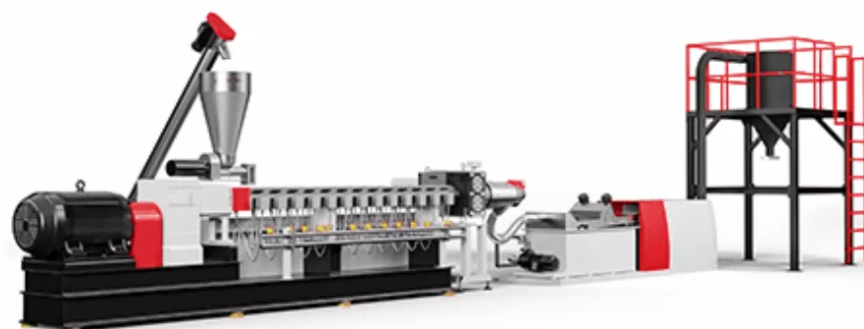




PARALLEL TWIN SCREW EXTRUDER TT-ATE

TT-ATE Parallel Twin Screw Extruder: Modular Solutions for High-Performance Compounding

The TT-ATE Series is a high-performance, co-rotating twin-screw extrusion system designed for precision polymer processing. Built on a modular platform, the TT-ATE offers manufacturers the flexibility to customize their setup for specific material requirements. Whether you are producing masterbatches or high-strength reinforced plastics, this system delivers consistent, dependable results.

Versatile Design for Custom Workflows

The TT-ATE is engineered to adapt. By using standardized components and a modular processing unit, we can configure a machine that meets your exact output and torque needs.

- **Two Performance Tiers:** Choose between the Basic Type for standard applications or the Efficiency Type for high-torque requirements.
- **European Reliability:** We source key electrical components from leading European brands to ensure your control system remains stable and reliable under 24/7 operation.
- **Advanced Control Options:** Available with either traditional relay controls or modern PLC systems for seamless integration into your factory floor.

APPLICATIONS

The TT-ATE excels in a wide range of compounding tasks. We have categorized its capabilities to help you find the right fit for your facility:

1. Reinforcement & High-Performance Alloys

Create durable materials by blending base resins (PP, PA, PBT, ABS, PC, PET) with glass or carbon fiber fillers. The system is ideal for creating complex alloys like PC+ABS, PA+EPDM, and PP+SBS.

2. Filling & Masterbatch Production

Efficiently mix PE, PP, or EVA with high loads of calcium carbonate, talcum powder, or titanium oxide. It is a proven solution for both color masterbatches and functional flame-retardant additives.

3. Cable & Wiring Solutions

Produce high-quality insulation and sheath materials, including:

- **Polyethylene grades:** LDPE, HDPE, LLDPE, and MDPE.
- **Specialty materials:** Low-smoke halogen-free (LSZH) compounds and radiant cross-linked cable materials.

4. Specialized & Reactive Processing

- **Reactive Extrusion:** Support for continuous reactions in PUR, PA, POM, and PMMA, including grafting and vulcanization.

- **Eco-Friendly Plastics:** Optimized for processing degradable plastics (PE, PP, and PS).
 - **Medical & Footwear:** Specialized setups for medical-grade materials and thermoplastic elastomers (TPR/TPU) used in shoe manufacturing.
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Precision Cutting Systems

To match your material's physical properties, the TT-ATE supports several downstream pelletizing options:

- **Water Strand Cutting:** Ideal for standard compounding.
- **Die Surface Cutting:** Perfect for high-viscosity materials.
- **Underwater Cutting:** The professional choice for spherical pellets and high-volume production.

FEATURES

Screw Loader

SCREW LOADER

Crushed lumps or thick flakes are conveyed directly into the single-screw extruder using a screw loader.

Inside, they undergo compression, plasticization, and vacuum-assisted degassing before filtration and pelletizing.

Capacities range from 100-1000 kg/h depending on screw diameter. The loader uses a 2.2 kW motor, and the stainless steel conveying pipe features 2 mm wall thickness and 102 mm diameter for durability.

Main Feeder

MAIN FEEDER (VOLUMETRIC)

The volumetric feeder delivers materials into the extruder with consistent flow.

A stirring screw prevents bridging at the hopper base, while a level indicator ensures reliable feeding.

Optional side feeders support compounding and specialty material dosing.

Parallel Twin Screw Extruder

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The TT-ATE Parallel Twin Screw Extruder gently plasticizes and homogenizes material for stable downstream processing.

Built with bi-metal screws and barrels, it delivers superior mixing efficiency, extended service life, and resistance to wear.

Silo Light Tube

SILO LIGHT TUBE

A built-in light tube makes it easy to monitor the operational status of the machine at a glance.

Extruder Gearbox

GEARBOX

The gearbox reduces motor speed to match screw shaft requirements, transferring power smoothly to both output shafts.

Engineered for high torque delivery and quiet operation, it ensures reliable performance and longevity.

Vacuum Degassing System

VACUUM DEGASSING SYSTEM

The vacuum system extracts volatile compounds and moisture from agglomerates, improving pellet quality.

A one-channel valve prevents backflow, maintaining stable, safe operation.

Infrared Heaters

INFRARED HEATERS

Cast copper infrared heaters are easy to install and remove, heating rapidly for faster startup and lower energy waste.

They provide efficient conduction and contribute to long-term reliability.

Soft Water Cooling System

SOFT WATER COOLING SYSTEM

Stainless steel piping manages coolant flow with manual valves for rate adjustment and solenoid valves for automated control.

This ensures effective, reliable temperature regulation during extrusion.

Non-stop Piston Filter

NON-STOP PISTON TYPE FILTER

Choose between single/double-station or continuous four-station screen changers for superior filtration.

Large filter areas extend lifespan, while quick screen swaps keep production continuous and costs low.

Plate Type Filter

PLATE TYPE FILTER

A dual-plate continuous filter ensures uninterrupted operation during changeovers.

Integrated ring heaters provide stable, uniform heating across the melt.

Self-Clean Filter

SELF CLEAN FILTER

Our SCF system supports uninterrupted extrusion even with heavily contaminated inputs.

It removes up to 5% impurities—including paper, aluminum, unmelted plastics, wood, and rubber—delivering cleaner melt flow and consistent pellet quality.

Water Ring Pelletizing System

WATER RING PELLETIZING SYSTEM

A self-adjusting pellet head maintains ideal blade pressure for consistent granules and uptime.

Automatic RPM control and fast blade changeovers reduce downtime and labor needs.

Underwater Pelletizing System

UNDER-WATER PELLETIZING SYSTEM

Highly automated and ideal for high-MFI materials, the system integrates pelletizer, valve set, pipelines, vibrating dewatering screen, and silo for large-scale production.

Vibration Drying System

VIBRATION DRY

A vibration sieve and horizontal centrifuge deliver energy-efficient pellet drying.

Screw-assembled sieves allow easy replacement, simplifying maintenance and upgrades.

Plastic Pellets

PLASTIC PARTICLES

The final product is consistent, high-quality pellets suitable for reuse in demanding plastic production applications.

Packing System

PACKING SYSTEM

Final granules are stored here. A drying shaker plus horizontal centrifuge ensures pellets are moisture-free.

Capacity is tracked with online monitoring, and a quantitative weighing system guarantees precise output measurement.

System Advantages

ADVANTAGES

- Lower capital investment with long-term durability.
- Energy-efficient operation with high throughput.
- Overseas installation & training services available.
- Backed by warranty with stocked spare parts for rapid delivery.

TECHNICAL SPECIFICATIONS

Model	Screw Dia. (mm)	L/D Ratio	Max Speed (RPM)	Output (kg/h)
TT-ATE35	35.6	32-64	600	40 - 80
TT-ATE52	51.4	32-64	600	150 - 250
TT-ATE65	62.4	32-64	600	200 - 400
TT-ATE75	71.0	32-64	600	300 - 700
TT-ATE95	93.0	32-64	600	550 - 1500



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