



JUPITER ENGINEERING WORKS

PRODUCT CATALOG

PLASTIC RECYCLING PLANT Since 1982

Contact Details:

Address:- 362/2 Roy Bahadur Road, Kolkata, West Bengal
(WB-19) 700053, IN

Contact No:- +91-8017925692 / +91-9339876470

Mail Id:- jupter57@ymail.com

Website:- www.indiamart.com/jupiter-engineeringworks/

CONTENTS

01. Company Profile	03
02. Our Technology	03
03. Mother-Baby Recycling Plant	04
Key Features	04
Technical Specifications	04
Machine Layout Plan	05
Product Image	06 — 08
04. Single Stage Recycling Plant	09
Features & Specifications	09
Machine Layout Plan	10
Product Image	11 — 14
05. Heavy-Duty Plastic Grinding Machine	15
Key Features	15
Technical Specifications	15
Product Image	16
06. Plastic Agglomerator	17
Key Features	17
Technical Specifications	17
Product Image	18
05. Contact Information	19

01. INTRODUCTION

COMPANY PROFILE

We are a leading manufacturer since 1982. We are experts in advanced plastic recycling machinery, dedicated to providing innovative, durable, and cost-effective solutions for the global plastics industry. With a focus on sustainability and engineering excellence, our equipment is designed to transform waste into high-value raw materials.

From initial consultation to installation and after-sales support, we partner with our clients to optimize their production lines and reduce their environmental footprint. Our machinery is built to withstand rigorous industrial demands while maximizing yield and efficiency.

OUR MISSION

To engineer the most reliable and energy-efficient recycling machinery, empowering businesses to build a profitable and sustainable circular economy.

OUR VISION

To be the global benchmark in plastic recycling technology, constantly innovating to handle the world's most complex plastic waste challenges.

02. VALUE PROPOSITION

OUR TECHNOLOGY

We integrate cutting-edge engineering with robust materials to ensure every machine operates at peak performance. Our approach to recycling technology focuses on three core pillars:

1. Precision Engineering

Every component, from the screw geometry to the die head, is CNC-machined for exact tolerances, ensuring consistent melt pressure and uniform pellet quality.

2. Energy Optimization

Equipped with advanced PID temperature controllers and high-efficiency direct-drive motors, our systems significantly reduce power consumption per kilogram processed.

3. Unyielding Durability

Built with heavy-duty gearboxes and bimetallic treated barrels, our machines are designed for 24/7 continuous operation even with highly abrasive post-consumer scrap.

03. MACHINE CATEGORY

MOTHER-BABY RECYCLING PLANT

The Mother-Baby Plastic Recycling Plant is an advanced, two-stage extrusion system engineered specifically for processing challenging materials. Designed to handle high-moisture, heavily printed, or unwashed plastic scrap, this system utilizes a primary "Mother" extruder for melting and intensive degassing, followed by a secondary "Baby" extruder for deep homogenization and fine filtration. The result is a highly stable extrusion process that produces premium, void-free pellets even from post-consumer waste.

KEY FEATURES

Superior Degassing

Features dual vacuum degassing zones in the primary extruder to efficiently extract moisture and volatile ink gases, ensuring bubble-free pellets.

Double Melt Filtration

Equipped with hydraulic screen changers on both extruders, allowing for the removal of high-volume impurities without interrupting the process flow.

Cascade Efficiency

The two-stage design prevents material degradation by lowering the melt temperature before it enters the die head, preserving physical properties.

TECHNICAL SPECIFICATIONS

Mother-Baby Series Performance Data

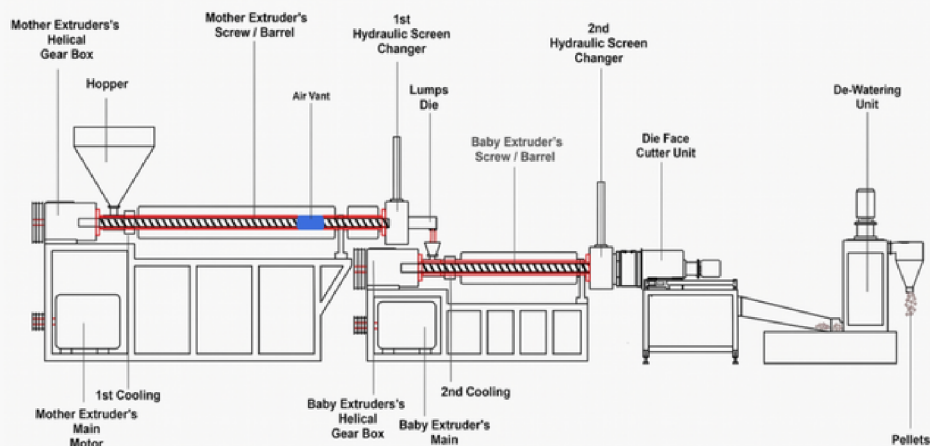
MODEL NAME	SCREW DIA. (MOTHER / BABY)	L/D RATIO	OUTPUT CAPACITY
JEW_MB-110	110mm / 100mm	32:1 / 10:1	150 - 200 kg/hr
JEW_MB-120	120mm / 110mm	32:1 / 12:1	200 - 250 kg/hr
JEW_MB-150	150mm / 130mm	32:1 / 12:1	250 - 300 kg/hr

THIS IS MINIMUM PRODUCTION WILL BE INCREASED BASED ON RAW MATERIAL

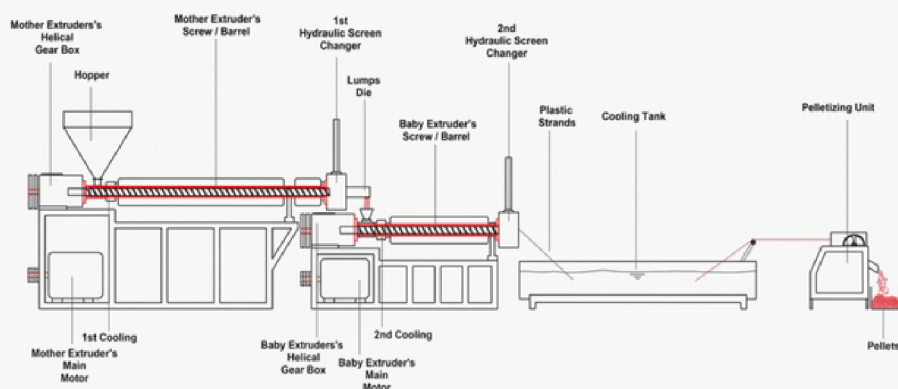
Ideal Raw Material: Clean industrial scrap, rigid PE/PP/ABS/PS regrinds, and dry injection/blow molding waste.

MACHINE LAYOUT PLANS

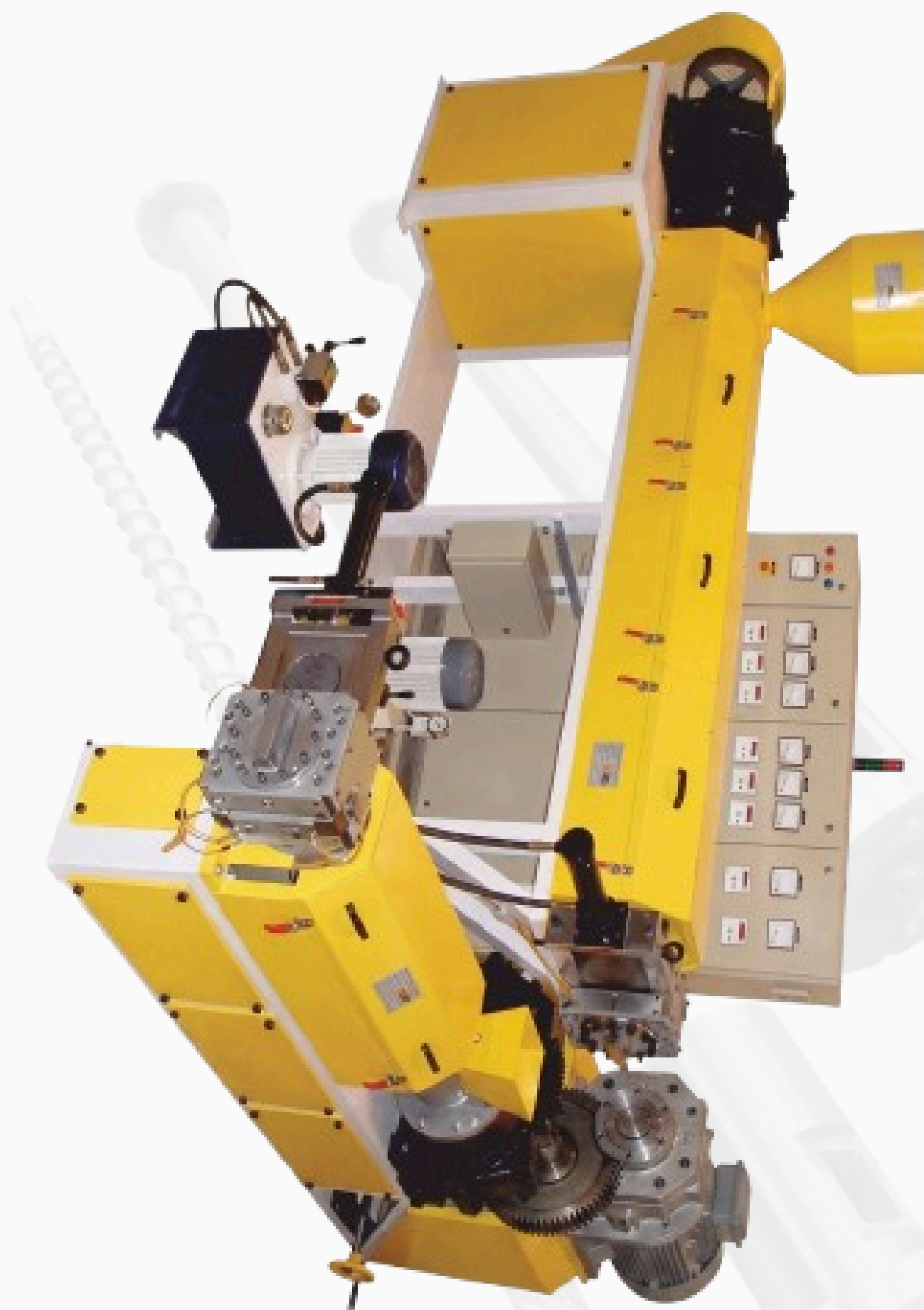
Dimensional footprint and component mapping.

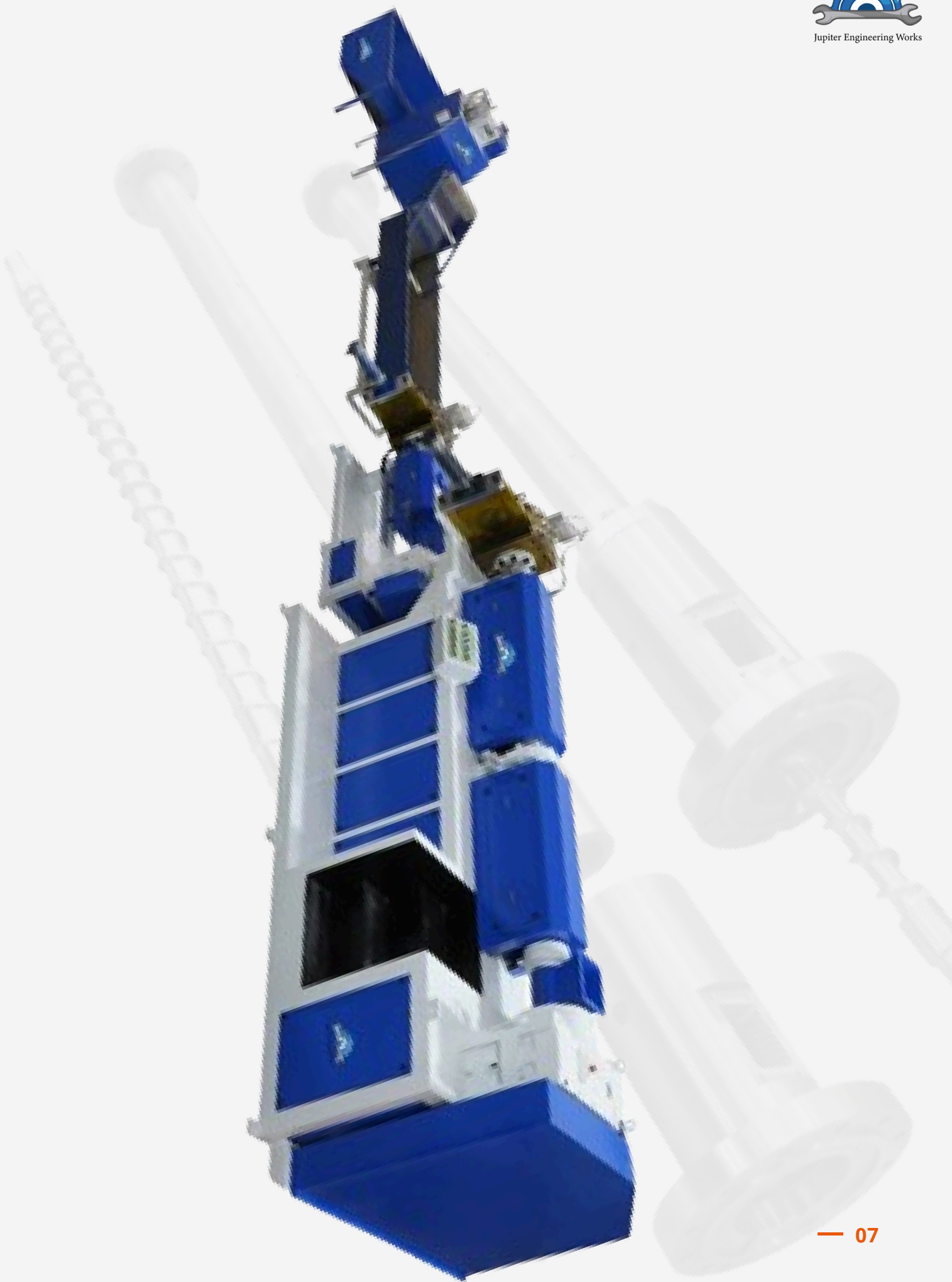


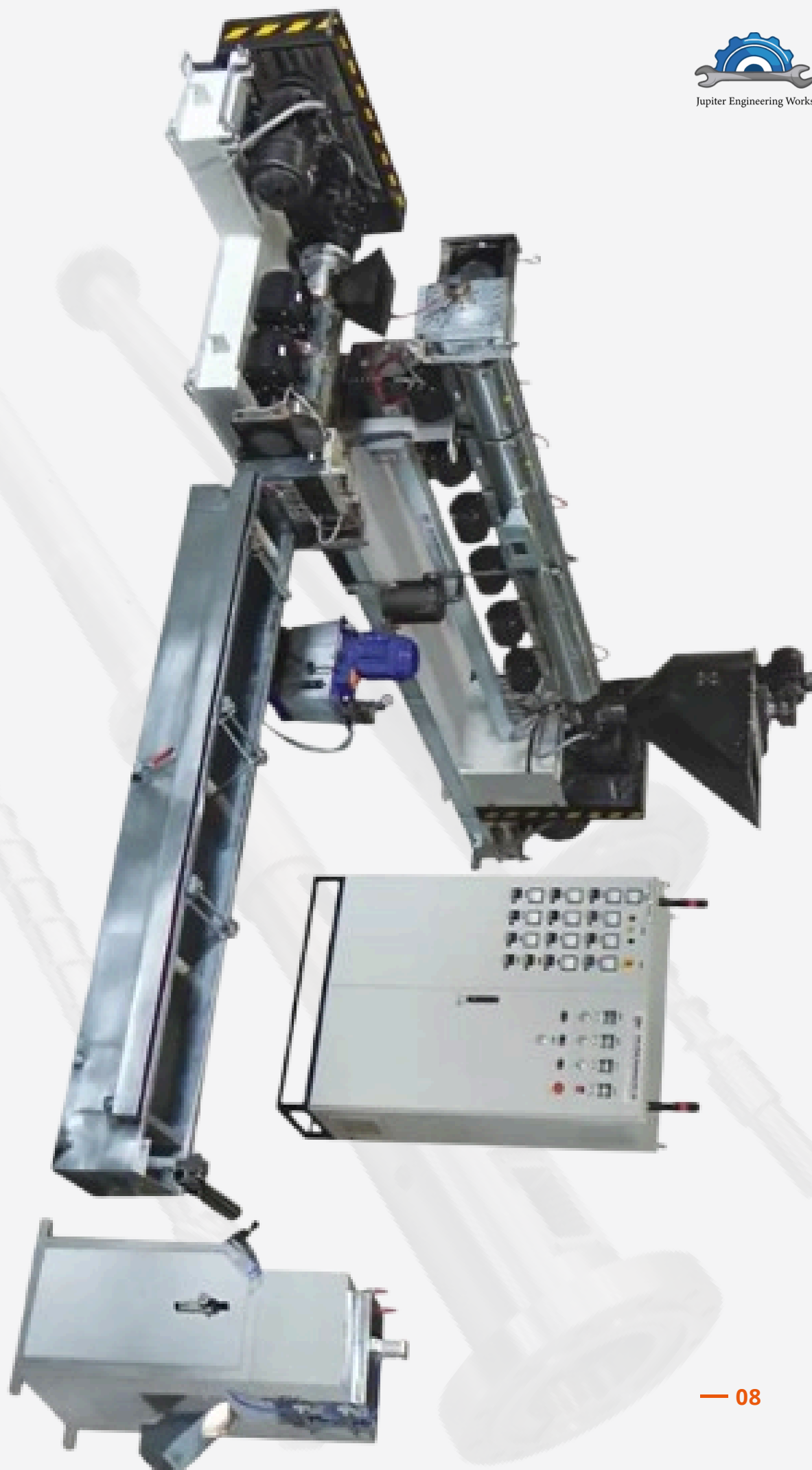
LAYOUT OF MOTHER-BABY RECYCLING PLANT WITH DIE-FACE CUTTER ARRANGEMENT



LAYOUT OF MOTHER-BABY RECYCLING PLANT WITH STRAND PELLETIZER ARRANGEMENT







PLASTIC RECYCLING PLANT SINGLE STAGE

The Single Stage Plastic Recycling Plant is a highly efficient, compact extrusion system designed for clean, dry, and uniform plastic waste. Engineered for maximum energy efficiency and a smaller factory footprint, this machine directly extrudes and pelletizes industrial scrap, rigid plastics, and pre-washed flakes in one seamless step. It delivers excellent throughput and high-quality commercial pellets with minimal operational complexity.

KEY FEATURES

- **High Efficiency Extrusion System -**

Designed with a precision-engineered screw and barrel for consistent plastic melting and homogenization.

- **Energy Efficient Drive System -**

Equipped with high-performance motors and optimized RPM for maximum output with minimum power consumption.

- **Advanced Filtration System -**

Features a durable screen changer for effective removal of impurities and stable production quality.

- **Uniform Pellet Quality -**

Ensures consistent granule size suitable for reuse in injection molding, blow molding, and extrusion processes.

- **Durable Build Quality -**

Fabricated using high-grade steel and precision machining for long operational life and low maintenance.

- **Robust Gearbox Assembly -**

Heavy-duty helical gearbox with thrust bearing ensures smooth torque transmission and long service life.

TECHNICAL SPECIFICATIONS

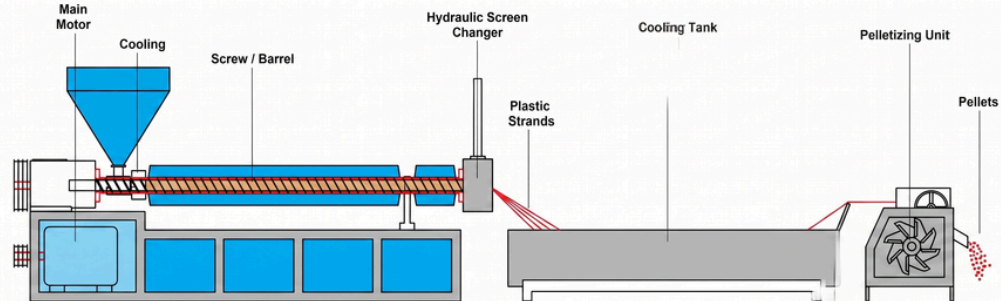
MODEL NAME	SCREW DIAMETER	L/D RATIO	OUTPUT CAPACITY
JE-100	100mm	30:1	90-125 kg/hr
JE-110	110mm	30:1	130-175 kg/hr
JE-120	120mm	30:1	215-250 kg/hr
JE-135	135mm	30:1	275-350 kg/hr

THIS IS MINIMUM PRODUCTION WILL BE INCREASED
BASED ON RAW MATERIAL

Ideal Raw Material: Clean industrial scrap, rigid PE/PP/ABS/PS regrinds, and dry injection/blow molding waste.

MACHINE LAYOUT PLAN

Dimensional footprint and component mapping.



LAYOUT OF SINGLE STAGE PLASTIC RECYCLING PLANT



**FULLY AUTOMATD PANEL BOX
WITH VFD CONTROLLING SYSTEM**

**FULLY AUTOMATIC HYDROLIC
SCREEN CHANGER**













Heavy-Duty Plastic Grinding Machine

Product Description:

The Heavy-Duty Plastic Grinder is the essential first step in an efficient recycling line. Engineered for high-impact size reduction, this machine crushes bulky plastic waste, rigid lumps, and thick-walled scrap into uniform, high-quality flakes. Featuring a robust cutting chamber and high-shear blade geometry, it effectively prepares the raw material for the washing and extrusion stages, ensuring a steady and consistent feed for your plant.

KEY FEATURES

- **V-Cut Blade Technology:**

The specialized angled rotor design creates a highly efficient, scissor-like cutting action. This maximizes throughput while minimizing plastic dust and energy consumption.

- **Wear-Resistant Knives:**

Equipped with premium tool-steel blades (such as SKD-11 or D2) that offer exceptional durability. They hold a sharp edge longer against abrasive materials, reducing maintenance frequency.

- **Easy Access Chamber:**

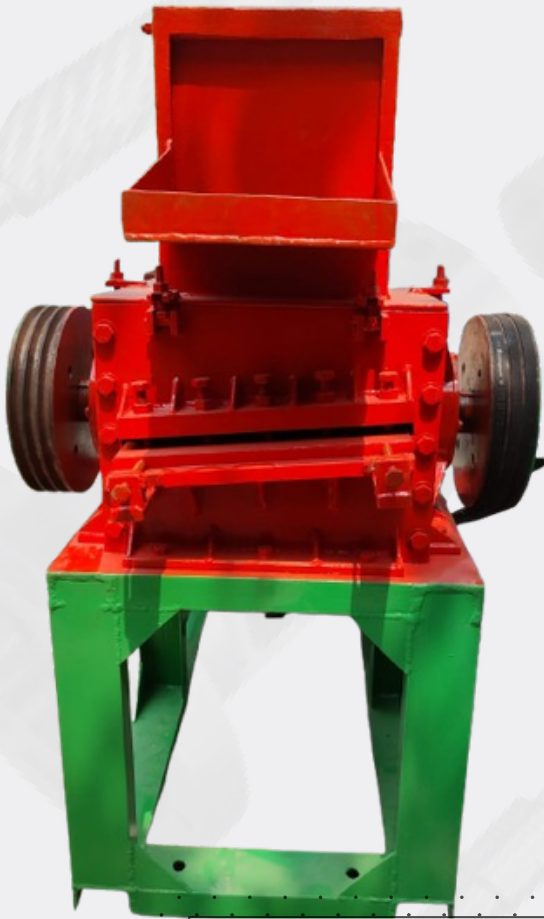
Built with a hydraulic or motorized opening system for the upper hopper and screen cradle. This makes blade sharpening, screen swaps, and routine cleaning incredibly fast and safe for operators.

- **Heavy-Duty Construction:**

A solid, vibration-dampened steel frame and oversized flywheels prevent machine fatigue during heavy shock loads, ensuring decades of reliable operation.

Ideal For:

Rigid plastics, PET bottles, HDPE/PP containers, PVC pipes, ABS appliance housings, automotive parts, and injection molding lumps.



Heavy-Duty Plastic Grinding Machine



PLASTIC AGGLOMERATOR

Product Description:

The Plastic Agglomerator is engineered to solve the feeding challenges associated with lightweight, low-bulk-density plastic waste. Utilizing high-speed rotary blades, this machine generates intense friction to heat and semi-melt fluffy materials such as PE films, PP woven bags, and nylon. A precise injection of cold water then rapidly cools the material, causing it to shrink and densify into heavy, uniform crumbs. These high-density granules dramatically improve the feed rate and stability of downstream extrusion processes.

KEY FEATURES

- **Friction Heating System:**

Relies entirely on the mechanical friction generated by the high-speed rotor, eliminating the need for external heating bands and reducing energy costs.

- **Precise Water Injection:**

Features an automated or manual water dosing system that perfectly times the cooling phase to create the ideal crumb size without fully melting the plastic.

- **Heavy-Duty Barrel:**

The mixing pot is constructed from thick, wear-resistant steel designed to withstand extreme thermal shocks and constant abrasion.

- **Pneumatic Discharge:**

Equipped with a fast-acting pneumatic discharge valve that allows operators to quickly release the finished batch into a cooling silo or directly into an extruder hopper.

Ideal For:

LDPE/HDPE plastic films, shopping bags, agricultural greenhouse films, PP woven sacks, and edge trims.



PLASTIC AGGLOMERATOR





Jupiter Engineering Works

READY TO UPGRADE YOUR **PRODUCTION LINE?**

Contact our engineering team for a custom consultation and precise machinery quotation tailored to your facility's requirements.

HEADQUARTERS

362/2 Roy Bahadur Road, Kolkata,
West Bengal (WB-19) 700053, IN

CONTACT

+918017925692

jupiter57@ymail.com

GSTIN: 19AGRPB2051M1Z6

Contact Name: **Prabash Bag**