



PLASTIC PULVERIZER MACHINE

A plastic pulverizer machine reduces pre-shredded plastic granules — typically 6 to 8 mm — into fine, uniform powder in the 300 to 1,000 micron range using a high-speed rotating sawtooth disc against a fixed disc. The centrifugal effect created between the two discs draws material from the central feed opening radially outward through the grinding zone, where impact and shear forces progressively reduce particle size. Output fineness is controlled by adjusting the gap between discs without removing housing covers or changing screens, making size transitions fast and tool-free. The powder is then pneumatically discharged and conveyed to storage or directly to downstream equipment.

From Plastic Scrap to Profitable Powder

A plastic pulverizer is the difference between a low-value shredded flake and a high-value, directly reusable raw material. Whether your operation recycles post-consumer film, grinds PVC pipe and profile offcuts for re-extrusion, produces rotomolding powder, or blends recycled resin with wood fiber for WPC profiles, Torontech's TT-PM800, TT-PM500, and TT-PM300 deliver consistent powder quality, adjustable particle size, and the production reliability that high-throughput recycling lines demand.

All machines are backed by Torontech's parts inventory, same-timezone support, and over 20 years of plastics processing expertise. Contact Torontech today to discuss your material type, throughput target, and downstream application — and let us recommend the right pulverizer for your production line.

APPLICATIONS

Applications in Industries

Plastics Recycling & Compounding Reduces shredded post-consumer and post-industrial plastic scrap (LDPE, HDPE, PVC, PC) to fine, free-flowing powder for direct re-extrusion, blending, or sale as secondary raw material.	Rotational Molding (Rotomolding) Rotomolding processes require precisely sized plastic powder (typically 300–600 microns). Torontech pulverizers produce consistently graded powder that flows evenly in mold cavities, yielding defect-free hollow parts.
Masterbatch & Color Additive Production Pigment and additive compounders pulverize plastic carriers to fine powder to ensure homogeneous dispersion during mixing. The TT-PM500 is purpose-built for PVC-based color additive operations like those at Penn Color.	Pipe, Profile & Sheet Extrusion Pulverized recycled plastic powder can be directly fed into single-screw extruders, eliminating re-pelletizing steps and reducing energy consumption across pipe, sheet, and profile production lines.
Construction & WPC Products Pulverized HDPE, LDPE, and PVC powders are blended with wood fiber to produce wood-plastic composite (WPC) decking, fencing, and profiles. Fine, consistent particle size is critical for even fiber-polymer mixing.	Agricultural Film Recycling Post-harvest agricultural film (LDPE / LLDPE) is shredded, washed, and dried to 6–8 mm particles, then pulverized to powder for re-extrusion into new film or injection-molded agricultural products.

FEATURES

Why Choose Torontech for Your Pulverizing Needs?

✓ Extended Disc Service Life Specially designed sawtooth discs offer significantly longer service intervals between regrinds compared to standard grinding blades, reducing maintenance downtime and replacement cost per ton of output.	✓ Adjustable Particle Size — No Screen Required Final powder fineness (300–1,000 microns) is controlled by adjusting the clearance between the fixed and rotating discs via an external feeler gauge, without removing the machine cover or replacing screens.
✓ Automated Temperature Control A closed-loop cooling system with water-spray nozzles, solenoid valves, and thermostats prevents heat buildup during high-throughput runs — protecting heat-sensitive PVC and PE powders from degradation.	✓ Integrated Safety Architecture An interlock prevents the housing door from opening until the rotor is fully stationary, protecting operators during disc replacement and cleaning. Pre-installed anti-vibration pads reduce floor loading and noise.
✓ World Wide Support with Local Spare Parts Torontech is headquartered in Toronto, Ontario. When you need a replacement disc, bearing, or V-belt, parts ship from North America — not from overseas. Fast callbacks and same-timezone technical support back every machine.	✓ 20+ Years of Plastics Recycling Expertise Torontech has been supplying plastics processing and recycling equipment to international manufacturers for over 20 years, with proven installations across compounders, film recyclers, rotomolders, and WPC producers.

TECHNICAL SPECIFICATIONS

Product Comparison Table

Specification / Feature	TT-PM800 (Carbon Steel)	TT-PM500 (PVC / Mid-Size)	TT-PM300 (General Purpose)
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Disc Diameter	800 mm	500 mm	300 mm
Material Specialty	Carbon steel reinforced; heavy-duty semi-rigid plastics	PVC-specific; all semi-rigid & brittle plastics	General purpose; mixed plastic scrap
Compatible Plastics	LDPE, HDPE, UPVC, PC, carbon steel composites	LDPE, HDPE, UPVC, PC, PVC compounds	LDPE, HDPE, UPVC, PC, general mixed plastics
Input Particle Size	6–8 mm (pre-shredded)	6–8 mm (pre-shredded)	6–8 mm (pre-shredded)
Output Particle Range	300–1,000 microns (adjustable)	300–1,000 microns (adjustable)	300–1,000 microns (adjustable)
Feeding System	Vibrating screen with high-current motor controller	Vibrating screen with high-current motor controller	Vibrating screen with high-current motor controller
Channel Width / Hopper	100–250 mm; 50–100 L storage container	100–250 mm; 50–100 L storage container	100–250 mm; 50–100 L storage container
Drive System	V-belt drive with belt guard; servomotor	V-belt drive with belt guard; servomotor	V-belt drive with belt guard; servomotor
Auto Temp Control	✓ (water-spray nozzle, solenoid valves, thermostat)	✓ (water-spray nozzle, solenoid valves, thermostat)	✓ (optional)

Pneumatic Discharge	✓	✓	✓
Anti-Vibration Pads	✓ (pre-installed)	✓ (pre-installed)	✓ (pre-installed)
Integrated Safety Device	✓ (rotor-stop interlock)	✓ (rotor-stop interlock)	✓ (rotor-stop interlock)
Frame Construction	Flat carbon steel plate; welded structure	Flat steel plate; welded structure	Flat steel plate; welded structure
Disc Adjustment	External feeler gauge; inspection port	External feeler gauge; inspection port	External feeler gauge; inspection port
Best For	High-capacity recycling plants; carbon-fiber reinforced plastics; heavy-duty production lines	PVC recycling; color additive compounders; mid-size operations; high-throughput inline	General recycling lines; mixed plastic scrap; compact / modular setups

** All models process input particles of 6–8 mm. Output size 300–1,000 microns is adjustable via disc spacing. Voltage: 220–240 V AC / 60 Hz standard; consult Torontech for specific motor power ratings and throughput capacities by material.*



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