plans), and the waste is screened and processed through a certain diameter hole. The material smaller than or equal to the sieve aperture falls to become the under-sieve, and the material larger than the sieve hole diameter becomes the over-sieve.

6. The rubbish (under sieve) that is sieved smaller than the aperture is mainly organic matter. They will firstly separate the magnetic metal in the material through a magnetic separator, and then be conveyed by belt and collected by engineering vehicles. These organic wastes are usually used as Compost raw materials to produce organic fertilizers for crops.

7. The material larger than the diameter of the sieve hole is firstly processed by the magnetic separator through the belt transmission, and the magnetic metal in it is separated, and the rest of the material is transferred to the comprehensive air separator for air separation treatment.

8. The comprehensive air separator utilizes the specific gravity characteristics of materials and uses wind energy to separate the processed materials into light substances, heavy substances and sub-heavy substances.

9. Most of the heavy substances are inorganic substances with relatively high density, which are collected and transported by the collection belt. After the manual sorting station, the recyclables (rubber, glass, ceramics, masonry, etc.) in the material are sorted out. After the inorganic material is crushed, it can be used as building aggregate, and the remaining material is exported for inorganic landfill.

10. The secondary heavy materials are mainly a mixture of organic matter and combustible materials, with a relatively high calorific value content, which is more suitable for incineration. After manual sorting, the recyclable materials are sorted out for recycling and reuse, and the remaining materials are collected and used for incineration power generation.

11. The light material is mainly a mixture of PP/PE plastic film and paper. After the manual sorting platform is used for sorting and impurity removal, the impurities are removed, the impurities are output for incineration, and the remaining materials are transported to a hydraulic packaging machine for compression and packaging. . The recycled plastic film is cleaned and processed in the later stage, and the raw material of plastic products - plastic particles can be produced.

12. The leachate produced in the garbage disposal process can be collected by the collection system for harmless treatment. After reaching the standard, it can be used as water for daily cleaning and watering of flowers and plants to achieve recycling.

13. The exhaust gas generated in the process of garbage disposal shall be collected by the collection system for harmless treatment, and discharged after reaching the standard.

Our automatic garbage sorting machine can sort waste plastic, metal, glass, organic waste, kitchen waste, bricks and stones, etc. The garbage waste is processed by a professional automatic mechanical sorting machine, which can maximize the waste. Harm, reduction and resource disposal.

The folk customs and development levels of various countries in the world are seriously unbalanced. The components of waste materials are different, and some of them are very different. Therefore, according to the different material characteristics and processing requirements of various countries, it is necessary to formulate targeted treatment processes and solutions. The most effective way to localize waste disposal.

FEATURES AND ADVANTAGES

01

High degree of automation

The equipment has a high degree of automation. Except for a small number of manual workstations, all others are automatically completed by machine equipment.

02

High sorting efficiency

The sorting efficiency of the equipment is as high as 90%, which maximizes the realization of resource utilization, reduction and harmlessness.

03

Diversified waste disposal

It can handle all kinds of waste, including municipal solid waste, industrial waste and all kinds of stale waste.

04

There is a clean and harmless disposal system

The equipment has a special exhaust gas deodorization and leachate purification system, which helps to create a cleaner and healthier working environment.

05

Supervisory control system

We have a monitoring and control system to keep the work process running smoothly, safely and efficiently.

06

Waste pollution reduction

The entire automatic separation line is located in a safe and confined space to reduce waste pollution.

07

Easy transportation and installation

The machine structure is very convenient for transportation and installation, which can effectively reduce transportation and installation costs.

08

All-round after-sales service

We can also provide customers with a full range of after-sales services, including equipment installation, commissioning and follow-up maintenance.

BESTON ENVIRONMENTAL VENOUS INDUSTRIAL PARK

Venous Industry Park is a general term for industrial parks mainly engaged in the production of Venous industry. Industrial solid waste comprehensive utilization enterprises are typical representatives of such enterprises, which follow the "3R" principle of circular economy theory (reduce, reuse, and recycle).

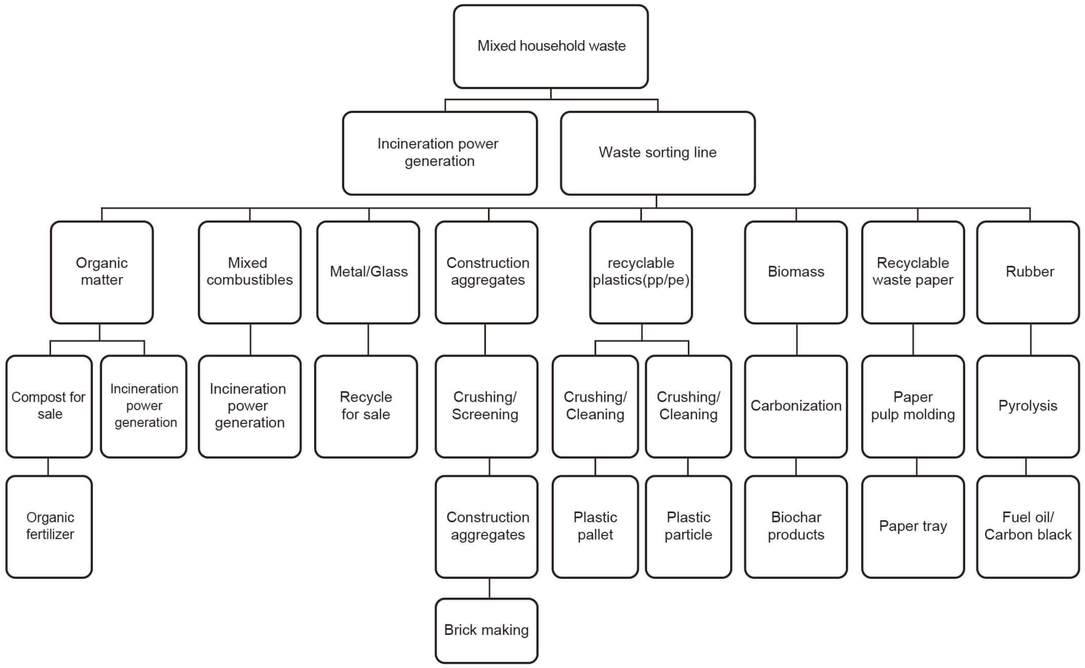
Under the policy guidance and financial support of the Chinese government, a number of vein industrial park projects with large scale of disposal, outstanding economic benefits and obvious demonstration effects have emerged in China. Such as Beijing Chaoyang District Circular Economy Industrial Park, Guangxi Wuzhou Vein Industrial Park...

To experience the actual production scene of the Vein Industrial Park, please scan the QR code with your mobile phone to experience the VR experience

BESTON Environmental Vein Industrial Park is a comprehensive environmental protection industrial park project built by Henan (Goolee) Beston Group and grandly launched for the society. The project actively advocates the concept of environmental protection and sustainable development, adopts scientific and advanced solid waste disposal technology, and is equipped with 10 production and disposal modules. Resource, reduce, harmless, the entire park can achieve "zero" waste discharge.

The project is planned to cover about 100,000 square meters, with a total investment of about 700 million RMB.

THE OVERALL PROGRAM OF BESTON ENVIRONMENTAL VENOUS INDUSTRIAL PARK



PROJECT ROI/ANNUAL REVENUE

Project ROI:						
Item	Sorting+Pelletizing+ Pallet making	Incineration power generation	Biomass carbonization	Pyrolysis +Distillatio	Paper pulp molding	Crushing + Brick making
ROI(%)	**145.70**	**9.70**	**147.74**	**44**	**235.86**	**789.48**

Project annual income:								
Item	Sorting+Pelletizing+ Pallet making	Incineration power generation	Biomass carbonization	Pyrolysis +Distillatio	Paper pulp molding	Crushing + Brick making	Total	Comprehen-sive yield (%)
Annual profit (ten thousand yuan)	**5646.45**	**5044.97**	**1351.38**	**605.70**	**754.74**	**8755.30**	**22158.54**	**31.66**

BESTON ENVIRONMENTAL VENOUS INDUSTRIAL PARK

Waste Disposal Capacity Planning of Vein Industrial Park:

- Receive and dispose of 1,200 tons of fresh domestic waste every day
- Receive and dispose of 30 tons of waste tires every day
- Receive and dispose of 3,200 tons of construction waste every day
- Receive and dispose of 100 tons of waste biomass every day
- Receive and dispose of 18 tons of waste paper every day

After the project is implemented, the external waste can be disposed of harmlessly every year:

- Solid household waste 432 thousand tons
- Waste tires 10,800 tons
- Construction waste 1.152 million tons
- Waste biomass 36,000 tons
- Waste paper 1926 tons

After the project is implemented, the annual recyclable wastes can be recycled and reused:

- Waste paper 6426 tons
- Waste plastic 15,100 tons
- Scrap magnetic metal 1440 tons
- Waste glass 2700 tons
- Construction aggregate 1.152 million tons
- Scrap steel wire 1296 tons
- Scrap tires 10,800 tons
- Biomass 36,000 tons

After the project is implemented, the annual use of waste to regenerate industrial raw materials:

- Plastic particles 7,560 tons
- Carbon black 3,780 tons
- Essential oil 3,672 tons
- Biochar pellets 10,800 tons
- Tar 2340 tons
- Wood vinegar 11,520 tons
- Construction aggregate 1,008 million tons

After the project is implemented, the annual use of waste renewable products:

- Plastic pallets 302,400 pieces
- Paper trays 75.6 million pieces
- On-grid power generation 94,900 MW (94.9 million kwh)
- Standard block bricks 856.8 million pieces

SORTING PROJECT CASE SHOW

2017 Uzbekistan
Comprehensive treatment of domestic waste

SORTING PROJECT CASE DISPLAY

Xinjiang Urumqi County in 2020
100TPD domestic waste sorting

SORTING PROJECT CASE DISPLAY

Russia 2018
100TPD domestic waste sorting

03

BESTON SERVICE

3

SERVICE CONTENT

PRE-SALES SERVICE

THERE ARE DEDICATED PROJECT CONSULTANTS

01

Know customer requirements in detail, and provide product configuration solutions for customers to choose;

02

Invite customers to visit Beston's production site or factory area, and introduce the whole process;

03

According to customer needs, introduce necessary supporting programs or financing programs.

DURNING PRODUCTION SERVICE

WITH A DEDICATED DELIVERY MANAGER

Provide customers with the production progress of products in the workshop in every Monday;

According to the demand, invite customers to the factory to verify the delivery before delivery;

Monitor the entire transportation process to ensure safety and timeliness;

Contact customers in advance to prepare auxiliary items needed on site to ensure production in a shorter time;

Provide layout,foundation,electric drawings and assemble drawing with the customer in advance, and guide the customer to do the civil work in advance to ensure the production in a shorter time.

AFTER-SALES SERVICE

DUAL SERVICE OF EXCLUSIVE DELIVERY MANAGER AND AFTER–SALES ENGINEER

01.

On-site installation, commissioning and production, engineers escort the whole process;

02.

Provide professional training to help customers develop on-site professional production and operation teams;

03.

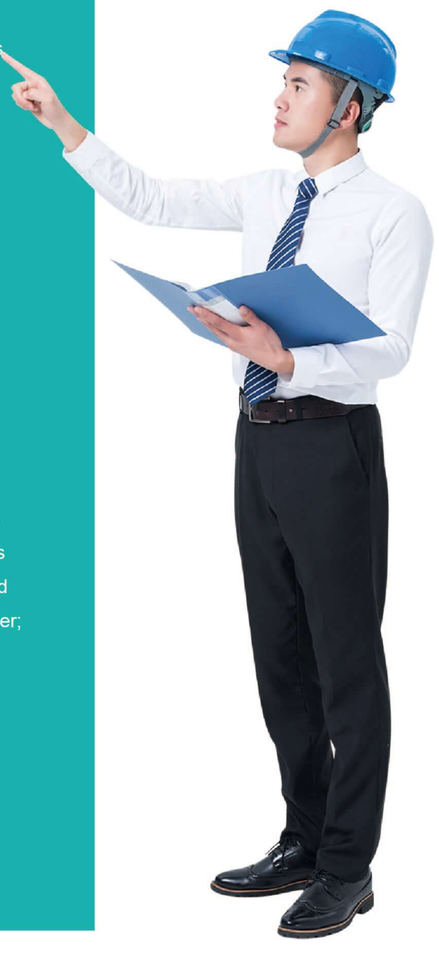
Continue to conduct on-site inspections for customers, know equipment conditions, and solve problems;

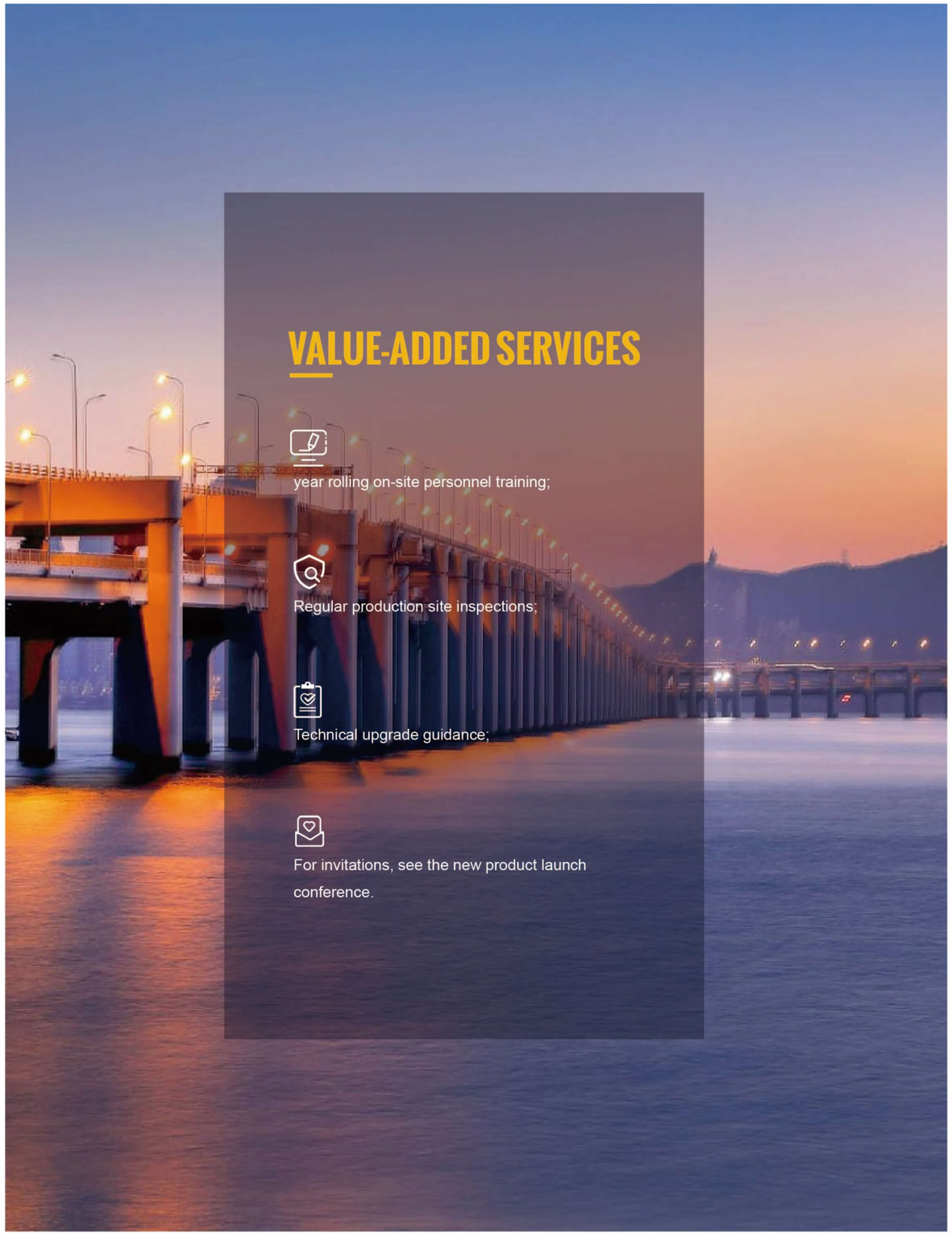
04.

Delivery manager exclusive services, establish customer product use files, maintain customers regularly, maintain efficient communication, and solve problems for customers in a timely manner;

05.

Provide spare parts for customers for life.





SERVICE MECHANISM

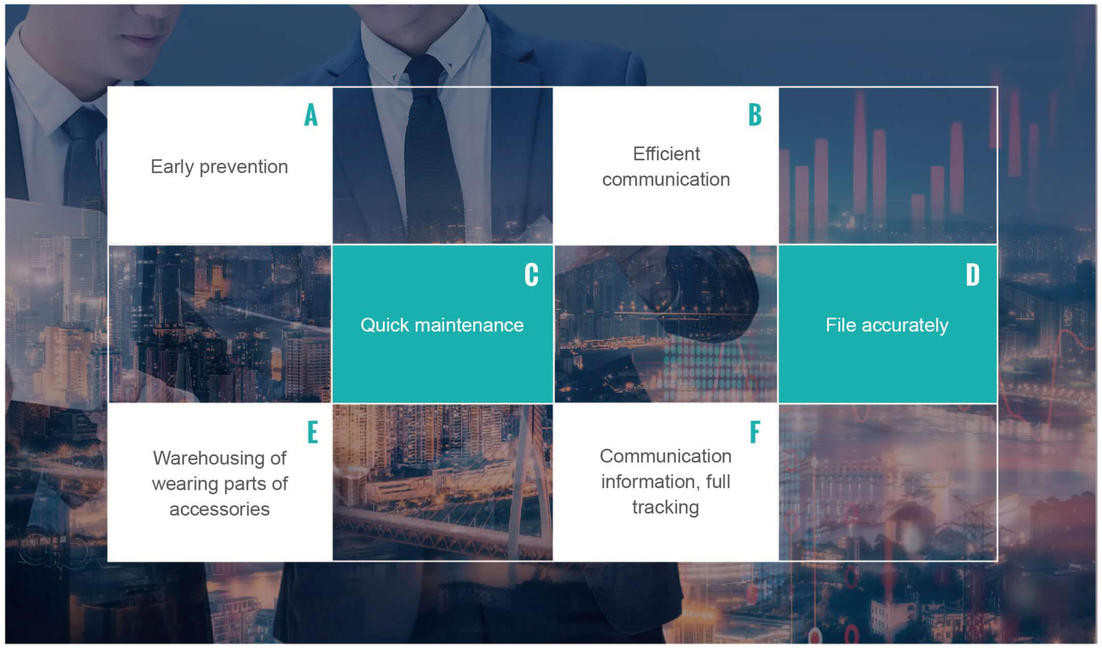
Parts supply guarantee system: delivery in the shortest time in a faster and more efficient way.

One-day response system: Troubleshooting control is completed within 24 hours.

Double supervision system: The general manager and the marketing manager are double-supervised, providing green channels such as manpower, material resources, financial resources, technical guidance and accessories supply for the service.

Three-minute response system: The service personnel are required to contact the customer within 3 minutes after receiving the instruction to dispatch the work order.

SERVICE MANAGEMENT MODE



04

TEAM ELEGANT DEMEANOUR

CONCENTRATION

SERVICE ABILITY

COHESION

BESTON
RECYCLING FOR BETTER LIFE
FOCUS ON RESOURCE REGENERATION

CREATIVITY

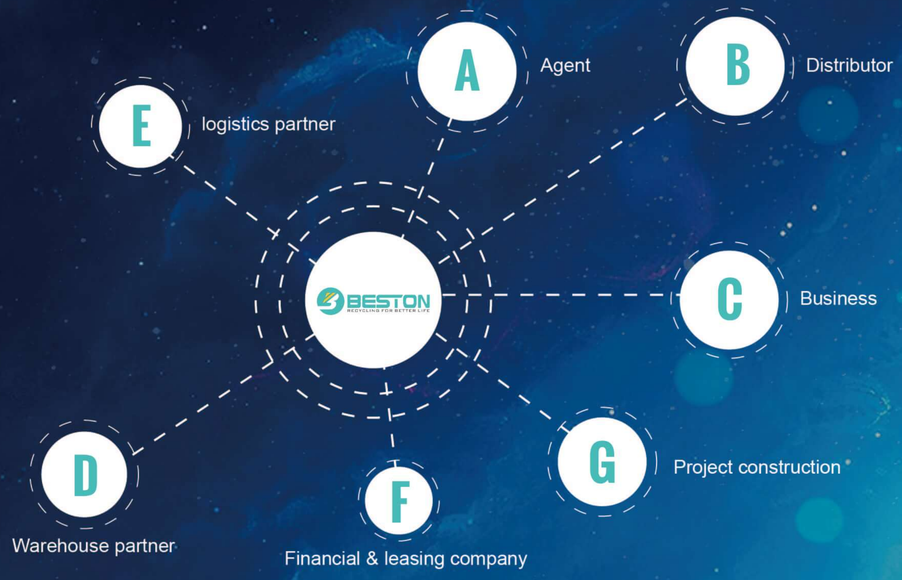
BRAND FORCE

05

MARKET STRATEGY

HOW TO BE PARTNER OF BESTON?

If you are engaged in the following industries and want to share our focus on renewable resources and improving the global ecological environment, then join us!



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