

RAILWAY SOLUTIONS

 **YEŞİLOVA**

yesilova.com



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ABOUT US

We are the youngest member of Yeşilova Group dedicated and experienced to supply innovative solutions for the railway industry.

We produce assembled interior parts with visual perfection such as ceiling modules integrated with lighting systems, roof arches, luggage racks, air ducts & noise dampers.

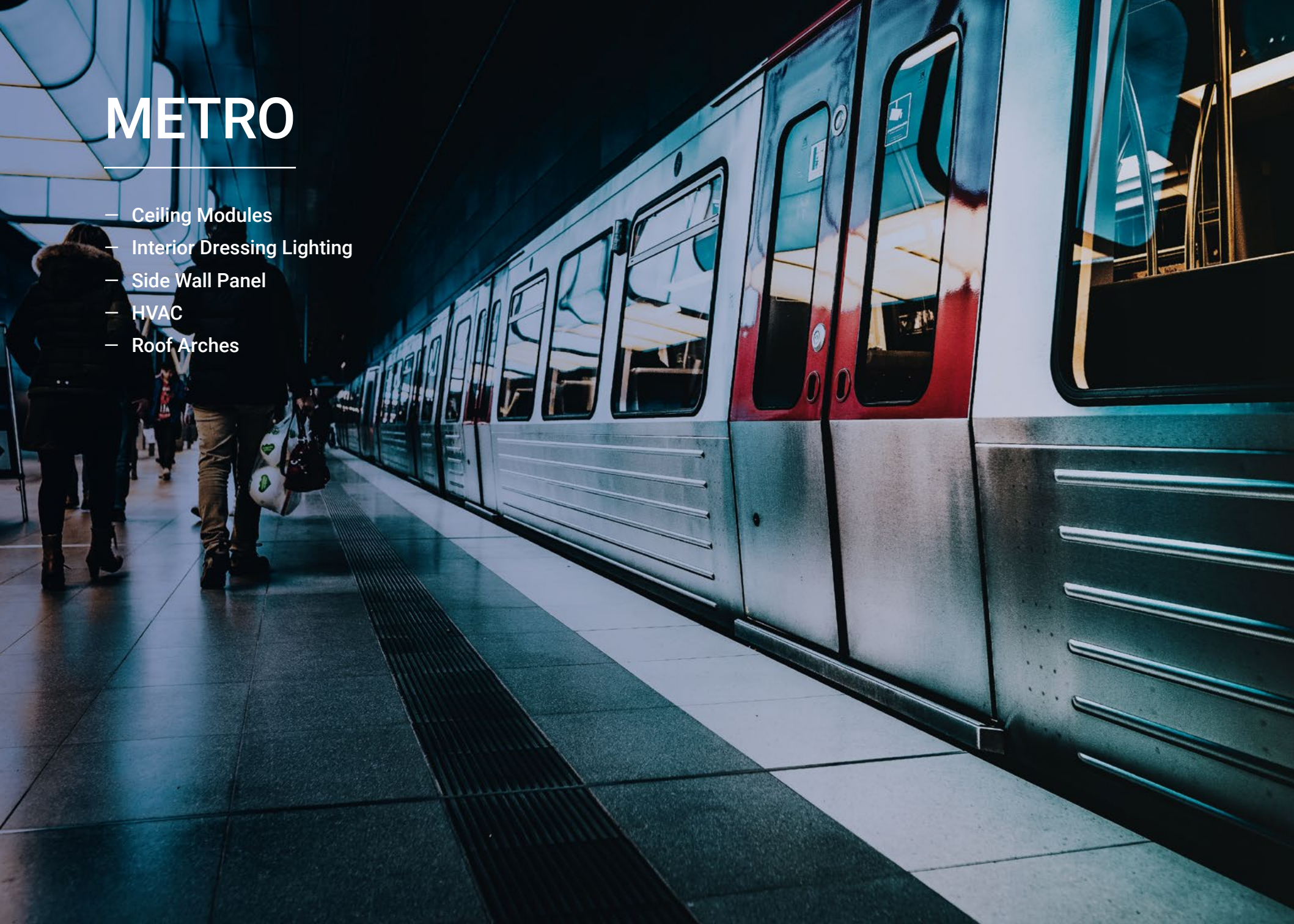
Long years of experience combined with the capacity of our state-of-the-art technology facility and our skilled teams we design and manufacture innovative products for railway systems.

SECTORS

- Metro
- Regional Trains
- Light Rail Vehicles
- High Speed Train

METRO

- Ceiling Modules
- Interior Dressing Lighting
- Side Wall Panel
- HVAC
- Roof Arches



REGIONAL TRAINS

- Ceiling Modules
- Interior Dressing Lighting
- Luggage Racks
- Side Wall Panel
- HVAC
- Roof Arches
- Aluminium Framed Side Glass



LIGHT RAIL VEHICLES

- Ceiling Modules
- Interior Dressing Lighting
- Side Wall Panel
- HVAC
- Roof Arches
- Aluminium Framed Side Glass



HIGH SPEED TRAIN

- Ceiling Modules
- Interior Dressing Lighting
- Side Wall Panel
- HVAC

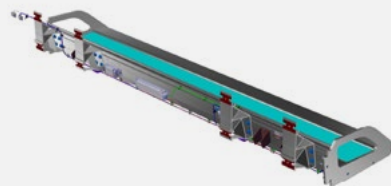
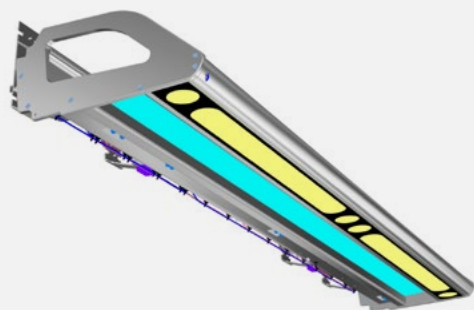
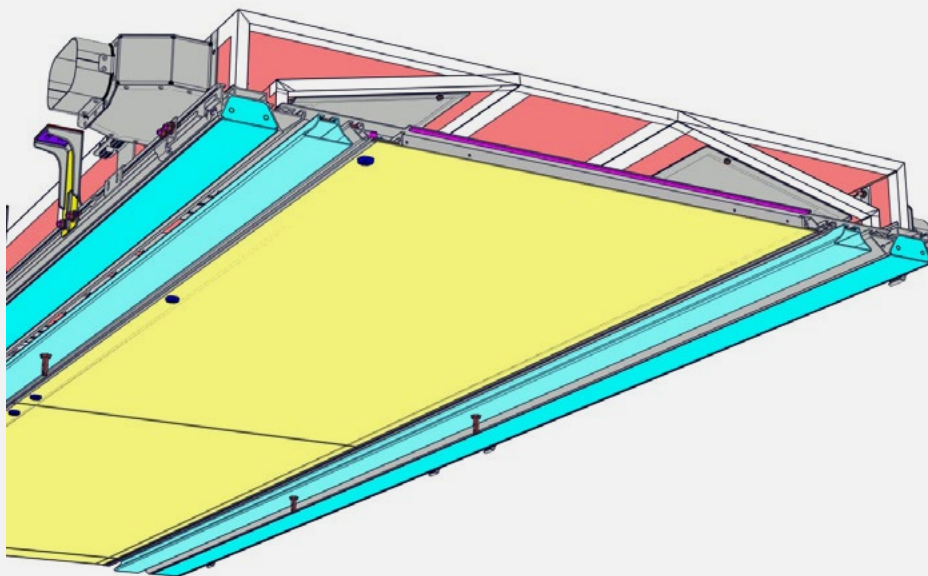




Ceiling Modules

We design, develop and manufacture the interior cladding ceiling group products of the vehicles in the rail systems sector as modular systems, meeting the expectations of customers such as aesthetics, strength, lightness, fireproofing and following international regulations.

- Material** : Aluminium, Steel, PC, Glass, Composite Panel, HPL, FRP, Insulation, Plastic, Adhesive, Fasteners, Lighting and Cabling, Product Groups
- Technology** : Extrusion, Casting, Injection, Heat Treatment, Machining, Laser, Bending, Coating, Bonding, Welding, Cabling, Assembly
- Competencies** : Product Design, Product Development, Production, Assembly, Validation, Logistics



Interior Lighting

We design, develop and manufacture interior trim lighting products of vehicles in the rail systems sector as modular lighting systems, meeting the expectations of customers such as aesthetic, functional, long-lasting, ability to communicate with other product groups, and easy integration, and following international regulations.

- Material** : Aluminium, PC, Insulation, Plastic, Fasteners, Lighting and Cabling Product Groups
- Technology** : Extrusion, Injection, Led Lighting, Cabling, Assembly
- Competencies** : Product Design, Product Development, Assembly, Validation



Side Wall Panel

We design, develop and manufacture the interior cladding side wall group products of the vehicles in the rail systems sector, by meeting the expectations of customers such as aesthetics, strength, lightness, fireproofing, and following international regulations.

- Material** : Aluminium, Steel, Composite Panel, HPL, FRP, Insulation, Plastic, Adhesive, Fasteners Product Group
- Technology** : Extrusion, Casting, Injection, Heat Treatment, Machining, Laser, Bending, Coating, Bonding, Welding, Assembly
- Competencies** : Product Design, Product Development, Production, Assembly, Validation, Logistics



HVAC

We design, develop and manufacture the interior cladding and ventilation products of the vehicles in the rail systems sector as modular systems, meeting the expectations of customers such as strength, lightness, non-flammability, insulation, noise damping, homogeneous heat distribution and following international regulations. Thanks to the horizontal and vertical grilles adapted to the products, we make the air circulation homogeneous.

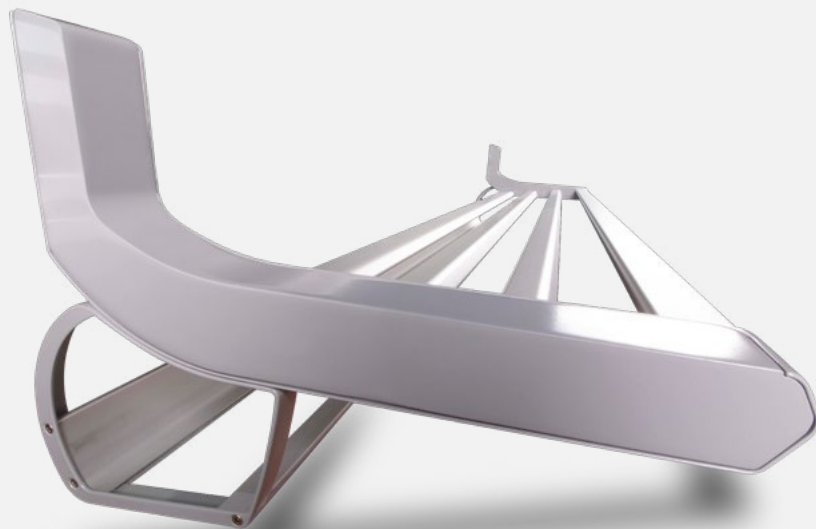
- Material** : Aluminium, Steel, Composite Panel, Insulation, Plastic, Adhesive, Fasteners Product Groups
- Technology** : Extrusion, Casting, Injection, Heat Treatment, Machining, Laser, Bending, Coating, Bonding, Assembly
- Competencies** : Product Design, Product Development, Production, Assembly, Validation, Logistics



Roof Arches

We design, develop and manufacture the interior cladding service cover products of the vehicles in the rail systems sector, meeting the expectations of customers such as aesthetics, strength, lightness, fireproofing, functionality and following international regulations.

- Material** : Aluminium, Steel, PC, Glass, Composite Panel, HPL, FRP, Insulation, Plastic, Adhesive, Fasteners, Lighting and Cabling Product Groups
- Technology** : Extrusion, Casting, Injection, Heat Treatment, Machining, Laser, Bending, Coating, Bonding, Welding, Cabling, Assembly
- Competencies** : Product Design, Product Development, Production, Assembly, Validation, Logistics



Luggage Racks

We design, develop and manufacture interior cladding luggage rack products of vehicles in the rail systems sector as modular systems, meeting the expectations of customers such as aesthetics, strength, lightness, fireproofing and following international regulations. With the integration of the lighting group, we bring functionality and aesthetics to the fore.

- Material** : Aluminium, Steel, PC, Glass, Insulation, Plastic, Adhesive, Fasteners, Lighting and Cabling Product Groups
- Technology** : Extrusion, Casting, Injection, Heat Treatment, Machining, Laser, Bending, Coating, Bonding, Welding, Cabling, Assembly
- Competencies** : Product Design, Product Development, Production, Assembly, Validation, Logistics



Aluminium Framed Side Glass

We design, develop and manufacture the windshield and side glass products of the vehicles in the rail systems sector as modular systems, meeting the expectations of customers such as aesthetics, strength, lightness, functionality and following international regulations.

- Material** : Aluminium, Steel, Glass, Insulation, Plastic, Adhesive, Fasteners Product Groups
- Technology** : Extrusion, Casting, Injection, Heat Treatment, Machining, Waterjet, Bending, Coating, Bonding, Welding, Assembly
- Competencies** : Product Design, Product Development, Production, Assembly, Validation, Logistics

TECHNOLOGY & COMPETENCE

- Aluminium Extrusion
- Aluminium Injection
- Machining
- Joining Technologies
- Coating / Surface Treatment
- Installation
- Test Center

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- Product Development
- Engineering
- Project Management
- Quality Management
- Digitalization



Aluminium Extrusion

Aluminium extrusion, rail systems sector; lightness, high strength, plays a leading role in reducing CO² emissions.

With our deep experience and large press capacities in our integrated facility, we enable the production of hard alloy materials with a press capacity of more than 4000 tons, a weight of more than 20 kg per meter, and large sizes and lengths up to 30 meters, within narrow tolerances.



Aluminium Injection

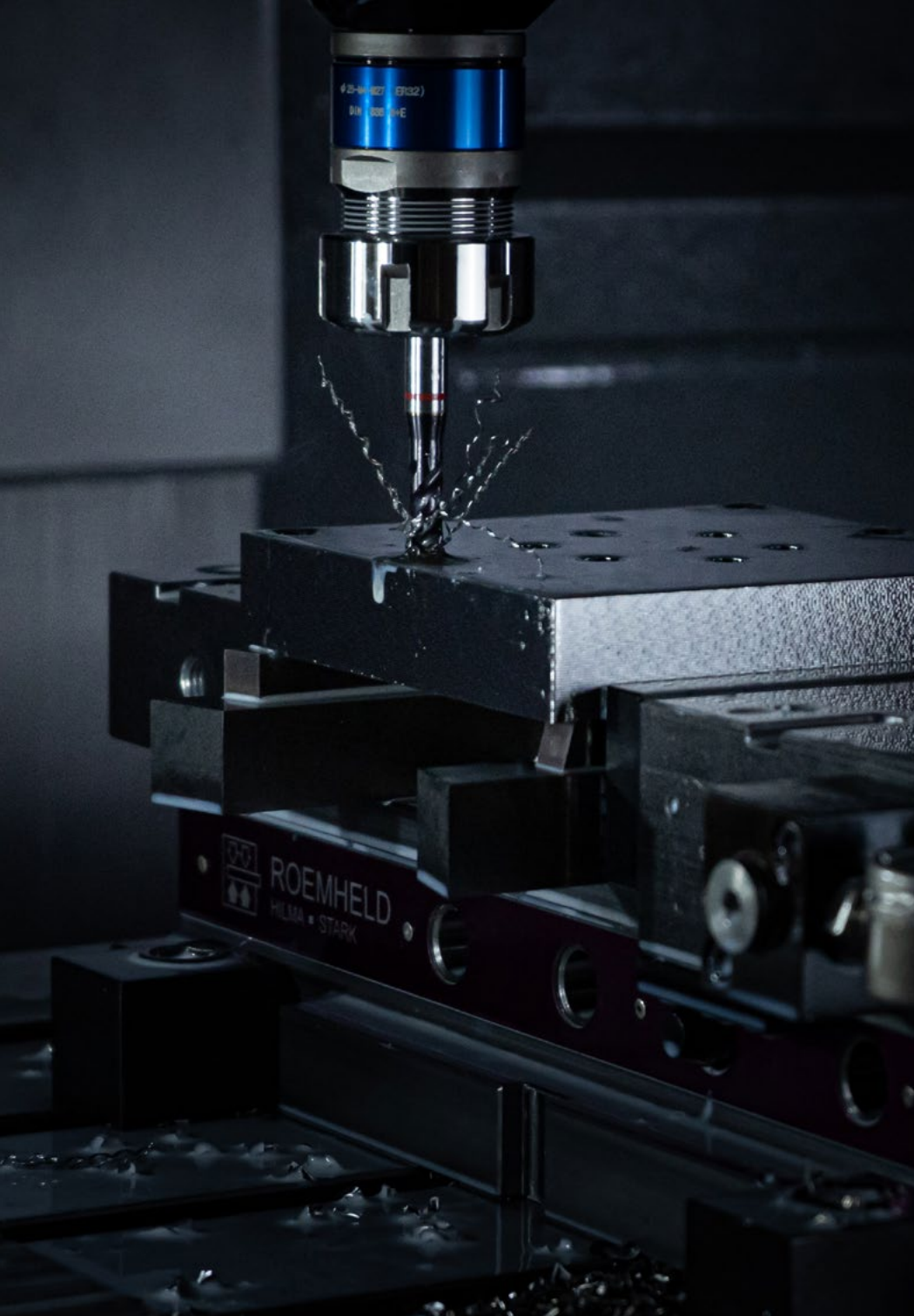
With our knowledge and experience in materials, we can perform simultaneous production with 5 different alloys and 1050 tons of press capacity for the expectations of the rail systems industry, thanks to full automation.

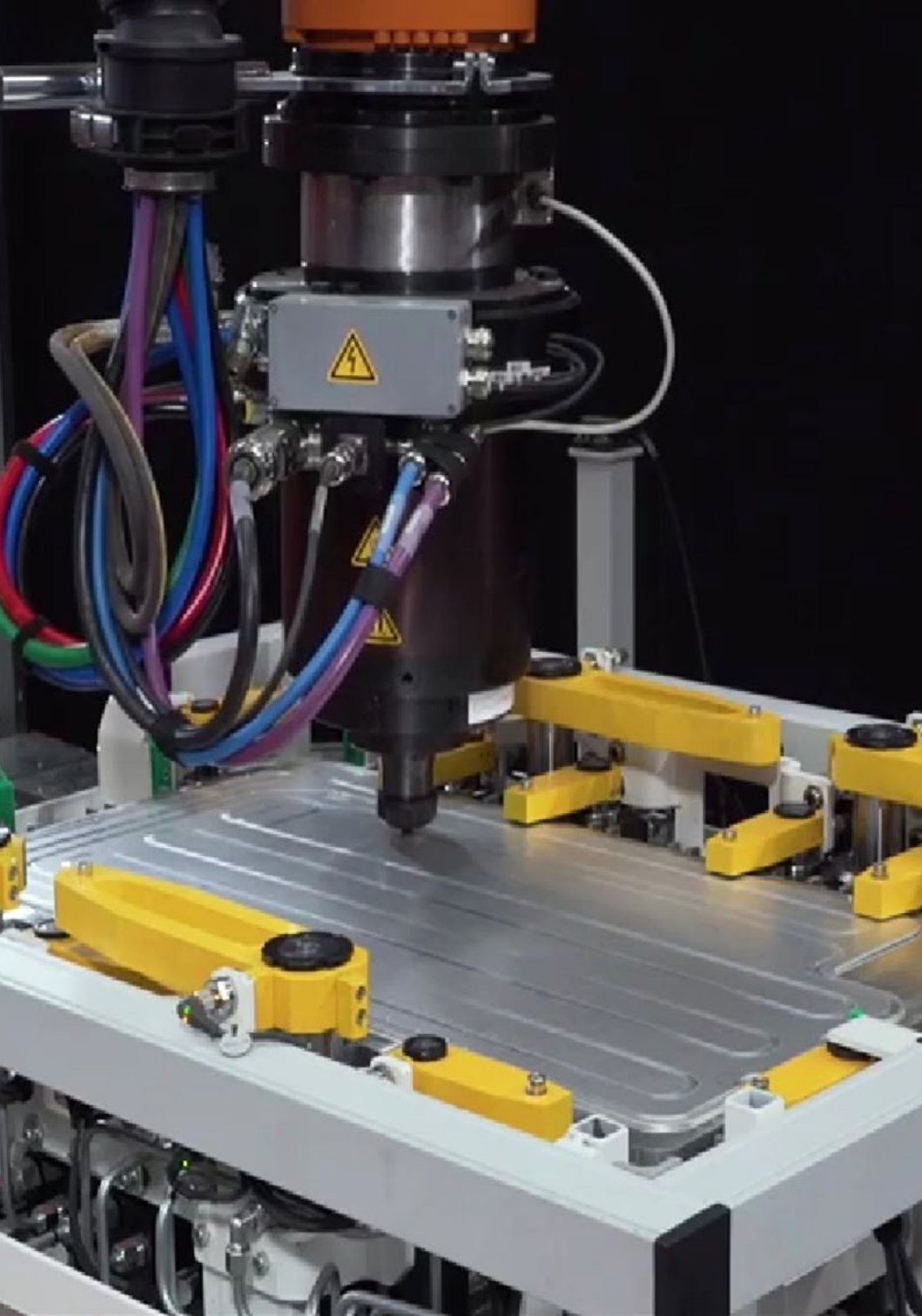
We produce visual, structural and safety parts in the narrowest tolerances in our injection lines equipped with the latest technology.

Machining

We carry out quality production with our technology in our machinery park, which has an annual capacity of 8000 tons of aluminium profiles and precision processing;

- > All cutting, drilling, grooving, roll threading, engraving (5 axes)
- > CNC precision serial slicing (with 0.1 mm precision) operations
- > Vibration and washing, cutting, surface and section brushing, chamfering operations





Joining Technologies

We produce for rail systems parts in accordance with DIN 6701 (International Adhesion Standard). The bonding process is under control with a closed ventilated conditioned space. In addition, our processes are audited by certified experts within the company. EN 15085 – 2, which has an international welding certificate in rail systems, is within our company. We have the competence to use weld joining technology in both visual and functional parts.

A close-up, slightly blurred photograph of an industrial coating process. A metal profile is being coated with a red liquid, which is dripping down its length. The background is dark and industrial.

Coating / Surface Treatment

We provide countless alternative color and texture appearance opportunities for aluminium.

Profiles up to 7m in length are covered in QUALICOAT and SEASIDE standards in our 3,000 tons capacity facility. Special gloss and high-level visual requirements are provided in our paint shop and anodizing facility created in accordance with international standards.



Installation

We carry out all processes from design to assembly in-house.

With our customer-oriented approach, we are able to offer prototype and simulation applications at every stage. After the product is validated, we perform the assembly process in our lean production lines for mass production with our expert team in accordance with the standards.



Test Center

As Yeşilova Holding R&D Center, we conduct research and test studies on both material and product basis.

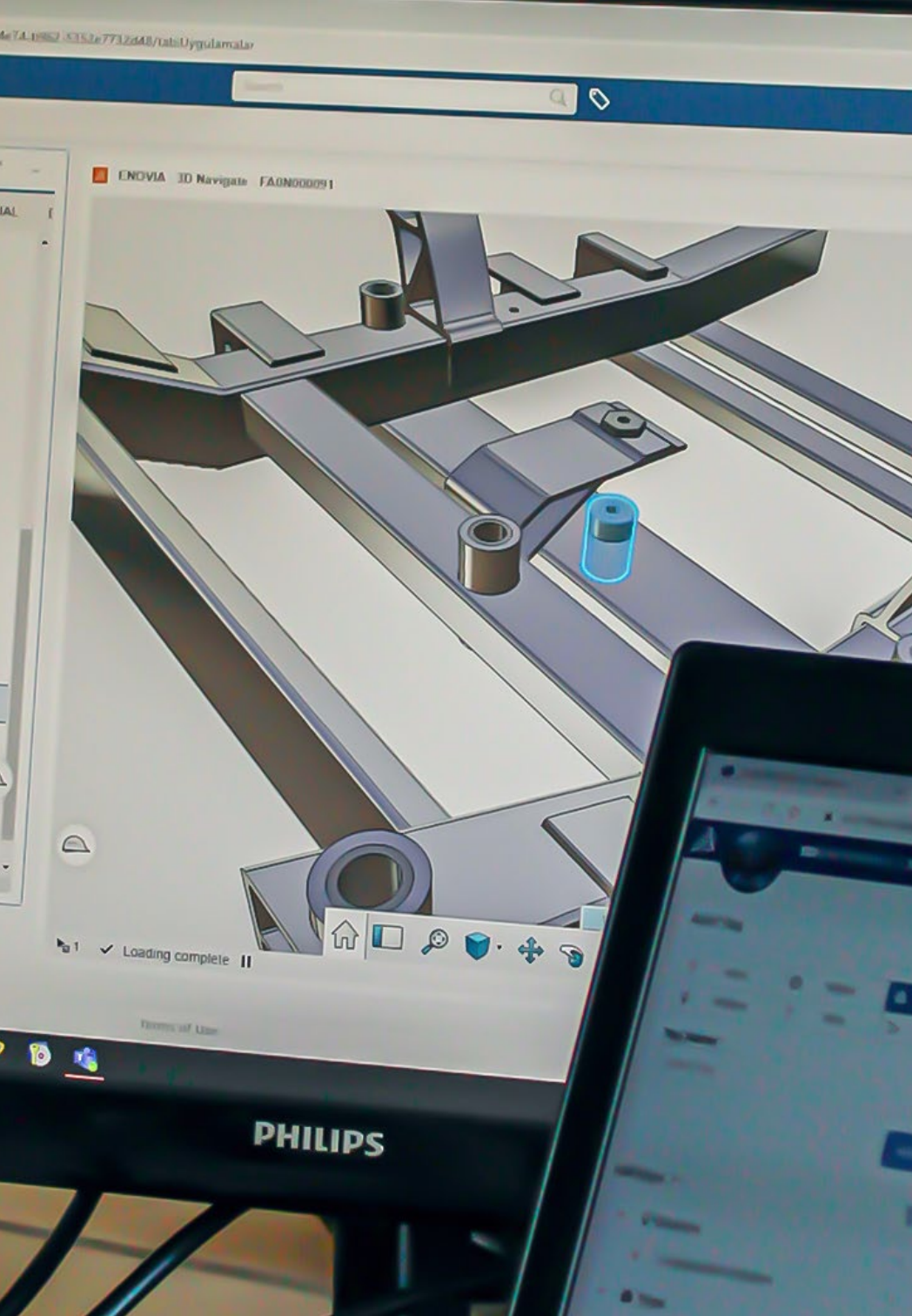
Our laboratory team, which consists of competent employees, performs metallographic and mechanical experiments to determine the characteristic properties of materials. At the same time, we carry out strength tests and environmental tests such as dimensional and mechanical verification, material verification, paint and surface verification, and environmental tests at the customer's workplace, with our devices with which we can test product expectations.



Product Development

In its product development processes, Canray aims to anticipate new technological trends and offer differentiating products that meet efficiency, lightness, cost, quality and safety requirements. We work closely with key manufacturers in the rail industry when designing and manufacturing our products, from the early stages of development to final production.

Canray is constantly working to develop lighter tools. Mitigation is one of Canray's main research areas. This is one of the most demanded requirements in the rail industry due to the need to improve fuel efficiency and reduce CO2 emissions.

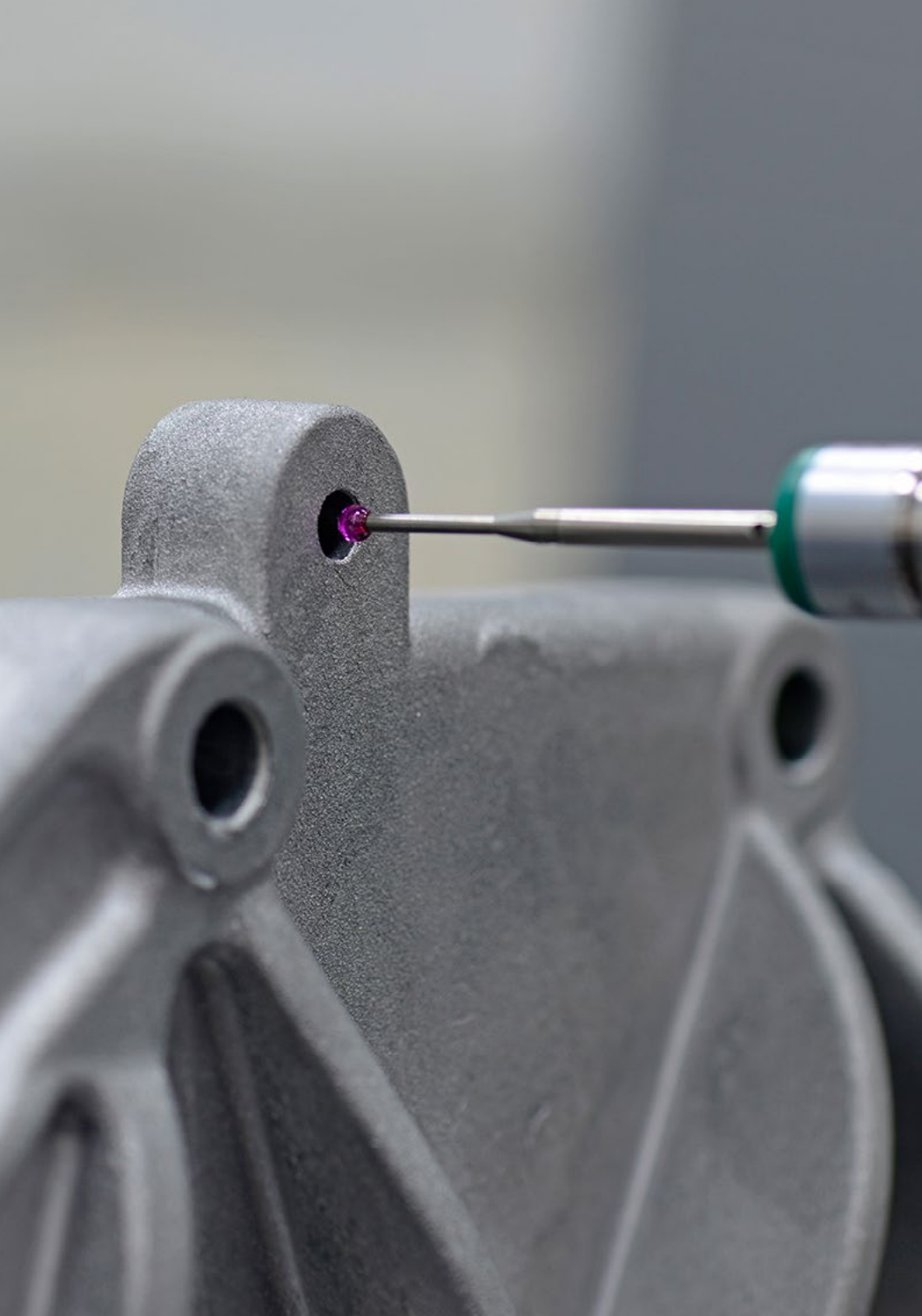


Engineering

We work with the principle of presenting ready-to-use products to the customer in the product groups we have produced. Although the number of sub-parts managed is quite high, we are able to offer products within narrow tolerance ranges, which are customer demand in the final product, as tolerance analyzes are carried out meticulously.

Project Management

We adopt a management approach in line with agile project management, team management, mastery of customer specific requests, solution and focus, proactive approach, and perfect customer experience, meeting the rail systems sector requirements with the PMI methodology.




Quality Management

Compliant with rail system standards; We serve as a strategic solution partner that our customers trust with IRIS ISO/TS 22163 quality management system, environmental sustainability, OHS, traceability, QDMS, digital transformation, green reconciliation, OHSAS 14001, 18001, EN 15085-2, DIN 6701 certificates and programs.

Digitalization

We continue to digitize at full speed in all our business processes, from design to production. In this context, we use our digital infrastructure in PowerBI, quality control, production and documentation processes.





Our goal is “A Sustainable World with Happy Employees”

As Yeşilova Holding, our goal is “A Sustainable World with Happy Employees” in every field that we operate. We follow this motto, our values and principles as we move forward towards this goal.

To reach our purpose, we adopt sustainability in all 3 aspects: Environmental, Social and Economic as our core strategies and integrate to the way we do business in all our companies and processes.

YEŞİLOVA

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TRANSPORT**

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