CELEBRATING 10 YEARS

Trimurti Production

Plastic Processing Plant

ISO 9001: 2015 Certified Company

INTRODUCTION

Organization with a Mission to Reduce Plastic Waste

Established in 2012 by Mr. Tribhuvan Yadav, our organization proudly aligns with the Make in India initiative, driven by the dream of significantly reducing plastic waste generation within our nation.

The Challenge: Daily, India grapples with a staggering 15,342 tons of plastic waste. This not only poses environmental threats but also burdens our waste management systems.

Our Solution: We offer a cost-effective and sustainable solution through the establishment of plastic pyrolysis plants, **manufactured and designed right here in India.**

Key Benefits:

Reduced Plastic Waste: Our plants convert plastic waste into valuable resources, diverting it from landfills and the environment.

Income Generation: The process produces usable plastic oil, creating a profitable revenue stream for plant owners.

Export Potential: The produced oil can be exported to other countries, further enhancing economic benefits.

Minimal Investment: We offer plants with minimal and one-time investment, making them accessible to a wider audience.

Join us in making a difference!

By partnering with us, you can contribute to a cleaner environment, create a sustainable business opportunity, **support the Make in India vision**, and address the growing challenge of plastic waste in India.

Why Trimurti Production?

- **Experience and Expertise:** Founded in 2012, we have a proven track record of success in providing innovative and effective solutions for plastic waste management. Our team of experts possesses deep knowledge and experience in the field, ensuring you receive the best possible guidance and support.

- **Commitment to Sustainability:** We are passionate about protecting the environment and believe that responsible plastic waste management is essential for a sustainable future. We go beyond just offering products; we provide comprehensive solutions that are environmentally friendly and minimize your environmental impact.

- **Make in India Champion:** We proudly align ourselves with the Make in India initiative, utilizing locally sourced materials and expertise. By choosing us, you support Indian businesses, promote self-reliance, and contribute to the nation's economic growth.

- **Cost-Effectiveness and Affordability:** We understand the importance of affordability, and we offer a range of plastic processing plants to suit different budgets and needs. Our solutions are designed to be cost-effective and provide a high return on investment.

- **Reliable and Efficient Solutions:** Our plants are built with high-quality materials and are designed for durability and efficiency. We provide ongoing support and maintenance to ensure your plant operates smoothly and delivers optimal results.

Join us in making a difference!

By partnering with us, you gain access to:

- Cutting-edge technology: Our plants utilize advanced technology to ensure efficient and effective plastic waste processing.
- Exceptional customer service: We are dedicated to providing you with the highest level of customer service and support throughout your journey.
- A sustainable future: Together, we can create a cleaner and more sustainable environment for generations to come.

Comprehensive Support System: Enabling Your Success

We understand that entering the plastic processing industry requires not only the right equipment but also ongoing support. That's why we offer a comprehensive support system designed to empower you throughout your journey:

1. Plant Operation:

- Contractual Operation: Unsure about operating the plant yourself initially? We offer contract-based plant operation, providing expert oversight and management until you feel confident to take the reins.
- Training & Knowledge Transfer: Our team provides comprehensive training on plant operation and maintenance, equipping you with the necessary skills for self-sufficiency.

2. Processing Oil Sales:

- Guaranteed Purchase: Lacking a market for your produced Plastic Oil? We provide a guaranteed purchase program, ensuring you have a stable revenue stream while you establish your own sales network.
- Market Connection Assistance: We leverage our industry connections to assist you in finding reliable buyers for your Plastic Oil, facilitating market expansion.

3. Raw Material Acquisition:

- Material Sourcing Support: New to navigating the raw material landscape? We offer assistance in sourcing high-quality plastic waste for your plant, ensuring a consistent supply chain.
- Supplier Network Access: Gain access to our established network of reliable suppliers, simplifying your raw material procurement process.

By choosing our support system, you benefit from:

- Reduced Risk: Mitigate operational and market uncertainties during your initial phase.
- Faster Growth: Access expert guidance and established networks to accelerate your business development.
- Sustainable Success: Gain the skills and resources necessary for long-term, independent operation.

The Plastic Problem in India: A Complex Challenge

Ubiquitous Presence: Plastic has become an inescapable part of our lives, from everyday items to crucial components in various industries. Its undeniable convenience and durability have made it ubiquitous, but at a significant cost.

Alarming Growth and Scale: Since its introduction in the 1950s, plastic production has exploded, reaching a staggering 380 million tons in 2015. This has resulted in a massive 8.3 billion tons of plastic generated in the last 70 years, posing a major environmental challenge for India.

Current Solutions and Their Limitations:
1. Landfilling:

Capacity Crisis: Landfills are approaching capacity, with alarming projections for Ghazipur reaching the height of Qutub Minar. This solution is unsustainable and threatens public health due to leachate contamination.
Land Scarcity: Finding enough land for the sheer volume of waste generated is impractical, requiring an area 1/3 the size of Delhi every year.

2. Unscientific Burning:

Air Pollution and Climate Impact: Open burning releases harmful pollutants and contributes to global warming.
Wildlife & Ecosystem Damage: Residue and partially burnt plastic harm animals and pollute water bodies.

3. Manual Segregation:

Health Risks: Rag-pickers and segregators face unhygienic conditions and potential health hazards.
Inefficiency and Inaccuracy: Human error and discretion lead to inconsistent results, impacting recycling quality.
Scalability limitations: The sheer volume of waste makes manual segregation impractical and uneconomical.

5. Mechanical Biological Treatment:

Limited Efficiency: Existing technology suffers from lower efficiency, high fuel consumption, and increased energy costs.
Space Requirements: Large chambers are needed, adding to infrastructure challenges.
While these solutions offer some benefits, they fall short of addressing the magnitude of the plastic problem in India. Urgent action is needed to develop and implement more efficient, sustainable, and scalable solutions.

The Solution: Trimurti Production

Trimurti Production is a leading manufacturer and distributor of plastic processing plants in India. Our extensive experience enables us to develop and deliver solutions that meet international standards and cater to diverse client needs.

We firmly believe that effective communication is the cornerstone of successful project outcomes. We prioritize open dialogue and collaboration with our clients, ensuring their specific requirements are understood and addressed throughout the entire process.

Trimurti Production specializes in the manufacturing and distribution of cutting-edge plastic processing plants. Our commitment to extensive research and development, coupled with years of industry experience, sets us apart from competitors. We offer a comprehensive range of technologically advanced solutions that address various processing needs and capacities.

However, our journey of innovation never stops. We are continually engaged in research and development, actively seeking to refine and improve our technology to deliver even greater efficiency, performance, and environmental sustainability.

By choosing Trimurti Production, you gain access to:

- Industry-leading expertise: Our team of qualified engineers provides expert guidance and support throughout the entire project lifecycle.
- State-of-the-art technology: Our plants utilize advanced technology for optimal performance and resource recovery.
- Tailored solutions: We offer a diverse range of processing plants to meet your specific needs and capacity requirements.
- Commitment to sustainability: We are dedicated to providing environmentally responsible solutions that contribute to a cleaner future.

Trimurti Production's Plastic Processing Plant

Trimurti Production's innovative plastic processing plant utilizes a patent-pending continuous DE polymerization process to convert waste plastics into usable liquid fuels like diesel and gasoline. This multi-stage thermal process effectively breaks down and rearranges the molecular structure of plastics, enabling their transformation into valuable fuel sources.

Key Features and Benefits:

- **Efficient Conversion:** Our plant boasts a highly efficient process, achieving near-complete conversion of various end-of-life plastics (PP, PE, PS, cables, bags) into usable fuels.
- **Clean Technology:** The process is environmentally friendly, minimizing pollution and generating valuable products with high market demand.
- Cost-Effective Solution: Trimurti's technology offers a cost-effective recycling solution, making it a preferred choice for many customers.
- **Durable Equipment:** Our plant features robust design, ensuring optimal performance, high durability, and abrasion resistance.
- **Sustainable Alternative:** This technology promotes sustainability by minimizing dependence on petroleum products and natural gas.

Process Stages:

1. **Pre-processing:** End-of-life plastics are shredded and contaminants are removed to ensure a clean feedstock.
2. **Hot Melt In-feed:** Shredded plastic enters the main processing chamber via a heated system.
3. **Agitation and Homogenization:** The feedstock is agitated to achieve even temperature distribution and homogenization.
4. **Vaporization and Separation:** Plastic transforms into vapor, while non-plastics fall and are removed.
5. **Condensation and Distillation:** Desired condensable vapors are separated from longer-chain hydrocarbons.
6. **Single-Chamber Processing:** The core chamber performs crucial functions of homogenization and controlled decomposition in one step.

By choosing Trimurti Production's plastic processing plant, you gain:
A sustainable solution for managing plastic waste.
A reliable source of alternative fuel.

Input Raw Material

1. HDPE - Examples: Crinkly shopping bags, freezer bags, milk bottles, bleach bottles, buckets, rigid pipes and crates.

2. LDPE - Examples: Garbage bags, squeeze bottles, black irrigation tubes, films and garbage bags.

3. PP - Examples: Trays, potato bags, drinking straws, containers, tubs, plastic garden settings, baby baths and plastic boxes.

4. PS - Examples: Trays, yogurt & dairy containers, vending cups and produce boxes.

Raw material not suitable

1. PET (Polyethylene Terephthalate) :- Examples: Soft drinks bottles, food grade

2. packaging and trays. PVC (Polyvinyl Chloride) :- Examples: Pipes, window fittings, bottles Other. Examples: Foams, nylons and fiberglass.

Application of Derived Oil

- Hot water generator
- Heavy industrial boiler
- Brick factory
- Steel factory
- Glass factory
- Burners of Boilers
- Burners of Furnaces
- Burners of Hot Water
- Burners of Hot Air Generators
- Burners of Thermic Fluid Heater
- Other Industrial Burners
- Electric Generators (mixed with 50% diesel)
- Diesel Pumps (mixed with 50% diesel)

Approx. oil yield of different raw materials

PE, PP, PS,	50%-75%
ABS	40%
House garbage	35-50%
Plastic cable	80%
Plastic bag	50%
Cement bag	70%
Rubber cable	35%

Application of Black Carbon Powder

- Briquetting for burning
- Refining
- Paint
- New tire
- Shoe Sole

Societal Impact

Plastic Processing Plants are a holistic approach in solving the first mile problem of the waste Plastic. Solution includes decentralization and automation of the process. Plastic Processing Plant being an affordable and deployable product brings to the society
following benefits.

1. No more dumping of waste Plastic on the streets.
2. No requirement of burning or incineration of waste Plastic thus reducing air pollution.
3. No percolation of leachate in the ground water thus reducing water pollution.
4. No spread of rodents or disease-causing flies thereby preventing waste-borne diseases.
5. No more stench of waste on the streets.
6. Actual realization of 'Wealth from Waste'.
7. Land reclamation.
8. Empowerment of Citizens to realize the value being generated out of waste.
9. Bringing to reality the dream of Clean India.
10. Reduction in the amount of greenhouse gasses and thus reducing global warming.
11. Plants are designed and manufactured completely in India and as the plants get
12. adopted across the nation it has a potential to generate hundreds of jobs.

Land And Power Requirement

Sr. No.	Capacity	Land Required	Power Connection
1	500 Kg	1000 SQFT	7 HP
2	1 TPD	1000 SQFT	15 HP
3	3 TPD	3000 SQFT	25 HP
4	5 TPD	5000 SQFT	55 HP
5	10 TPD	8000 SQFT	65 HP
6	20 TPD	18000 SQFT	75 HP

Basic Steps to get this project started

Step 1 –Land Selection and Site Preparation
For setting up the plant first of all we have to select land. There should be no high-tension electricity line above the place of the plant. Size of space differs according to selected plant capacity. Sufficient space for raw material storage and oil storage as well as for carbon powder.

Step 2 – Regulatory Compliance and Permits
Government Permissions: Obtain necessary licenses and approvals depending on your country's regulations. In India, these typically include:

1. NOC from Local Municipal Corporation
2. NOC from pollution control board
3. Registration of the firm

Step 3 – Machine Order
After this you have to order the best machine, which will provide a satisfactory result to you and your clients i.e., Trimurti Production.

Step 4 – Civil Works & resource arrangement
Before the manufactured machine arrives at your place you have to complete RCC work and machine structure, water, electricity and all other resources as per instructions by Trimurti Production.

Contact Details

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