

EPC Recycling Solution

GREENMAX is an environmentally friendly technology company focusing on the recycling and utilization of waste plastics. In the field of waste plastic recycling, GREENMAX provides a complete set of EPC (engineering, procurement, construction) solutions. The following is a detailed introduction of GREENMAX EPC solutions in the field of waste plastic recycling:

Engineering: GREENMAX first works closely with customers to understand their waste plastic recycling needs, including waste plastic type, output, recycling rate and other indicators. Then, GREENMAX will design the most suitable waste plastic recycling solution based on the customer's needs. The design plan includes waste plastic classification, cleaning, crushing, melting, granulation and other process processes, as well as equipment selection and layout.



Procurement: According to the design plan, the core components are independently developed and produced by GREENMAX, and can be customized according to customer requirements. At the same time, GREENMAX has rich supplier resources and procurement experience, and can obtain high-quality equipment and materials at a lower cost. In addition, GREENMAX has also established a strict quality control system to ensure that the quality of purchased materials meets requirements.



Construction: GREENMAX has a professional construction team responsible for the construction and installation of waste plastic recycling facilities. During the construction process, GREENMAX strictly followed the design plan and construction specifications to ensure construction quality and progress. GREENMAX will also regularly report construction progress to customers so that customers can understand the actual situation of the project. After the construction of the facility is completed, GREENMAX will commission the waste plastic recycling facility. The debugging content includes stand-alone debugging, system linkage debugging, personnel training, etc. to ensure that the entire waste plastic recycling system can operate normally and meet the designed technical indicators and recycling rate.



In the field of waste plastic recycling, GREENMAX provides customers with one-stop services through the EPC model, helping customers realize the recycling and reuse of waste plastics, reducing environmental pollution, and creating economic value for customers.

Foam Recycling Line

EPC project case of recycling EPS waste foam and producing XPS insulation boards:

Project Name: Waste foam recycling EPC project in a city

Project Scale: Designed annual production capacity of 100,000 cubic meters of XPS insulation boards

Project Content: including waste foam recycling system, XPS insulation board production system, waste gas treatment system, etc.



Project Flow:

- EPS waste foam sorting and cleaning: First, the collected waste foam is selected and sorted, and then enters the GREENMAX Triton series cleaning system. The dirty waste foam is crushed, washed and dried into clean EPS foam crushed material.
- EPS foam volume reduction: The cleaned foam crushed material is hot melted and volume reduced through the GREENMAX Mars series hot melting machine, with a volume reduction ratio of 90:1. After the melt is cut, water-cooled, and automatically bagged, the EPS spherical hot melting block can enter the next step of the
- granulation process.
- EPS hot melting block crushing: The spherical hot melting block is crushed by the GREENMAX Reha series crusher into a size of 10mm-20mm.
- EPS hot melting block granulation: The hot melting block crushed material is then granulated through the GREENMAX G series pelletizer to create high-quality recycled particles.
- XPS board extrusion: EPS recycled particles are processed by GREENMAX XPS board extrusion equipment and CO₂ foamed to produce high-quality, environmentally friendly XPS insulation boards.



In this EPC project case, GREENMAX took on the responsibility for the entire process from engineering, procurement to construction, which is conducive to the quality control and progress management of the project. The highlight of this project is to turn low-value EPS foam waste into high-value-added XPS building insulation

materials through an efficient recovery, regeneration and utilization system, forming a closed loop of turning waste into treasure and low-carbon cycle.

PET Recycling Line

Project Name: EPC Project of PET Bottle Recycling and Washing in Southeast Asia

Project Overview: Located in Malaysia, this project aims to establish a complete PET bottles recycling and washing system to improve the local plastic recycling rate and reduce environmental pollution. The project covers the whole process of PET bottles recycling, washing and reprocessing, and adopts advanced technology and equipment to ensure the quality and purity of recycled materials.



Project Implementation:

- **PET Bottles Recycling:** First, PET bottle recycling plants are set up throughout the city to guide the public to sort and drop off the used PET bottles. Then, a specialized logistics team will transport the recycled PET bottles to the recycling processing center.
- **Initial cleaning:** At the recycling processing center, the recycled PET bottles undergo initial cleaning, including the removal of labels, caps and other appendages from the bottles.
- **Deep Cleaning:** Using advanced cleaning equipment, PET bottles are deeply cleaned, including the removal of stains, residues, etc. on the bottles. This process requires the use of specially developed environmentally friendly cleaning agents to ensure that the impact on the environment is minimized.
- **Crushing and Granulation:** The cleaned PET bottles are crushed and melted for use in the production of new plastic products. In this process, the temperature,

pressure and other technical parameters are strictly controlled to ensure the quality of recycled plastics.

- Quality Inspection: Strict quality inspection of the recycled plastics, including appearance, physical properties, chemical properties, etc., to ensure that they meet the relevant standards (FDA, EFSA, etc.) and the customized requirements of customers.
- Sales and Distribution: Sell qualified recycled plastic products to downstream

- enterprises to produce new plastic products.



Project Highlights:

1. Improvement of plastic recycling rate: By establishing a complete PET bottle recycling and cleaning system, the local plastic recycling rate has been greatly improved, and the generation of waste has been reduced.
2. Environmentally friendly: The use of advanced cleaning technology and environmentally friendly cleaning agents reduces the impact on the environment and is in line with the concept of green development.
3. Promoting circular economy: By reusing recycled PET bottles, it realizes the efficient use of resources and promotes the development of circular economy.
4. Enhance people's awareness of environmental protection: Through publicity and guidance, it improves people's awareness of and participation in plastic recycling, which helps to form a good environmental protection atmosphere.

PE Film Recycling Line

Project Name: EPC Project for PE Drip Irrigation Tape and Agricultural Film Recycling and Cleaning

Project Overview: This project aims to establish a complete PE drip irrigation tape and agricultural film recycling and cleaning system to improve the recycling rate of

plastic agricultural products, reduce agricultural surface pollution and promote sustainable agricultural development.



Project Implementation:

- PE drip irrigation tapes and agricultural films recycling: Firstly, PE drip irrigation tapes and agricultural films recycling plants are set up within the farmland to guide
- farmers to separate and put out the used PE drip irrigation tapes and agricultural films. Then, a specialized logistics team will transport the recycled PE drip irrigation tapes and agricultural films to the recycling and processing center.
- Preliminary Cleaning: At the recycling processing center, the recycled PE drip irrigation tapes and agricultural films are preliminarily cleaned, including removing the

- soil and plant residues on them.
- **Deep Cleaning:** using advanced cleaning equipment, PE drip irrigation tapes and agricultural films are deeply cleaned, including removing surface stains, residues,
- etc. This process requires the use of specially developed cleaning equipment. This process requires the use of specially developed environmentally friendly cleaning agents to ensure that the impact on the environment is minimized.
- **Crushing and Granulation:** The cleaned PE drip irrigation tape and agricultural film are crushed and melted for use in the production of new plastic agricultural products. In this process, the temperature, pressure and other technical parameters are strictly controlled to ensure the quality of recycled plastics.
- **Quality Inspection:** Strict quality inspection is carried out on the recycled plastics, including appearance, physical properties, chemical properties, etc., to ensure that they meet the relevant standards and customers' requirements.
- **Sales and Distribution:** Sell the qualified recycled plastic products to downstream enterprises for the production of new plastic wooden products.



Project Highlights:

1. **Improve the recycling rate of plastic agricultural products:** By establishing a complete recycling and cleaning system for PE drip irrigation tapes and agricultural films, it greatly improves the recycling rate of plastic agricultural products and reduces the generation of waste.
2. **Environmentally friendly:** The use of advanced cleaning technology and environmentally friendly cleaning agents reduces the impact on the environment and is in line with the concept of green development.

3. Promoting Circular Economy: By reusing recycled PE drip irrigation tapes and agricultural films, it realizes the efficient use of resources and promotes the development of circular economy.

4. Raise farmers' awareness of environmental protection: Through publicity and guidance, it raises farmers' awareness of and participation in the recycling of plastic agricultural products, which helps to form a good environmental protection atmosphere.