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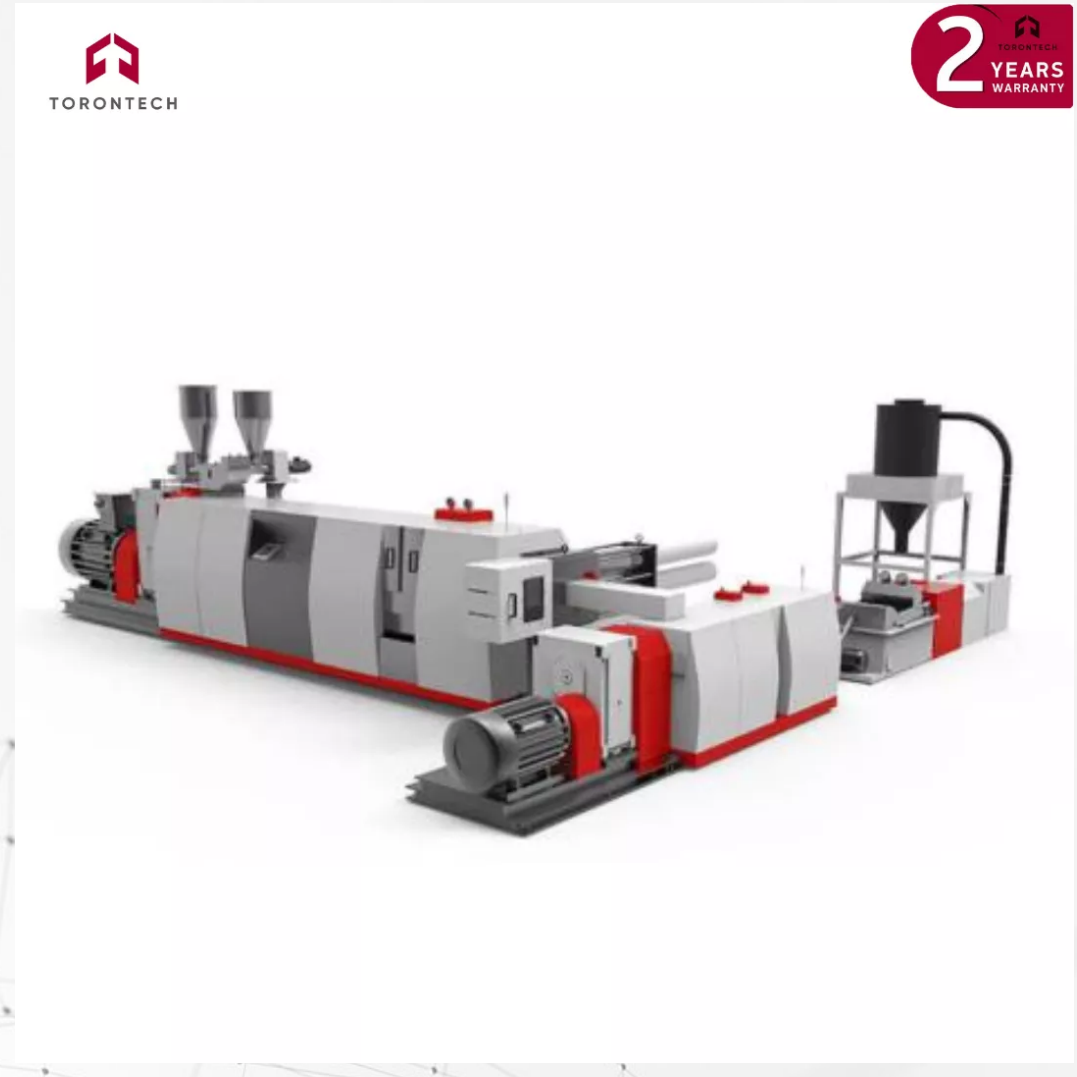


# DOUBLE STAGE CUTTER COMPACTOR RECYCLING PELLETIZING LINE TT-ADS

The Double Stage Cutter Compactor Recycling Pelletizing Line TT-ADS is a specialized and dependable setup designed for recycling and re-pelletizing rigid plastic scrap. ADS Double Stage Cutter Compactor Recycling Pelletizing Line merges plasticization and pelletizing into a single step, making it perfect for processing crushed regrinds or flakes of materials like PE, PP, ABS, PS, HIPS, PC, and more.

The end products generated by the Double Stage Cutter Compactor Recycling Pelletizing Line TT-ADS are pellets or granules. These can be seamlessly integrated into production lines for tasks like film blowing, pipe extrusion, plastic injection, and similar processes.

## APPLICATIONS

- **Rigid Plastic Recycling**: Re-pelletizes crushed flakes and regrinds of PE, PP, ABS, PS, HIPS, PC, PET, and more.
- **Film Production**: Provides recycled pellets for film blowing, stretch film, and packaging applications.
- **Pipe & Profile Extrusion**: Produces granules for extrusion of pipes, sheets, and profiles.
- **Injection Molding**: Converts recycled plastics into pellets for molding automotive parts, electronics housings, and components.
- **Packaging Industry**: Reuses pellets in caps, closures, containers, and rigid packaging products.
- **Moisture & Ink-Heavy Materials**: Designed for reprocessing materials with high moisture, ink, or contamination using double filtration and dual degassing.
- **Large-Scale Recycling Operations**: Handles high-capacity recycling needs with outputs up to 1000 kg/h.
- **Sustainable Manufacturing**: Supports circular economy initiatives by reducing raw material use and enabling closed-loop recycling.

## FEATURES

Screw Loader

## SCREW LOADER

Chunks or dense flakes are automatically conveyed into the single-screw extruder for compression, plasticization, and vacuum degassing. After filtration, the material is pelletized into high-quality granules.

- **Capacity:** 100–1000 kg/h (based on screw diameter)
- **Motor Power:** 2.2 kW
- **Construction:** Stainless steel conveying pipe, 2 mm thick, Ø102 mm

Main Feeder Volumetric

## MAIN FEEDER (VOLUMETRIC)

Feeds materials consistently into the extruder. A stirring screw prevents blockages, while the hopper includes a level indicator for smooth operation. Optional side feeders are available for compounding applications.

Gearbox

## GEARBOX

High-strength hardened reducer with compact structure. Precision motor-to-gearbox coupling minimizes bending stress, extending bearing life and ensuring reliable long-term operation.

Single Screw Extruder

## SINGLE SCREW EXTRUDER

Advanced single-screw design delivers gentle plasticization and superior homogenization. The bi-metal barrel ensures corrosion and wear resistance for a longer service life.

Extruder Barrel

## BARREL

Extended L/D ratio allows single-stage extruders to function like double-stage. Dual filtration setup ensures higher purity pellets and enhanced product consistency.

Two Sets of Single Screw Extruders

## TWO SETS OF SINGLE-SCREW EXTRUDERS

Dual extruder setup designed for challenging materials with high ink content, excess moisture, or low fluidity. Ensures thorough degassing, advanced filtration, and consistent processing quality.

- Handles heavily contaminated and sensitive materials
- Double filtration system for maximum purity
- Multiple exhaust zones for moisture removal

Double Vacuum Degassing Zones

## DOUBLE VACUUM DEGASSING ZONES

Dual-stage vacuum degassing efficiently removes volatile elements and moisture. Delivers superior pellet quality and is ideal for heavily printed or contaminated plastics.

Liquid Outlet

## LIQUID OUTLET

Enables enhanced melt filtration and greater production output. Multiple single-screw extruders feed simultaneously into the second stage for continuous and efficient processing.

Non-Stop Piston Type Filter

## NON-STOP PISTON TYPE FILTER

Continuous filtration system ensures uninterrupted operation and reduced downtime.

- Optional single-plate or four-station design
- Extended screen life with large filter area
- Quick screen changes without halting production
- Low operating costs with user-friendly operation

Plate Type Filter

## PLATE TYPE FILTER

Continuous dual-plate design ensures ongoing filtration during screen changes. Equipped with ring-shaped heater for consistent and stable heating performance.

Self-Clean Filter

## SELF-CLEAN FILTER

Proprietary SCF system provides continuous self-cleaning filtration for highly contaminated materials. Capable of removing up to 5% contaminants such as paper, aluminum, and unmelted plastics.

Water Ring Pelletizing System

## WATER RING PELLETIZING SYSTEM

Automated pelletizing head delivers consistent pellet quality and uptime.

- Self-regulating blade pressure
- Automatic RPM adjustment for steady output
- Fast blade changeovers with no readjustments

Underwater Pelletizing System

## UNDERWATER PELLETIZING SYSTEM

High-capacity, fully automated pelletizing system designed for high MFI plastics. Includes pelletizer, valve, conveying pipeline, vibrating dewatering screen, and silo.

Vibration Dry System

## VIBRATION DRY

Energy-efficient drying solution combining vibration sieve with horizontal centrifugal dewatering. Screw-assembled sieves allow for easy replacement and low maintenance.

Plastic Pellets

## PLASTIC PARTICLES

Final output: uniform, high-quality plastic pellets ready to be reused in production for new plastic products.

Packing System

## PACKING SYSTEM

Final stage storage and packaging system with integrated drying shaker and horizontal centrifuge. Features automated capacity monitoring and quantitative weighing for accurate control.

System Advantages

## ADVANTAGES

- Cost-effective investment with durable build quality
- Low energy consumption and high output efficiency
- Global installation, training, and after-sales service
- Comprehensive warranty with stocked spare parts

## TECHNICAL SPECIFICATIONS

| | |
|---|---|
| Target Recycled Material | HDPE,LDPE,PP,BOPP,CPP,OPP,PA,PC,PS,PU,ABS,PET Final Product Shape: Particles |
| System Composition | Screw Loader, Single Screw Extruder, Filtration first, Vacuum Degassing, Pelletizer, Water Cooling Device, Dehydration Section,Conveyor Fan, Product Silo. |
| Feeding Device | Belt Conveyor (Standard), Roll Hualing off device (Optional) |
| Material of Screw | Bimetal |
| Heater of Barrel | Ceramic heater or Far-infrared heater |

| | | | | |
|---|---|---|---|---|
| Vacuum Deashing Exhaust | Two Double-zone vacuum degassing system (Standard) | | | |
| Pelletizing Type | Water-ring pelletizing/ water-strands pelletizing/ Under-water pelletizing | | | |
| Optional Device | Metal detector, Roll hualing off device, Masterbatch and additives feeder | | | |
| Technical Services | project design, factory construction, installation and recommendations, commissioning | | | |
| Model | Screw Diameter(mm) | L/D ratio | Power(kw) | Productivity(kg/h) |
| TT-ADS100/120 | 100 | 32 | 110 | 260-350 |
| | 120 | 10 | 30 | |
| TT-ADS120/150 | 120 | 32 | 132 | 330-420 |
| | 150 | 10 | 37 | |
| TT-ADS150/180 | 150 | 32 | 185/200 | 550-650 |
| | 180 | 10 | 45 | |
| TT-ADS180/200 | 180 | 32 | 250/315 | 800-1000 |
| | 200 | 10 | 55 | |

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