Shaping a Sustainable Future

GREENAL ALUMINIUM

For Greener Future

Shaping a Sustainable Future

At Greenal Aluminium, sustainability is more than a commitment it is the foundation of everything we do.

Together, we shape a more sustainable future.

SUSTAINABLE ALUMINIUM PROFILE SOLUTIONS

Designed for performance, precision, and flexibility, Greenal aluminium profiles provide reliable solutions for modern industrial applications. Manufactured with advanced extrusion technologies and engineered for seamless integration, our profile systems combine lightweight strength, durability, and exceptional corrosion resistance.

Suitable for machine frames, automation systems, workstations, safety enclosures, and custom engineering projects, our comprehensive product range supports efficient design, fast assembly, and long-term performance.

Inside this catalogue, you will find detailed profile specifications, dimensions, and compatibility information to help you select the ideal solution for your application.

Engineered for Today.

Ready for Tomorrow.

BUILDING A GREENER ALUMINIUM INDUSTRY

Continuous Innovation

At Greenal, sustainability is driven not only by today's practices but also by continuous innovation. Through ongoing investments in research, advanced manufacturing technologies, and process optimization, we develop Aluminium solutions that combine performance, efficiency, and environmental responsibility.

By improving production methods, reducing resource consumption, and adopting cleaner technologies, we are building a manufacturing ecosystem that supports long-term sustainability. Every innovation we implement contributes to lower emissions, greater operational efficiency, and a more sustainable future for our customers and communities.

OUR SUSTAINABILITY COMMITMENT

We believe sustainable manufacturing is a continuous journey rather than a single achievement. Every investment we make from cleaner production technologies and responsible resource management to employee development and innovation-is focused on creating lasting value for our customers while protecting the environment for future generations.

Innovating Today.
Protecting Tomorrow.

CARBON FOOTPRINT POLICY

Measurable Actions for a More Sustainable Future

At Greenal, sustainability is integrated into every stage of our Aluminium extrusion operations. We continuously reduce our environmental impact through energy efficiency, responsible resource management, renewable energy investments, and transparent carbon monitoring.

Our goal is to manufacture high-quality Aluminium products while contributing to a low-carbon future.

Our Carbon Reduction Strategy

LOWER CARBON EMISSIONS

Set measurable reduction targets and continuously improve performance.

ENERGY EFFICIENCY

Invest in modern equipment and energy-efficient production technologies.

RENEWABLE ENERGY

Increase the use of solar and other renewable energy sources.

WASTE & RECYCLING

Optimize material usage while maximizing recycling and reuse.

LOW-CARBON LOGISTICS

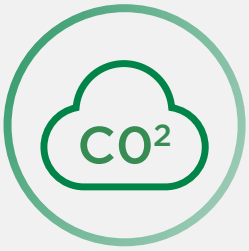
Reduce transportation emissions through optimized logistics planning.

EMPLOYEE ENGAGEMENT

Promote sustainability awareness through continuous training.

RESPONSIBLE SOURCING

Collaborate with suppliers and customers to reduce shared emissions.



CARBON MONITORING

Regularly measure, evaluate, and report carbon performance.

CUSTOM ALUMINIUM PROFILES

Engineered for Your Design.
Manufactured for Your Success.

Greenal Aluminium develops and manufactures custom Aluminium profiles tailored to the unique requirements of each project. From engineering and die design to extrusion, machining, and finishing, we provide complete manufacturing solutions that combine precision, flexibility, and consistent quality.

Designed according to customer drawings and technical specifications, our custom profiles are available in a wide range of alloys, dimensions, surface finishes, and machining options, serving industries such as architecture, transportation, machinery, automation, energy, and defense.

WHY CHOOSE GREENAL?

We go beyond standard solutions by offering engineering expertise, flexibility, and reliability at every step. Our focus is simple: your success.

- CUSTOMER FOCUSED
- ENGINEERING EXPERTISE
- PRECISION QUALITY
- CUSTOM DIE MANUFACTURING
- MULTIPLE ALLOY OPTIONS
- CNC MACHINING & SECONDARY OPERATIONS
- SURFACE FINISHES
- INTERNATIONAL QUALITY STANDARDS
- ON-TIME DELIVERY
- LONG TERM PARTNERSHIP

ENGINEERING PROCESS

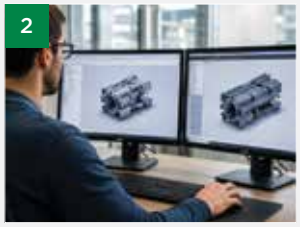
Our integrated engineering and manufacturing process ensures precision, efficiency, and consistent quality from the initial design to final delivery.

1

CUSTOMER DRAWING

Technical drawings or samples are received and reviewed.

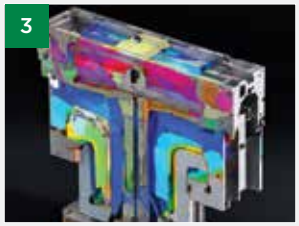
2



ENGINEERING REVIEW

Design is optimized for extrusion.

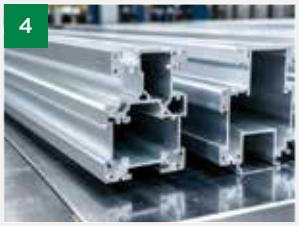
3



DIE DESIGN

Extrusion die is designed and engineered using advanced CAD/CAM software.

4



EXTRUSION

Profiles are extruded using advanced extrusion technology.

5

DIE MANUFACTURING

Extrusion die is manufactured with high precision.

6

MACHINING

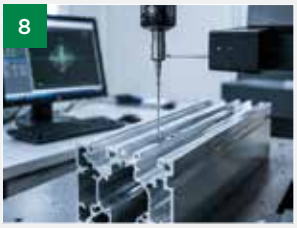
Precision CNC machining and secondary operations are performed.

7

SURFACE FINISHING

Anodizing or powder coating is applied according to customer specifications.

8



QUALITY INSPECTION

Dimensional and visual inspections ensure product quality.

9

DELIVERY

Products are packaged and delivered worldwide.

QUALITY ASSURANCE

Built on precision.
Verified at every stage.

CERTIFICATIONS

Our internationally recognized management systems ensure consistent quality, environmental responsibility, information security, occupational safety, and customer satisfaction.

ISO 9001 : 2015

Quality

ISO 14001 : 2015

Environment

ISO 45001 : 2018

Safety

ISO/IEC 27001 : 2022

Information Security

ISO 10002 : 2018

Customer Satisfaction

ISO/TS 16949 : 2016

Automotive

Scan to Download Certificates

DESIGNED FOR PERFORMANCE. BUILT FOR PRECISION.

Greenal's modern manufacturing infrastructure combines advanced machining technologies with efficient production systems, ensuring reliable quality, operational flexibility, and precision at every stage of production.

ADVANCED MECHANICAL PROCESSING & MICRON-PRECISION MANUFACTURING TECHNOLOGIES

Greenal Aluminium transforms high-surface-quality 6000 series (6060, 6063, 6061, 6082) Aluminium profiles emerging from its modern extrusion lines into value-added, finished industrial components at its state-ofthe-art mechanical processing facility. By integrating multi-axis CNC milling, high-speed vertical machining, multi-tasking dual-spindle turning, and synchronized hydraulic punching lines under a single roof, our facility seamlessly delivers a "One-Stop-Shop" business model tailored for the automotive (Tier-2), home appliances, electrical-electronics, and machinery manufacturing sectors. Operating within geometric and dimensional tolerance bands down to the micron level (±0.005 mm), our machine park ensures the supply of "Ready-to-Install" components perfectly aligned with your complex design criteria and direct assembly line integration.

5-Axis & 3-Axis CNC Machining Capabilities

Extensive Geometric Envelope (Working Volume): Equipped with Doosan VCF 850 LSR traveling column technology and Hyundai Wia KF5600 vertical machining centers, we offer continuous machining capabilities up to 3,000 mm in the X-axis for structural chassis, bodies, and long industrial profiles. With a working envelope of 850 mm in the Y-axis and 850 mm in the Zaxis, wide-section Aluminium plates, hollow profiles, and complex extrusion geometries are machined with high rigidity.

Free-Form & Angular Surface Machining: For complex 3D surface profiles, automotive chassis brackets, and angular aerodynamic components, seamless 5-axis single-setup operations are executed utilizing ±110°B-axis torque rotation capability. This technology eliminates the need for multiple part clampings, reducing fixture alignment errors to zero while ensuring flawless concentricity and linearity.

Heavy & High-Precision Load Capacity: Even under rigid structural loads up to 3,500 kg, our machine tables maintain high-speed axis acceleration,

High-Speed Automatic CNC Turning & Bar Feeding

Continuous Mass Production (Bar Feeding): Utilizing the integrated automatic bar feeder systems on our Emco Hyperturn 665mc Plus centers, Aluminium bars and solid profiles up to Ø65 mm in diameter are processed fully automatically in an uninterrupted, lights-out manufacturing cycle.

Multi-Tasking & Simultaneous Machining: Thanks to the Dual Turret - Dual Spindle architecture, while the front-face operations of a part (turning, threading, face milling) are completed on the primary spindle, the component is automatically transferred to the sub-spindle for simultaneous back-face machining. Within maximum turning diameters ranging from Ø300 mm to Ø460 mm, high-volume component manufacturing is achieved with zero setup time and minimized cycle times.

High-Mitre & Burr-Free Cutting: With our Alva 55 front-blade system featuring pneumatic headtilting technology and a Ø550 mm diamond circular saw, heavy-gauge industrial profiles are sliced with near-zero burr tolerance in exact accordance with the assembly angles (internal and external mitre cuts) of your project. Depending on the component configuration, the system delivers precise net cutting lengths between 4,000 mm and 6,600 mm.

QUALITY CONTROL & METALLURGICAL LABORATORY CAPABILITIES

At Greenal Aluminium, our advanced Quality Control and Metallurgy Laboratory forms the most critical link of our “One-Stop-Shop” vision. Metallurgical, mechanical, and dimensional verifications of both raw extruded profiles and precision-machined components from our CNC lines are fully executed in-house in strict compliance with international standards (EN, ASTM, ISO).

Chemical & Metallographic Analysis Capabilities (Material Verification)

Optical Emission Spectrometer (Al): The chemical composition and elemental distribution of Aluminium alloys (6000 series, etc.) used in production are 100% verified via spectral analysis. Full traceability and melt certification are proudly provided to our customers.

Metallographic Sample Preparation & Microscopic Inspection: Thanks to our precision sample cutting, cold mounting, and automatic dual-disc grinding/polishing lines, microstructural analyses of Aluminium are flawlessly prepared. Grain structure, segregation, and extrusion flow lines are rigorously controlled under an advanced microscope.

Mechanical & Physical Testing Capabilities

ZwickRoell Z100 ProLine Tensile Testing: Critical mechanical parameters such as yield strength, tensile strength, and percentage elongation of Aluminium profiles and machined parts are tested utilizing the globally recognized ZwickRoell infrastructure.

Hardness Testing: Hardness measurements are conducted at the micron level to validate the heat treatment (T4, T6, etc.) performance and structural durability of the material.

Advanced Surface & Non-Destructive Testing (NDT)

Ultrasonic Flaw Detector: Micro-discontinuities, casting voids, and hidden subsurface cracks within the material are scanned using Non-Destructive Testing (NDT) methods, ensuring a zero-defect guarantee for critical automotive and chassis components.

Roughness Measurement (Precision Surface Control): Following CNC mechanical processing, the roughness values (Ra, Rz) of critical surfaces are measured to certify compliance for sealing and precision bearing surfaces. Visual surface defects are eliminated using small polishing and illuminated magnification systems.

Micron-Precision Dimensional Metrology

High-Precision Measurement Infrastructure: Utilizing height gauges, dial indicators, V-blocks, and micrometer stands on high-grade granite surface plates, geometric tolerances such as straightness, concentricity, runout, and perpendicularity of components emerging from our CNC centers are verified down to the micron. Actual weight-per-meter checks are monitored instantaneously with precision balances.

STANDARD PROFILES

Versatile Aluminium Solutions for Industrial Applications

Greenal Aluminium offers a comprehensive range of standard aluminium profiles engineered for architectural, industrial, structural, and general fabrication applications. Produced from premium aluminium alloys using advanced extrusion technology, our profiles combine lightweight construction, high mechanical strength, excellent corrosion resistance, and outstanding dimensional accuracy.

Available in a wide variety of standard sections and sizes, Greenal profiles provide reliable and cost-effective solutions for construction, transportation, machinery, automation systems, furniture, and countless industrial applications. Supported by our advanced manufacturing capabilities and quality-focused production processes, every profile is designed to deliver long-lasting performance and consistent reliability.

Aluminium Profiles – Engineered for Every Application

Aluminium profiles offer exceptional design flexibility while meeting the demanding requirements of modern engineering and architecture. Their versatility enables designers and manufacturers to develop efficient, lightweight, and durable solutions without compromising strength or aesthetics.

At Greenal, we work closely with our customers from concept to production, helping transform ideas into high-quality aluminium solutions. With extensive extrusion experience, advanced finishing technologies, and comprehensive fabrication services, we provide products that simplify manufacturing, reduce assembly time, and create long-term value across every project.

Greenal Aluminium

Advanced Extrusion Technology

Premium Aluminium Alloys

Wide Range of Standard Profiles

Comprehensive Fabrication Services

Precision Machining & Finishing

The Greenal Advantage

- Wide selection of standard profile geometries
- Consistent dimensional accuracy and surface quality
- Lightweight, strong, and corrosion-resistant solutions
- Fast production and reliable delivery
- Custom machining and surface finishing options
- Technical support from design to production
- Reliable solutions for industrial and architectural applications

Scan to Download
Standard Profiles

INDUSTRIES WE SERVE

Engineered Aluminium Solutions Across Diverse Industries

Greenal Aluminium develops high-performance extrusion solutions for a wide range of industries. From architectural systems and transportation to renewable energy and industrial machinery, our aluminium profiles are engineered to meet demanding technical requirements while delivering long-term durability, precision, and sustainability.

Architectural Systems

Curtain walls, doors, windows, facades and structural building components.

Transportation

Automotive, commercial vehicles, rail systems, marine and mobility solutions.

Solar Energy

PV mounting systems, solar frames and renewable energy structures.

Industrial Machinery

Machine frames, automation systems, production equipment and industrial structures.

Marine

Marine structures, deck sysstems, railings and ship interior

Furniture & Interior

Office systems, partitions, furniture profiles and interior applications.

HVAC Systems

Ventilation, air conditioning and mechanical system components.

Consumer Products

Lighting, sports equipment, appliances and engineered aluminium products.

Agriculture

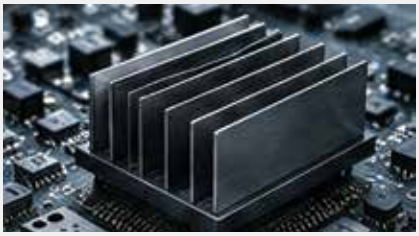
Equipment frames, irrigation systems and agricultural applications.

Automation

Equipment frames, irrigation systems and agricultural applications.

Medical

Medical equipment frames and precision aluminium components.



Electrical & Electronics

Heat sinks, enclosures, cable management and electrical components.

WHY ALUMINIUM?

SURFACE FINISH OPTIONS

Wide range of anodizing, coating and finishing possibilities.

FULLY RECYCLABLE

100% recyclable without losing material properties.

DESIGN FLEXIBILITY

Enables complex shapes and innovative design solutions.

EXCELLENT MACHINABILITY

Easy to machine, assemble and integrate.

LONG SERVICE LIFE

Durable and reliable for years of use.

THERMAL PERFORMANCE

Good thermal conductivity for efficient systems.

CORROSION RESISTANCE

Naturally resistant to corrosion for long-lasting performance.structures.

HIGH STRENGTH

High strength-to-weight ratio for durable and reliable structures.

LIGHTWEIGHT

Lower weight for better efficiency and performance.

SUSTAINABLE

Low environmental impact and sustainable for the future.

Aluminium combines lightweight performance, structural strength, corrosion resistance, and exceptional design flexibility. Its unique properties allow engineers and designers to create efficient, durable, and sustainable products across virtually every industry.

GREENAL EUROPE

For Greener Future

From the Manufacturer Directly to European Industry:

Greenal Europe GmbH

As a global manufacturer specializing in industrial aluminium profiles and high-precision CNC machining, Greenal Aluminium brings its integrated manufacturing strength and engineering expertise directly to Europe. Established in Düsseldorf, Greenal Europe GmbH is not an independent distributor or intermediary; it is Greenal Aluminium's official European headquarters, serving as the company's direct operational and commercial

Greenal Europe GmbH provides European customers with direct access to our high-capacity manufacturing facilities in Türkiye through a streamlined and integrated business structure. From our Düsseldorf office, we manage customs clearance, local invoicing, and Just-in-Time (JIT) logistics, ensuring a seamless supply chain and responsive local support. With an infrastructure aligned with the European Union's Carbon Border Adjustment Mechanism (CBAM), we combine the full technical, financial, and manufacturing capabilities of Greenal Aluminium with the convenience of a local European organization operating within the same time zone as our customers.

BUILT FOR EUROPEAN BUSINESS

Everything You Need. One Reliable Partner.

Local Presence

Dedicated European office in Düsseldorf with local communication and commercial support.

Direct Manufacturer Access

Work directly with Greenal Aluminium without intermediaries.

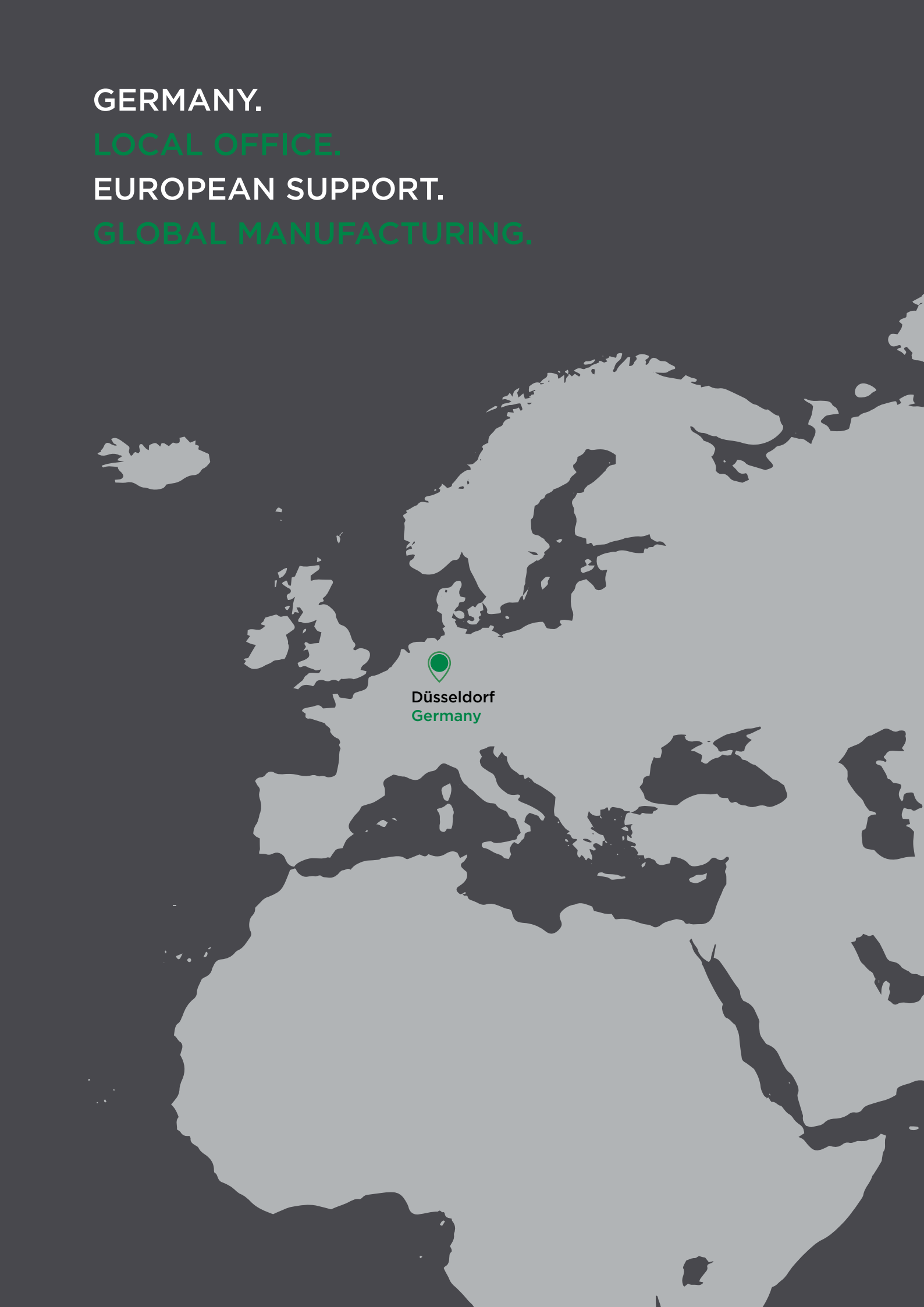
Efficient Logistics

Optimized transportation, customs management, and just-in-time deliveries across Europe.

CBAM Ready

Supporting European sustainability requirements with a production infrastructure aligned with CBAM principles.

GERMANY.
LOCAL OFFICE.
EUROPEAN SUPPORT.
GLOBAL MANUFACTURING.



GREENAL ALUMINIUM

For Greener Future

www.greenal.com