



CUTTER COMPACTOR PELLETIZING SYSTEM

Integrated Crushing, Compacting, Degassing & Pelletizing for Modern Plastic Recycling

A Cutter Compactor Pelletizing System is the integrated heart of every modern plastic-recycling line — combining crushing, compacting, plasticizing, vacuum degassing, multi-stage filtration, and pelletizing into a single, synchronized production flow. By pre-cutting and densifying lightweight or fluffy feedstock before it enters the extruder screw, a cutter compactor solves the fundamental challenge that defeats simple extrusion lines: how to feed soft films, filaments, raffia, and foamed materials continuously and consistently into the melt zone, then convert them into clean, dense, production-ready pellets.

Torontech offers a comprehensive range of cutter compactor pelletizing systems engineered for the full spectrum of plastic-recycling applications. The Single Stage Cutter Compactor Pelletizing Line is the workhorse 4-in-1 platform — integrating crushing, compacting, plasticizing, and pelletizing — ideal for PE, PP, PS, ABS, XPS, EPS, and PVB scrap including films, filaments, raffia, bags, woven bags, and foaming materials. The Excellent Degassing and Filtering Pelletizing Line (TT-ASE PRO) builds on the single-stage foundation with a super-long L/D extruder, the proprietary SCF self-cleaning filtration system, double vacuum degassing zones, and the ability to process highly contaminated feedstocks containing up to 5% pollutants — perfect for heavily printed films and challenging post-consumer waste. The Double Stage Cutter Compactor Pelletizing Line is the flagship solution — two extruders, multi-stage filtration, dual vacuum-degassing ports, and extended residence time — engineered for the most demanding feedstocks where heavily printed inks, residual moisture, contamination, and temperature-sensitive polymers must be transformed into the cleanest possible recycled pellets.

Turn Plastic Waste into Production-Ready Pellets

Every kilogram of plastic that flows through a high-quality cutter compactor pelletizing line is a kilogram of waste rescued from landfill and a kilogram of virgin polymer that doesn't have to be produced. But the difference between a profitable recycling operation and a struggling one comes down to one thing: the cleanliness, consistency, and density of the pellets coming off the line. The recyclers, compounders, and circular-manufacturing leaders who consistently deliver world-class

pellet quality are the ones equipped with cutter compactor systems built for integrated processing, advanced degassing, intelligent filtration, and rock-solid industrial reliability — and the Torontech cutter compactor portfolio gives you exactly that.

Whether you are launching a new film-recycling plant, expanding an existing reclamation line, recovering high-value production scrap inside a manufacturing facility, or processing the most contaminated post-consumer waste into clean, food-grade-adjacent pellets, Torontech has the cutter compactor pelletizing platform engineered to meet your exact needs. From the dependable Single Stage line to the high-throughput Double Stage flagship, every Torontech system delivers world-class pellet performance backed by industry-leading service and support.

APPLICATIONS

Applications in Industries

- **Film & Packaging Recycling** — PE/PP film, stretch film, agricultural film, shopping bags, woven bags, printed packaging — densified and pelletized for blown-film and packaging applications.
- **Plastic Production & Compounding** — In-line recycling of production scrap, edge trim, off-spec film, raffia, filament, and foaming-process waste — closing the loop directly inside the manufacturing facility.
- **Post-Consumer Plastic Recycling** — Heavily printed, contaminated, post-consumer films and packaging requiring SCF self-cleaning filtration and double vacuum degassing for clean pellet output.
- **Foaming Plastics (EPS, XPS, PVB)** — Densification and pelletization of foam scraps from packaging, insulation, and protective foam manufacturing.
- **Compounding & Masterbatch Operations** — Production of uniform, controlled-density pellets ready for downstream blown-film, tube extrusion, injection molding, and masterbatch compounding.
- **Municipal Waste Management & Reclamation** — Large-scale plastic-waste reclamation facilities processing mixed post-consumer plastic streams into reusable pellets for circular manufacturing.

- **Agricultural & Industrial Film Recycling** — Dirty agricultural film, greenhouse film, and industrial scrap requiring robust pre-cutting, densification, and multi-stage filtration to deliver usable recycled pellets.

FEATURES

Why Choose Torontech for Your Pelletizing Needs

With more than two decades of experience supplying advanced industrial equipment to recyclers, plastic manufacturers, and waste-management operators across more than 60 countries, Torontech delivers premium pelletizing performance backed by global engineering and service expertise.

Three Purpose-Built Platforms — One Trusted Source

Whether you need a workhorse Single Stage line for clean post-industrial scrap, the TT-ASE PRO with SCF self-cleaning filtration for heavily contaminated feedstock, or a Double Stage line for the most demanding printed, moist, or temperature-sensitive materials, Torontech offers a coordinated portfolio that scales from 200 kg/h to over 3,000 kg/h — engineered to match your exact material, throughput, and pellet-quality requirements.

Advanced Degassing & Filtration

Every Torontech line features double vacuum degassing zones for the efficient removal of moisture, volatiles, and micro-molecules, plus configurable filtration — from standard double-piston screen changers to the proprietary SCF self-cleaning filtration system that handles up to 5% pollutants without interruption. Dual-filter standard configurations significantly enhance final pellet quality and process repeatability.

Premium Engineering & Materials

Bi-metal single-screw extruders with exceptional resistance to corrosion and wear; super-long L/D ratio barrels enabling single-stage units to perform like double-stage systems; ring-shaped heaters for consistent, stable heating; ABB / Schneider frequency converters for precise feed and extruder control; European Rittal IP54 electrical cabinets — every component is engineered for the long-term, around-the-clock industrial operation modern recyclers demand.

Intelligent Automation

SSR + PLC intelligent control systems, one-button start sequences, ABB-inverter auto-tuned feed-speed matching, optional metal detection to protect the extruder, and emergency-stop safety architecture combine to deliver a recycling line that one trained operator can run reliably across an entire production shift.

Cost-Effective Value & Global Support

Torontech delivers premium pelletizing performance at a transparent, competitive price point — backed by overseas installation and training services, machine warranty inclusive of stocked spare parts, and prompt global delivery. With offices and authorized partners across the USA, Canada, UAE, KSA, GCC, EU, India, APAC, Africa, and Latin America, expert support is always within reach.

TECHNICAL SPECIFICATIONS

Product Comparison Table

Specification	Single Stage Pelletizing Line	Excellent Degassing & Filtering Line (TT-ASE PRO)	Double Stage Pelletizing Line

Configuration	Single-stage 4-in-1: crushing + compacting + plasticizing + pelletizing	Standard single-stage upgraded with super-long L/D & SCF self-cleaning filter	Two-stage: dual extruders + multi-filter + multi-degas
Target Materials	PE, PP, PS, ABS, XPS, EPS, PVB — films, raffia, filaments, woven bags, foaming materials	PE, PP, PS, ABS — highly polluted, heavily printed materials, up to 5% pollutants	Heavily printed, contaminated, moist, temperature-sensitive plastics
Typical Throughput	200 kg/h up to 2,000+ kg/h (configurable)	Scalable to high throughput; same standard granulation system	Up to 3,000+ kg/h on demanding feedstocks
Extruder	Bi-metallic single screw, high L/D ratio	Bi-metal single screw with super-long L/D (functions as double-stage)	Dual extruders — single-screw + second-stage extruder for higher output & cleaner melt
Degassing	Double vacuum degassing zones — removes moisture & volatiles	Double vacuum degassing post-filtering — enhanced for heavily printed materials	Two independent vacuum ports — multi-stage exhaust, gentle handling of sensitive polymers
Filtration	Mid + optional post filter; double-piston screen changer options	SCF self-cleaning filter + double-piston screen changer — handles up to 5% pollutants	Mid-line double-piston screen + optional final filter; single / double / continuous 4-station piston changers
Feeding	Servo-driven slide gate; adjustable retention time for pre-drying	Belt conveyor + optional roll-haul-off for scrap rolls; air exhaust in compactor	Servo-driven feed; ABB inverter-tuned feed-speed matching
Pelletizing	Water-ring pelletizer — die-face cutting for uniform pellets	Standard die-face pelletizer with consistent ring-heater stability	High-output pelletizing matched to dual-extruder melt quality
Control System	Integrated PLC control; one-button intelligent start	European Rittal IP54 cabinet; SSR + PLC intelligent operation	Dual ABB inverters with auto-tuned feed speed; PLC supervisory control

Safety	Standard recycling-line safety package	Emergency stop, ring-shaped heater for stable heating, dust/water-proof IP54	Closed-loop temp/pressure protection, gentle handling, dual-extruder isolation
Best Suited For	Mainstream film/raffia/woven-bag recycling — strongest entry platform for clean post-industrial scrap	Highly contaminated post-consumer waste, heavily printed films, color/ink-heavy feedstock	Maximum-throughput, high-end pellet quality from challenging printed/moist/heat-sensitive feedstock



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