

Nonwoven & Fiber Waste Recycling Solution



Overview

- This recycling system handles industrial & post-consumer nonwoven fabric and fiber waste, including PP spunbond nonwoven, melt-blown fabric, textile fiber scraps, mask waste, nonwoven bag trimmings and carpet fiber waste. It processes fluffy, low-bulk-density fibrous waste into uniform regrind or pellets for re-extrusion and compounding.

Applicable Materials

- PP nonwoven: Spunbond nonwoven, meltblown fabric, disposable mask scraps, nonwoven shopping bag cuttings
- Synthetic fiber waste: Polypropylene fiber, polyester fiber, mixed textile fiber offcuts



Full Process Flow

- Pre-sorting: Remove metal, paper, hard plastic and large foreign impurities
- Shredding: Special fiber shredder cuts large rolls & blocks into small fluffy pieces
- Metal separation: Magnetic separator + metal detector to eliminate ferrous and non-ferrous metals
- Crushing & opening: Opening machine disperses tangled fiber bundles, avoid agglomeration
- Dust removal: Air classification system removes dust, sand and fine lightweight contaminants
- Compacting / Squeezing: Squeezer compresses low-density fluffy fiber to increase bulk density
- Washing (optional): Friction washing for oil, glue and surface dirt contaminated materials
- Dewatering: Centrifugal dewatering to lower moisture content
- Pelletizing: Single/twin screw extruder with underwater / strand cutting system to produce pellets

Core Advantages

- Special design for fluffy low-bulk-density fiber, solves bridging and feeding blockage issues
- Integrated opening and air separation, efficient removal of dust and light impurities
- Squeezer compresses loose fiber, greatly improves feeding stability and production capacity
- Modular layout, optional washing unit for oily & glue-contaminated waste
- Circulating water system reduces water consumption, environmentally friendly
- Final pellets can be directly used for nonwoven production, injection or plastic modification

Key Units:

Film Shredder



Film Crusher



Key Units:

Friction washer



Washing tank



Key Units:

Dewatering Dryer

Storage hopper

