



# Extrusion Lines

## For Pipes & Profiles

The Pipe and Profile Extrusion Lines from AMUT are cutting-edge systems engineered for the efficient production of high-quality pipes and profiles from various thermoplastics. These lines offer versatility, precision, and robustness, making them ideal for applications across construction, automotive, and industrial sectors. With advanced control systems, energy-efficient components, and customisable configurations, AMUT's extrusion lines ensure consistent product quality and operational excellence.

### Key Features

- Advanced extruder technology for uniform melt flow.
- Versatile processing of a wide range of thermoplastic materials.
- Precision calibration and cooling systems.
- High-speed and energy-efficient operation.
- Customisable line configurations to meet specific requirements.
- Integrated automation for seamless operation and monitoring.
- Robust construction for long-term reliability.
- Easy maintenance with user-friendly interface and diagnostics.

### Accessories

All AMUT's lines can be equipped with various accessories and, also in this case, the flexibility of design and construction enables to customise the technical solutions, in accordance with the different requirements in any application:

- Volumetric and gravimetric dosing units
- Mechanic or ink jet marking units
- Diameter and thickness measuring systems
- Discharging units and stackers
- Stackers
- Winding units
- Belling machines
- Corrugators
- Meter counters

### Key Benefits

- High product consistency and dimensional accuracy.
- Flexible production capabilities for diverse applications.
- Reduced energy consumption and operational costs.
- Minimised material waste with precise control.
- Enhanced productivity with high-speed extrusion.
- Customisable options to fit specific production needs.
- Improved product quality with advanced cooling and calibration.
- Lower maintenance costs and increased uptime.



## GET IN TOUCH TODAY

We solve the most technically advanced plastics automation problems across all industries.



## Extrusion Lines for Pipes & Profiles

| Technical Data         | Pipe Extrusion Lines               | Profile Extrusion Lines   |
|------------------------|------------------------------------|---------------------------|
| Extruder Types         | Single Screw, Twin Screw           |                           |
| Material Compatibility | PVC, PE, PP, HDPE, LDPE, PPR, etc  | PVC, PS, PP, PE, ABS, etc |
| Output Capacity        | Up to 1200 kg/hr                   | Up to 800 kg/hr           |
| Pipe Diameter Range    | 16mm to 1600mm                     | N/A                       |
| Profile Width Range    | N/A                                | Up to 1200mm              |
| Line Speed             | Up to 30m/min                      | Up to 20m/min             |
| Cooling System         | Water Spray, Vacuum Calibration    | Air and Water Cooling     |
| Automation             | PLC-based with HMI                 |                           |
| Energy Efficiency      | Optimised motor and heater systems |                           |
| Dimensions             | Customisable                       |                           |
| Certification          | CE, ISO                            |                           |

### Pipe Extrusion Lines

#### Extruders

AMUT provides a comprehensive selection of single and twin-screw extruders, available with either parallel or conical screws. Each extruder is designed with varying lengths and motor drives to ensure optimal plasticising and output. They are fully synchronised with the other components of the production line to maintain efficiency and quality.

#### Extrusion and Calibration Equipment

AMUT designs and manufactures advanced extrusion and co-extrusion heads and dies tailored for use with its state-of-the-art extruders. These extrusion heads are crucial for producing high-quality pipes, ensuring uniform wall thickness, smooth internal and external surfaces, precise positioning, and minimal welding lines and residual stresses.

#### Cooling and Calibration

AMUT supplies comprehensive pipe extrusion lines featuring vacuum calibration troughs (single or double stage) and cooling troughs suitable for plastic pipes up to 1,600 mm in diameter. Precise vacuum and water temperature control ensures compliance with regulatory requirements for diameter and thickness. Calibration troughs include manual or automatic vacuum control, water flow filters, and temperature regulators. Designed with optimized spray nozzle positions, nebulization angles, and temperature controls, these systems ensure high efficiency and compliance with international standards. Built from stainless steel, they offer durability and minimal maintenance needs.

#### Haul-Off and Cutting Units

AMUT offers a wide range of haul-off and cutting units, providing ideal solutions for any pipe size and type, ensuring precision and reliability in the final stages of production.

### Profile Extrusion Lines

#### Materials and Applications

AMUT profile extrusion lines are suitable for a variety of applications, including PVC for building and furniture profiles, technical profiles and expanded foam profiles. They also process PA for thermal joints, WPC combining polymers with natural fibers, EPS for frames, PO for various building and furnishing profiles, and PMMA/PC for technical and furnishing applications. Additionally, TPR, ABS, and recycled materials.

#### Extruders

They offer single and twin-screw extruders with parallel or conical screws, offering different lengths and motor drives to ensure efficient plasticising and output. These extruders are synchronised with the production line for optimal performance.

#### Sizing and Cooling Units

Sizing and cooling units are designed for integration with high-speed die-heads across various profile types. These units feature a sturdy, vibration-free base, ergonomic controls, stainless steel water collection troughs, and three-axis adjustable movements for easy alignment. They include high-capacity vacuum units and water/air silenced separators for efficient calibration. Custom versions may include profile drying systems.

#### Haul-Off and Cutting Units

AMUT's haul-off and cutting units are renowned for their robust construction and reliability. They feature a caterpillar clamping system with precise adjustment, various caterpillar types (chains, pads, or belts), and a tilting upper caterpillar. Modular configurations allow for flexibility with cutting options such as disc saws or thermoregulated hot knives, suitable for high-speed cutting of small profiles.