



SINGLE SCREW EXTRUSION LINE FOR SHREDDING AND PELLETIZING

The Single Screw Extrusion Line for Shredding and Pelletizing system integrates shredding, crushing, enforced feeding, plasticization, and pelletizing into a single process. This Single Screw Extrusion Line for Shredding and Pelletizing system is utilized in plastic recycling and pelletizing, offering an integrated and cost-effective solution for various types of plastic scrap, including film, raffia, trim, purge, hollow parts, bottles, and foaming materials in plant recycling.

APPLICATIONS

- **Film Recycling:** Processes PE, PP, and other plastic films from packaging and agricultural applications.
- **Bottle & Container Recycling:** Handles PET bottles, HDPE/PP bottles, and cosmetic containers.
- **Raffia & Woven Bags:** Recycles PP woven bags, non-woven fabrics, and raffia materials.
- **Industrial Scrap:** Suitable for re-pelletizing production trim, purges, and hollow parts.
- **Foaming Materials:** Processes EPS, XPS, and other foam plastics into reusable pellets.
- **Injection & Blow Molding Waste:** Converts defective or leftover parts into granules for reuse.
- **Contaminated Plastics:** Features SCF self-cleaning filtration to reprocess plastics containing paper, wood, aluminum, or rubber.
- **High-MFI Materials:** Capable of pelletizing plastics with high Melt Flow Index using underwater pelletizing systems.

FEATURES

Shredding and Enforced Feeding

SHREDDING / ENFORCING FEEDING

In collaboration with a European shredder partner, we engineered rotor sets that integrate seamlessly with our single-screw extruders. The system pre-reduces, crushes, and force-feeds diverse inputs—film, bottles, raffia, woven and non-woven

fabrics, purges, and lumps—delivering steady throughput and consistent downstream plasticization.

Plasticization and Degassing

PLASTICIZATION & DEGASSING

A specialized single-screw extruder gently melts and homogenizes material in a 32D processing section. Dual vacuum zones efficiently remove moisture and low-molecular volatiles—ideal for re-pelletizing heavy-print and moisture-sensitive feedstocks while protecting melt quality.

Intelligent Control

INTELLIGENT CONTROL

Smart Start: Launch the entire process with one button; interlocked modules follow preset logistics automatically.

Smart Stop: Halt all related modules simultaneously—fast, safe, and orderly.

Emergency Stop: Instant system shutdown protects operators and equipment when risks arise.

Remote Monitoring and Transmission

REMOTE MONITORING & TRANSMISSION

Bluetooth-enabled connectivity provides real-time visibility of line status, alarms, and performance data—supporting faster decisions and proactive maintenance.

Non-Stop Piston Type Filter

NON-STOP PISTON TYPE FILTER

Continuous filtration with rapid screen changes keeps production running and OPEX low.

- Single-plate double-station or four-station options
- Large filter area extends screen life
- Tool-less, quick swaps without stopping the line

Plate Type Filter

PLATE TYPE FILTER

Dual-plate continuous design ensures at least one plate remains online during screen changes. A ring heater delivers uniform, stable temperature control for consistent melt flow.

Self-Clean Filter

SELF-CLEAN FILTER (SCF)

Proprietary SCF technology enables uninterrupted extrusion with contaminated feedstocks—removing up to ~5% solids such as paper, wood, aluminum, rubber, and unmelted plastics for cleaner pellets.

Water Ring Pelletizing System

WATER RING PELLETIZING SYSTEM

Self-adjusting cutter pressure and automatic RPM control deliver uniform pellet geometry and long, stable runs.

- Excellent cut quality and uptime
- Fast, adjustment-free blade changeovers

Underwater Pelletizing System

UNDERWATER PELLETIZING SYSTEM

Fully automated high-throughput pelletizing for high-MFI materials. Integrated pelletizer, valve, pipeline, vibrating dewaterer, and silo create a compact, clean workflow.

Vibration Drying

VIBRATION DRY

Energy-efficient drying pairs a vibration sieve with horizontal centrifugal dewatering for fast moisture removal and low power draw. Screw-mounted sieve modules simplify future replacements.

Plastic Pellets Output

PLASTIC PARTICLES

Final product: clean, uniform pellets ready for reprocessing into premium plastic good. Supporting circular production and consistent performance.

Packing System

PACKING SYSTEM

Final storage and bagging with integrated drying shaker and horizontal centrifuge. Real-time capacity monitoring and quantitative weighing ensure accurate, traceable output.



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