



CATALOG / 26

- Special and Standard Type Freight Wagons,
- Special and Standard Type Bogies,
- Railway Machineries and Components,
- Locomotive Components,
- Steel Structure Components,

www.esray.com.tr



Company Overview

Founded in 1992, ESRAY A.Ş. is a specialized railway manufacturing company focused on the design, engineering, and production of freight wagons, bogies, railway vehicle structures, and heavy welded assemblies for the international rail industry.

With more than 30 years of experience, ESRAY has become a reliable engineering and manufacturing partner for international railway projects, offering high-quality production capabilities in accordance with European railway standards and customer-specific requirements.

Strategically located in Eskişehir / Türkiye – one of the country's major railway industry hubs – ESRAY provides fast and flexible logistics solutions with average truck delivery access to most European destinations within approximately one week.

ESRAY has experience in projects and industrial cooperation across Europe, America, Asia, and Africa through various railway manufacturing, engineering, testing, homologation, and supply partnerships.

For more detailed information, please contact our teams

Core Competencies

- Railway manufacturing specialist since 1992
- TSI-compliant manufacturing and railway production standards
- Extensive European and international railway project experience
- Bogie and freight wagon engineering capability
- Heavy welded steel structure expertise
- End-to-end project capability from engineering to serial production
- Manufacturing support for railway maintenance vehicles, locomotives, and OTMs
- Experience with international homologation and certification processes
- Flexible logistics advantage with fast access to European markets
- Coordination experience for testing, validation, and approval activities

Production & Engineering Capabilities

ESRAY provides integrated solutions including:

- Engineering & 3D CAD design
- Welded structure manufacturing
- CNC cutting & machining
- Robotic and manual railway welding
- Latest-generation tandem robotic welding systems
- Heavy-duty welding positioners
- 3D laser measurement and dimensional control systems
- Surface treatment, blasting & painting
- 23-meter fully automatic chassis and material sandblasting machine
- 23-meter water-based industrial painting facility
- Mechanical assembly and integration operations
- Inspection pit infrastructure for railway vehicle assembly and controls
- Prototype manufacturing and serial production



◀ You can watch our corporate video here.



**23M FULLY AUTOMATED
UNDERFRAME SANDBLASTING
MACHINE**







ESRAY delivers high-quality railway components and spare parts manufactured according to European standards and customer-specific designs. Combining engineering expertise, precision manufacturing, and flexible production, we provide reliable solutions with an average delivery time of only 5 working days to most European destinations.

Engineering & Homologation Support

ESRAY supports railway projects not only with manufacturing capability, but also with engineering coordination and homologation-oriented project management throughout the complete project lifecycle.

Engineering Services

- 3D CAD design and modeling
- FEM and structural analysis support
- Production engineering
- Prototype development
- Technical documentation preparation
- Manufacturing optimization support

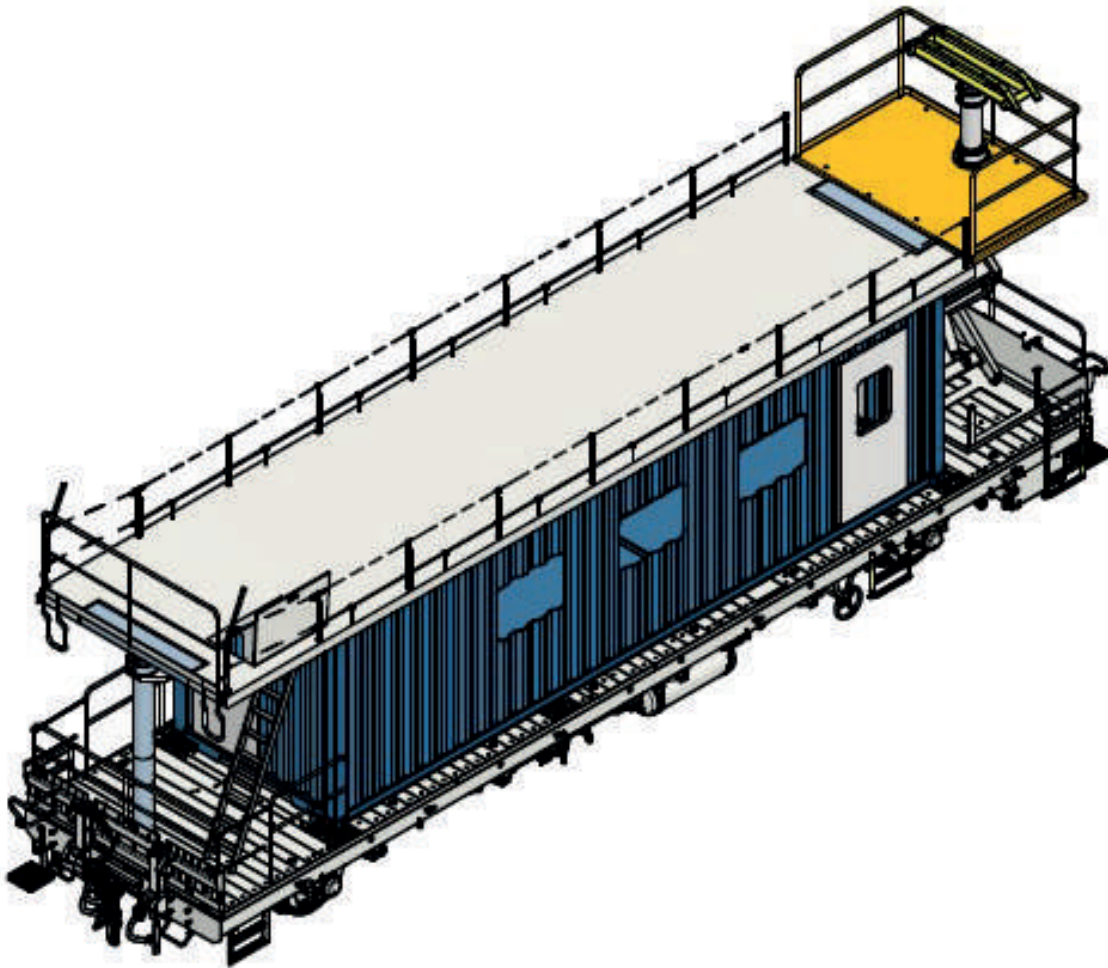
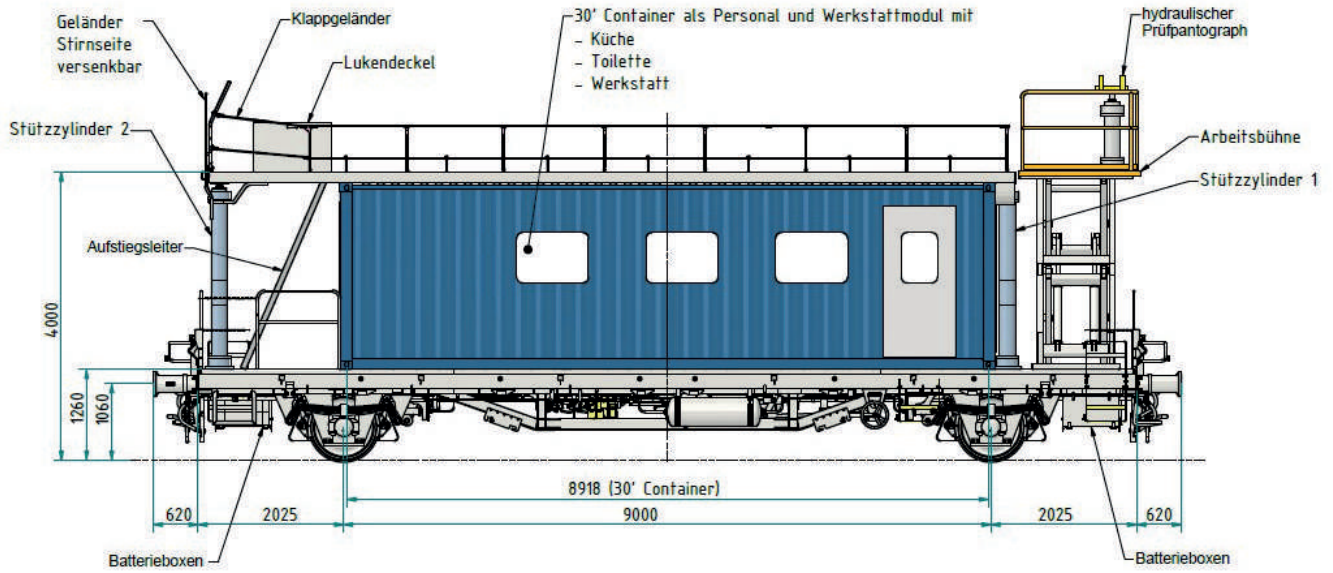
Railway Standards & Compliance

- EN 14363 support for dynamic behaviour requirements
- EN 14033 support for railway maintenance vehicles and OTMs
- TSI-oriented documentation preparation
- Manufacturing according to European railway standards
- Technical coordination with certification bodies

Homologation & Testing Support

- NoBo / DeBo coordination support
- Prototype manufacturing for testing activities
- Preparation for static and dynamic tests
- Manufacturing support during validation processes
- Engineering support for customer-specific approval requirements

By combining engineering know-how with flexible manufacturing capability, ESRAY aims to provide reliable and efficient solutions for international railway projects.



Engineering, Testing & Homologation Support

ESRAY supports international railway projects not only with manufacturing capability, but also with engineering coordination, testing preparation, and homologation-oriented project management throughout the complete project lifecycle.

Engineering & Technical Support

- 3D CAD design and modeling
- FEM and structural analysis support
- Production engineering
- Prototype development
- Technical documentation preparation
- Manufacturing optimization support

Railway Standards & Compliance Experience

- EN 14363 dynamic behaviour support
- EN 14033 railway maintenance vehicle requirements
- TSI WAG compliance-oriented manufacturing
- TSI LOC & PAS related structure manufacturing support
- Technical file and documentation preparation
- Manufacturing according to European railway standards

Testing & Homologation Coordination

- Support and coordination for EN 14033 type tests
- Static and dynamic test preparation
- Prototype manufacturing for validation activities
- Coordination support with NoBo / DeBo / AsBo organizations
- Support for homologation and commissioning activities
- Experience with international testing and approval project workflows

ESRAY has participated in and supported projects involving freight wagons, bogies, OTMs, locomotive structures, and railway maintenance vehicles requiring testing and homologation processes according to European railway regulations and standards.





Special Type Wagon Production

Ballast Machinery with Crane



◀ Opportunity to work at night with lighting system

Slab Transport Wagon



▲ 150 Ton Carrying Capacity
Coil Transport at 800 C°

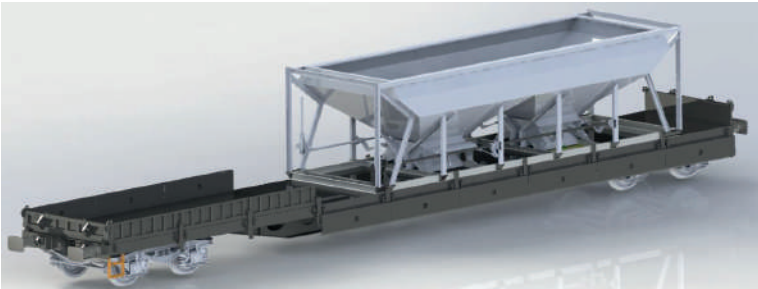
Slab & Coil Transport Wagon



▲ 150 Ton Carrying Capacity
Roll and Slab Transport at 800 C°

complete manufacturing according to the project

Multi-Purpose Product Carrying Wagon



Ladle Carrier Wagon



Standard Type Wagon Production

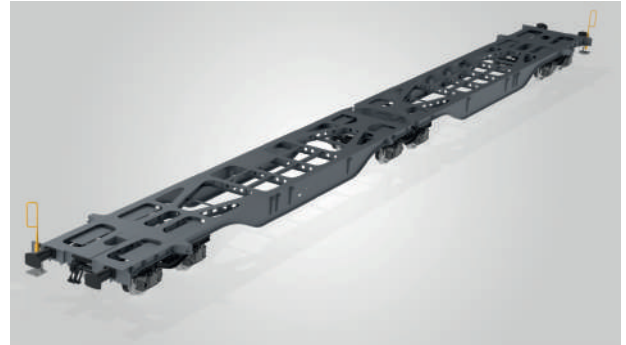
Ballast Wagon



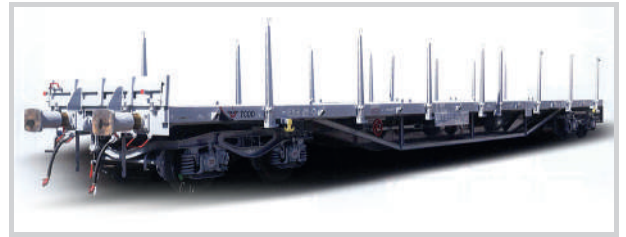
”

FACCPS WAGON,
with large transport
volume, ballast pouring
for a longer distance at
once

40", 60", 80",90" Container Wagons



Sgss Light Type Container Wagon



Rilns Wagon



Eanoss Wagon



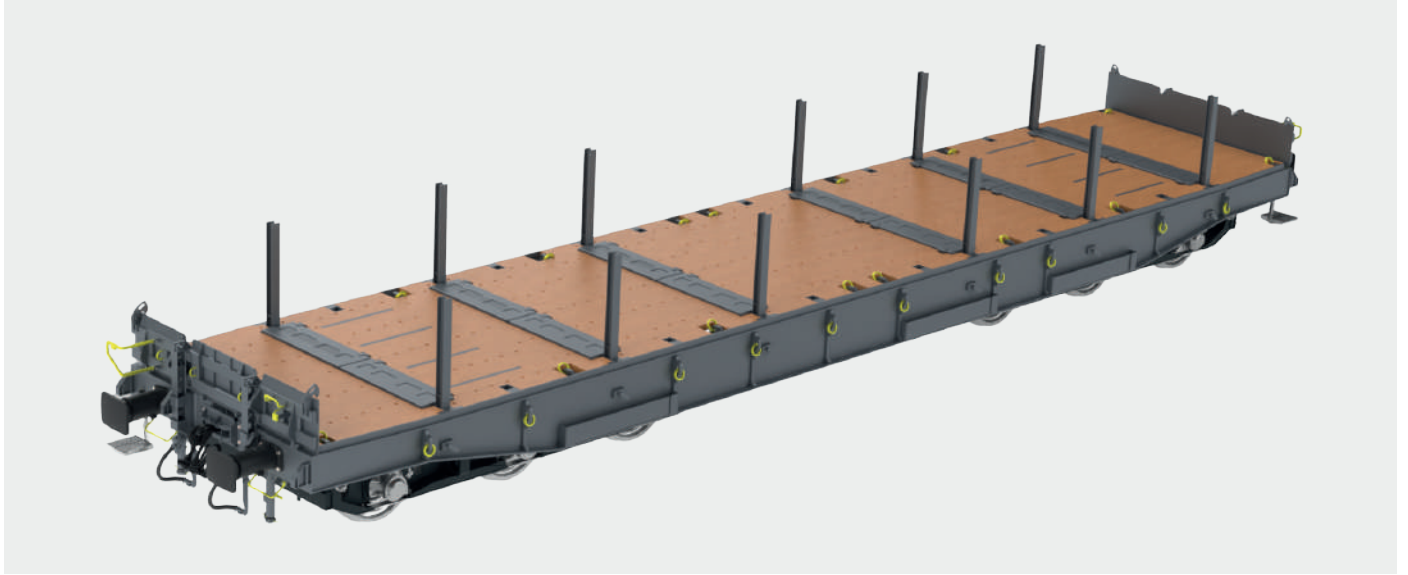
Sgnss 60ft Platform Wagon



6-AXLE SAMMS Wagon



Application: Transport of heavy steel product such as slabs, billets, blooms and heavy tracked vehicles. Designed for operation across the European railway network according to TSI, EN and UIC standards.



Parameter	Specification
Wagon Type	: SAMMS - 6 axle heavy duty flat wagon
Track Gauge	: 1435 mm
Maximum Speed	: 120 km/h (empty) / 100 km/h (loaded)
Maximum Axle Load	: 22.5 t
Maximum Gross Weight	: 135 t
Payload	: ≥ 104 t
Length over Buffers	: 16,400 mm
Loading Length	: 15,000 mm
Loading Width	: 3,090 mm
Loading Area	: 46.35 m ²
Minimum Curve Radius	: 75 m
Wheel Diameter	: 920 mm
Brake System	: KE GP A (K)
Buffer	: Category A - 40 kJ
Coupling	: Screw coupling 1.35 MN
Structure Material	: S355J2+N steel

ESR-3-K Bogie

Freight wagon bogie designed for high payload applications and stable running performance. Developed according to TSI WAG, EN 13749, EN 14363 and UIC requirements.

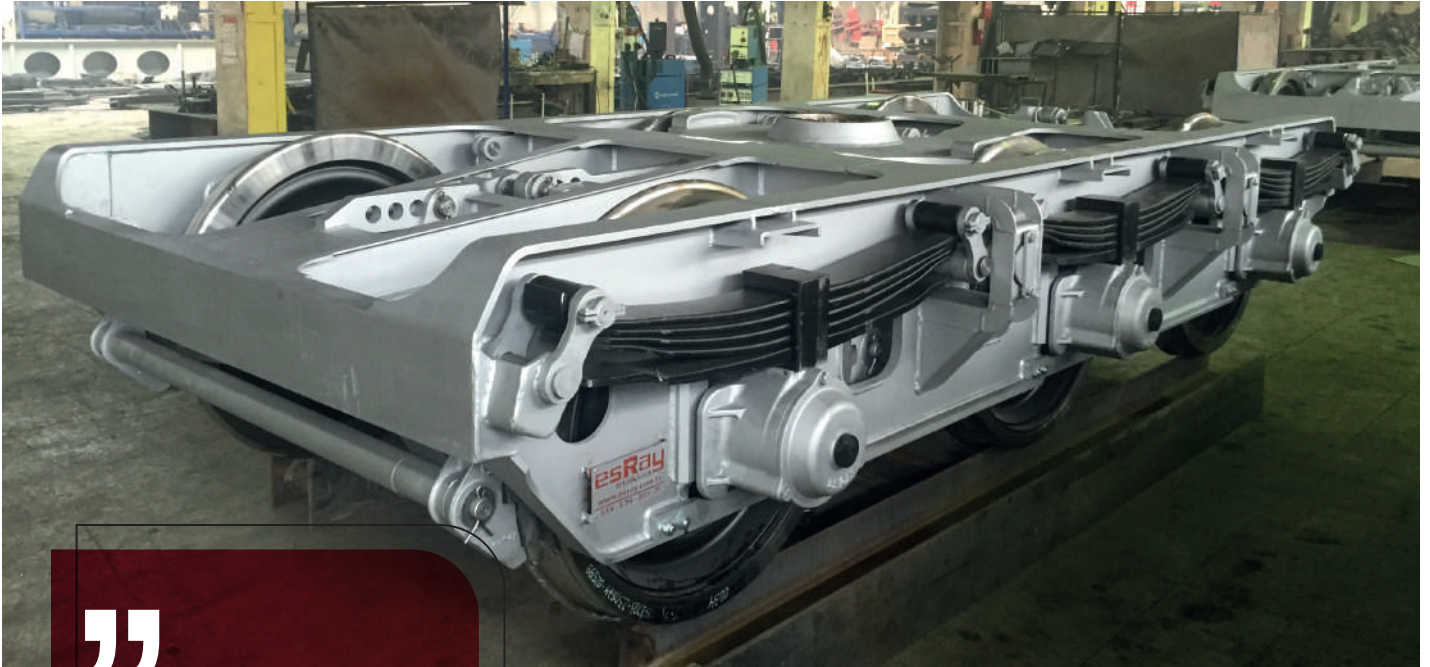


Parameter	Specification
Bogie Type	: 3 Axle Freight Bogie (BA714 / Esray716 type)
Track Gauge	: 1435 mm
Maximum Axle Load	: 22.5 t
Maximum Speed	: 120 km/h
Bogie Weight	: ~7,900 kg
Wheel Diameter	: 920 mm
Wheel Profile	: EN 13715 S1002
Wheelbase	: 2 × 1700 mm
Bogie Length	: 5060 mm
Bogie Width	: 2300 mm
Suspension	: Parabolic spring suspension
Frame Type	: Welded frame
Material	: S355J2+N
Brake System	: Composite brake blocks 2×Bg
Slack Adjuster	: Knorr DRV type
Center Pivot Liner	: TENMAT Railko NF21



Special Type Bogie Production

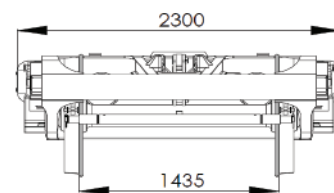
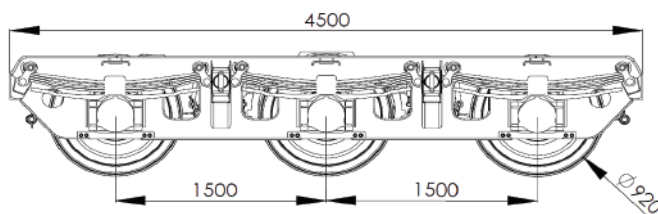
3 Axle Bogie (For Internall Usage with 25T Axle Capacity)



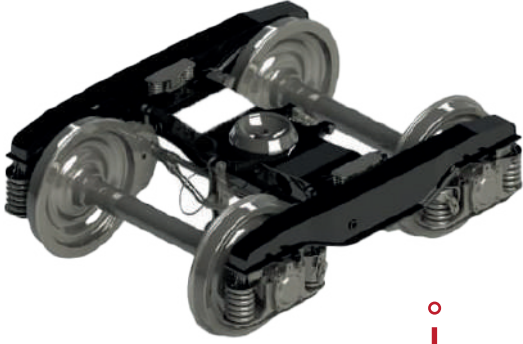
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75TON
capacity

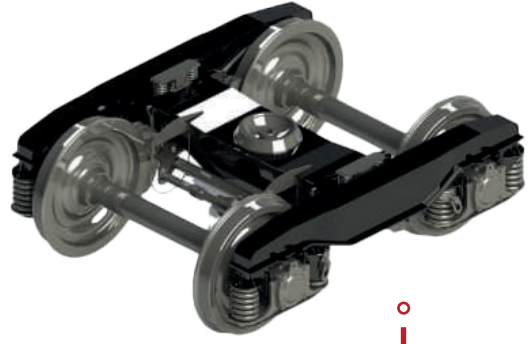
Rail Spacing	: 1435 mm
Wheel Diameter	: 920
Maximum Service Speed	: 50 Km/H
Suspension	: 6 Leaf Suspension
Axle Diameter	: 180
Axle Load	: 25 t
Brake system	: Push & Break system with 12 pcs brake shoes
Number of Axles	: 3
Axles Axis Distance	: 1500 mm
Primary and Secondary Suspension Axis Distance	: 1200 mm



Esray TSI Bogie Family



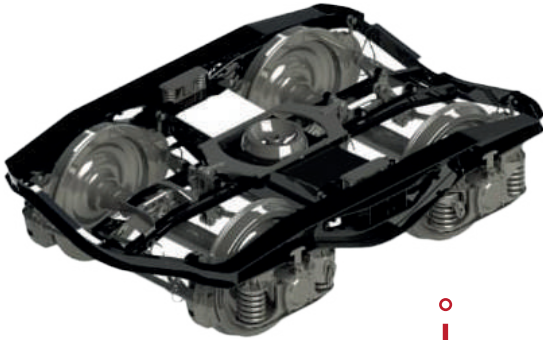
ESR-B-Y25-H-Ls-C



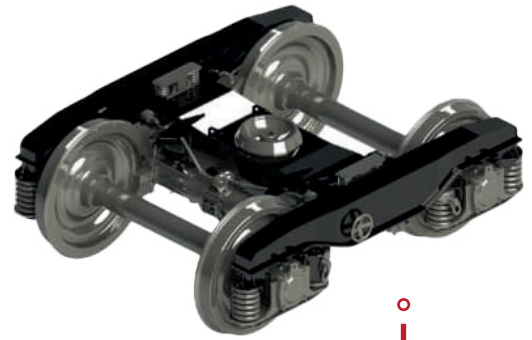
ESR-B-Y25-H-Lsi-C



ESR-3-K



ESR-B-Y25-Lsd-1-K



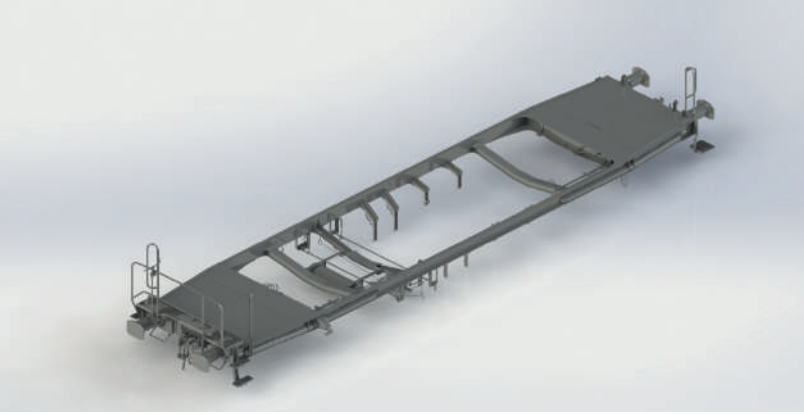
ESR-B-Y25-H-Lsi(f)-C



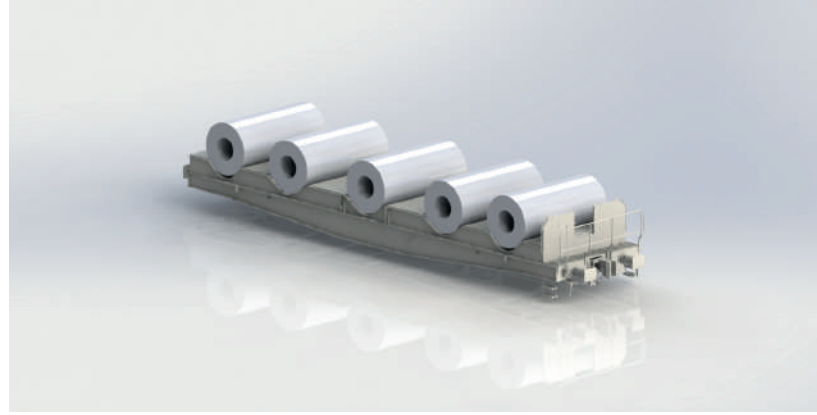
Chassis Production



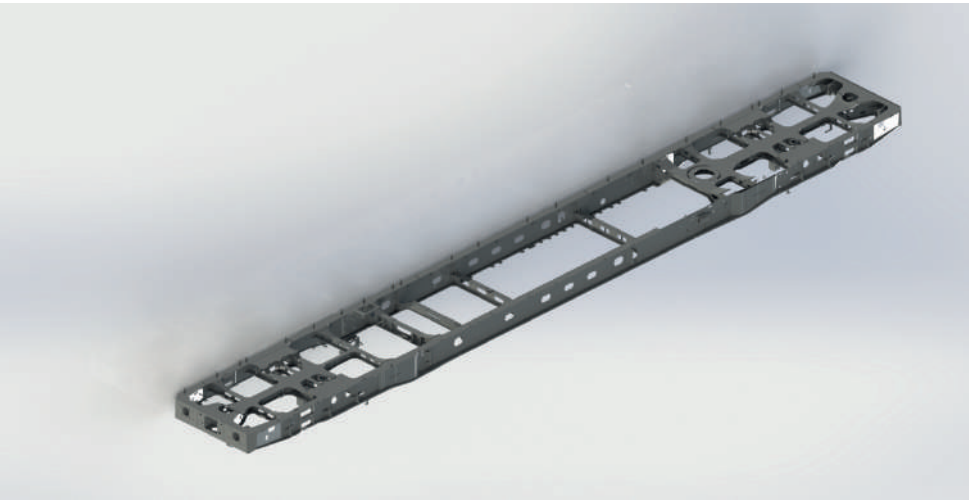
Uacns & Zacens Tank Wagon Chassis



Roller Wagon Chassis

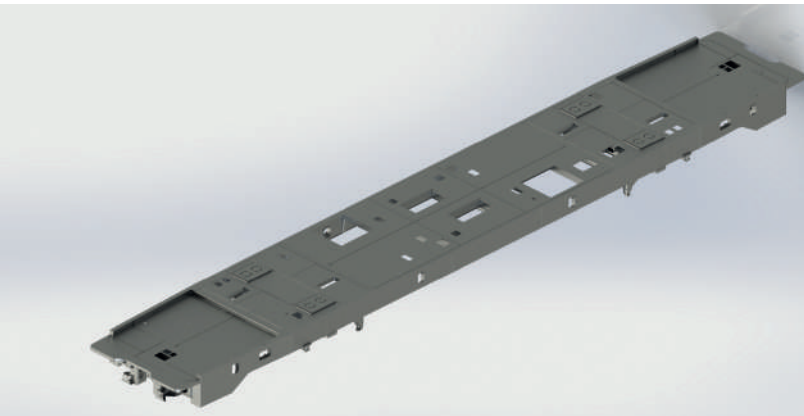


Multipurpose Vehicle Chassis

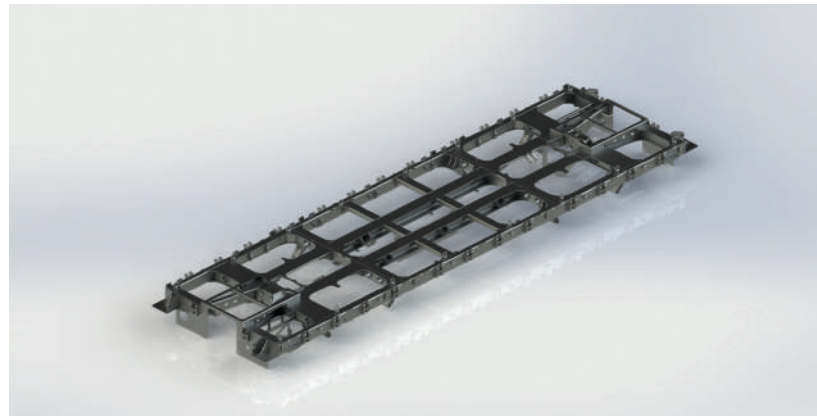


Manufacturing special
designed products with
requested standards

Locomotive Chassis

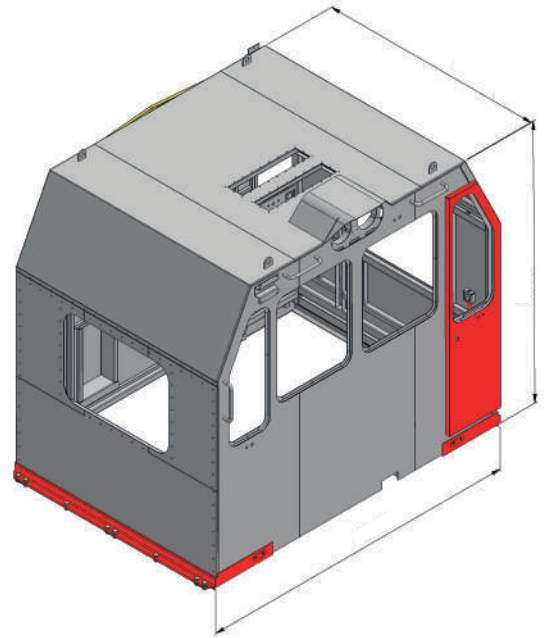


Special Trailer's Chassis

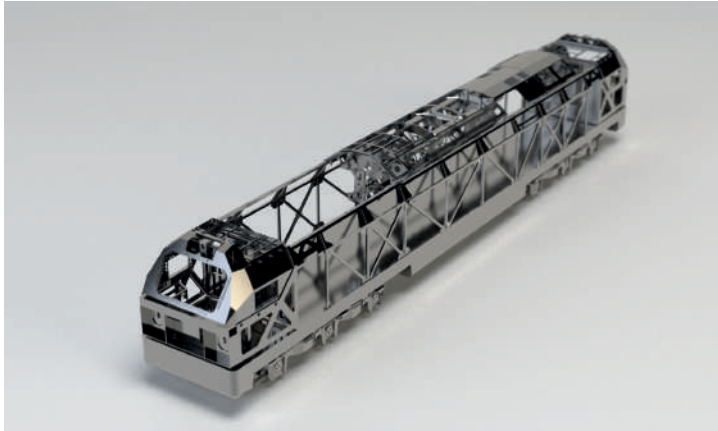


Locomotive Marquises

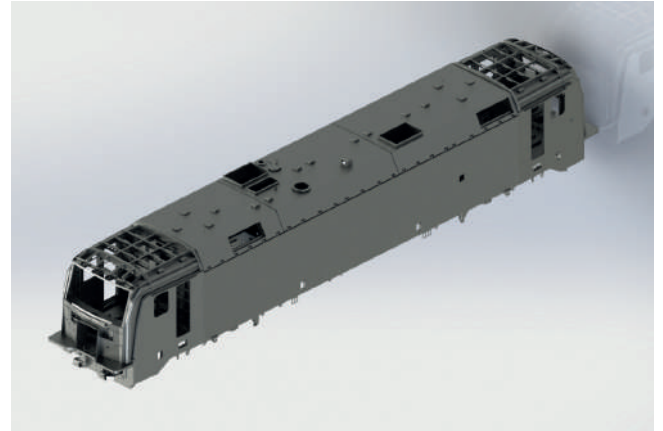
Cabinet production in various material
thicknesses and qualities



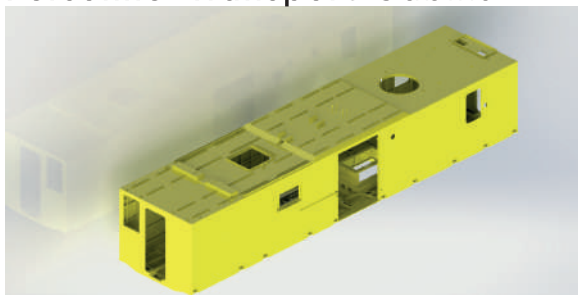
Locomotive Structure



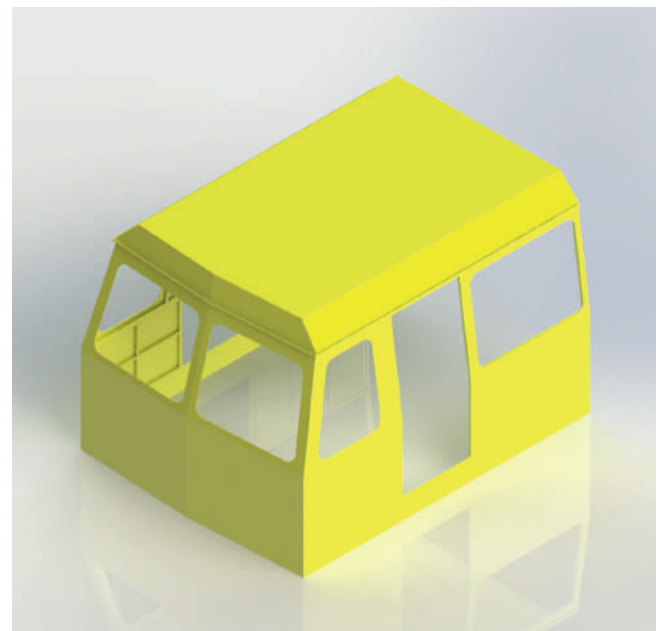
Locomotive Cabins



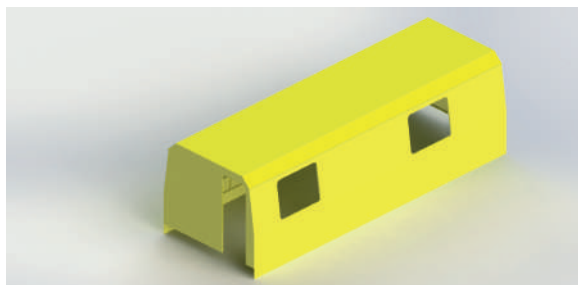
Personnel Transport Cabins



Driver Cabins



Machine Room Cabins



OEM SUPPLIER PROJECT

Delivering high-quality welded structures and railway vehicle assemblies for leading international OEMs, manufactured according to customer-specific designs and European quality standards.



SPARE PARTS

Manufacturing precision railway spare parts in accordance with European standards and customer specifications, with reliable quality and fast delivery across Europe.







Component & Spare Parts Production



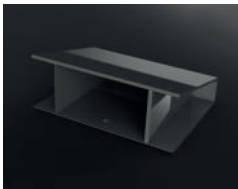
■ Ballast Transport Container



■ Sensor Side Beam



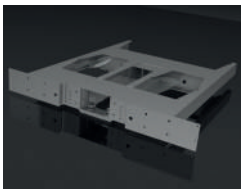
■ Side Beam Sensorless



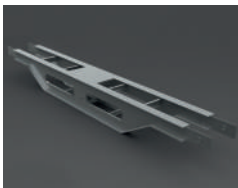
■ Wagon Towing Hook Support



■ Retainer Arm



■ Sgs Wagon Bumper Traverse



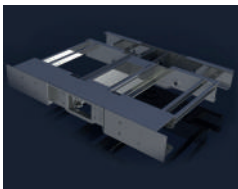
■ Connection Beam Right



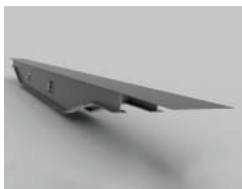
■ Müselles



■ Container Bed Support



■ Container Wagon Bumper Traverse



■ Container Wagon Length Beam



■ Container Holder Slot



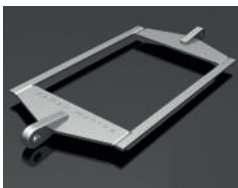
■ Container Holder Slot (Double)



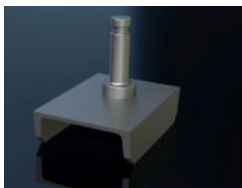
■ Suport



■ Brake Drawbar



■ Brake Pull Frame



■ Direk Suportu



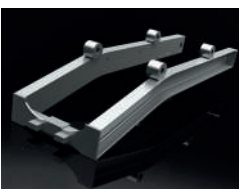
■ Mast Fixing Right



■ Mast Assembly



■ Bogie Middle Traverse



■ Connection Beam Right

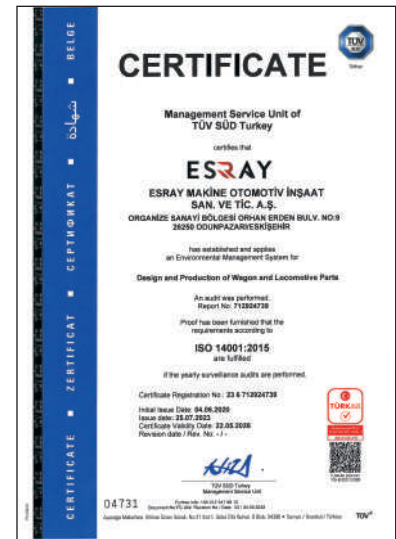
EN 15085 - 2



ISO 9001 : 2015



ISO 14001 : 2015



ISO 45001 : 2018



ISO 3834 - 2 : 2021



Entity in Charge of Maintenance(ECM)

HEAD OF TRANSPORTATION AND LOGISTIC SYSTEMS CENTER
CERTIFICATE OF CONFORMITY FOR MAINTENANCE FUNCTIONS

1. EEN NUMBER: TR/2022/0087

2. CERTIFIED ENTITY IN CHARGE OF MAINTENANCE

Legal Title: ESRAY MAKİNE OTOMOTİV İNŞAAT SAN. VE TİC. A.Ş.
Commercial Registration or company (Ticaret Sicil) -
Complete postal address: Organize Sanayi Bölgesi Orhan Erden Bulvarı Odunpazarı/ESKİŞEHİR
Post Code: 26061
Registration Number: 23118
VAT No: 463924942

3. CERTIFICATION BODY

Legal Title: TÜRK STANDARTİZASYON ENSTİTÜSÜ
Complete postal address: NECATİBEY CAD. NO:312 06000 BAKANLIKBLARI ANKARA
Certification Body Reference Number: 021

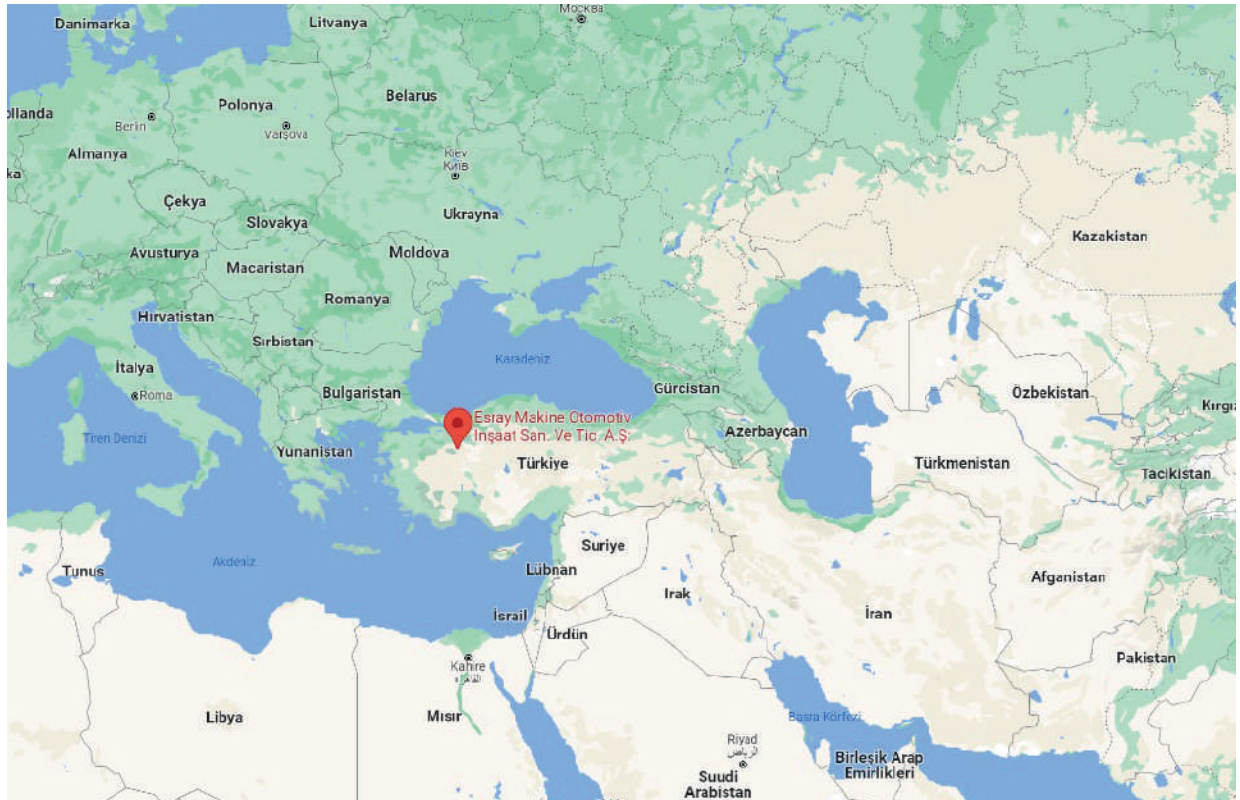
4. CERTIFICATE INFORMATION

This is a: ☒ New Certificate ☐ Renewed Certificate ☐ Update/Amended Certificate
Validity from: 2020-2021
Type of company: Maintenance Supplier
List of activities: welding, laser, mechanical, electrical, etc.

5. SCOPE OF ECM ACTIVITIES

Category of vehicles: freight wagon, passenger wagon, locomotive, OTM
(freight wagon, locomotive, multiple unit, passenger wagon, high speed vehicle (TGV/ETR))
Critical wagon operated in transfers of dangerous goods ☒ YES ☐ NO

Document Number: U.S. 38.40-F-00000-000 Edition Date: 05/2021 Revision Date / Revision: /
This certificate of conformity should be followed through electronic media of TÜRK Standartizasyon Enstitüsü



You can watch our corporate video here.



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Organize Sanayi Bölgesi Orhan Erden Bulvarı No:9 Odunpazarı / Eskişehir / Türkiye

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