



PUSHING THE BOUNDARIES OF STRUCTURAL ENGINEERING

Europe's Highest-Capacity 150 MN Extrusion Line &
Integrated Aluminium Solutions

**Engineering the Future of
Heavy Industry at Unrivaled Scale**

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SAKARYA - TÜRKİYE



NEUWIED - GERMANY

ASAŞ

Founded in 1990, **ASAŞ** is now one of Türkiye's leading industrial companies, with five state-of-the-art production facilities located in the Sakarya region, over 3,000 employees, and exports to more than 90 countries. Having remained among the top 500 industrial companies for approx. 25 years since 2001, **ASAŞ** ranks among the top 100 largest industrial companies in Türkiye and is one of Europe's leading manufacturers. It creates value for the sectors it serves with its R&D Center, state-of-the-art integrated production facility, and expert team.

Production Capacities (Türkiye Facilities - 1,450,000 m² Total / 450,000 m² Enclosed Area)

• Aluminium Extrusion Profiles:

- **Aluminium Billet:** 130,000 tons/year
- **Aluminium Profile:** 130,000 tons/year
- **Anodized Aluminium Profile:** 40,000 tons/year
- **Powder Coated Aluminium Profile:** 24,000 tons/year

• Aluminium Flat Rolled Products:

- **Casting:** 150,000 tons/year
- **Cold Rolling:** 250,000 tons/year
- **Foil:** 100,000 tons/year
- **Lacquered Foil:** 10,000 tons/year
- **Pre-painted Sheet:** 50,000 tons/year

• Aluminium Composite Panel: 8,000,000 m²/year

- **PVC Profile:** 35,000 tons/year
- **Lamella Roller Shutter:** 30,000,000 linear meters/year
- **Door & Window Systems:** 150,000 units/year

• Aluminium Foam Plant:

- **Aluminium Powder:** 10,000 tons/year
- **Aluminium Foam:** 5,000 tons/year (Till 2030)



ASAŞ serves key strategic sectors - including aerospace, railway, automotive, construction, commercial vehicles, energy, packaging, consumer goods, and marine. Beyond semi-finished goods, **ASAŞ** markets aluminium architectural systems (doors, windows, curtain wall systems), aluminium composite panels, PVC door and window systems, shutter systems, motor control systems, advanced aluminium technologies (aluminium foam and powder) and aluminium design products (flag poles and lighting poles, aluminium furniture).

Established in 2015 as an integrated learning, design, and production platform, **ASAŞART** bridges the gap between art and industry by providing artists, academics, and students direct access to **ASAŞ**'s advanced manufacturing facilities, technical expertise, and industrial materials. Through workshops, art residency programs, and collaborative projects, it empowers creators to execute large-scale artworks and complex designs while fostering university-industry partnerships and advancing contemporary art production.

Global Operations:

Germany

ASAŞ GmbH was established in 2018 near Koblenz on an 880,000 m² site, serving as a European hub to provide direct service to our customers whenever needed.

France

Founded in 2025 following the acquisition of Eurofoil France, **ASAŞ S.A.S.** operates a 130,000 m² facility (55,450 m² covered) in Rugles, producing high-quality aluminium foil from 300 µm down to 6 µm for the packaging, food, pharmaceutical and automotive sectors.



SUSTAINABLE ALUMINIUM MANUFACTURING

Driving Low-Carbon Manufacturing with Sustainable Aluminium Solutions

Sustainability is fully integrated into the 150 MN extrusion ecosystem at ASAŞ. By pairing Europe's largest 150 MN extrusion capacity with low-carbon billet innovations and high recycled material rates, global OEMs are empowered to **meet stringent environmental targets and achieve carbon reductions.**



EPD (Environmental Product Declaration) Verified

Product-specific EPD certification provides fully transparent, third-party verified Life Cycle Assessment (LCA) data for our extruded profiles.



ISO 14064 Carbon Footprint Verification

Corporate greenhouse gas emissions are calculated, independently audited, and verified under the ISO 14064 standard to ensure complete emissions transparency.



ASI (Aluminium Stewardship Initiative) Certified

Full ASI Chain of Custody certification guarantees that raw materials are responsibly sourced, manufactured, and processed under strict ESG standards across their lifecycle.



100% Electrified 150 MN Extrusion Ecosystem

Operating on a fully electrified machinery setup powered by certified renewable energy sources, our 150 MN extrusion line eliminates direct process emissions.



High Recycled Material Content (%53+)

Featuring an average recycled aluminum input rate exceeding 53% in profile manufacturing, significantly minimizing raw material extraction impacts.



NexAL: Low Carbon Aluminium Billet

(≤ 4 kg CO₂eq/kg Al)

Engineered through in-house R&D, NexAL provides a certified low-carbon billet option with a carbon footprint below 4 kg CO₂eq/kg Al-offering uncompromised structural strength with minimal environmental impact.



A HOLISTIC VISION FOR LARGE-SCALE STRUCTURAL SOLUTIONS

The global industrial landscape is undergoing a profound transformation. Across transportation, mobility, energy, and heavy engineering, the demand for lightweight, high-strength material solutions is accelerating rapidly. Driven by decarbonization goals, structural efficiency, and the need for higher energy performance, global OEMs are increasingly seeking advanced manufacturing partners capable of delivering large-scale, high-precision aluminium components.

The strategic approach at ASAŞ is built on solving complex engineering challenges through industrial scale and technological versatility. The commissioning of the **150 MN** (15,000-ton) extrusion line - **Europe's highest-capacity press** - represents far more than a capacity expansion. It introduces a **strategic platform designed to eliminate traditional design boundaries in structural engineering**. By uniting record-breaking extrusion force with end-to-end mechanical processing under a single roof, global OEMs are empowered to push beyond traditional material constraints. Design engineers and manufacturers are invited to redefine structural limits and build the future of heavy industry together.

REDEFINING MANUFACTURING EFFICIENCY

The 150 MN extrusion ecosystem delivers direct structural and economic advantages across the entire product lifecycle - **reducing Total Cost of Ownership (TCO)** and accelerating market entry.



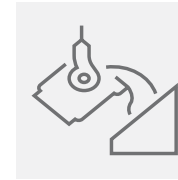
Single-Piece Large Extrusions

Single-piece extrusions **up to 30 m** replace complex multi-part welded structures, lowering deadweight, eliminating welding inspection risks, and streamlining assembly timelines.



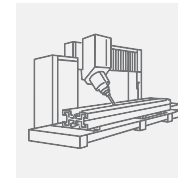
Mandrel Seamless Tube Technology

Direct piercing technology eliminates longitudinal weld seams entirely, providing **uniform hoop strength engineered for high-pressure applications**.



High-Strength Alloy Mastery

Massive extrusion force enables seamless processing of hard-to-form **2xxx** and **7xxx series alloys**, in several conditions including offline stretching and solution heat treatment delivering exceptional fatigue resistance and dynamic load capability.



Integrated One-Stop Fabrication

Primary billet casting, extrusion, 30 m, 5-axis **CNC machining**, and 120 m **Gantry Type Robotic Welding Line** operating under one roof directly simplify supply chains and ensure complete batch traceability.

INTEGRATED VALUE CHAIN

ASAŞ provides a fully integrated production ecosystem under one roof. This end-to-end operational model guarantees full quality control, reduced supply chain risks, and faster lead times for complex engineering projects.



Billet Casting

Alloys:

1xxx 2xxx, 3xxx, 6xxx, 7xxx, 9xxx series

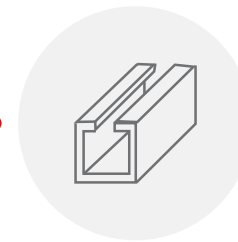
Billet Diameters:

6, 7, 8, 10, 14, 18, 24 inches



Die Production

Advanced die design & simulation, automated die shop for complex profiles



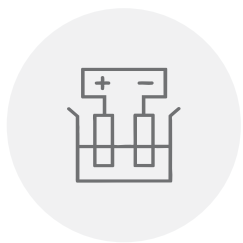
Extrusion Lines

10 Extrusion Lines: 1250, 1350, 1600, 2200, 2900, 4000, 4500 (x2), 6200, 15000 tons.

Max. Profile Width: 1000 mm

Max. Profile Height: 670 mm

Seamless Tubes Production: Up to 550 mm outer diameter



Surface Treatment

Anodising

Up to 15 m single length anodizing capability

Electrostatic Powder Coating & Sublimation

Up to 8 m single length powder coating

Conversion Coating (Alodine Coating)

MIL-DTL-5541

compliant (Type I/II, Class 1A & Class 3)
chemical conversion coating



Precision Machining & Welding

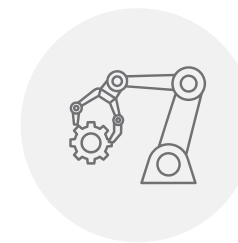
5 Axis Gantry Type CNC Machining Centers

handling profiles up to 30 m in length and 4.5 m in width

Robotic Automated CNC Machining Cells

Gantry Type Robotic Welding Lines spanning up to **120 m in length**

CNC and NC profile bending machines



Sub-Assembly & Kitting

Project-based third-party sourcing

Sub-assembly & line-ready kitting

Custom Packaging & Global Logistics

Export-grade protective packaging
JIT / JIS global delivery





BILLET CASTING

Integrated, High-Quality Billet Production for Heavy-Duty Extrusion

ASAŞ produces its own aluminium billets within its integrated manufacturing campus, maintaining 100% control over alloy chemistry, metallurgical quality, and billet characteristics tailored for large-scale extrusion requirements.



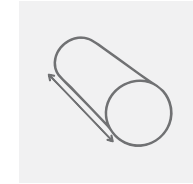
100% Inline Ultrasonic Inspection

Integrated directly into the production line, our non-destructive 100% ultrasonic testing unit screens every single billet for internal defects, inclusions, and voids before extrusion, guaranteeing flawless inner-structure integrity for high-stress applications.



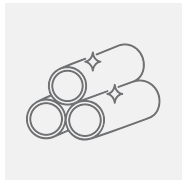
Extensive Billet Diameter Range

Production capabilities spanning 6", 7", 8", 10", 14", 18", and 24" billet diameters, offering ultimate flexibility from standard to extrusion applications.



Up to 7,300 mm Billet Length

Continuous billet casting lengths reaching up to 7,300 mm support seamless and efficient operations for large-scale presses like the 150 MN.



High Metallurgical Purity (AirSlip Technology)

Computer-controlled hot-top AirSlip casting ensures maximum microstructural homogeneity, low impurity levels, and inner-structure quality meeting stringent automotive, railway, and aerospace standards.



Continuous Homogenization

Precise heating controls combined with high-speed cooling deliver exceptional extrudability and consistent mechanical properties across all billets.



Alloy Portfolio

Custom casting capabilities across 1xxx, 2xxx, 3xxx, 6xxx, 7xxx, and 9xxx alloy series tailored to specific engineering demands.



150 MN EXTRUSION PRESS LARGE-SCALE EXTRUSION CAPABILITY

Extending the boundaries of aluminium extrusion, ASAŞ delivers large-scale structural profiles and seamless tubes engineered for demanding industrial applications such as aerospace, transportation, railway, marine, and GIS Systems (Gas Insulated Switchgear Substations). Powered by advanced billet preparation, precised heat treatment, and flexible alloy selection, our infrastructure ensures structural integrity, tight dimensional tolerances, and high performance across complex geometries.

30 Meter Structural Uniformity (Multi-Zone Billet Heating)

Guarantees identical mechanical properties and grain structure along the entire length of extra-long profiles, eliminating structural weak points and ensuring predictable load-bearing performance across large-scale assemblies.

Zero-Distortion Cross Sections (Thermal Container Control)

Maintains exact dimensional profile geometry during high-tonnage forming, ensuring seamless job-site integration and eliminating the need for costly manual realignment or secondary fitting.

Post-Processing Dimensional Stability (Quenching & Stretching)

Relieves internal residual stresses during quenching and stretching, ensuring profiles retain absolute straightness without warping or twisting.

Solution Heat Treatment

Dedicated **NADCAP confirmed** 2 solution heat treatment furnace lines process profiles **up to 19 meters in length**. This independent thermic thermal operation optimizes tempering, ensuring uniform metallurgical structure and maximum mechanical strength.

Offline Stretching

High-capacity **off-line stretching unit (2400 tons)** eliminates residual internal stresses and thermal distortion post-quenching. Guarantees absolute profile straightness, tight dimensional tolerances, and structural stability prior to final machining. **For conditions T611, T651 and T711.**

The image shows a vast industrial interior, likely an aluminum extrusion plant. A massive orange extrusion press dominates the center, with yellow structural frames and ladders. The press is positioned over a long, narrow channel where extruded profiles are likely processed. The background shows more industrial equipment and a high ceiling with structural beams.

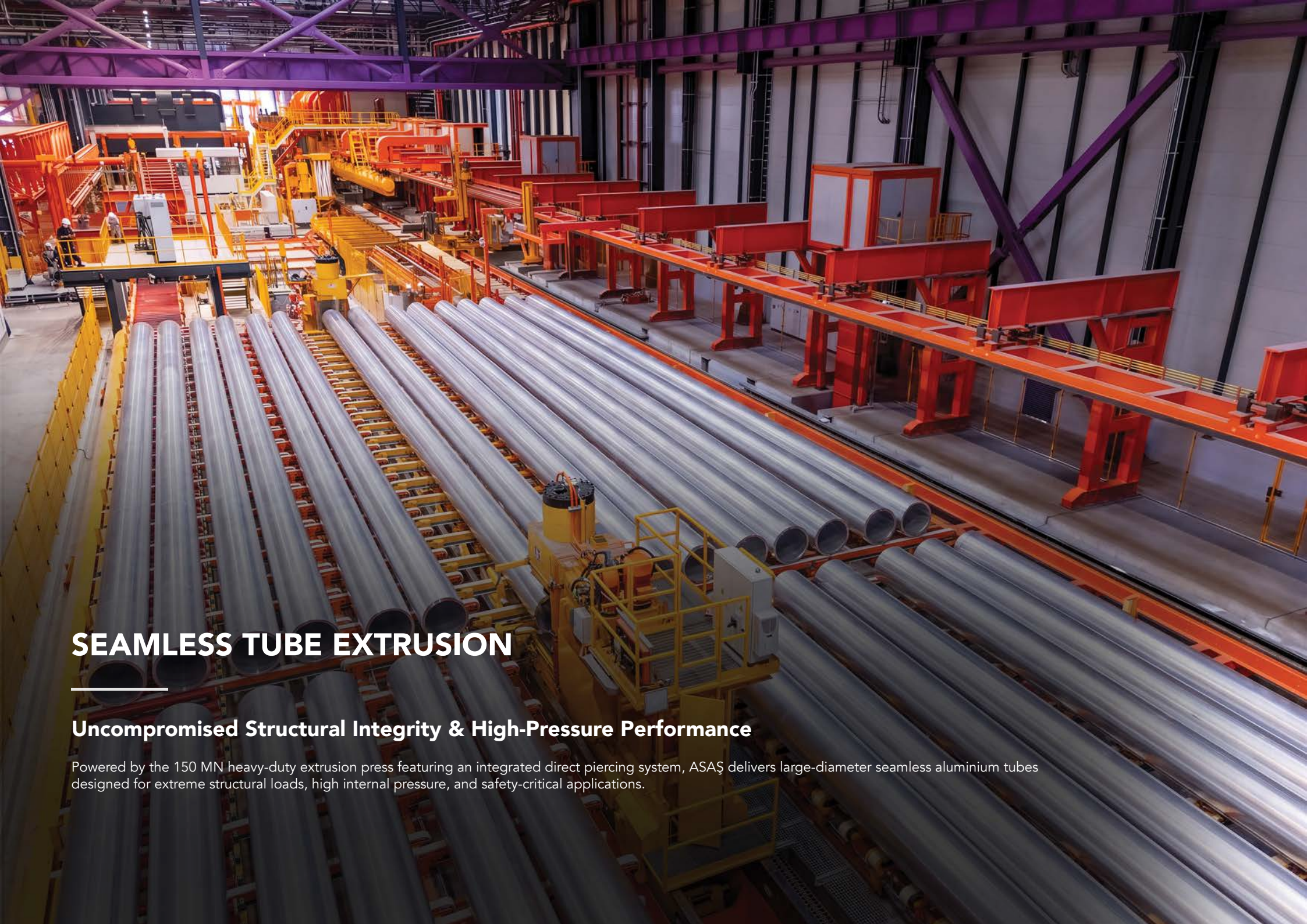
150 MN EXTRUSION PRESS TECHNICAL SPECIFICATIONS & DIMENSIONAL CAPABILITIES

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Technical Highlights

Extrusion Force	150 MN (15,000 Tons) Front-Loader Press
Billet Diameters	18" & 24"
Max. Profile Width	1000 mm
Max. Profile Height	670 mm
Max. Linear Weight	Up to 200 kg/m
Max. Single-Piece Length	Up to 30 m
Extrusion Alloys	1xxx, 2xxx, 6xxx, 7xxx, 9xxx Series
Seamless Tube Outer Diameter	Up to 550 mm*

* Maximum dimension is shown. Available diameter and wall thickness combinations depend on the wall thickness. Please contact our sales team for detailed feasibility.



SEAMLESS TUBE EXTRUSION

Uncompromised Structural Integrity & High-Pressure Performance

Powered by the 150 MN heavy-duty extrusion press featuring an integrated direct piercing system, ASAŞ delivers large-diameter seamless aluminium tubes designed for extreme structural loads, high internal pressure, and safety-critical applications.

Zero Weld Lines

Eliminates longitudinal weld seam weaknesses, eliminating the risk of rupture or leakage under high hydraulic or pneumatic pressures.

Uniform Grain Structure & Strength

Offers isotropic mechanical properties around the entire circumference, critical for precision machining, pressure vessels, and rotating components.

Superior Machining Performance

Homogeneous microstructure prevents tool wear spikes and deformation during CNC turning, boring, and honing operations.

Technical Highlights

Extrusion Force	Direct Mandrel Seamless Extrusion
Max. Outer Diameter	550 mm*
Max. Inner Diameter	340 mm*
Max. Single-Piece Length	Up to 30 m

* Maximum dimensions shown. Final diameter and wall thickness combinations depend on the wall thickness. Please contact our sales team for detailed feasibility.

KEY APPLICATIONS & TARGET INDUSTRIES



Aerospace

High-Strength Seamless Tubing 2xxxx, 6xxx, 7xxxx Alloys.



Marine & Offshore

Corrosion-Resistant Tubes with High Wall Thickness.



Energy & Heavy Industry

High Wall Thickness Tubes for GIS , Busbar and High-pressure Gas Applications.



Automotive & Commercial Vehicles

Crash-Resistant Structural Profiles.

A large industrial facility with a high ceiling and concrete floor. In the center, a large blue and yellow robotic welding system is in operation, with two robotic arms positioned over a large metal workpiece. A worker in a white hard hat and safety vest stands to the left, observing the process. The background shows various industrial equipment, including storage racks and other machinery. The overall scene depicts a modern manufacturing environment.

MACHINING, WELDING & ASSEMBLY

Advanced Fabrication & Assembly for Large-Scale Extrusion Profiles

ASAŞ possesses the capability to transform engineering concepts into semi-finished and fully assembled components. Beyond in-house bending, CNC machining, and welding, project-specific third-party hardware is seamlessly integrated to deliver ready-to-install solutions also, sub-components such as welded and assembled underframes, roofs and side panels for railway and marine industries are produced under the same roof.



5 Axis Gantry Type CNC Machining Centers

Handling profiles with high-precision CNC cutting, CNC drilling tapping, and punching.

Max. Profile Length: 30 m

Max. Profile Width: 4,5 m



Robotic Automated CNC Machining Cells

Fully automated CNC cells integrated with autonomous Mobile Robots (AMR) and dedicated automation setups.



Gantry Type Robotic & Manual Welding

EN 15085-2 CL1 and ISO 3834-2 certified MIG and TIG welding applications.

Max. Welding Machine Length: 120 m

Max. Welding Machine Width: 3,6 m



CNC and NC Profile Bending Machines

Profile Length: min. 400 mm - max. 25 m

Min. Square Profile: 38*38 mm



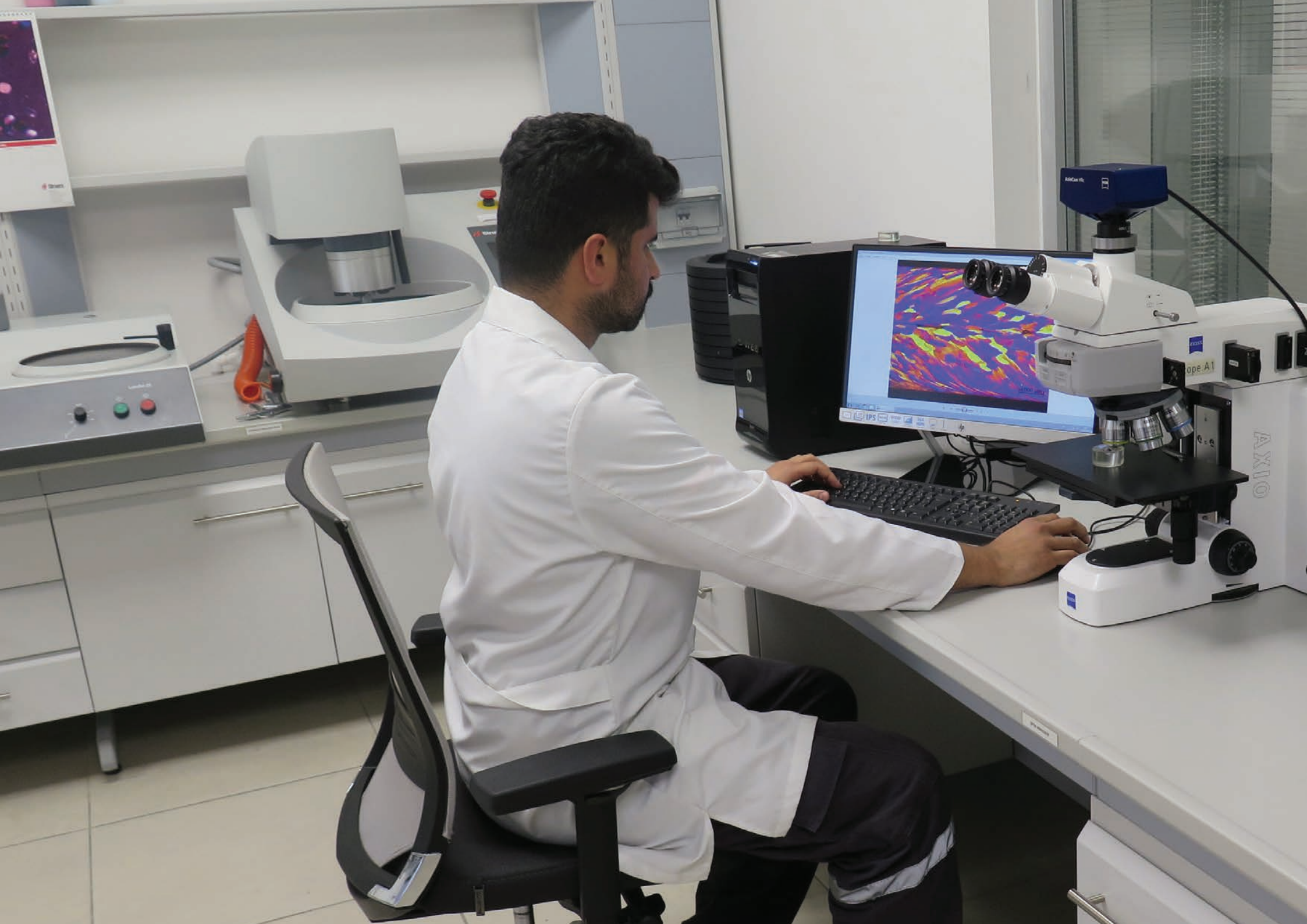
Turnkey Sub-Assembly, Sourcing & Line-Ready Kitting

- Anodizing, Electrostatic Powder Coating, Alodine Coating, Passivation
- Full Hardware & Component Integration
- Line-Ready Module Kitting & Custom Packaging
- Project-Based Third-Party Sourcing
- JIT / JIS Global Logistics Support



In-House Tooling, Fixtures & Control Gauges

- Advanced 3D geometry control,
- Camera-assisted inspection systems,
- Full in-house tooling and fixture manufacturing



RESEARCH & DEVELOPMENT

From Concept to Final Product: Engineering Excellence & Innovation

With a dedicated team of over 60 expert engineers and technicians, operating across a 3,100 m² state-of-the-art facility (including 1,800 m² LEED Gold certified space), the ASAŞ R&D Center acts as a strategic co-engineering partner for most demanding large-scale projects.

Alloy Development

Custom alloy design tailored to OEM and client specifications, engineered for superior mechanical strength and metallurgical performance.

Die Design & Data-Driven Process Modeling

Optimization of die life and extrudability for large profiles using advanced numerical simulation and data-driven process modeling.

Co-Design & Engineering Support

Technical consultancy and co-design support from initial concept through to manufacturability across strategic sectors including automotive, railway, aerospace, and marine.

Advanced Material Testing & Analysis

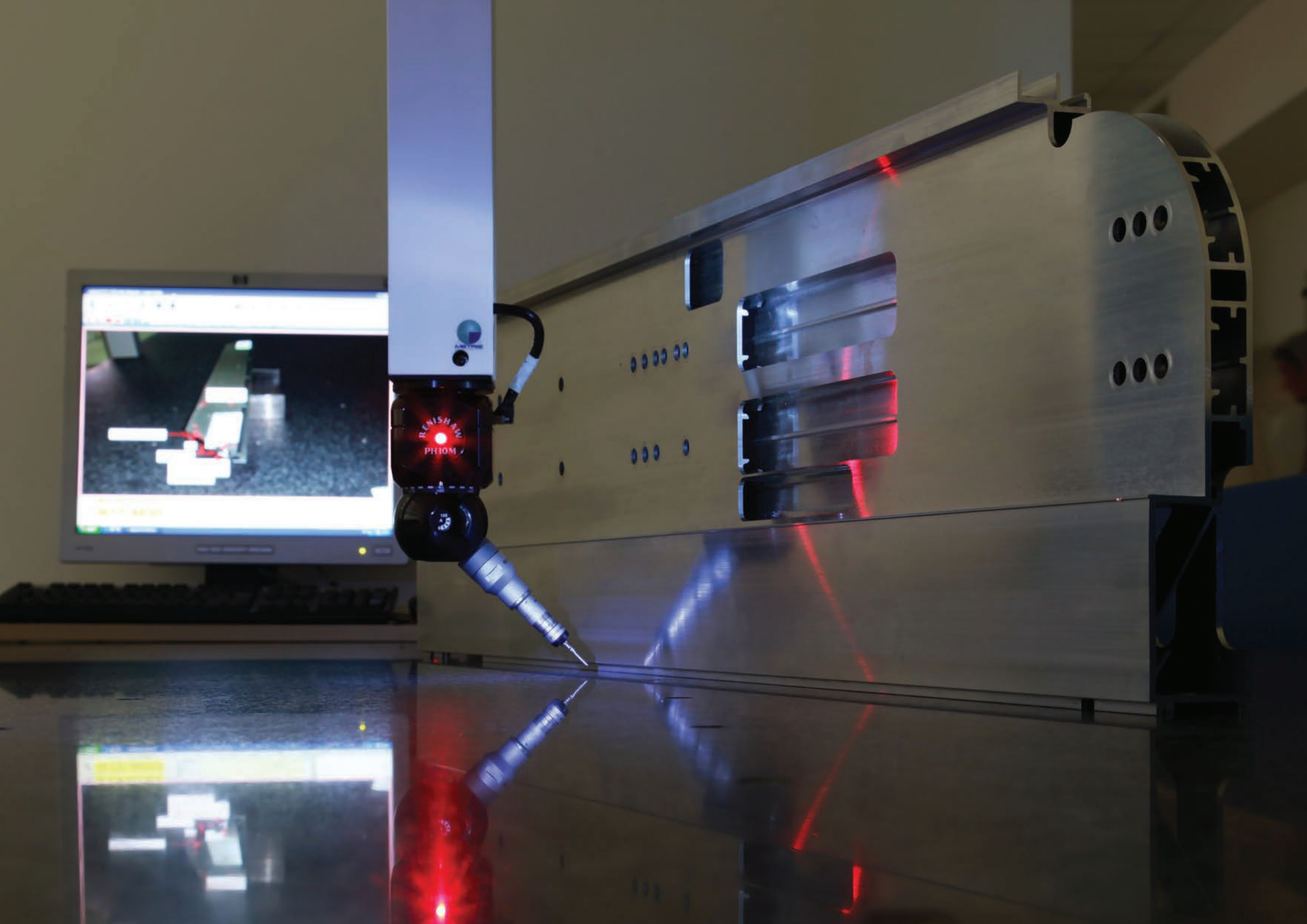
Microstructural analysis, mechanical testing, fatigue testing, and comprehensive characterization of advanced materials.

Sustainability-Driven R&D

Focused development on high recycled-content alloys, energy efficiency, and low-carbon billet/profile initiatives such as **NexAL**, designed to maintain carbon footprints below 4 kg CO₂eq/kg Al.

Proven R&D Track Record

Backed by a strong engineering heritage since 1990 - serving clients across **90+ countries**-alongside **10 completed EU-funded projects and 13 national R&D programs**.



MANUFACTURING EXCELLENCE & QUALITY

Uncompromising Quality Assurance for Critical Applications

Through rigorous testing laboratories, end-to-end digital traceability, and strict adherence to global OEM standards, ASAŞ eliminates quality risks at every stage delivering certified reliability from raw billet to ready-to-install components.

In-House Advanced Testing & QA Labs: Microstructural analysis, tensile/yield testing, fatigue testing, spectral analysis, and 3D CMM dimensional inspection ensure complete material verification before shipment.

Global Industry Standards & Certification: Fully certified Quality Management Systems compliant with aerospace, automotive, railway, and marine sector standards.

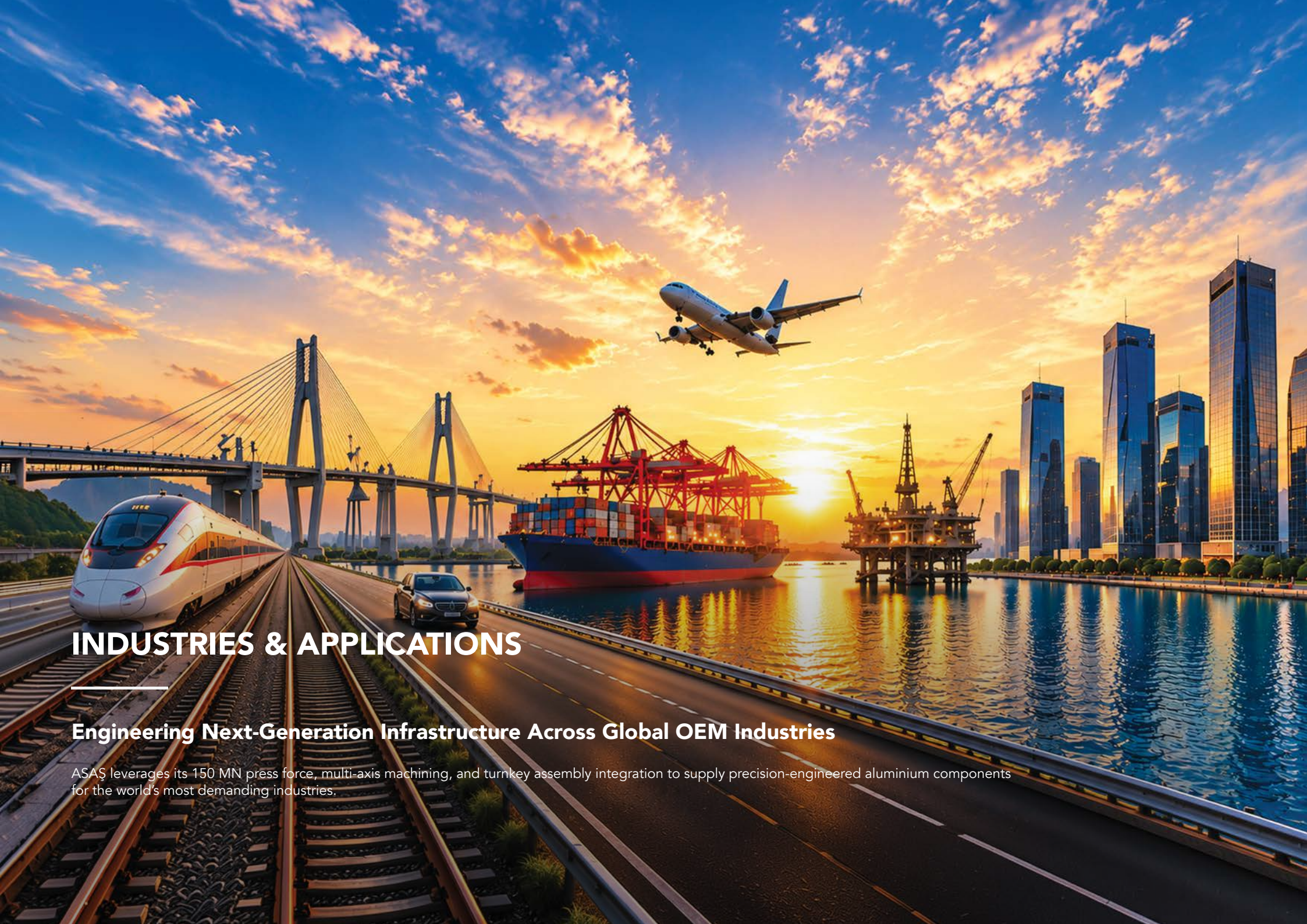
Billet Scalping: Eliminates internal porosity and oxide inclusion risks, guaranteeing ultra-clean microstructures and a more consistent profile quality.

Dimensional Precision: Multi-layer container thermal control prevents profile distortion. Controlled inline quenching and automated stretching achieve exact metallurgical specs, high straightness, and stress relief up to 30 m lengths.

Digital Traceability: Real-time process logging and digital twin integration ensure 100% material traceability and batch-to-batch consistency from raw billet to finished component.

Certified Quality Standards





INDUSTRIES & APPLICATIONS

Engineering Next-Generation Infrastructure Across Global OEM Industries

ASAŞ leverages its 150 MN press force, multi-axis machining, and turnkey assembly integration to supply precision-engineered aluminium components for the world's most demanding industries.



AEROSPACE

Alloys: 2xxx, 6xxx, 7xxx

Heat Treatment Conditions: T4, T6, T7, T6511, T7511 and other stress relieved conditions

Applications: Hydraulic pump housings, gearboxes, landing gear cylinders, large tubes for space logistics , seamless tubes for high pressure applications.

Key Features & Benefits: Fully scalped billets ensure zero oxide inclusions, delivering high strength-to-weight ratios and defect-free internal microstructures required for high-fatigue structural parts.



RAILWAY

Alloys: 6xxx, 7xxx

Heat Treatment Conditions: T6

Applications: Sub-components such as welded and assembled underframes, roofs and side panels, door mechanism applications, freight vehicle applications, interiors.

Key Features & Benefits: Single-piece extruded profiles (up to 1000 mm wide and 30 m long) replace multi-component assemblies, directly reducing welding and joining points, lowering structural assembly costs, and simplifying carbody designs.



AUTOMOTIVE

Alloys: 6xxx, 7xxx, 9xxx

Heat Treatment Conditions: T6 and T7 for enhanced crash worthiness

Applications: Body in white, battery housings, crash management structures, underbody components, transmission housings, interiors.

Key Features & Benefits: Enables large-format profile sections (up to 900 mm wide and 670 mm high) for body in white, battery trays and underbody structures, significantly reducing the number of longitudinal welds, consolidating structural functions, and simplifying assembly.



ENERGY

Alloys: 2xxx, 6xxx

Heat Treatment Conditions: T6 and T7 for enhanced conductivity

Applications: GIS applications, busbars, plates, seamless high-pressure tubes.

Key Features & Benefits: Inline piercing technology enables defect-free seamless tube production (up to 550 mm diameter) that eliminates weld-line failure risks in high-pressure and corrosive environments. Up to 670 mm regular tube production enables to cover all GIS projects.



INDUSTRIAL MACHINERY

Alloys: 2xxx, 6xxx, 7xxx

Heat Treatment Conditions: T6 and stress relieved conditions like T6511, T7511 for improved machinability

Applications: Heavy-duty machinery frames, large structural components, pump blocks, large hydraulic cylinders.

Key Features & Benefits: Multi-zone heated and scalped billets ensure a fully dense, defect-free internal structure, eliminating porosity during deep CNC machining. Additionally, large-cross-section extrusions deliver exceptional torsional rigidity and dimensional stability under severe cyclic operating loads.



MARINE & OFFSHORE

Alloys: 6xxx, 7xxx

Heat Treatment Conditions: T6

Applications: Heavy structural profiles for welded marine and offshore applications and helidecks.

Key Features & Benefits: Large-section extrusion reduces structural joint points exposed to saltwater, offering superior dynamic load capacity and corrosion resistance with low maintenance.



BUILDING & INFRASTRUCTURE

Alloys: 6xxx

Heat Treatment Conditions: T6

Applications: Heavy-duty machinery frames, large structural components, pump blocks, large hydraulic cylinders.

Key Features & Benefits: Extra-wide and complex hollow profiles enable high load-bearing capacity while integrating structural attachment channels directly into the geometry, minimizing manual fabrication and job-site assembly labor. Dimensional stability under severe cyclic operating loads.

WORLD-CLASS COMPLIANCE FOR HIGH-PRECISION ENGINEERING

ASAŞ operates under internationally recognized quality, safety, and environmental frameworks. By combining rigorous quality assurance with sustainable manufacturing practices, we ensure full compliance, structural integrity, and batch-to-batch consistency for global OEM partners.

Aerospace, Automotive & Railway	AS 9100 - IRIS (ISO/TS 22163) - IATF 16949 - EN 15085-2 (CL1) - ISO 3834-2 - TISAX
Heavy Structural Equipment Standards	EN 1090-2 (EXC3) / EN 1090-3 - CE / EN 15088
Pressure Equipment Standards	AD 2000-Merkblatt W0
Management Systems	ISO 9001 - ISO 14001 - ISO 45001 - ISO 50001 - ISO 27001 - ISO 10002
Sustainability & ESG	ASI CoC - ASI Performance - EPD Verified - ISO 14064-1 - ISO 14067
Surface Finishing	QUALANOD - QUALICOAT (Seaside) - QUALIDECO

Aluminium Extrusion Production Facility

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