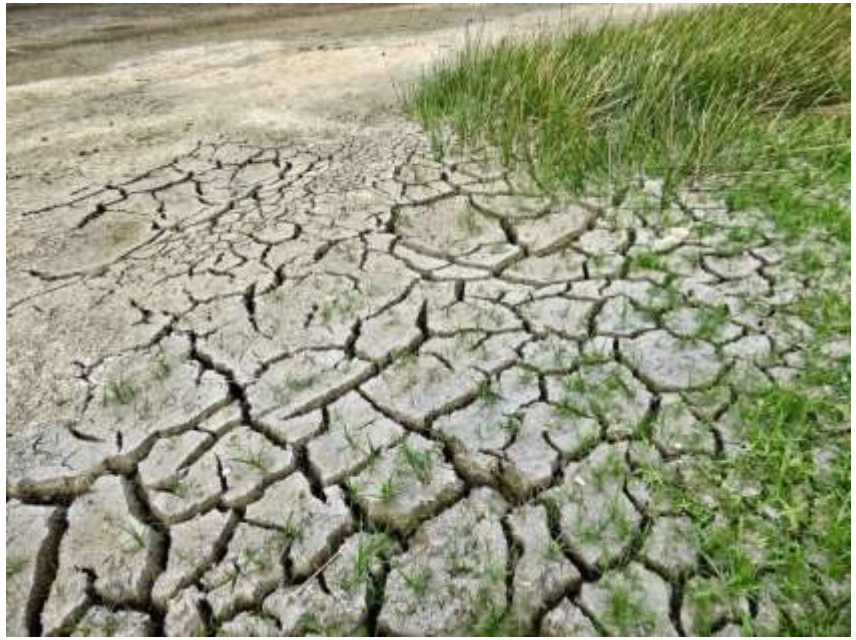
Tarım Plast Factory
(Drip Irrigation Pipe Production Facility)



Of Türkiye’s total surface area (78 million hectares), approximately one-third (24 million hectares) consists of arable agricultural land. Of this, around 8.5 million hectares is economically irrigable.

In Türkiye, 77% of water resources are used for agricultural irrigation. The semi-arid climate, irregular rainfall patterns, and seasonal variability make efficient water use essential.

Traditional irrigation methods, such as flood irrigation, threaten the sustainability of water resources. Modern irrigation techniques enable efficient water use and help protect water resources.

However, methodological errors in areas where modern irrigation techniques are used (e.g., plowing flat drip irrigation pipes into the soil) lead to soil pollution.

Project Objective and Scope

The objective of the project is to encourage farmers in Bursa, who practice flood irrigation, to adopt modern irrigation techniques and save water.

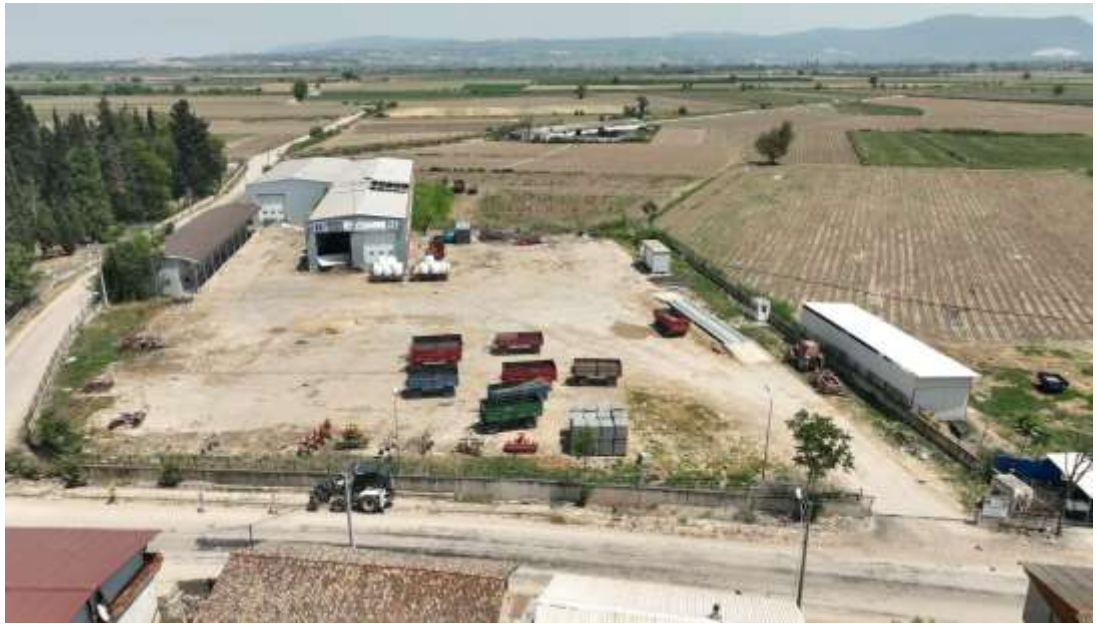
By raising awareness among farmers about modern irrigation and providing drip irrigation pipes through grant support, the project aims to increase the use of modern irrigation in Bursa's agriculture.

The scope of the project includes producing drip irrigation pipes at the Tarım Plast Factory established within our organization, enabling the distribution of materials to a larger number of farmers through grants.

Tarım Plast Factory

The pepper drying facility, which had been idle in previous years in the Ovaazatlı neighborhood of Mustafakemalpaşa district in Bursa, has been transformed into a modern production center through renovations.

BEFORE



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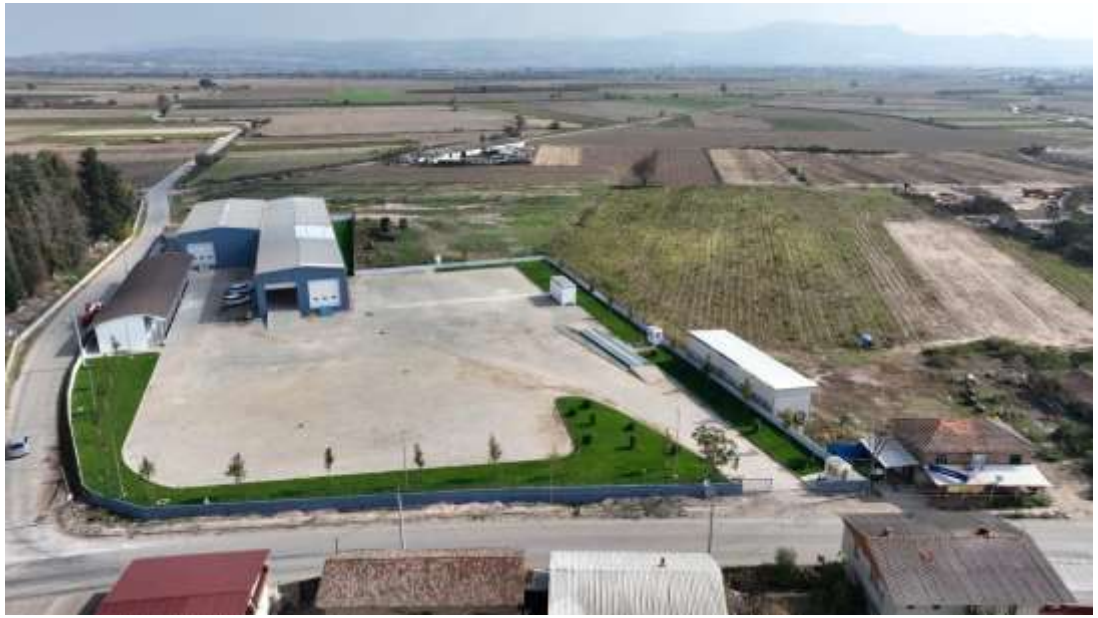
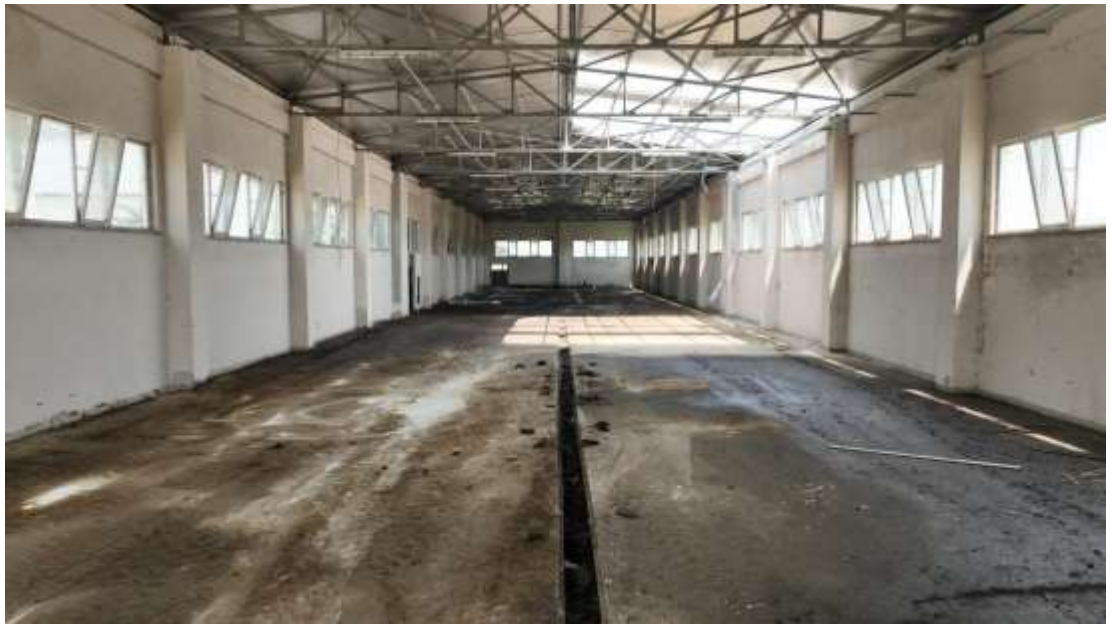


Tarım Plast Factory

Within a total area of 8,500 m², drip irrigation pipes are produced in a 1,000 m² production area, while distribution activities are carried out in a 500 m² area.The annual production capacity is 17,200 km for round pipes and 43,000 km for flat pipes.

BEFORE



AFTER

General Information on Production

With its technological infrastructure, the facility has the capacity to produce drip irrigation pipes in two main types: flat and round. In order to meet diverse needs in Bursa, production can be carried out with varying emitter spacings and flow rates.

FLAT PIPE PRODUCTION LINE

ROUND PIPE PRODUCTION LINE

Production Overview

FLAT PIPE PRODUCTION LINE

The machine operates at a maximum speed of 200 meters per minute.

The maximum daily production capacity is 100 rolls.

The production line is suitable for manufacturing pipes with diameters of 16–22 mm, wall thicknesses ranging from 0.15 to 0.38 mm (6–15 mil), emitter spacings between 16 cm and 100 cm, and flow rates of 1.6 and 2.4 L/h.

ROUND PIPE PRODUCTION LINE

The machine operates at a speed of 80 meters per minute.

The daily production capacity is 200 rolls.

The production line is also suitable for manufacturing pipes with diameters of 16–20 mm, emitter spacings between 16 cm and 100 cm, and flow rates of 2, 4, and 8 L/h.

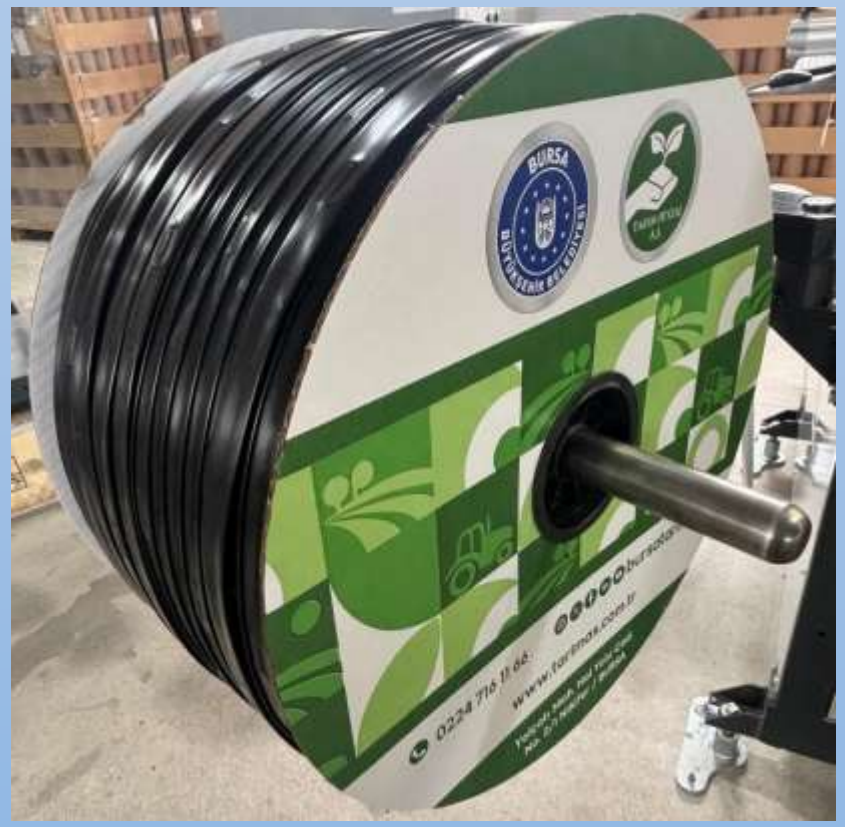
Types and Characteristics of Pipes Produced

Agricultural products that are prominent vary across each district of Bursa's fertile lands. In order to best meet the needs of our farmers, consultations were held with the heads of agricultural chambers in all districts of Bursa when determining the specifications for pipe production.

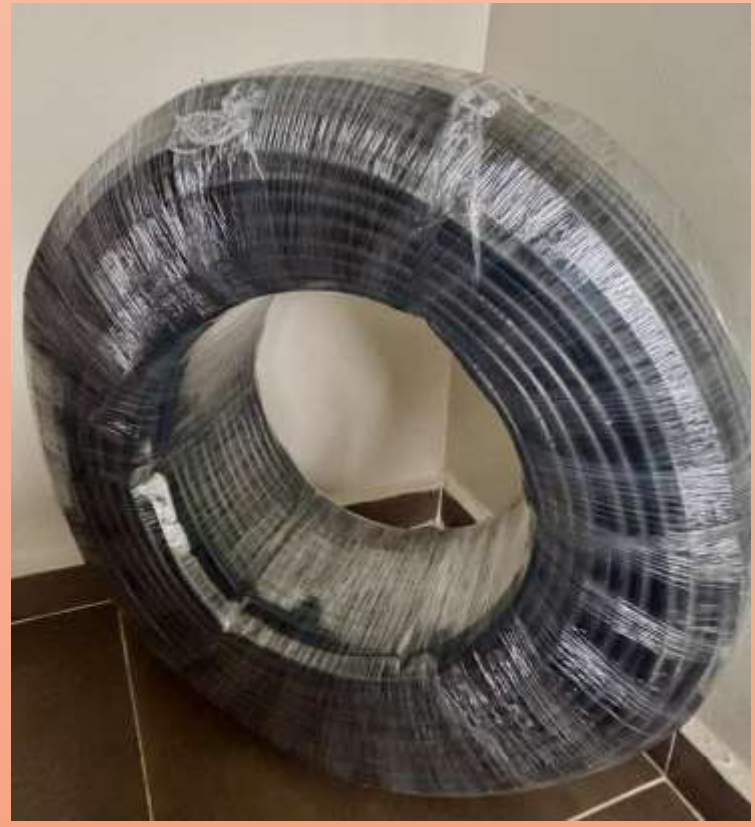
PIPE TYPE	A TYPE PIPE	B TYPE PIPE	C TYPE PIPE	D TYPE PIPE	E TYPE PIPE	F TYPE PIPE
TYPE	FLAT	ROUND	ROUND	ROUND	ROUND	ROUND
EMITTER SPACING	30 CM	25 CM	33 CM	25 CM	PLAIN (BLIND)	16 CM
UNIT OF MEASUREMENT	2.500 METERS PER ROLL	400 METERS PER ROLL	400 METERS PER ROLL	400 METERS PER ROLL	400 METERS PER ROLL	400 METERS PER ROLL
EMITTER FLOW RATE	2,4 L/h	4 L/h	4 L/h	2 L/h	-	4 L/h
RECOM MENDED AREAS OF USE	It can be used for crops such as tomatoes, peppers, corn, and beans.	It can be used for crops such as strawberries, blueberries, olives, walnuts, and pears.	It can be used for crops such as olives, figs, peaches, and pears.	It can be used for crops such as olives and figs.	It can be used for crops such as olives, walnuts, and figs.	It can be used for crops such as strawberries and raspberries.

General Information on Production

FLAT DRIP IRRIGATION COIL



ROUND DRIP IRRIGATION ROLL



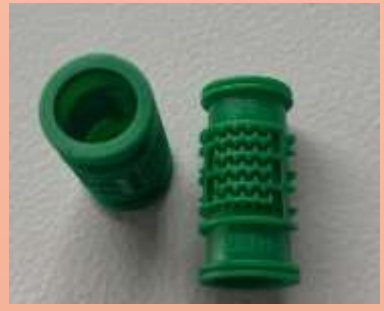
General Information on Production

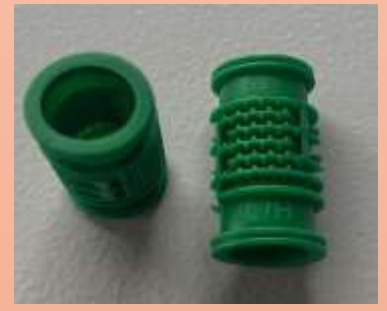
FLAT EMITTERS

A 2,500-meter flat roll contains 8,333 drip emitters.

Emitter Flow Rate	2,4 lt /sa
Emitter Length	30 mm
Operating Pressure	1 Bar
Maximum Operating Pressure	2 Bar
Minimum Operating Pressure	0,5 Bar

ROUND EMITTERS





Each 400-meter round drip irrigation roll (30 cm emitter spacing) contains 1,333 emitters.

	16 mm	16 mm
Emitter Flow Rate	2 lt /sa	4 lt /sa
Emitter Length	32 mm	32 mm
Operating Pressure	1 Bar	1 Bar
Maximum Operating Pressure	2 Bar	2 Bar
Minimum Operating Pressure	0,5 Bar	0,5 Bar

General Information on Production

Drip irrigation pipes are generally produced from PE (polyethylene) materials, which are water-resistant and flexible. For flat drip irrigation pipes, raw materials and colorants are mixed using an appropriate formulation. For round pipes, colorants, gas absorbers, and low-density PE granules (recycled materials) are blended in suitable proportions. The raw material is melted at temperatures between 200–260°C.

RAW MATERIAL FOR FLAT DRIP IRRIGATION PIPE

RAW MATERIAL FOR ROUND DRIP IRRIGATION PIPE

Recycling Process

The raw material used in pipe production is obtained from recycled plastic waste. In addition to supporting farmers, this also contributes to the widespread adoption of recycling practices in Bursa.

The use of plastic waste collected from companies affiliated with Bursa Metropolitan Municipality,

The use of plastic waste collected from major parks in Bursa and the Bursa Intercity Bus Terminal contributes to both waste reduction and resource,

The use of plastic waste collected from farmers who return drip irrigation pipes that have reached the end of their service life,

DRIP IRRIGATION PIPE PRODUCTION

Increasing recycling in Bursa and ensuring the effective utilization of collected waste,

Reducing the cost of drip irrigation pipe support planned to be provided to farmers,

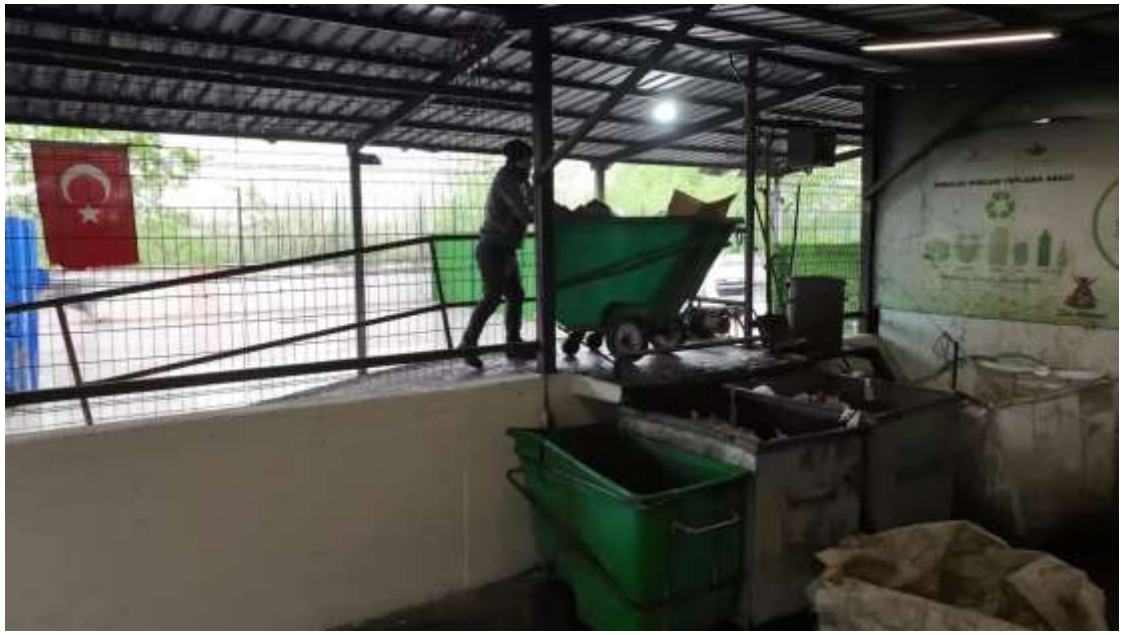
Raising public awareness by involving farmers in the recycling process,

Recycling Process

Within the scope of a protocol signed between Bursa Metropolitan Municipality and its affiliated company Tarım Peyzaj Inc., the process of separating packaging waste at source within the service and responsibility areas of the Municipality and its subsidiaries, and reintegrating it into recycling, is carried out by Tarım Peyzaj Inc.

Recycling Process

Paper, cardboard, and plastic waste collected by BURULAŞ personnel at the Bursa Intercity Bus Terminal are sorted on-site by a team of three staff within our company, and are then sent to licensed recycling firms in accordance with the protocol.



Recycling Process

It is aimed to recycle packaging waste collected from recycling containers to be placed in major parks across Bursa, particularly Merinos Park, Hüdavendigar City Park, and Erdem Saker Botanical Park. This approach will ensure the active participation of all citizens in Bursa in the recycling process.

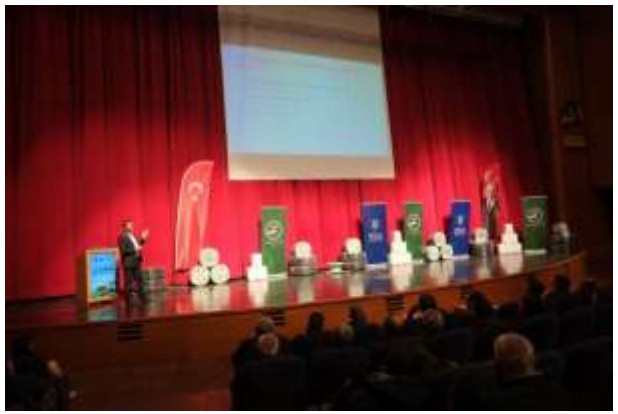
Recycling Process

It is planned to collect scrap pipes from farmers and deliver them to licensed recycling companies. Through this approach, farmers will be integrated into a sustainable model. Within the recycling process, scrap pipes will be collected from farmers at district level through weighbridge measurements and transferred to licensed recycling firms. Mustafakemalpaşa district has been designated as the pilot area, and following the pilot implementation, the process will be expanded to all districts. The revenue generated from the scrap materials will be used to provide farmers with drip irrigation pipes at discounted rates.

Raising Awareness Among Farmers

Encouraging farmers to adopt modern irrigation instead of flood irrigation is highly effective in supporting the conservation of water resources. The proper and efficient use of modern irrigation systems will ensure the sustainability of this impact in the long term.

During the Grand Farmers' Meeting held on April 12, 2025, at the Atatürk Congress and Culture Center Merinos Campus, training sessions delivered by academics from Bursa Uludağ University focused on the efficient use of water and irrigation systems.



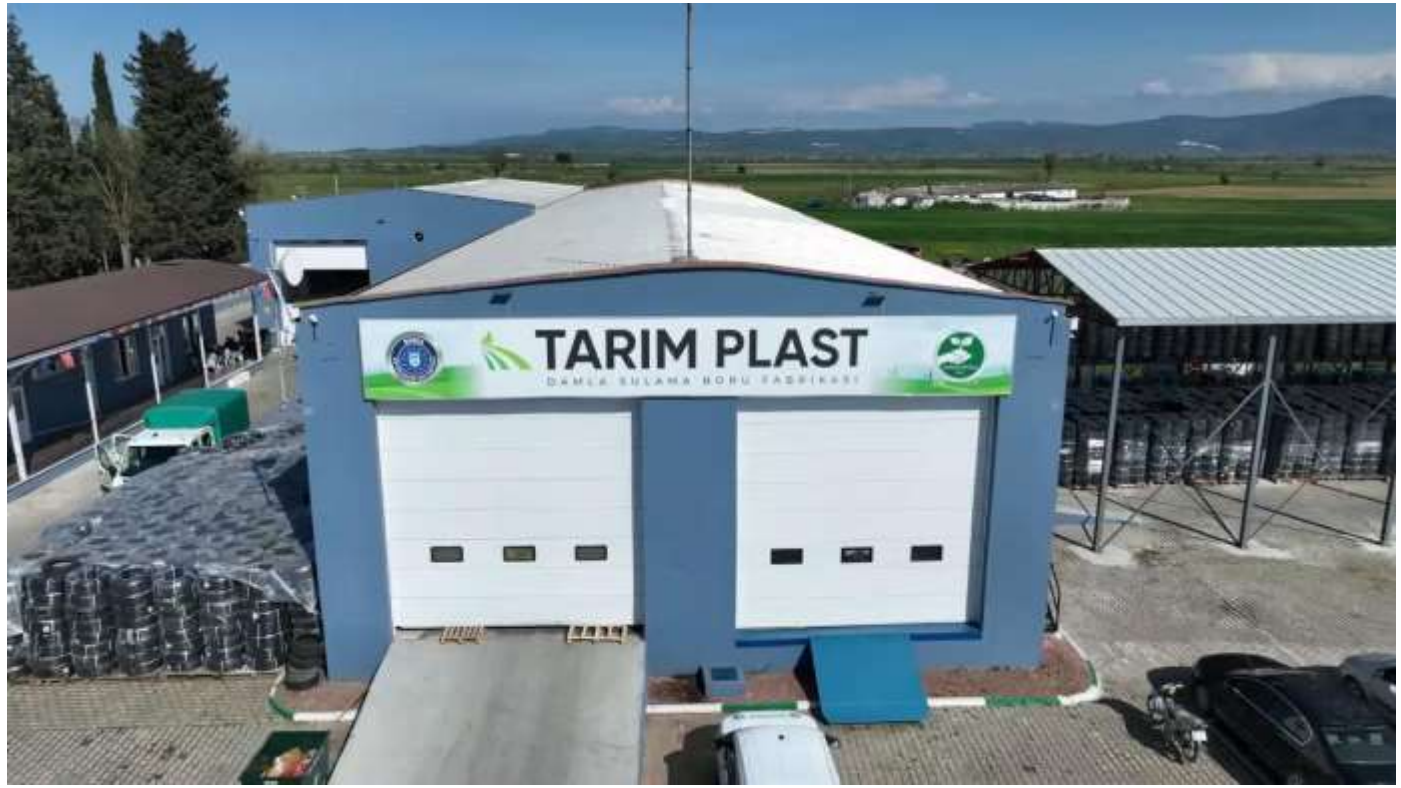
Drip Irrigation Pipe Stake

Drip irrigation pipes produced from recycled plastic waste at the Tarım Plast Factory, which was recently incorporated into our company, began to be distributed on April 30, 2025, at a ceremony attended by the Mayor of Bursa Metropolitan Municipality, Mr. Mustafa Bozbey.

Since the opening, a total of 14.605.000 meters of drip irrigation pipes have been distributed to farmers across all 17 districts of Bursa as 100% grants, through the collaboration of the Bursa Metropolitan Municipality Department of Rural Services and Tarım Peyzaj Inc.

Collaboration with Public Institutions

Serving as a model with its environmentalist approach and the support it provides to producers, the Tarım Plast Factory has become an example for various cities and organizations. The project has garnered significant interest from the Environmental Protection and Packaging Waste Recovery and Recycling Foundation (ÇEVKO Foundation). Negotiations have been held with the ÇEVKO Foundation to ensure correct interventions and collaboration across all processes, particularly in the recycling phase. The upcoming protocol and the resulting cooperation are of vital importance to the project.



Project Achievements

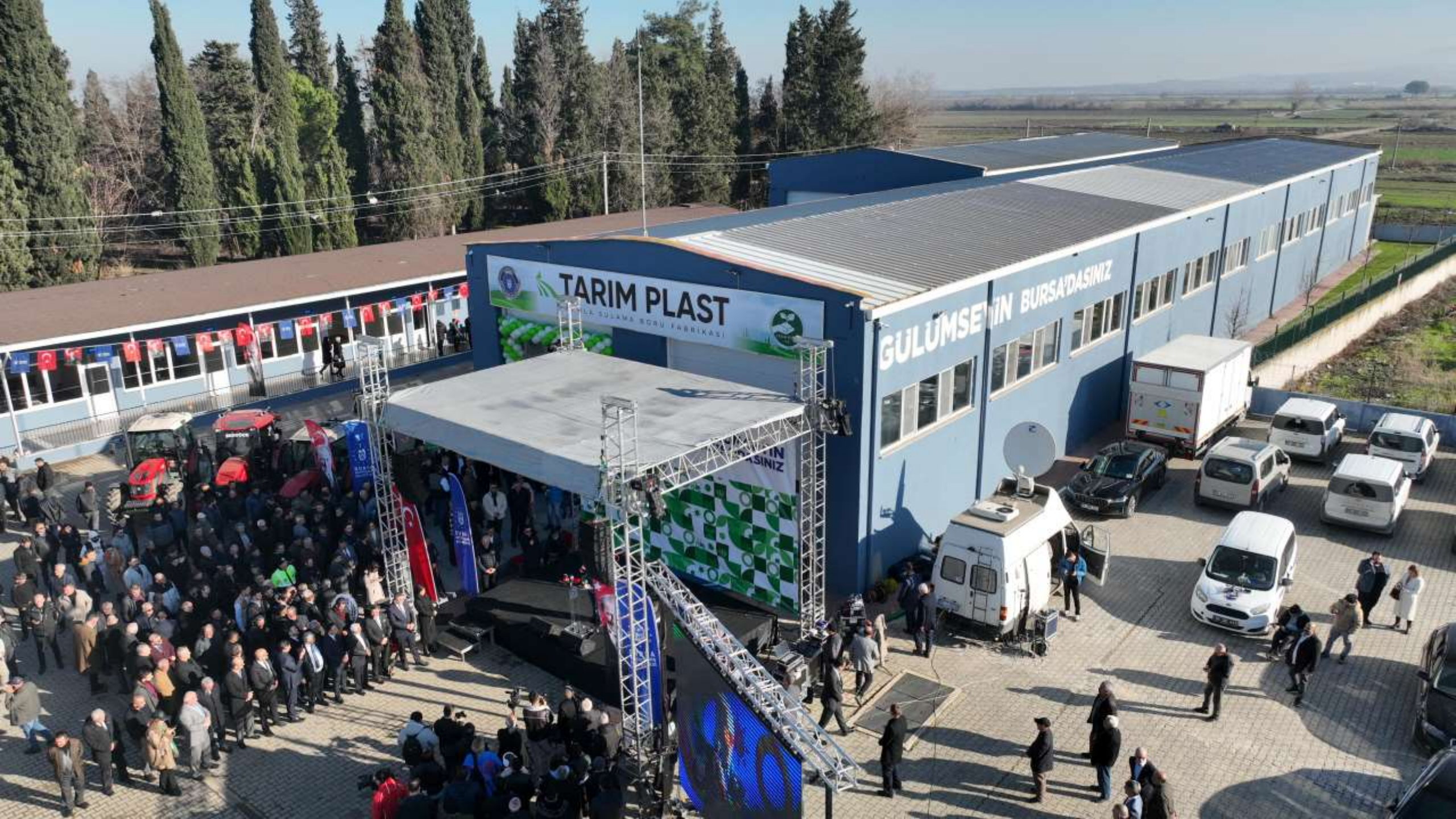
Optimization of Facilities: An idle 8.500 m^2 pepper drying facility has been revitalized and is now actively operating as a drip irrigation pipe production plant.

Direct Farmer Support: Drip irrigation pipes have been distributed to **2.393 farm**ers as 100% grants (fully subsidized).

Massive Scale of Distribution: A total of **14.605.000 meters** of drip irrigation pipes have been provided to our farmers with a 100% subsidy.

Agricultural Modernization: By providing pipe support for an area of **25.633 decares (approx. 6.334 acres)**, the use of modern irrigation techniques has been significantly increased.

Environmental Impact: Within the scope of this project, **25.069 kg** of waste has been successfully integrated into the recycling process.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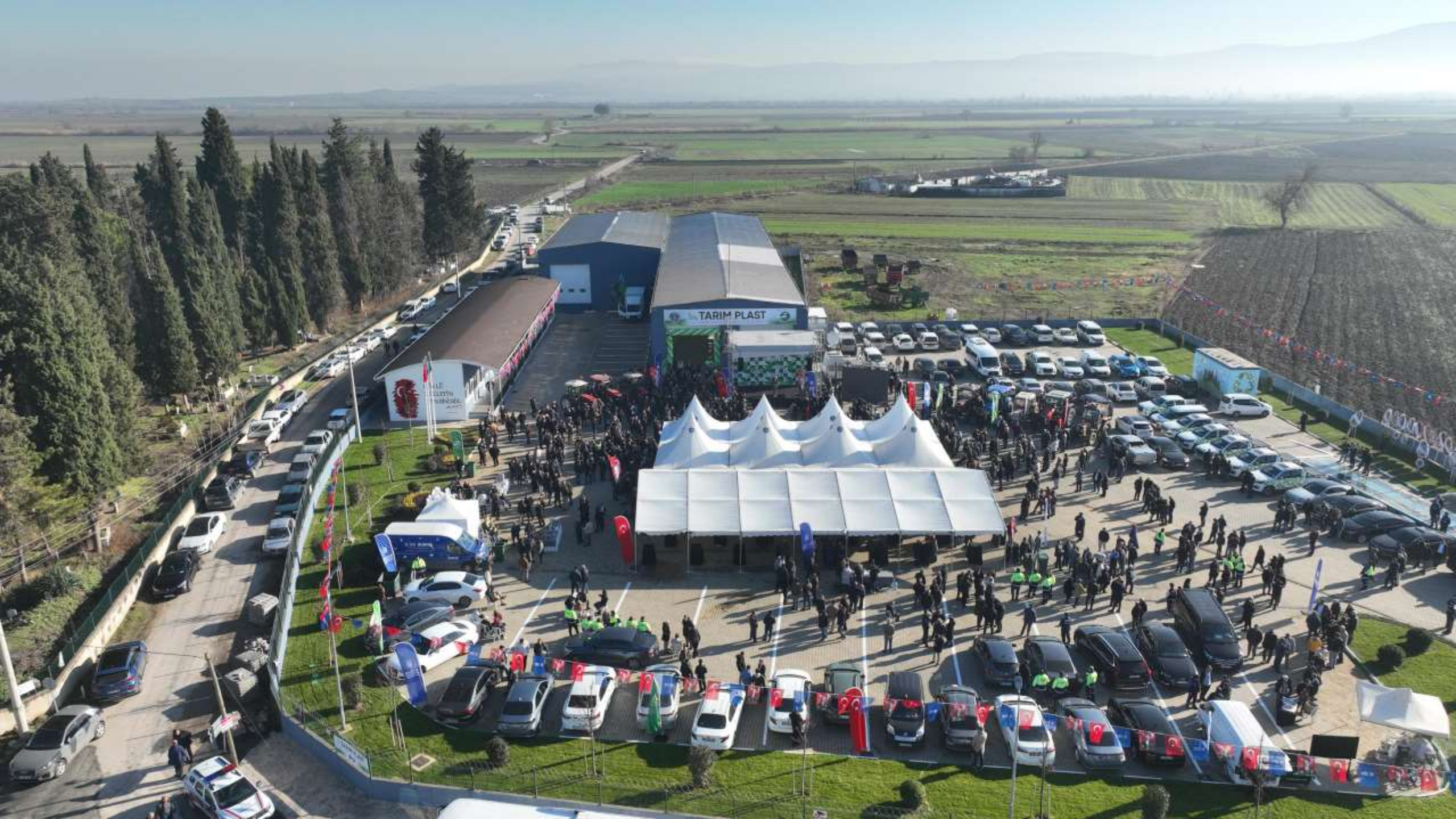
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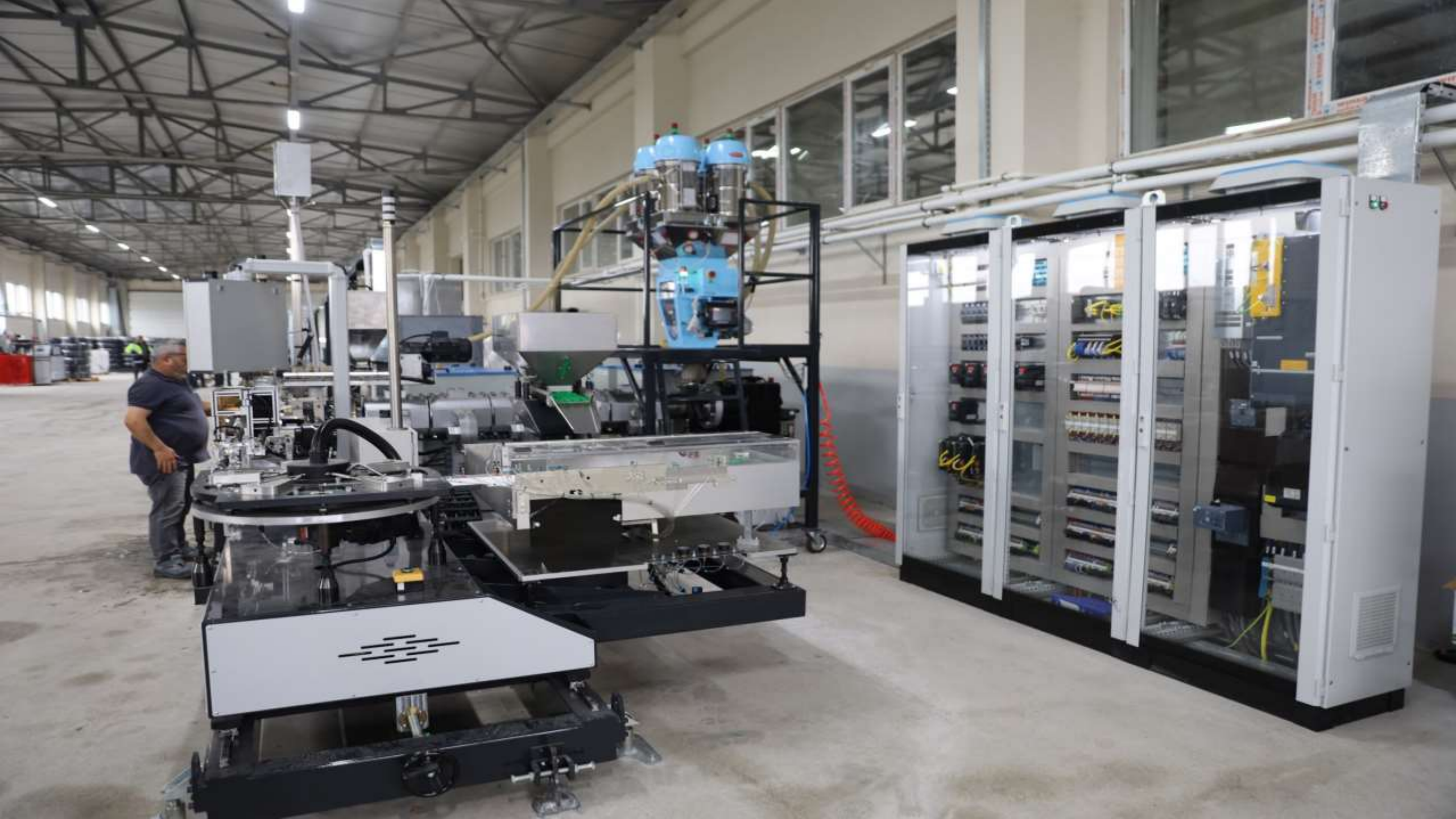

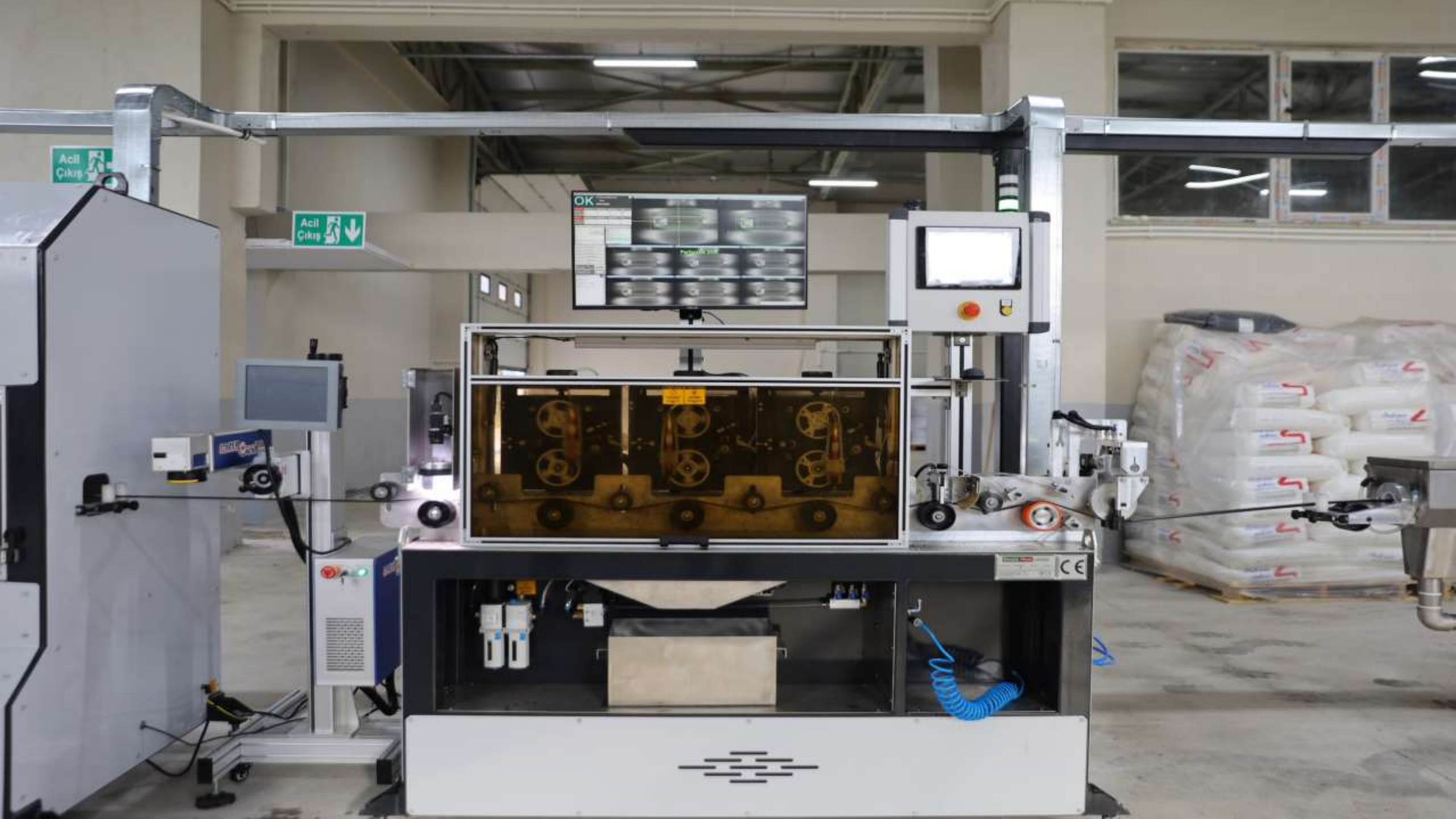
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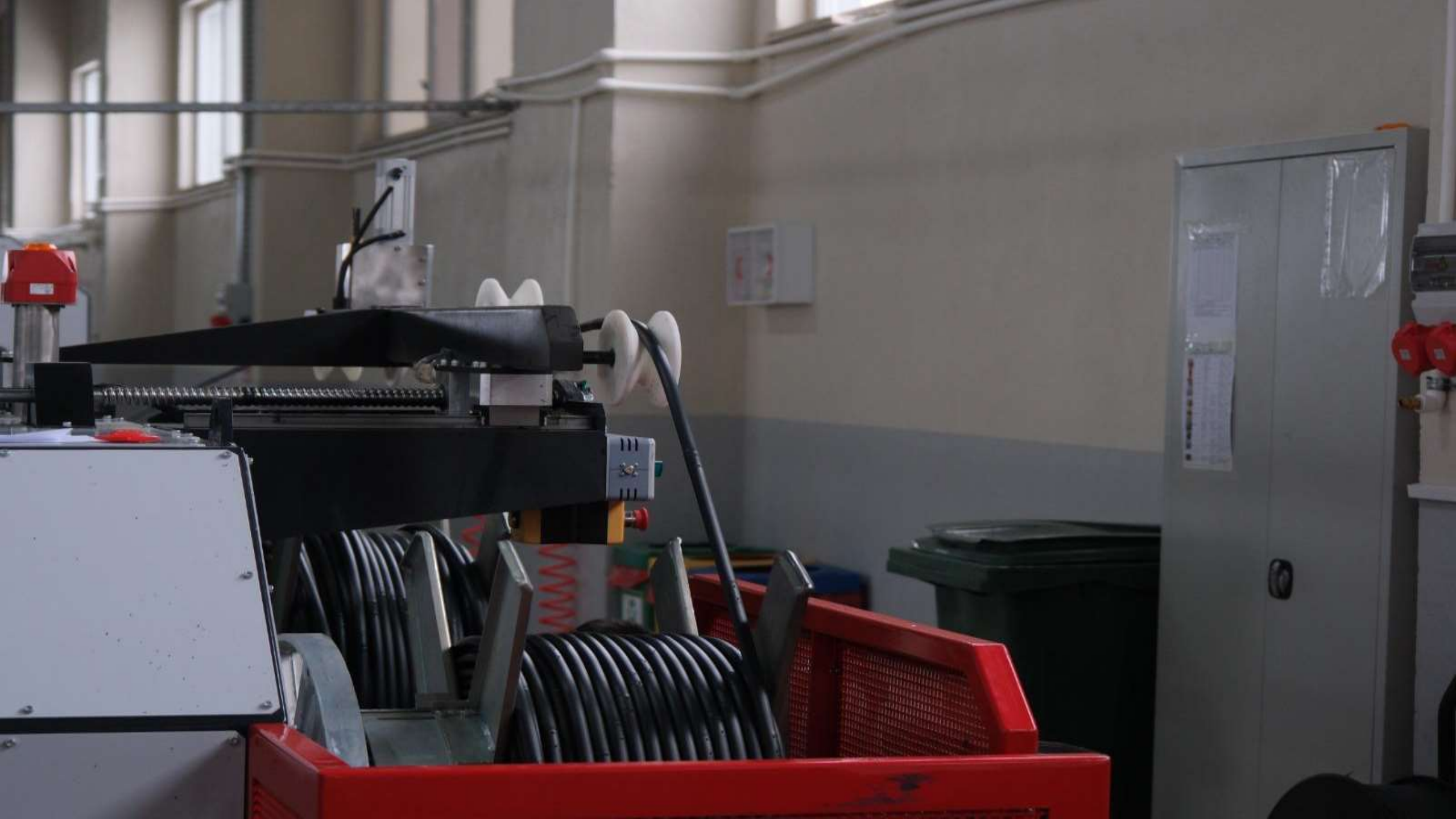

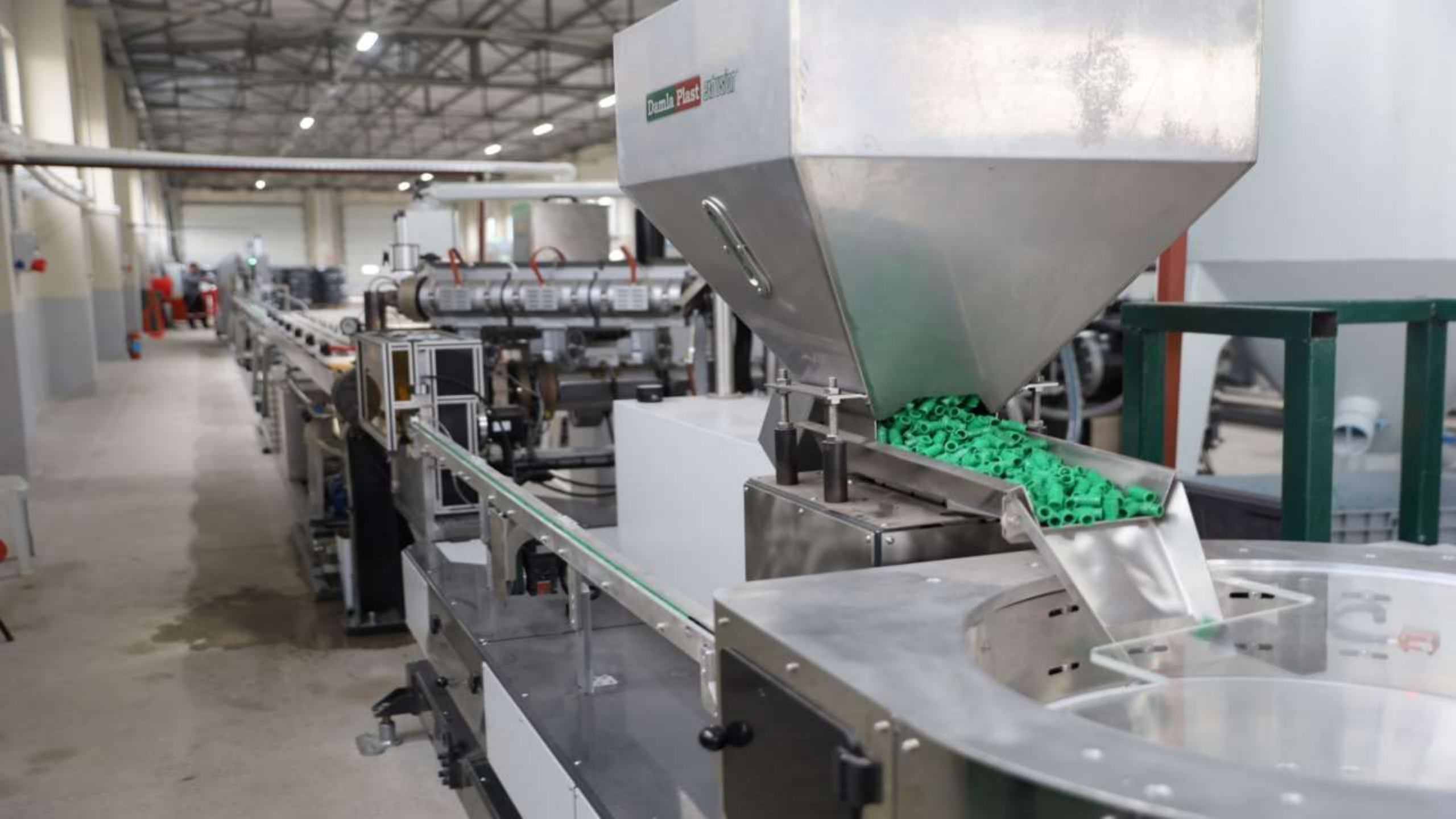
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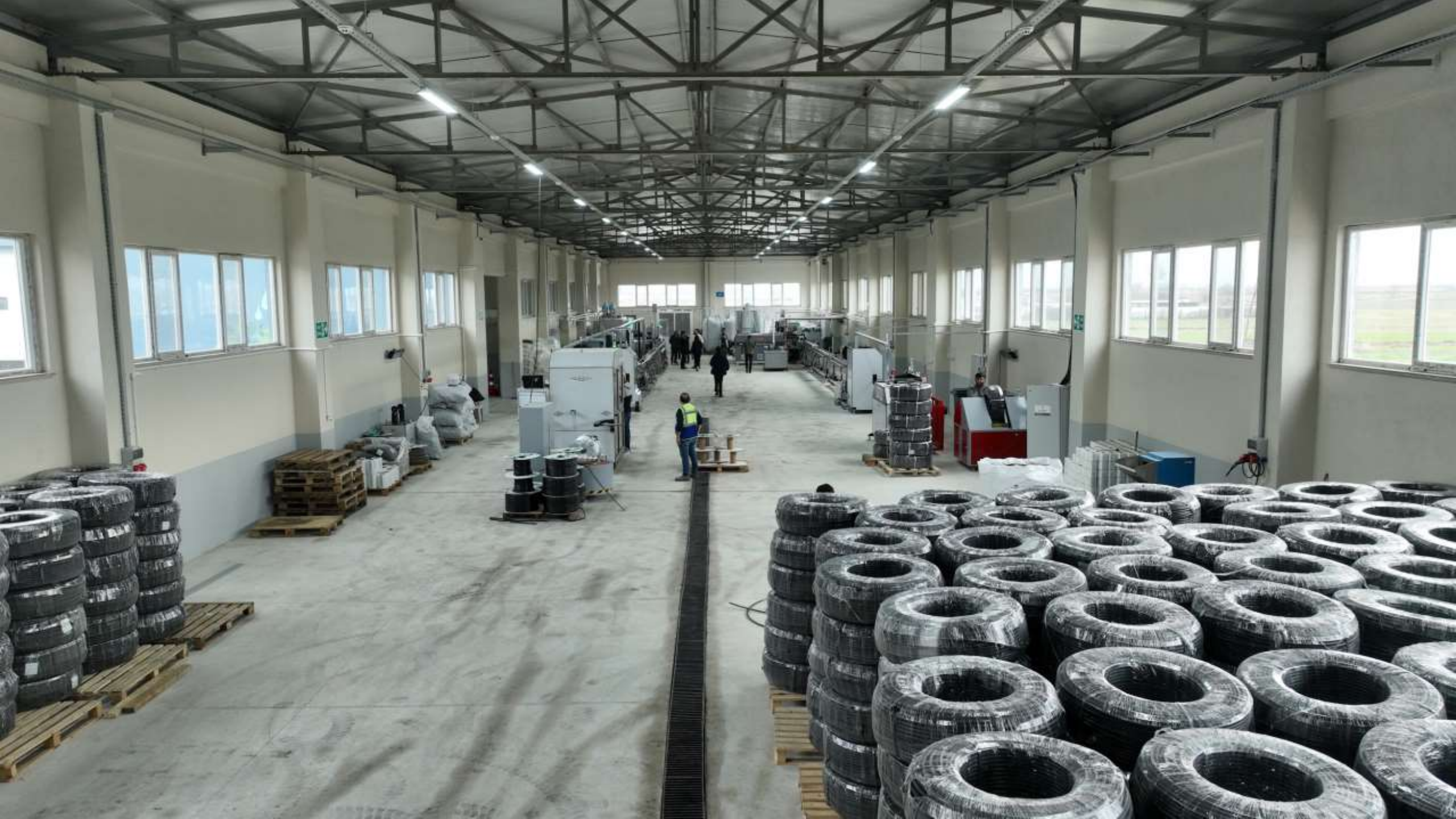

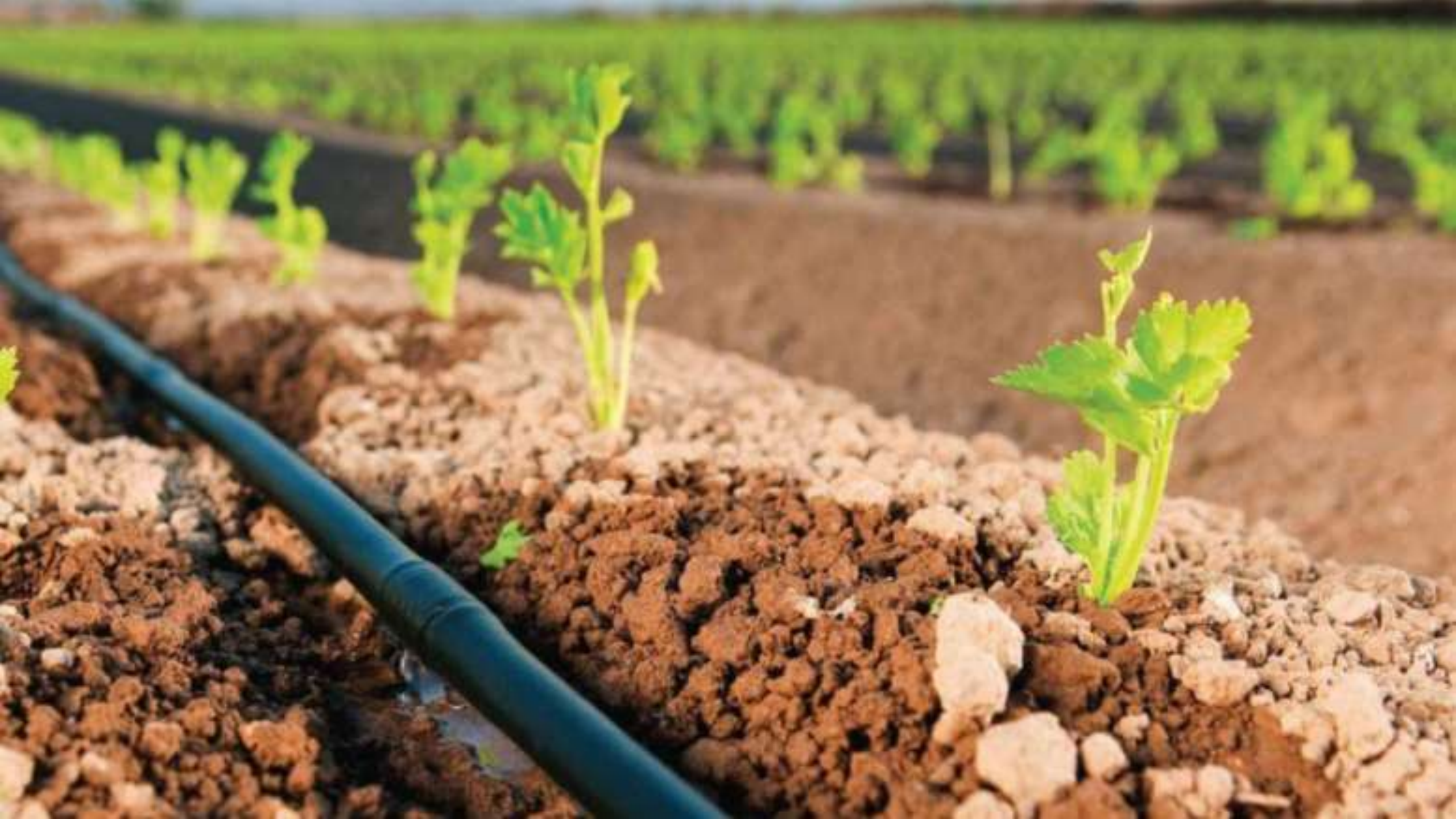

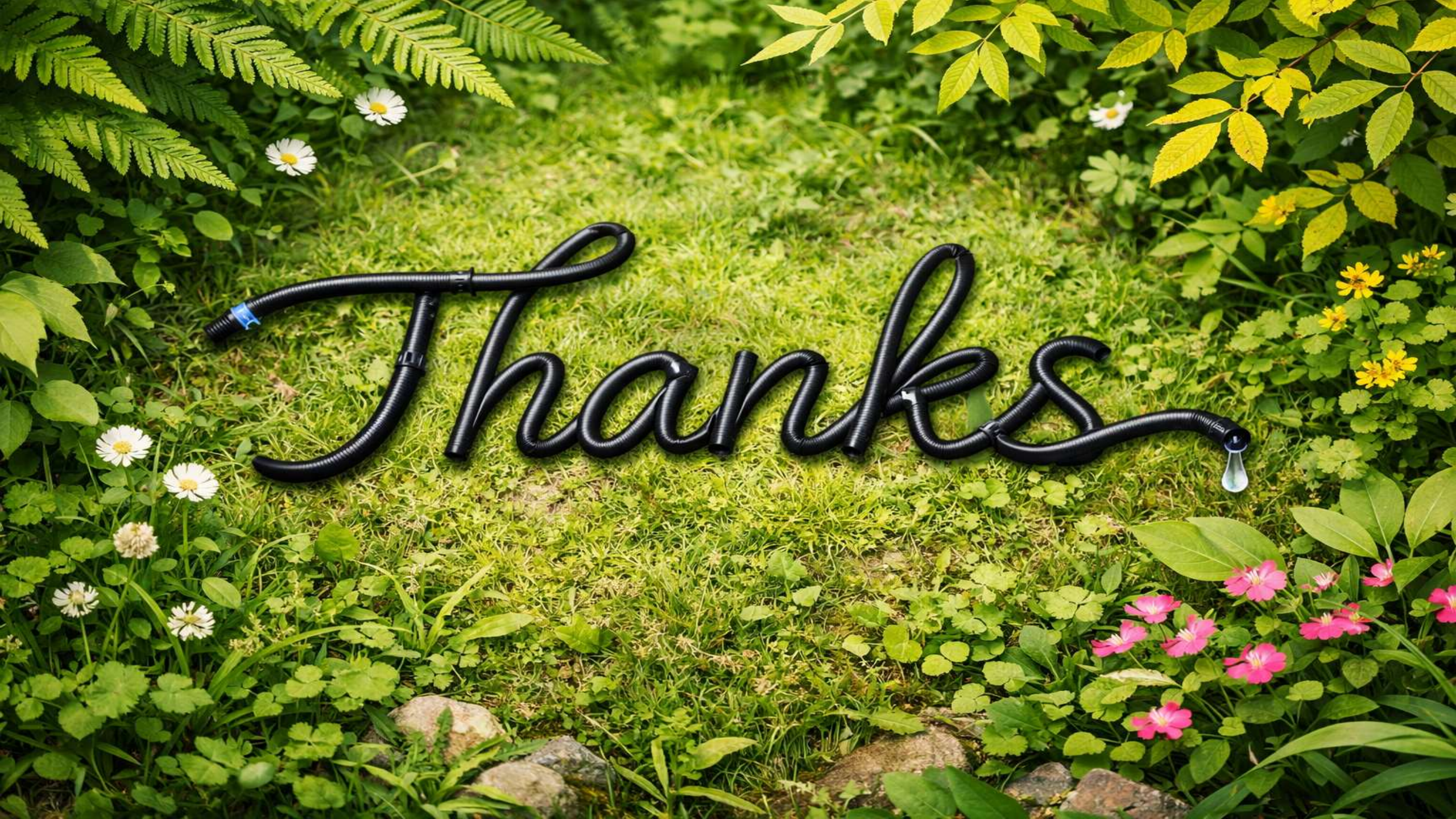
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