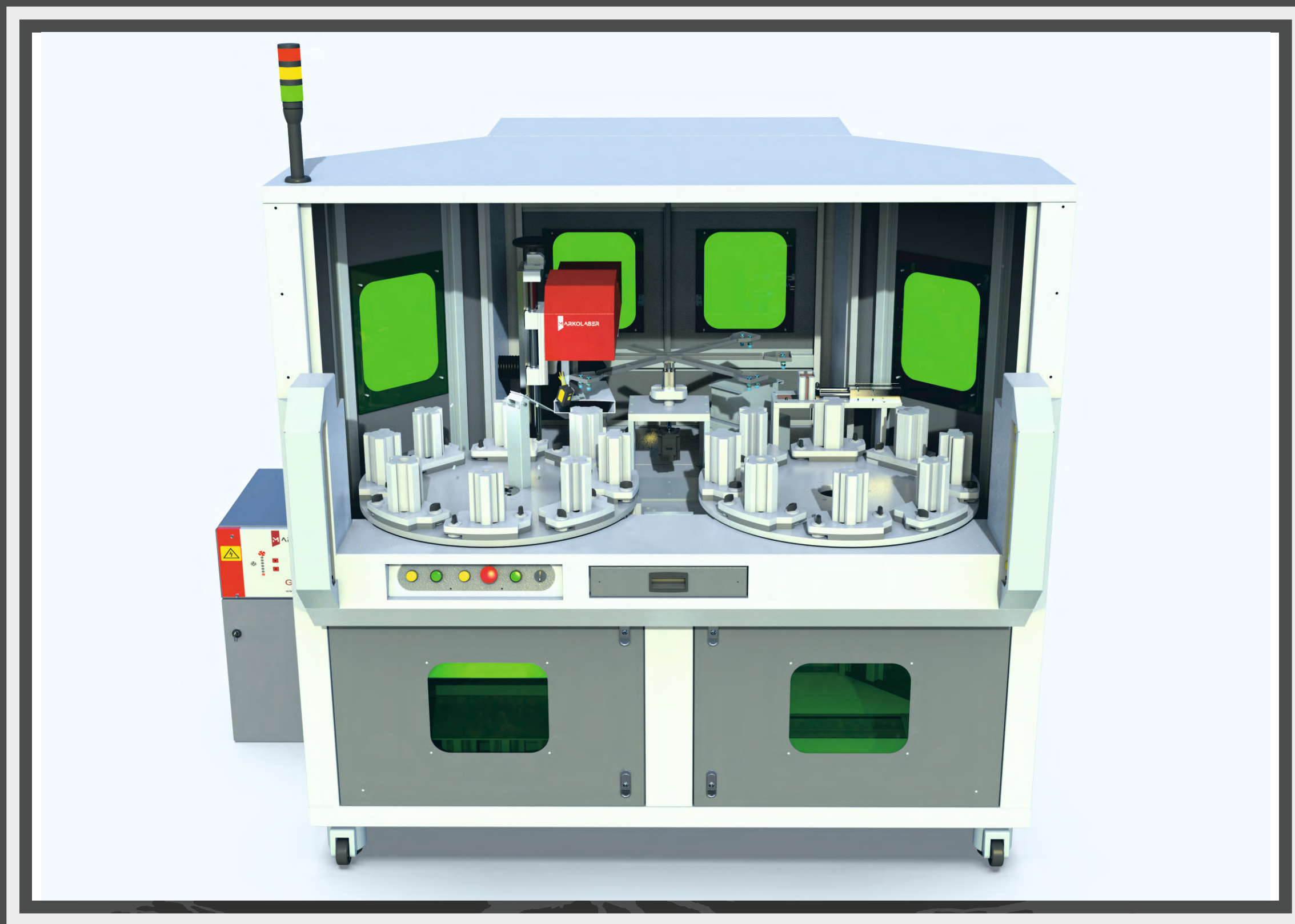# MARKOLASER® Solutions

Automations by Spinks

ONE STOP SOLUTION

LASER TECHNOLOGY

Marking- Welding- 3-Axis Engraving & Texturing- Micromachining Nanosecond- Femtosecond- Infrared- CO2 - Green- UV- Research & New Product Development

CUSTOM AUTOMATIONS & SPMs

Integration of Precision Part Handling Module; Vision Systems; Laser/Pad/Screen Printing M/Cs, IOT Devices; User Standards GUI; Traceability Solutions; Pre/Post- Surface Treatment Modules; & Other Custom Automation; as per GMP, ISO, CE Compliance.

HYBRID MACHINES

Modular Design & Flexible Machine Concepts - Integration of Various Laser System & Pad Printing Machines- Excellent Customized Concept Machines for Various Industry.

SOFTWARE INTEGRATION

Product Data Management- Custom User Interface- Process Data Mapping- Integrable with any MES System- Event/Alarm Management Custom Reporting Tool- Supervisory Control KPI's & Monitoring/Analysis- Recipe Management

3D LASER TEXTURING ON FREEFORM SUBSTRATES
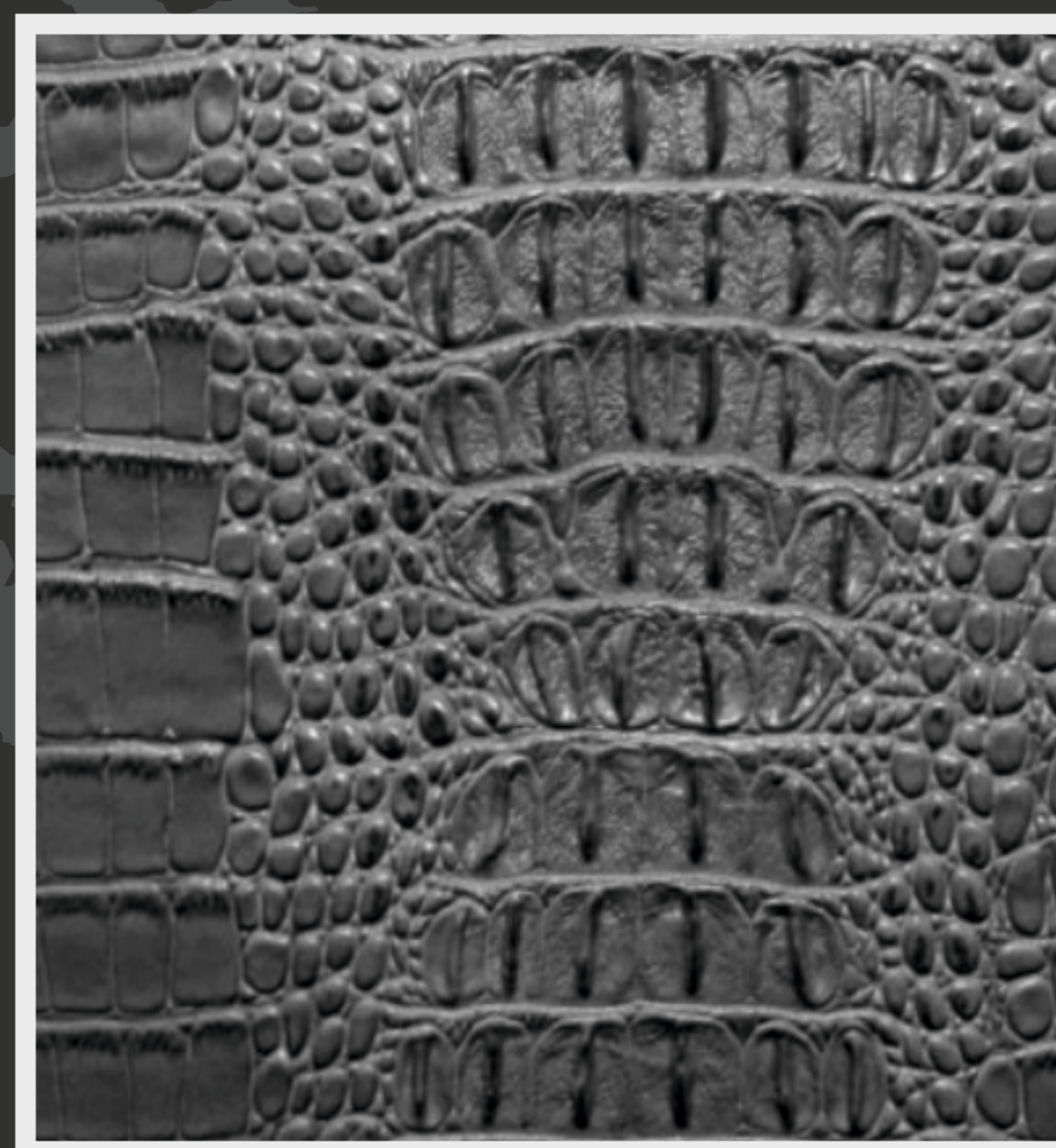

Brass
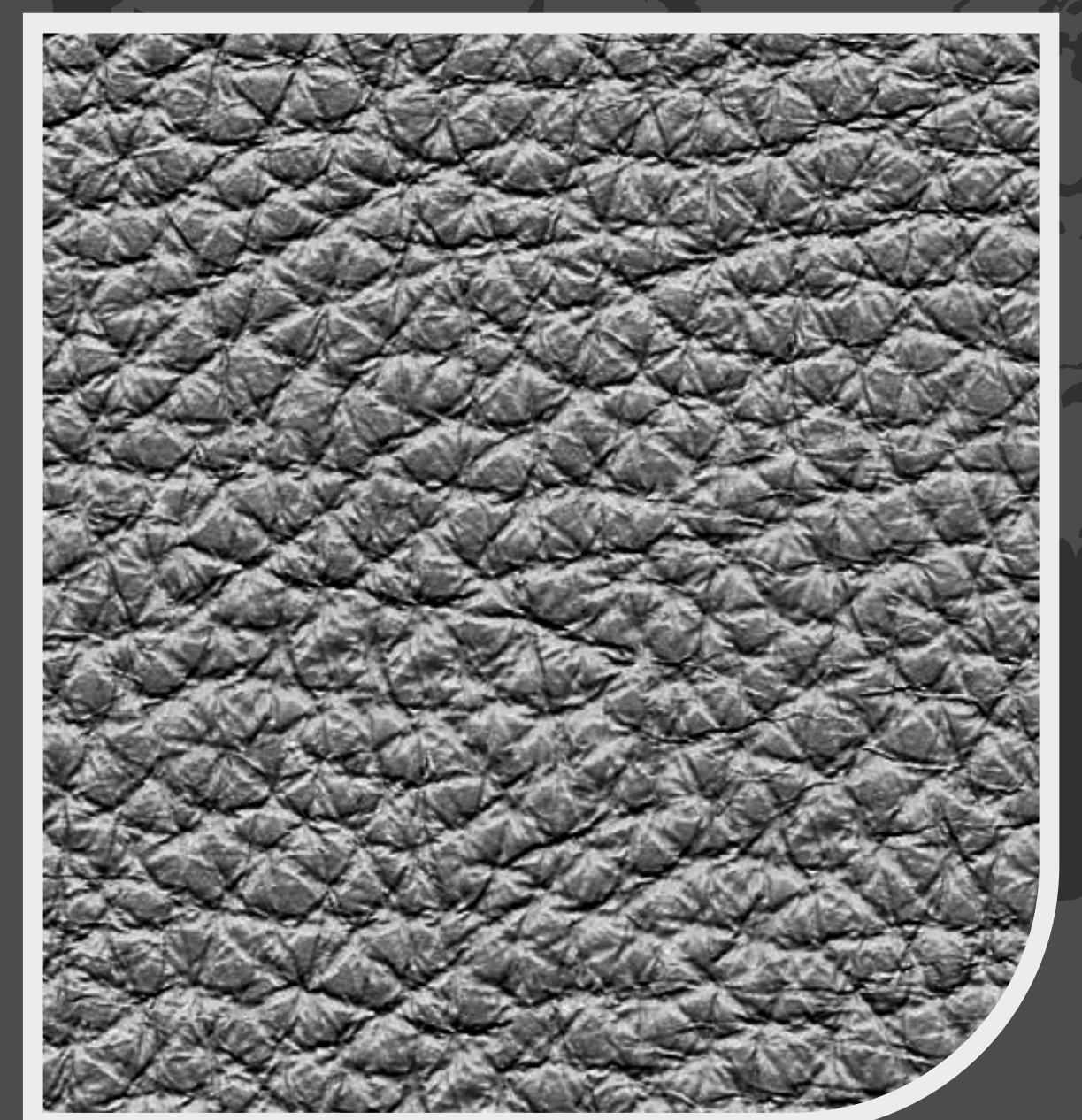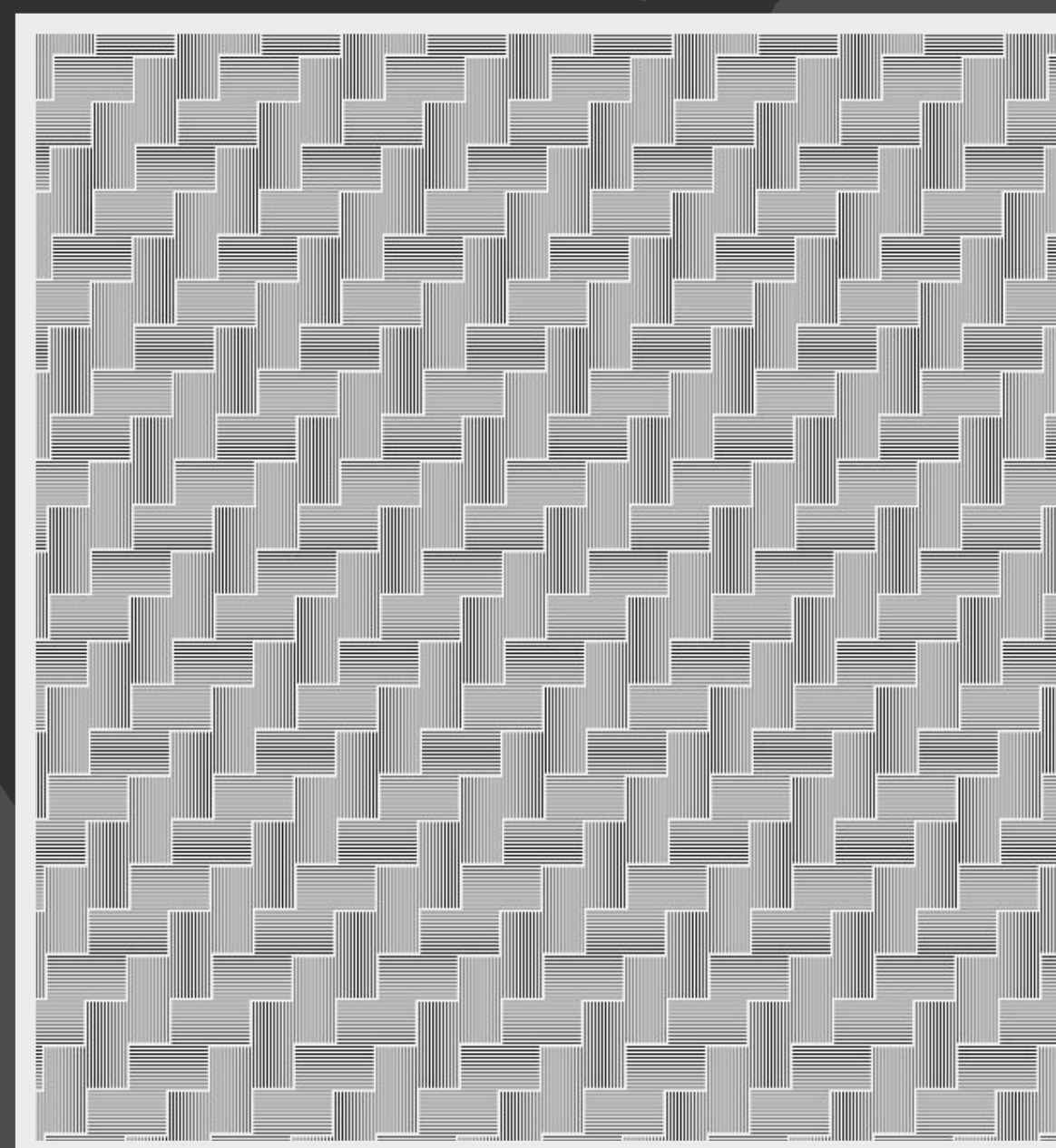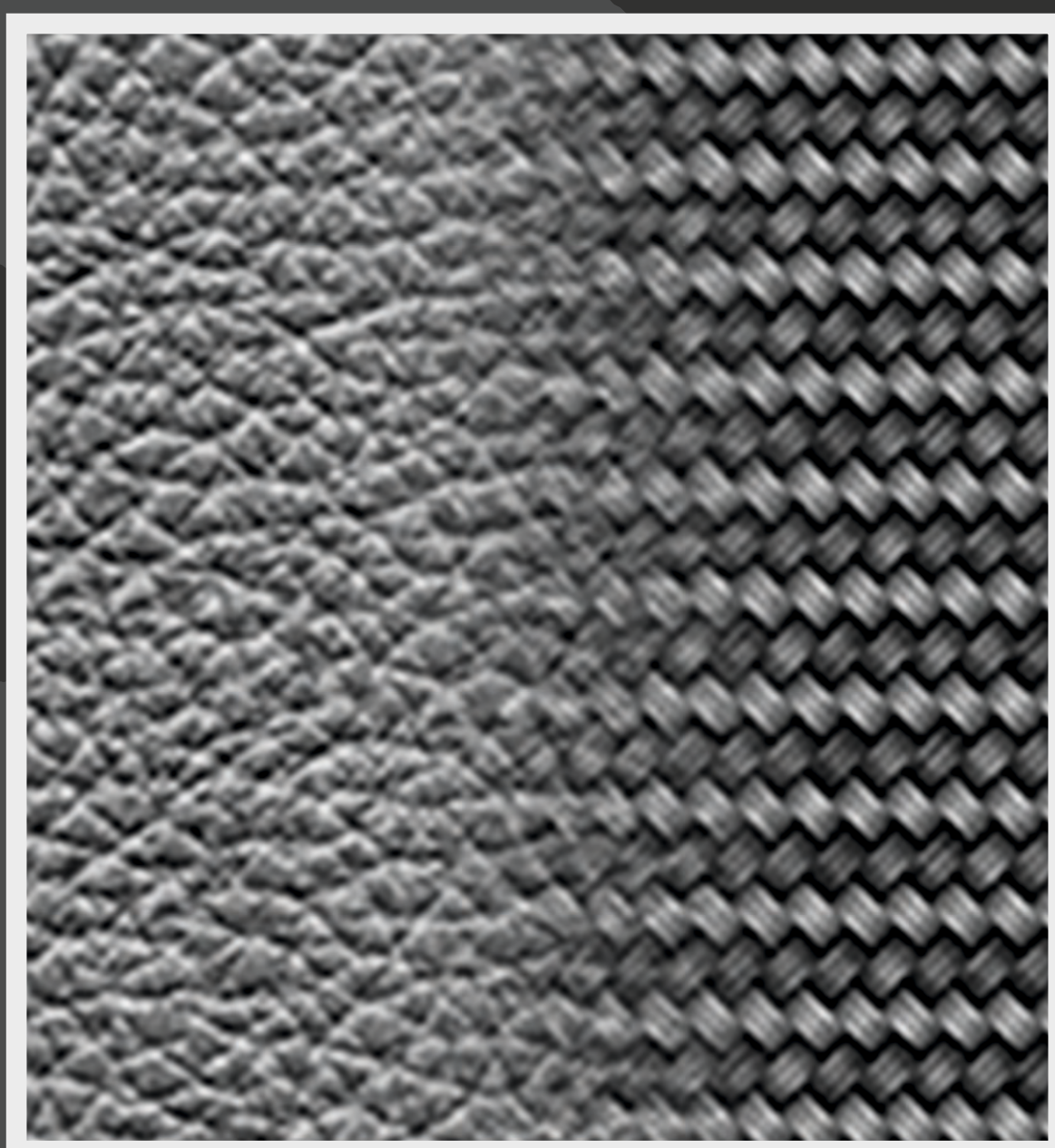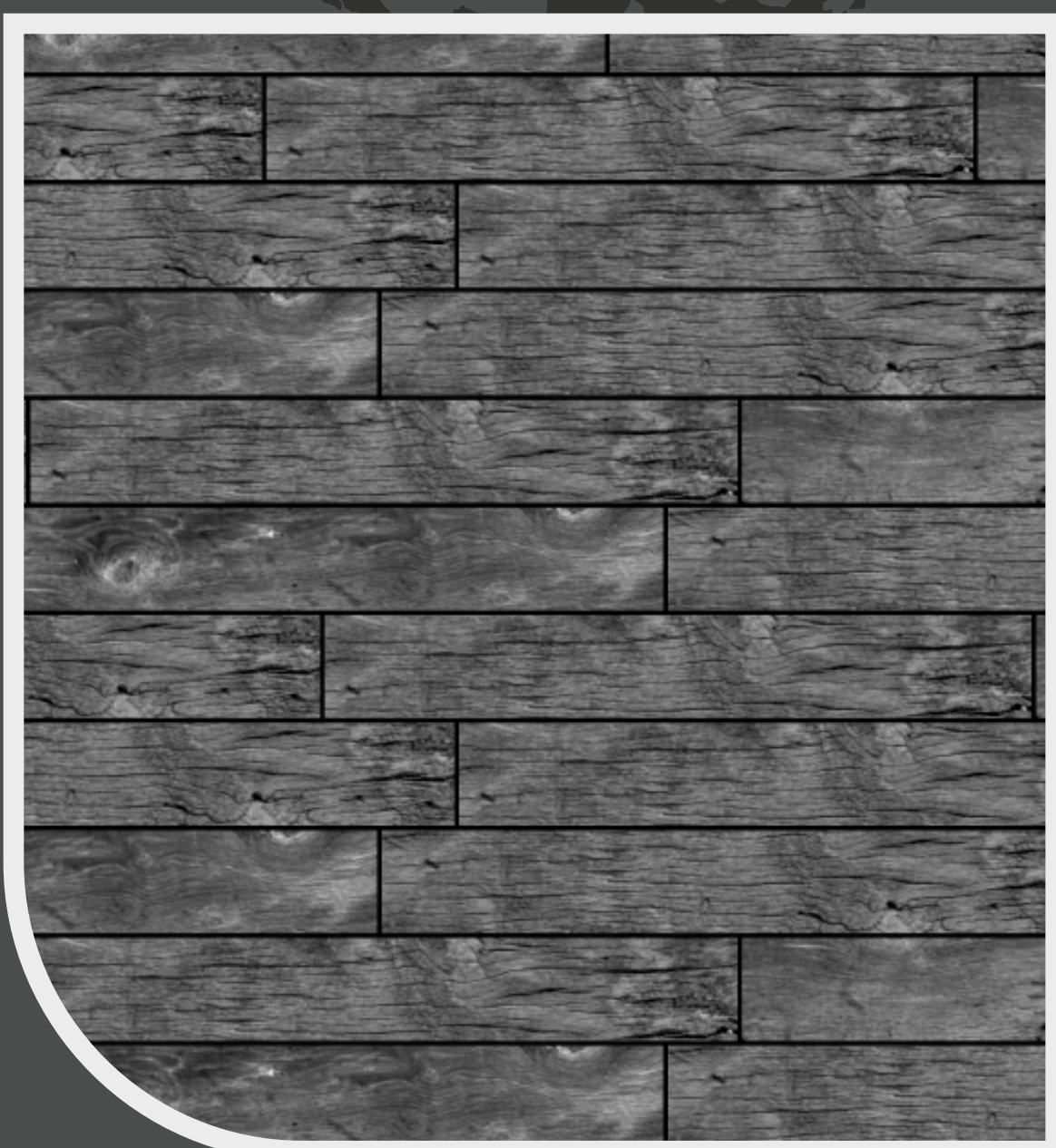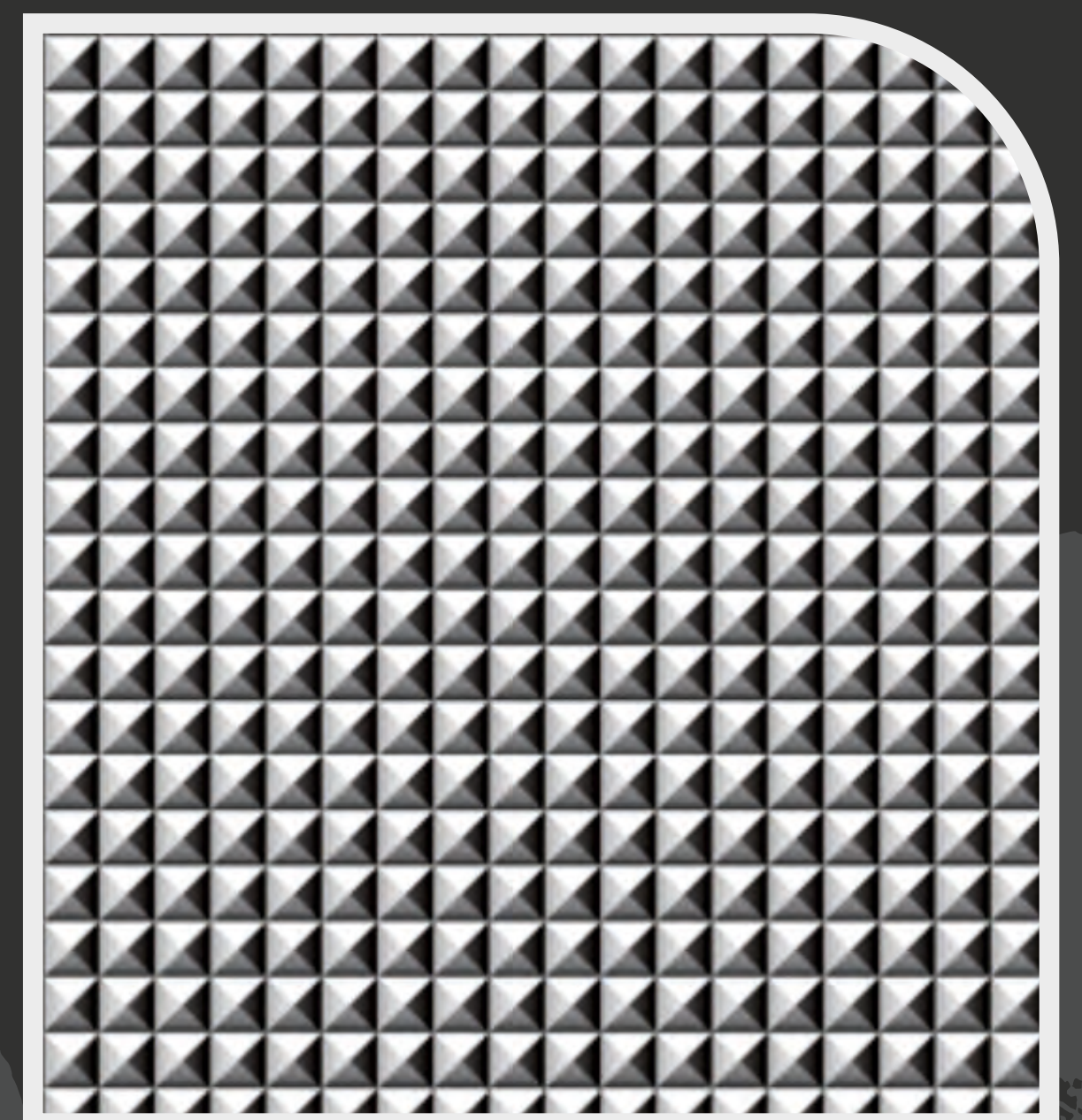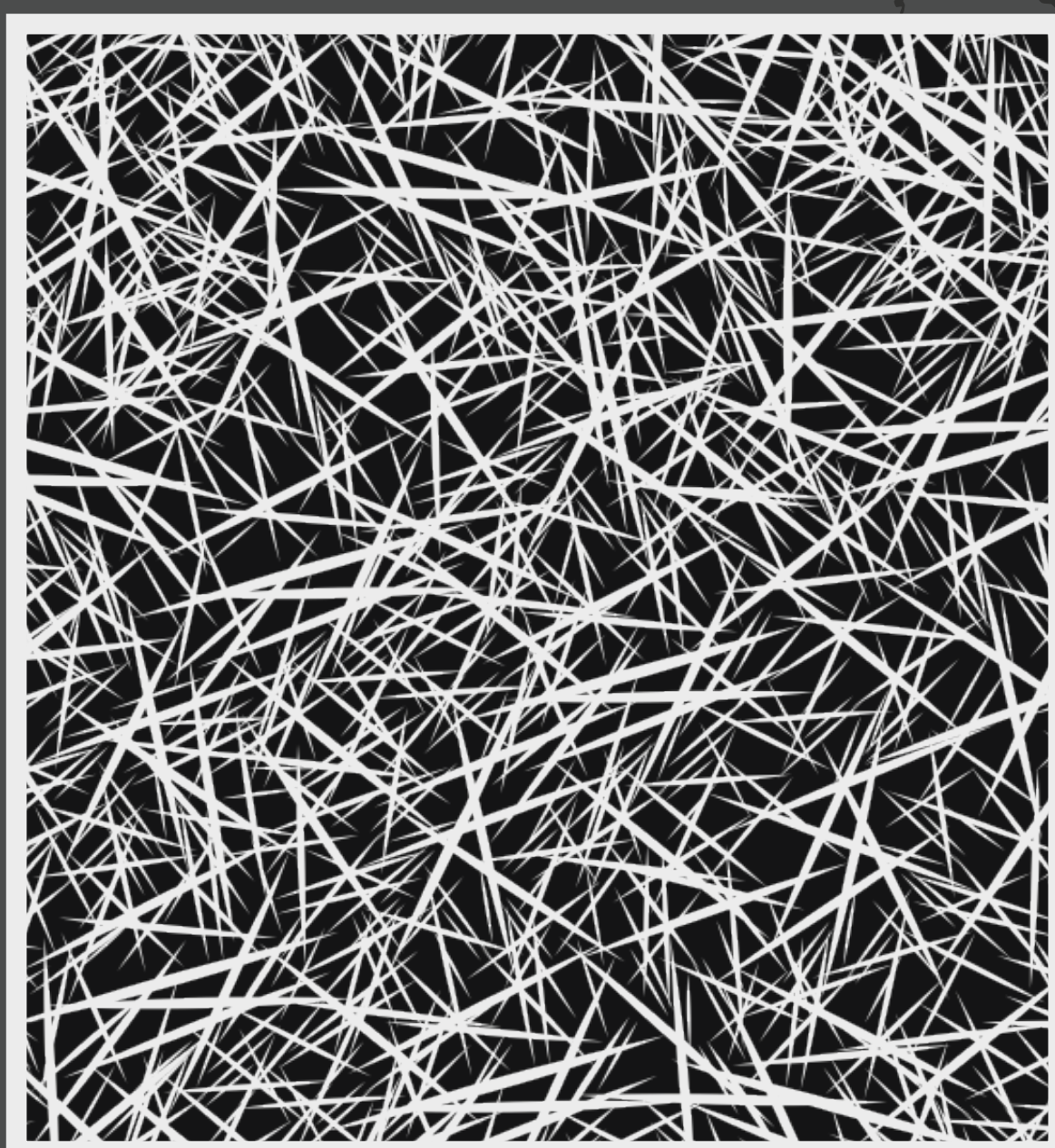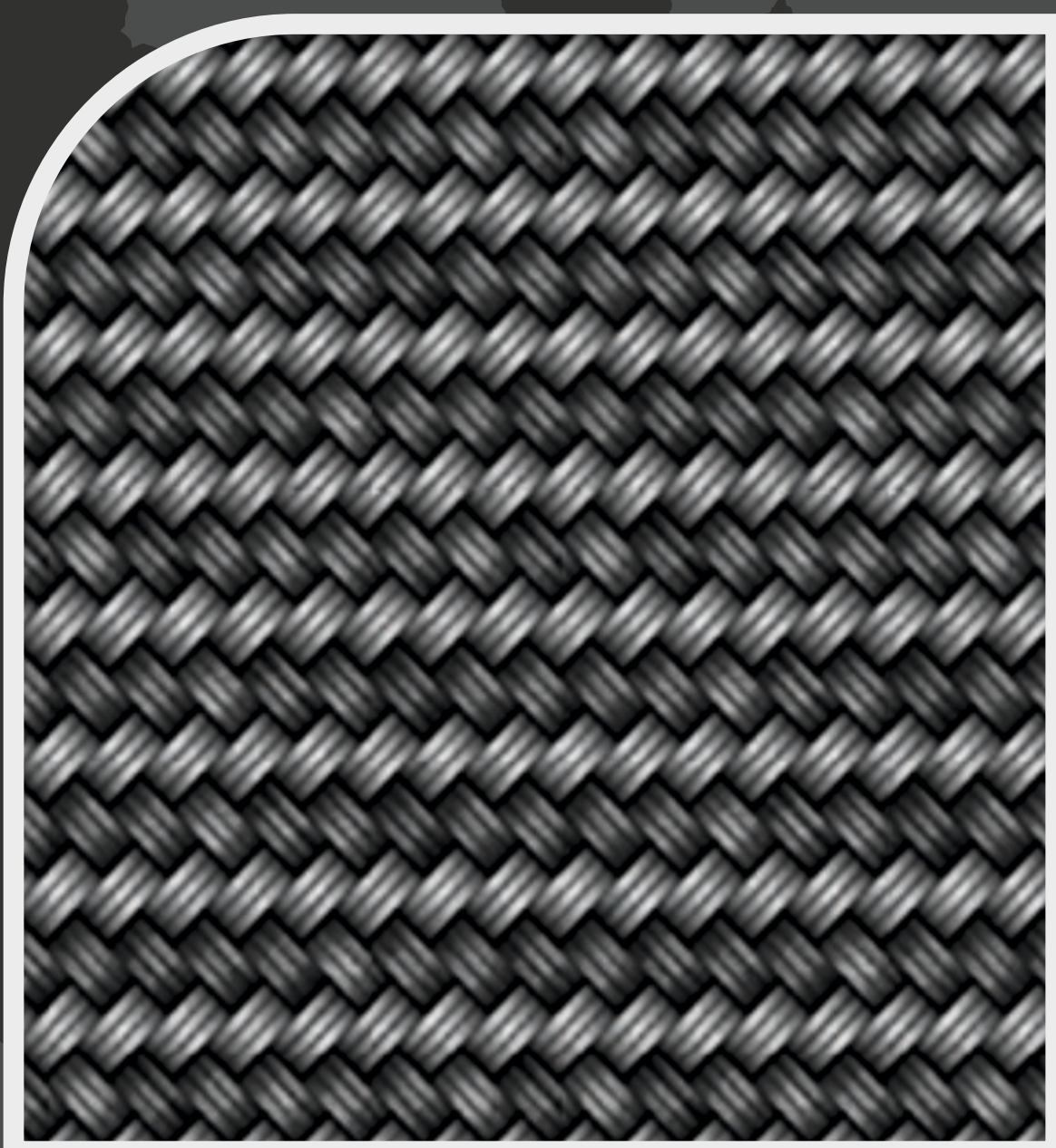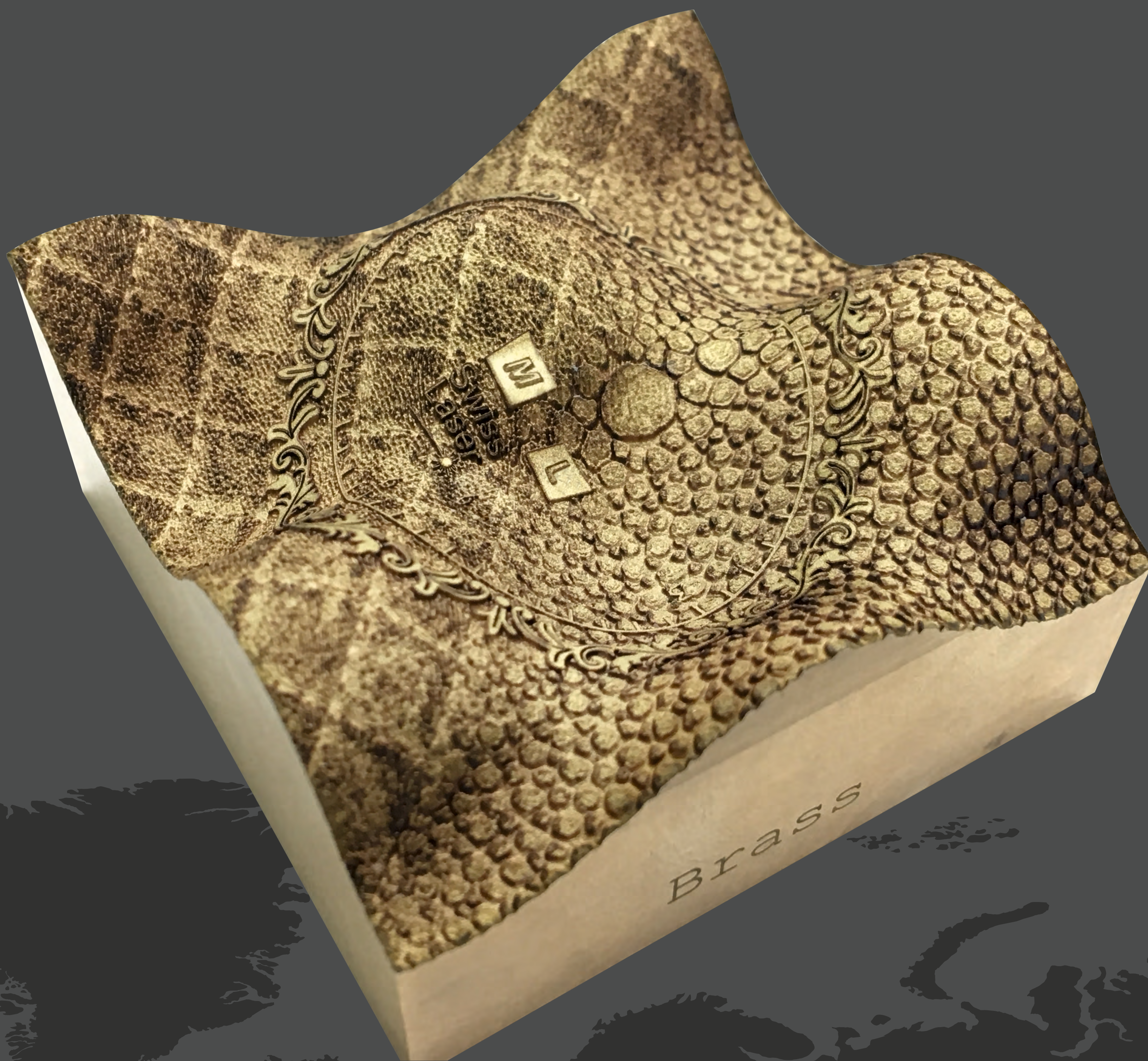
APPLICATIONS

Leather	Carbon Fiber
Organic	Laser Hardening
Wood	Frosting
Geometrical	Matte
Optics	Stone

METALS • STEELS • CARBIDE • CERAMICS

MARKOLASER® Solutions

TRACEABILITY SOLUTIONS
MARKO TRACER
3 IN 1 : MARK, READ, VALIDATE

- Vision for Pre-Inspection
- 2/3-Axis Laser System
- High Precise Auto Z-Axis
- Process View Camera
- Vision for Post-Inspection
- Rotary Indexer
- Safety Curtains
- User Control Interface & iTracy™
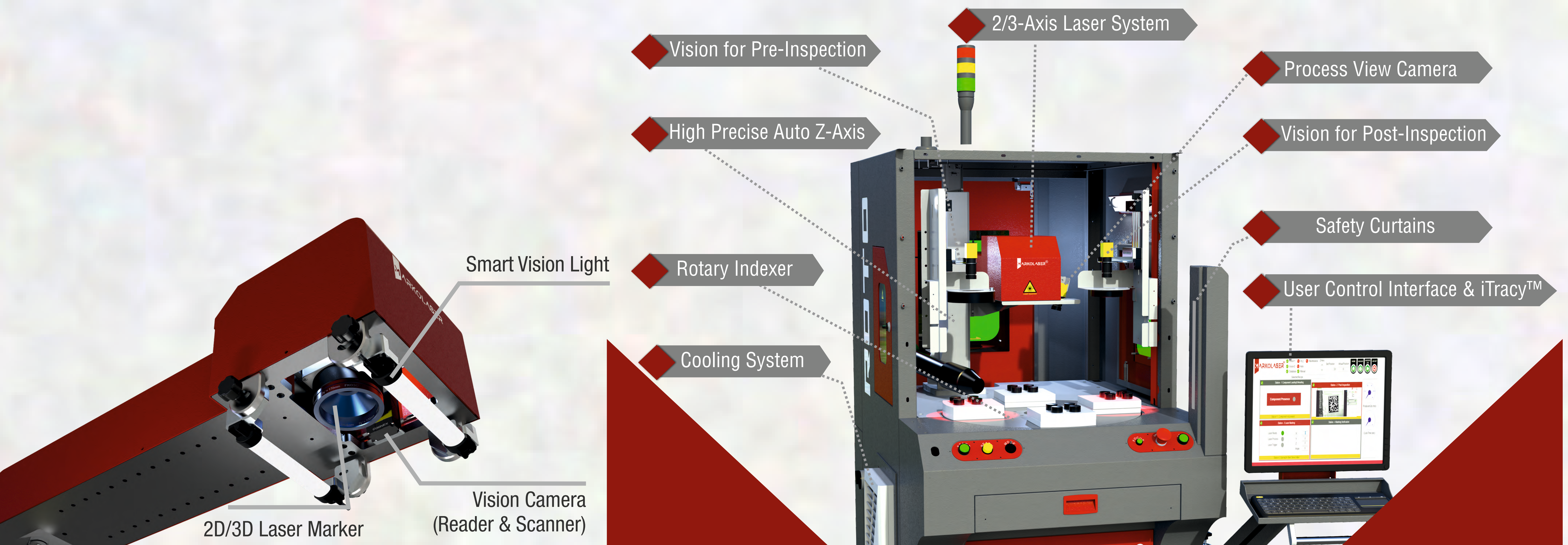- Cooling System

- Smart Vision Light
- 2D/3D Laser Marker
- Vision Camera (Reader & Scanner)

Compatible Laser Types

- FIBER
- GREEN
- UV
- FEMTO
- PICO

LASER + AUTOMATION + SOFTWARE = MARKOLASER® Solutions

- CUSTOM APP
- DATA BASE
- CUSTOM USER INTERFACE
- DPM
- READ & GRADE
- +IIOT SENSORS
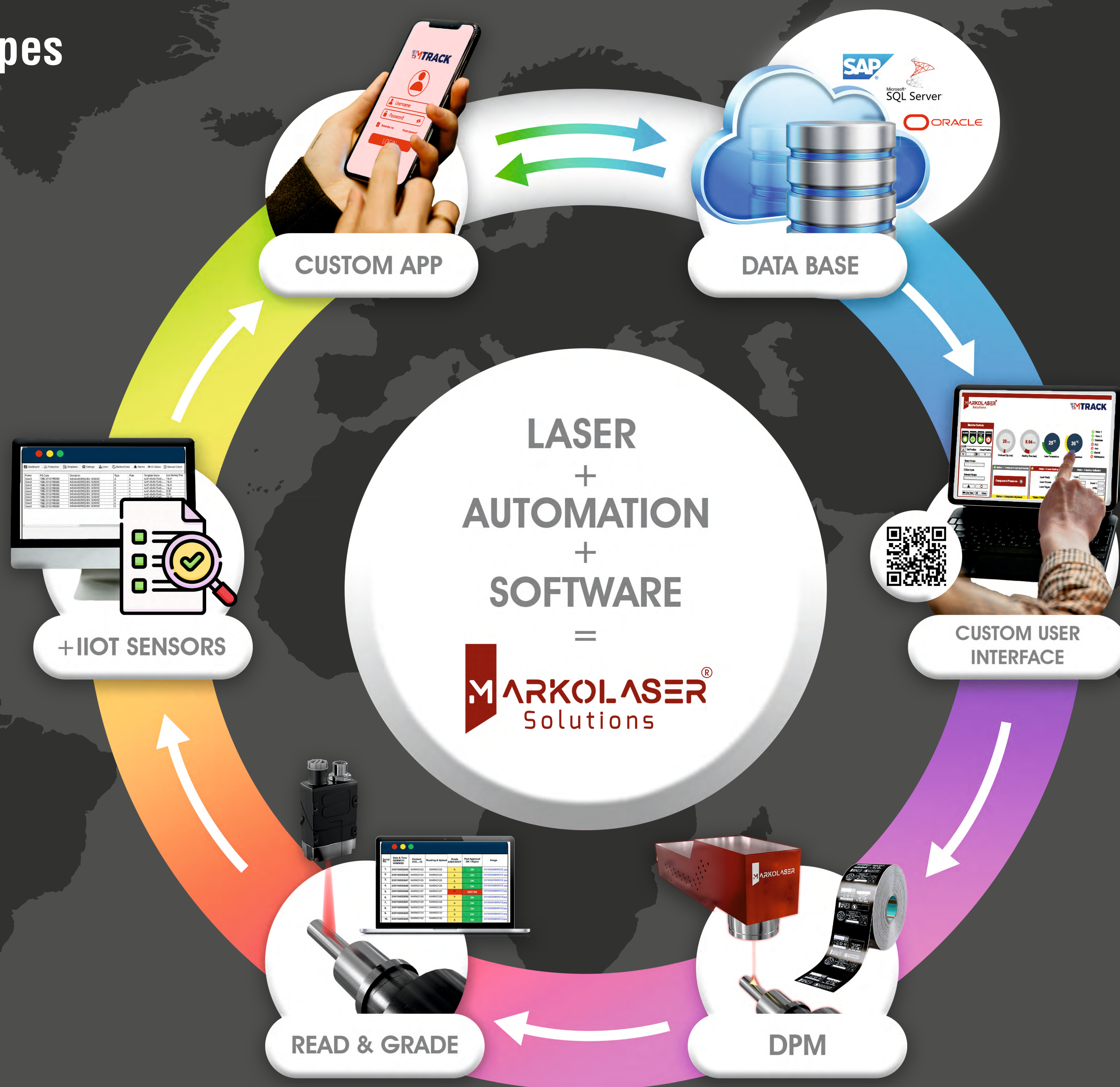
Automotive Industry
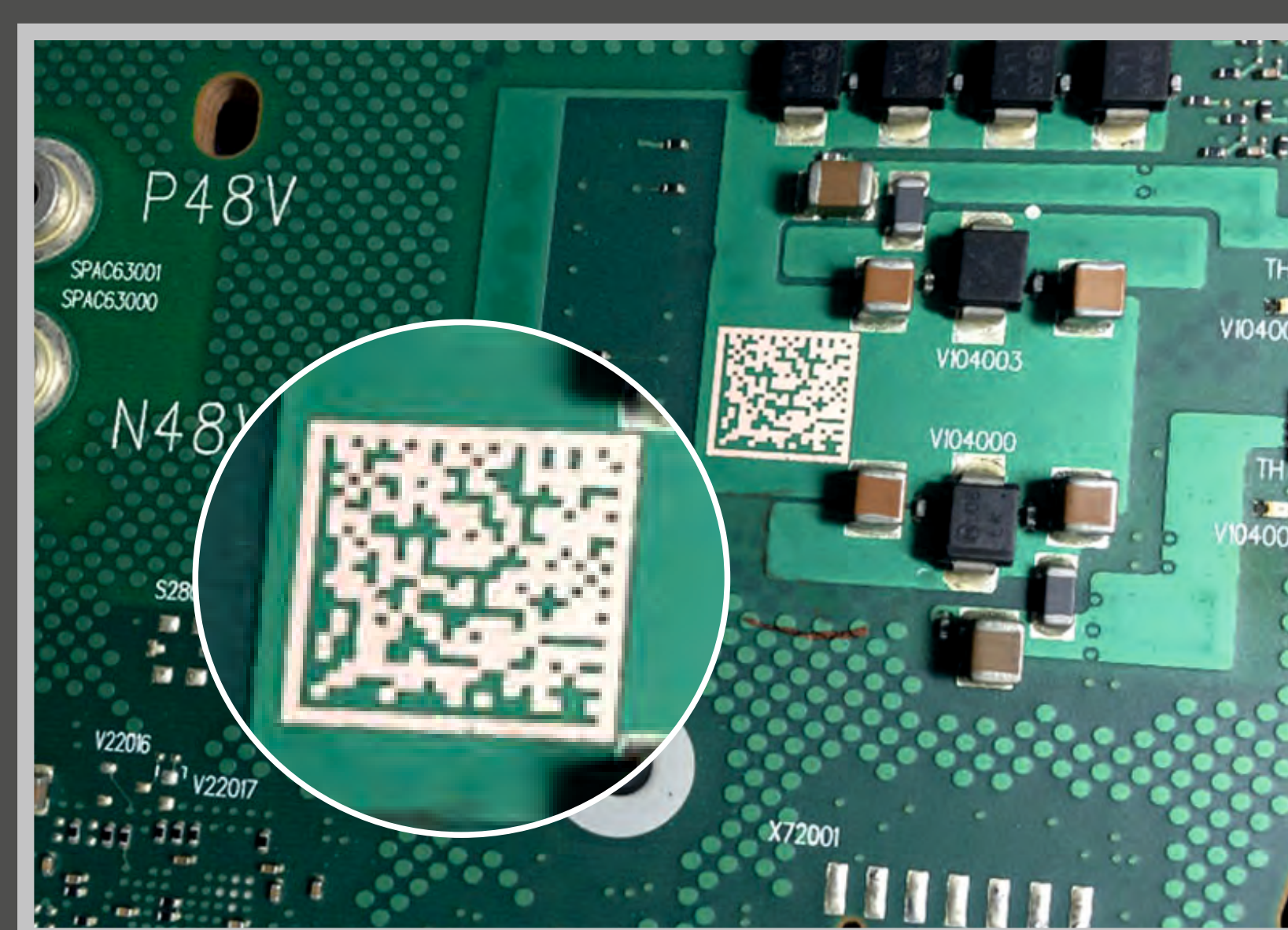
Electricals/Electronics Industry

Medical Industry

We Follow DPM & Label Code Quality Standards

ISO/IEC	ISO/IEC	ISO/IEC	ISO/IEC	DOD	SAE	FDA	FDA
TR 29158	TR 24720	16022	15415	UID	AS9132	GS1	CFR21

MARKOLASER® Solutions

3-AXIS UV LASER

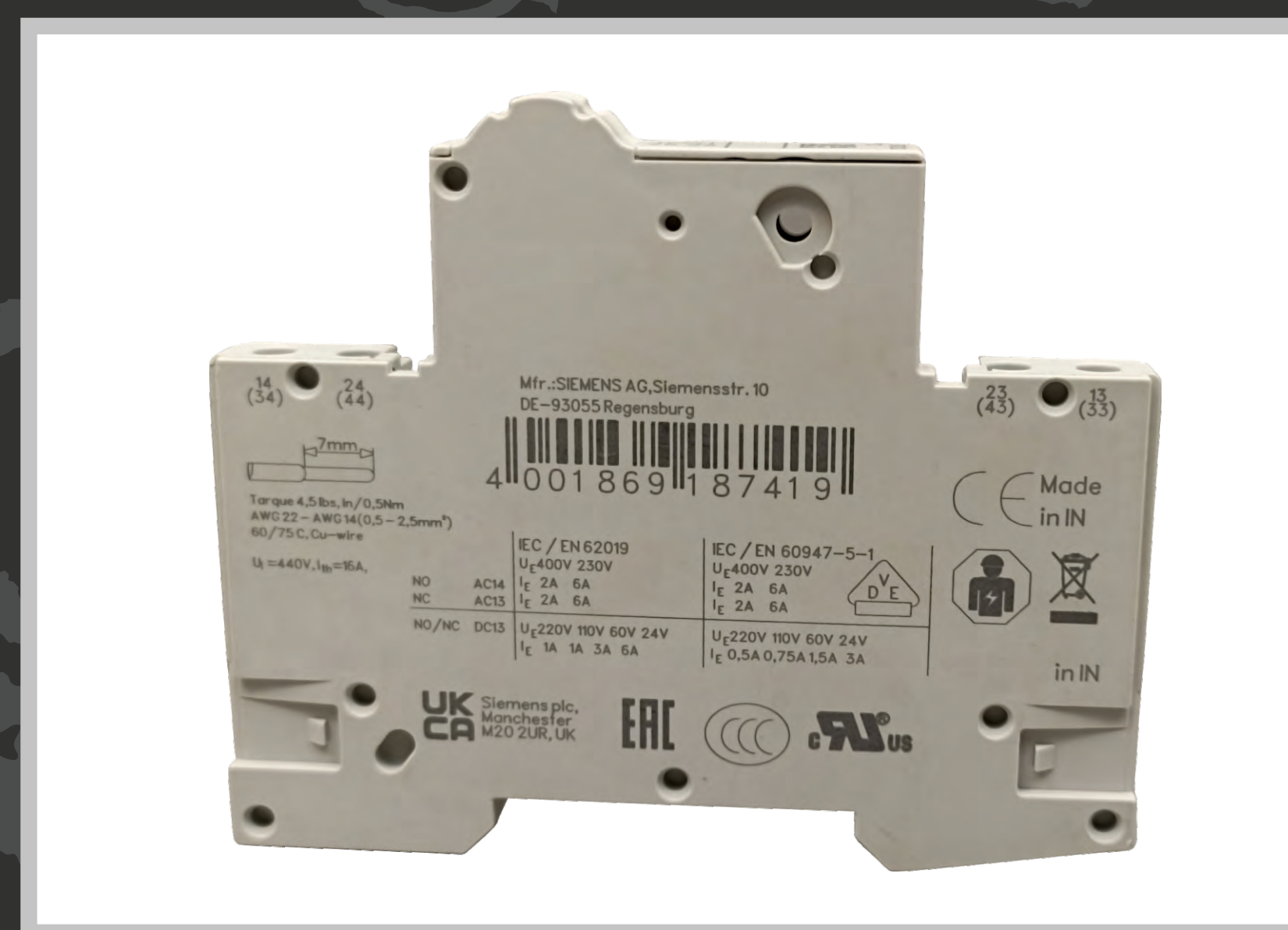## COLD LASER PROCESSING
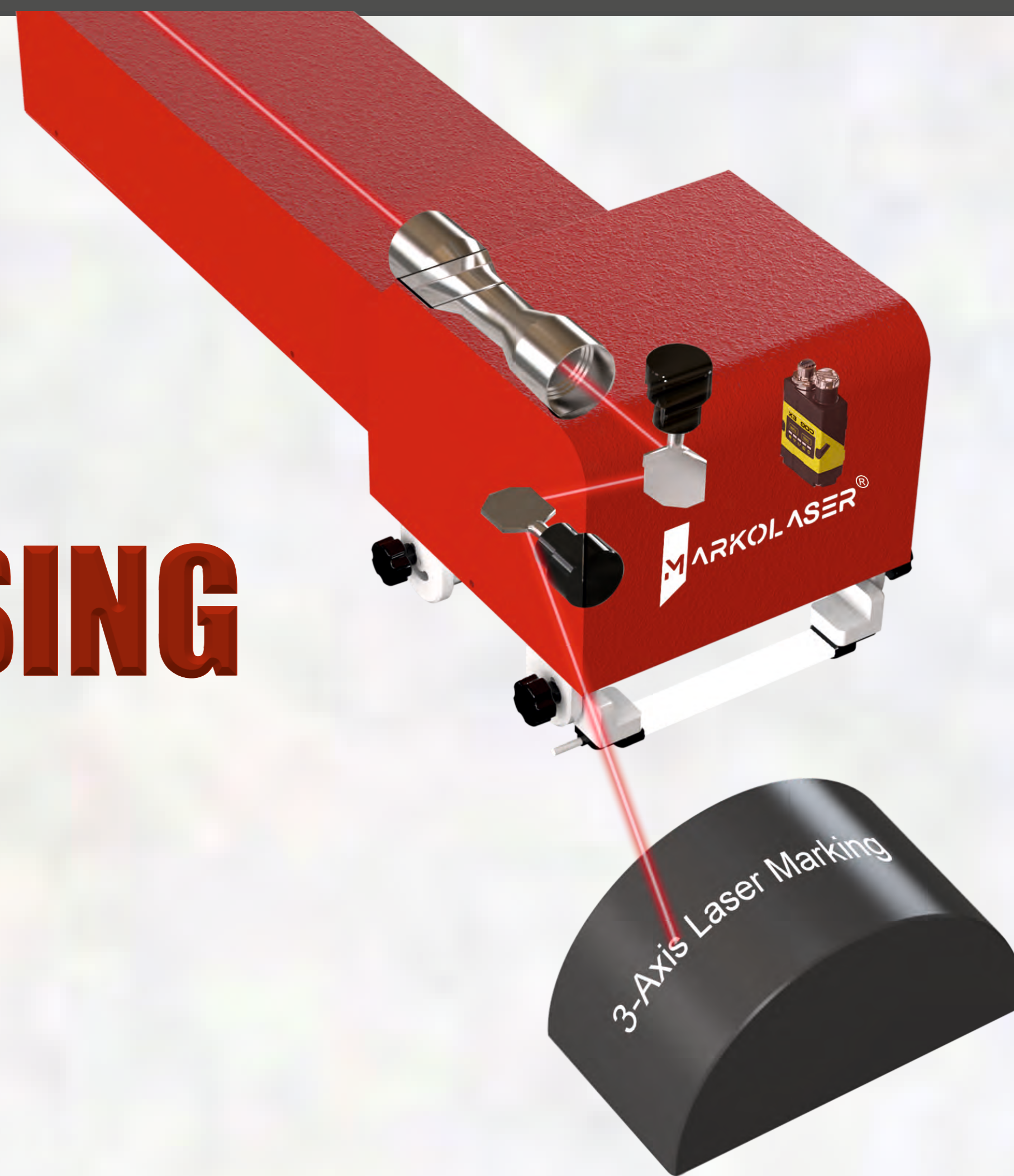
COLD LASER MARKING FOR PASSIVATION & CORROSION RESISTANCE

Marking & Drilling on Catheter

Electronics & Semiconductors

UDI Marking as per GSI, HIBCC & ICCBBA

Other Industries Where UV Laser is a Game Changer

Jewellery
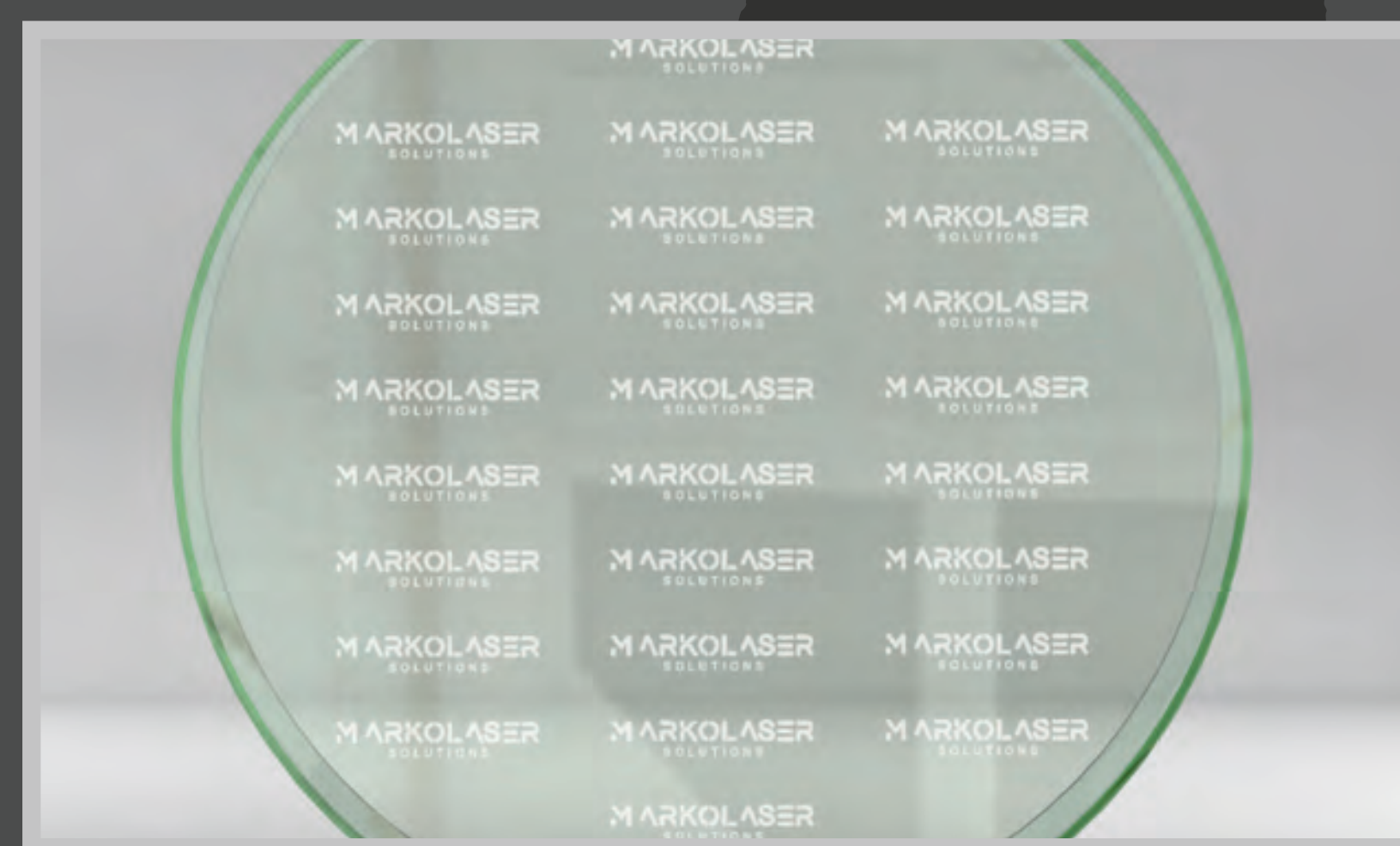
Glass
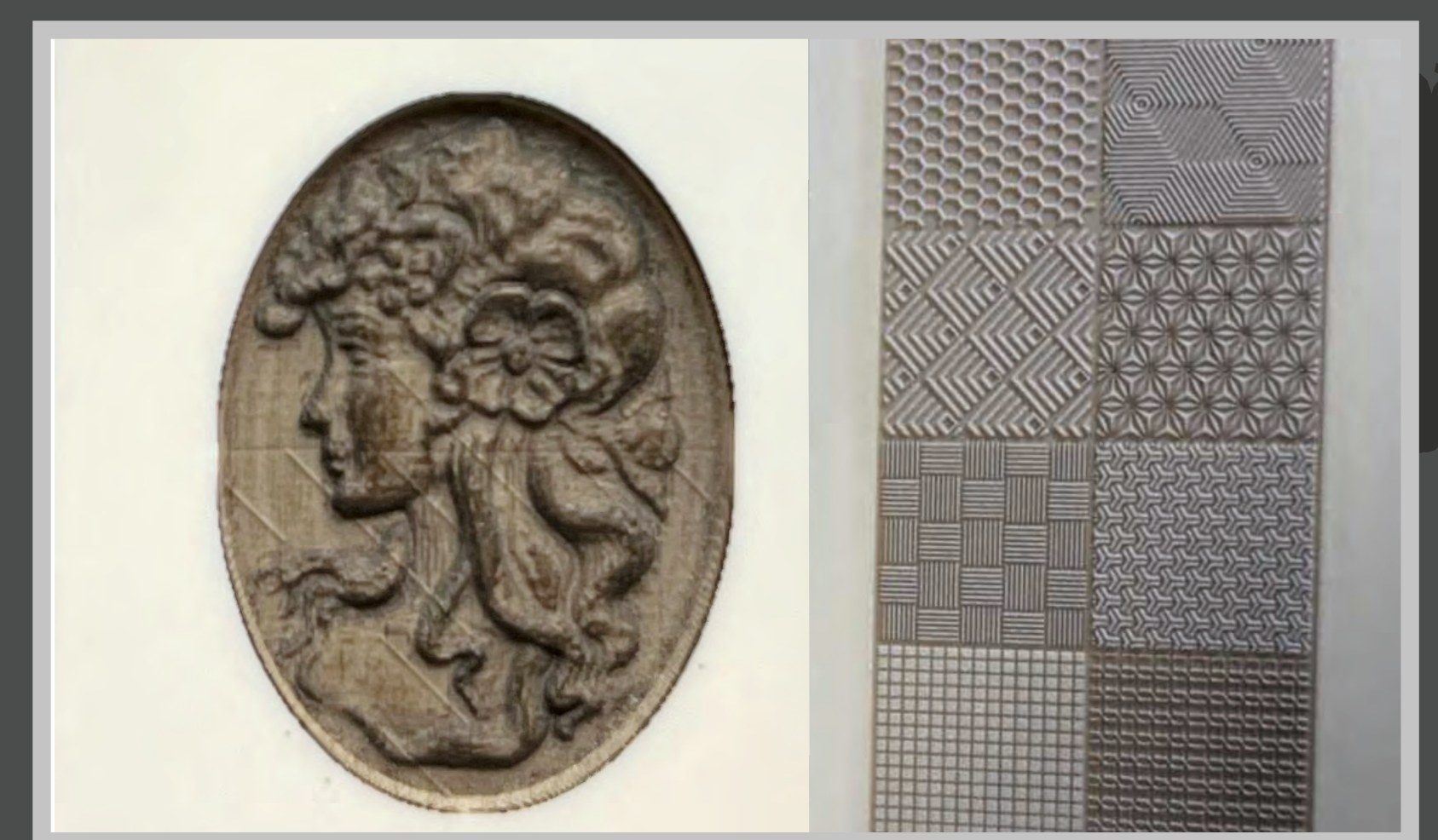
Special Ceramics

BENEFITS AT A GLANCE

- High Absorption Rate Allows it to Perform "Cold Marking" i.e. Laser Processing with Less HAZ.
- Wide Range of Material Interaction Such as Glass, Ceramics, Reinforced Polymers Including Highly Precious Metals.
- Narrow Line Width & High Beam Quality Allows it to Perform Micro-Machining.

Aeronautical • Automotive • Electrical & Semiconductors • Glass • Medical

www.markolaser.com

MARKOLASER® Solutions

LASER WELDING SOLUTIONS & SPMs

70 W-5000 W

- Less Heat Affected Zone
- Excellent Weld Quality
- Good Weld Strength
- Automated Process Allows Excellent Repeatability & Accuracy

LASER WELDING ON EV BATTERY PACKS

Tab to Tab Welding
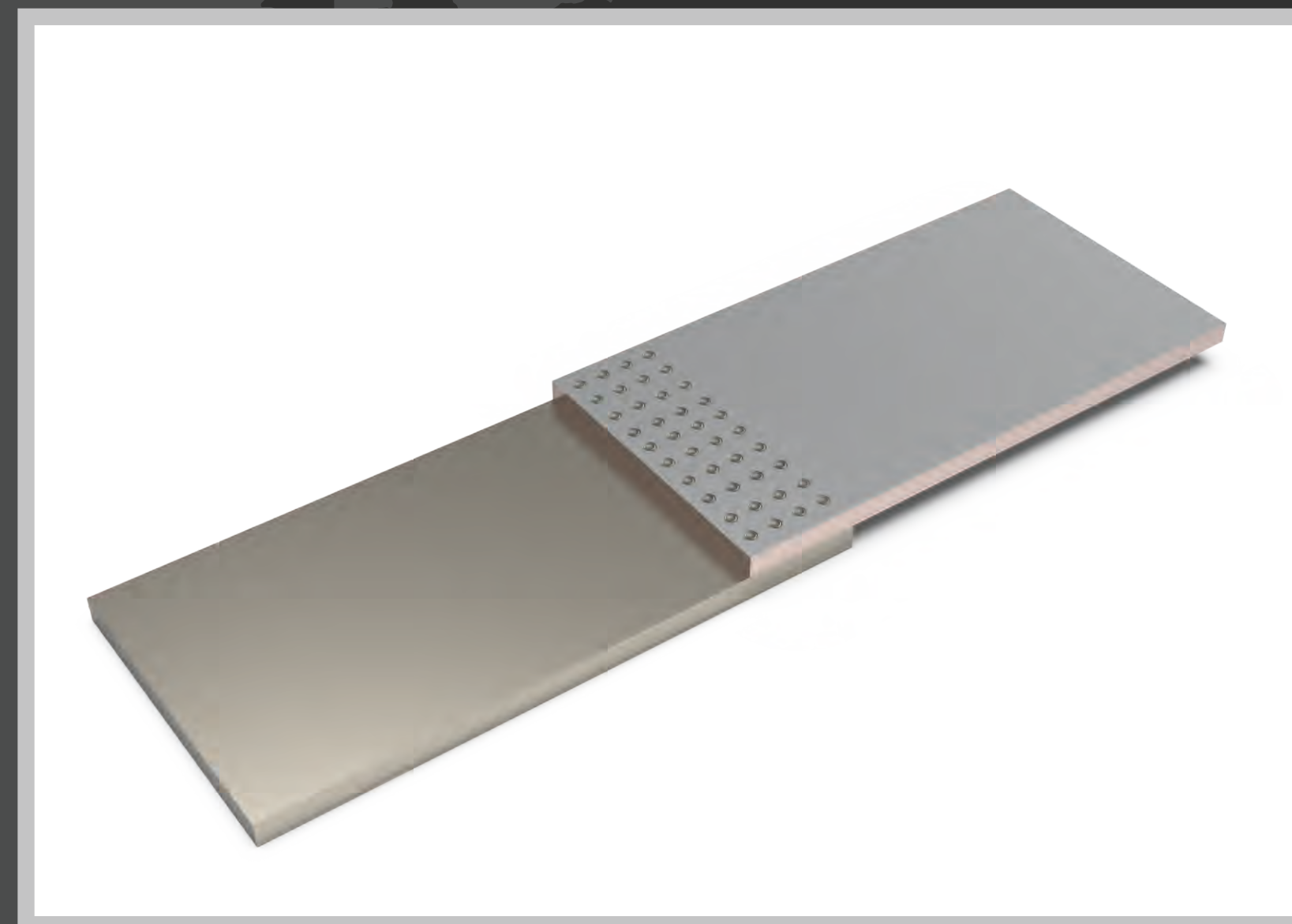
Foil to Tab Welding
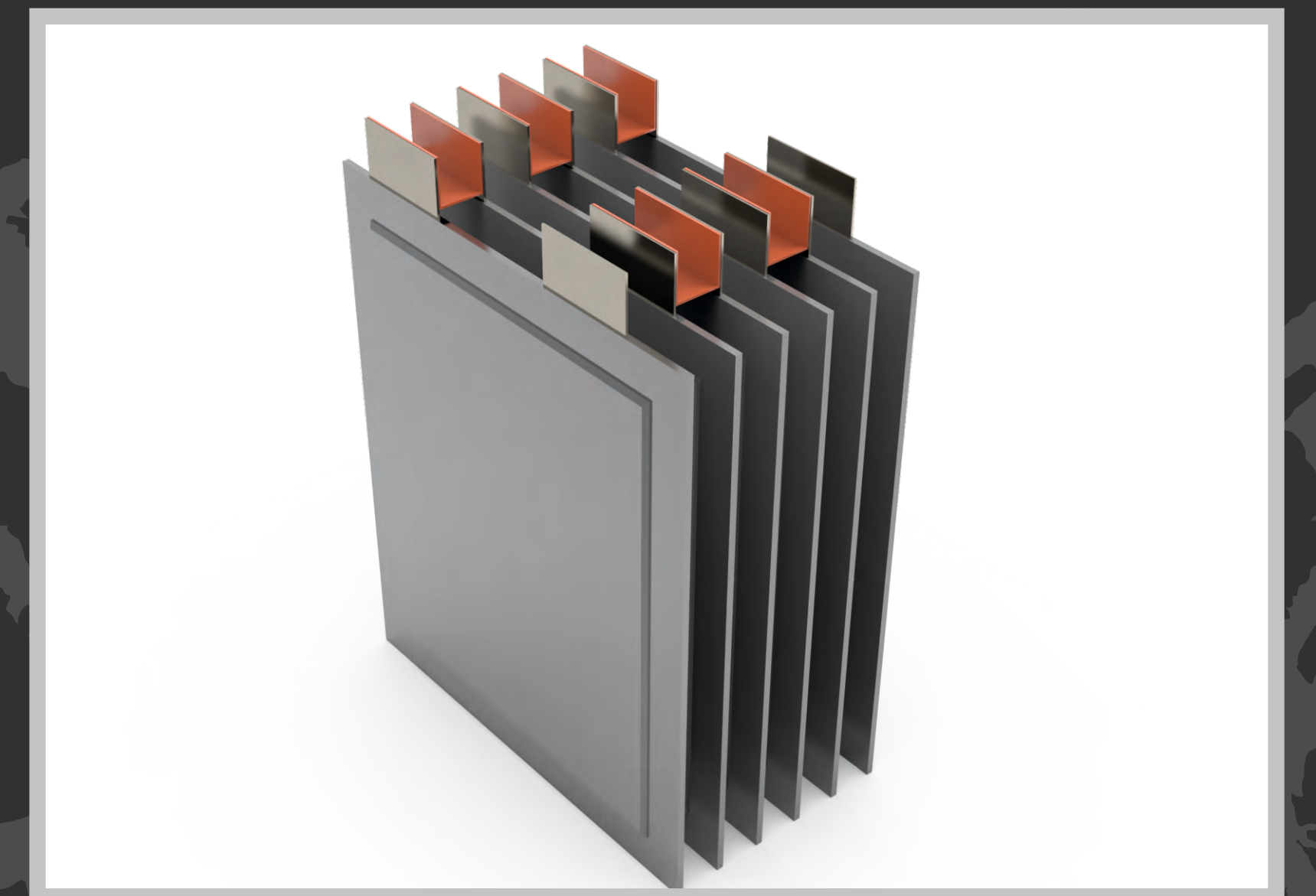
Tab to Busbar Welding

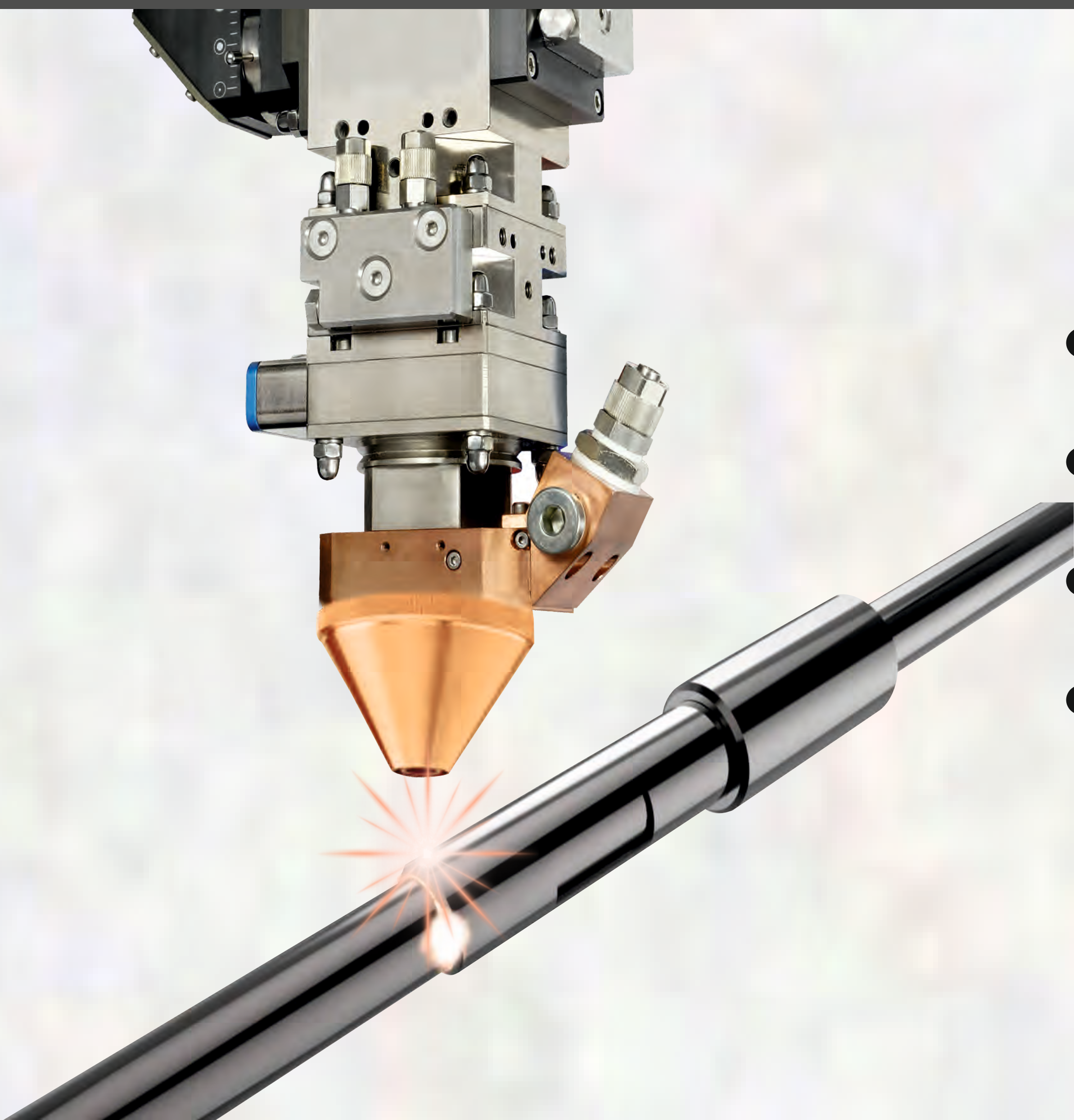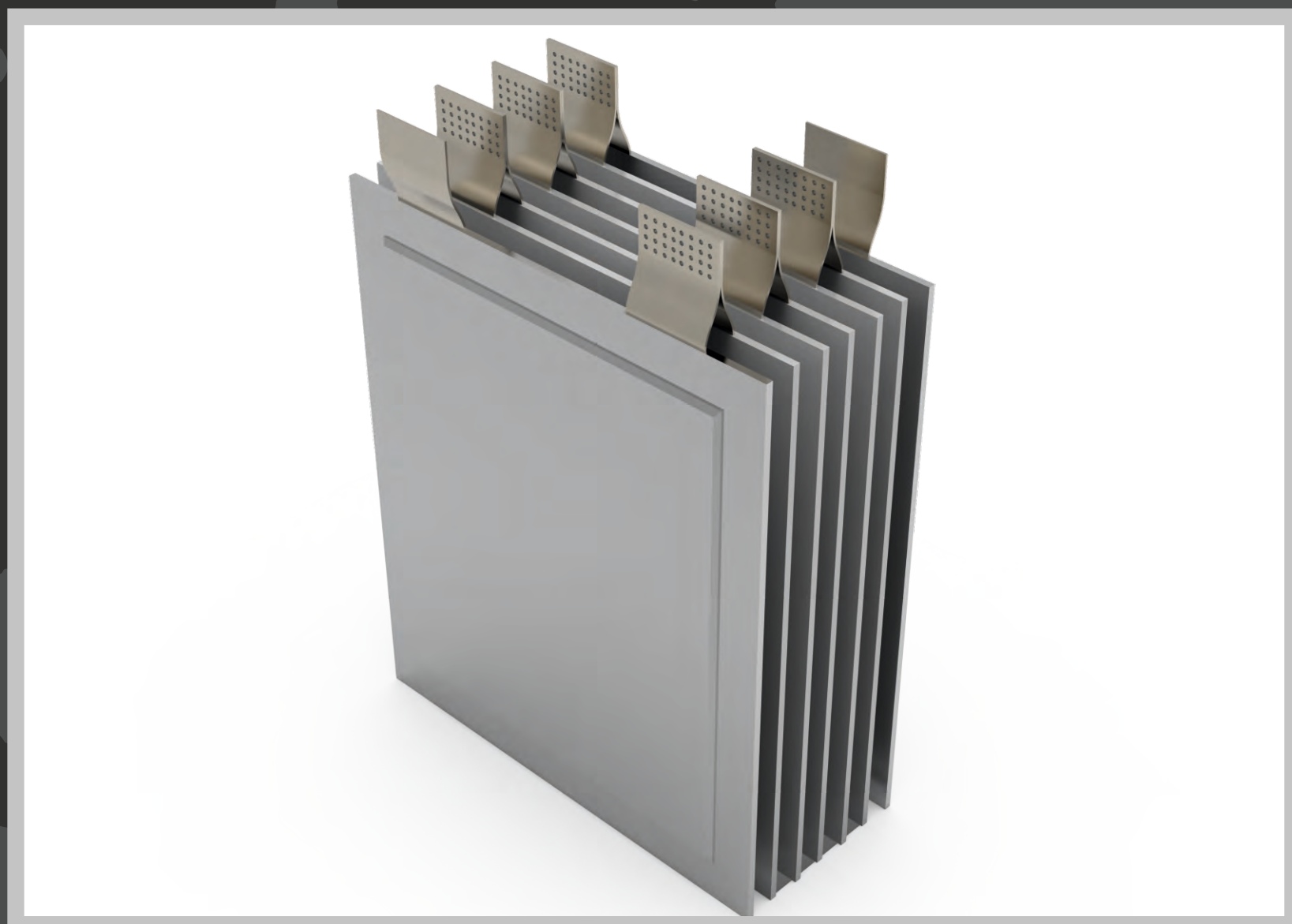Customized Robotic, Gantry, Rotary, Linear etc.
CAD-CAM/Automation Integration of 100-6000W IR Laser as Per Application.

Laser Spot Welding on Li-ion Battery Tab
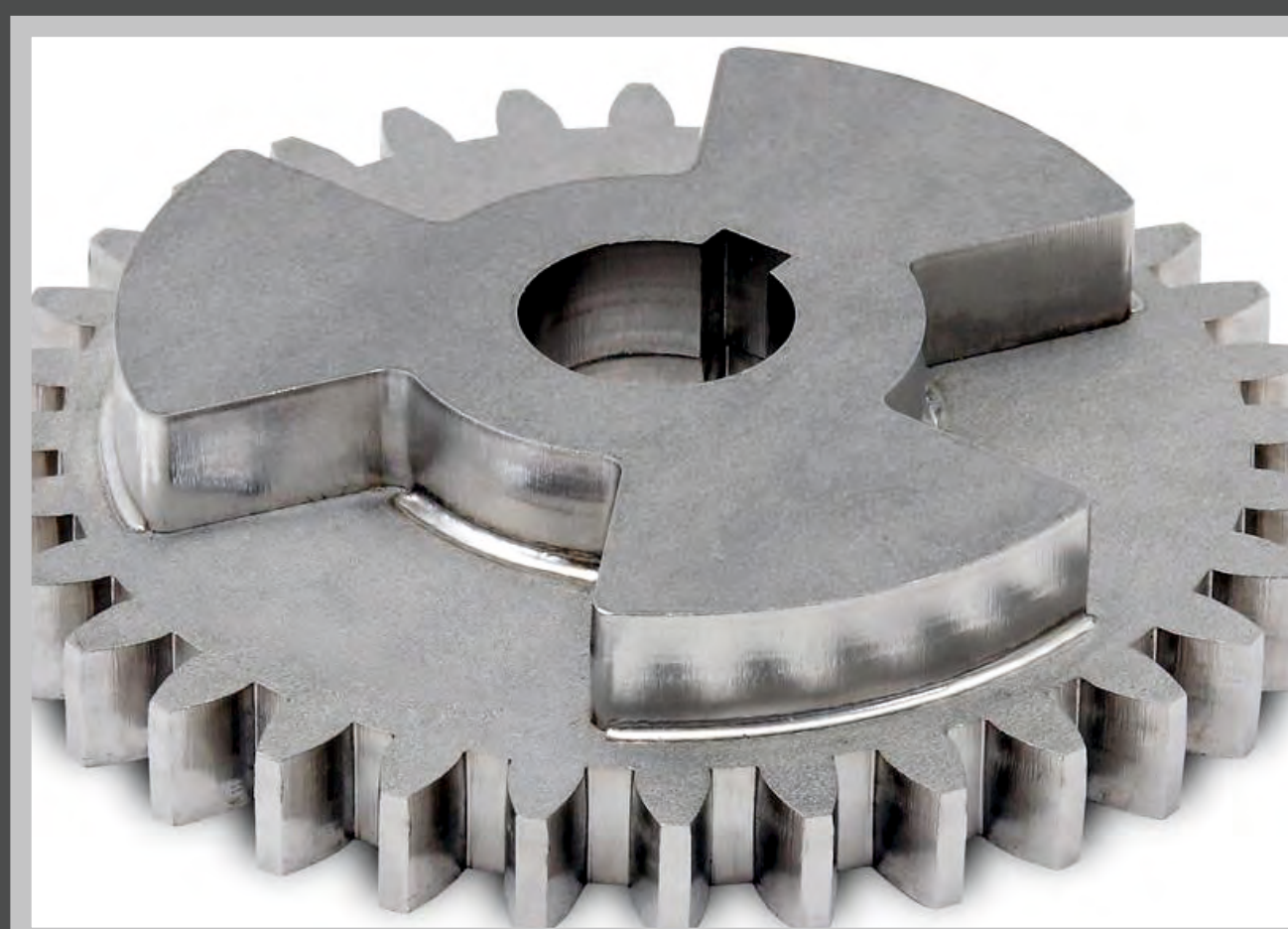
Keyhole Welding on Automotive Gears

Plastic Laser Welding

Heat Conduction Welding on Medical Implants

LASER WELDING TECHNOLOGY/TYPES

Spot & Seam Welding • Scanner Welding • Wobble Welding • Laser Welding of Plastics/Polymers • Deep Penetration/Keyhole Welding • Heat Conduction Welding

Aeronautical • Automotive • Electrical & Electronics • Tool & Mold Making • Medical Solar • Laboratory & Research Centers

MARKOLASER® Solutions

FEMTOSECOND LASER SYSTEMS

- Precision Parts Cutting
- 3D Additive Manufacturing
- Glass Cutting & Drilling
- Micro Cutting & Welding
- 3D Milling & Polishing

FEMTOSECOND LASER

- 3D Waveguide Writing
- Micro & Nano Drilling
- Polymer Fine Cutting
- Glass to Glass Welding
- Glass Structuring & Etching
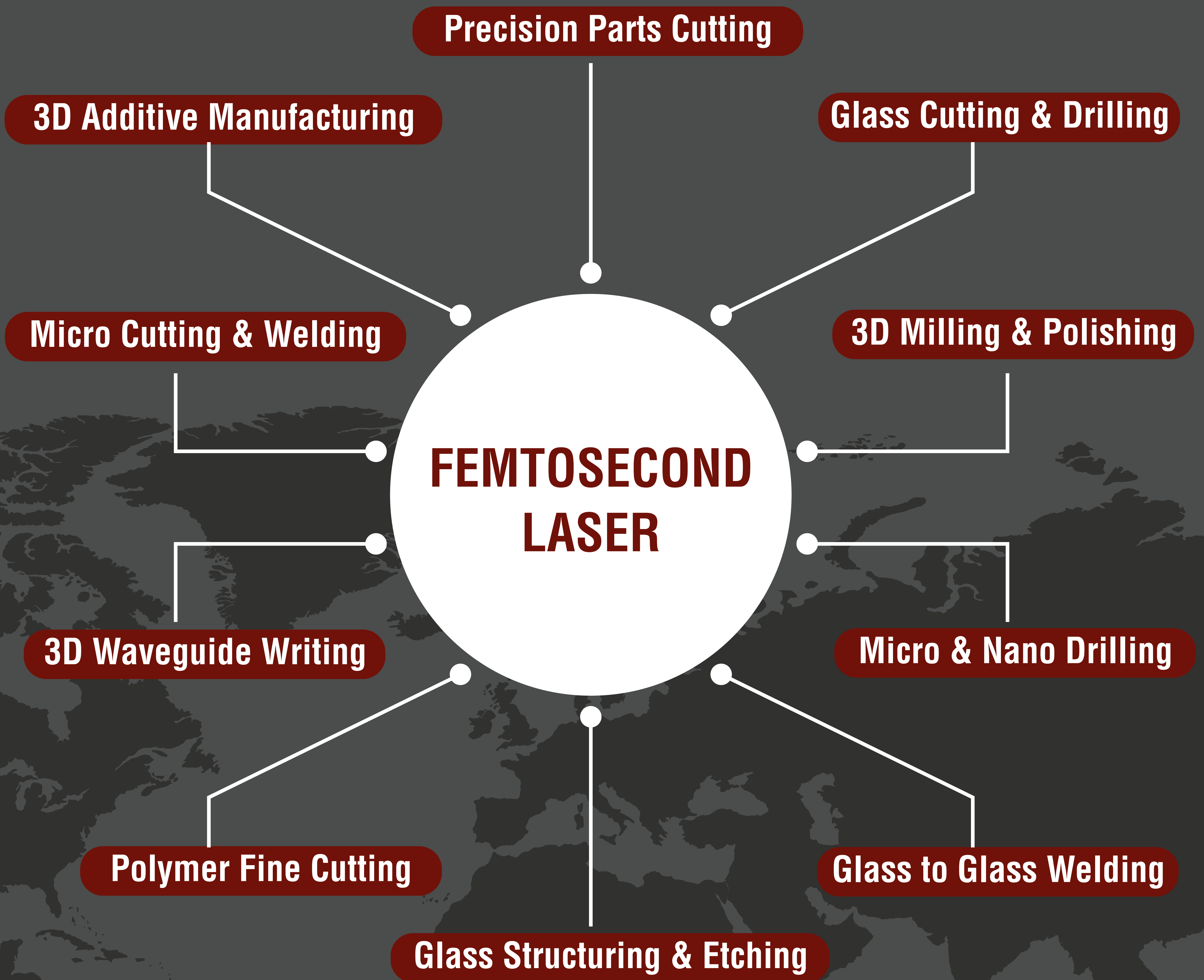
ADVANTAGES OF FEMTOSECOND LASER

- Non-Thermal Processing
- Small HAZ
- High Precision
- Controllable Surface Texture
- Reduced Friction & Wear
- High Surface Quality
- Corrosion Resistance
- Homogeneous Surface Modification

Display Applications

Aeronautical • Automotive • Electrical & Electronics • Tool & Mold Making • Medical Glass • Laboratory & Research Centers

MARKOLASER® Solutions

LABEL PRO
AUTOMATIC LASER MARKING & CUTTING SOLUTION FOR LABELS

MARKING, KISS CUTTING, PARTING & DATA MANAGEMENT OF SPECIAL SECURITY LABELS ON **LABEL PRO**
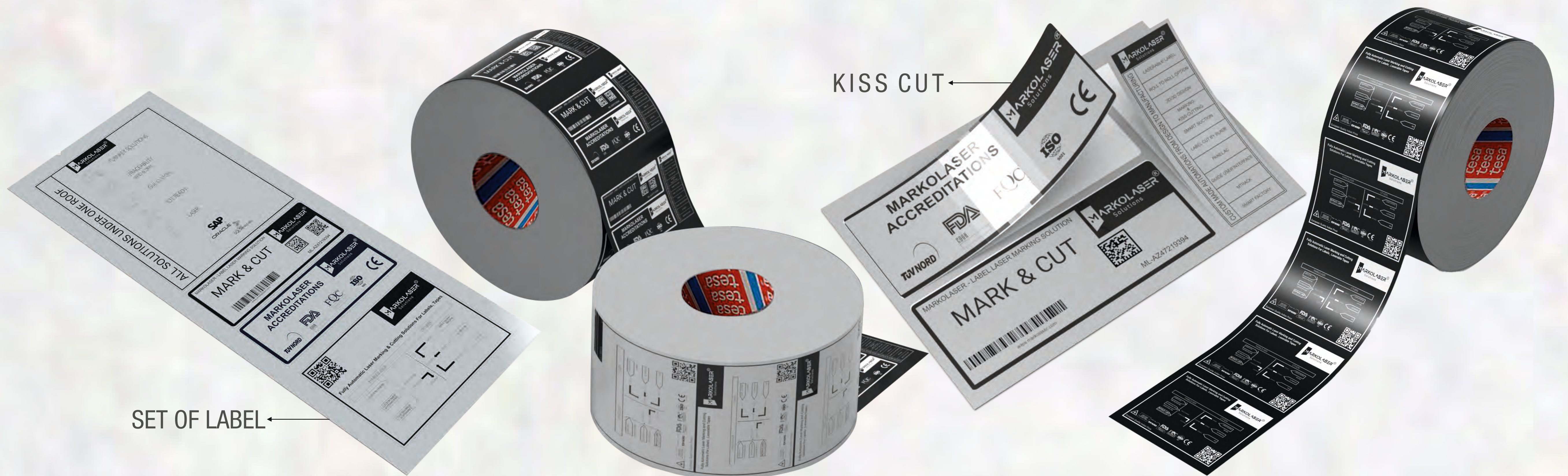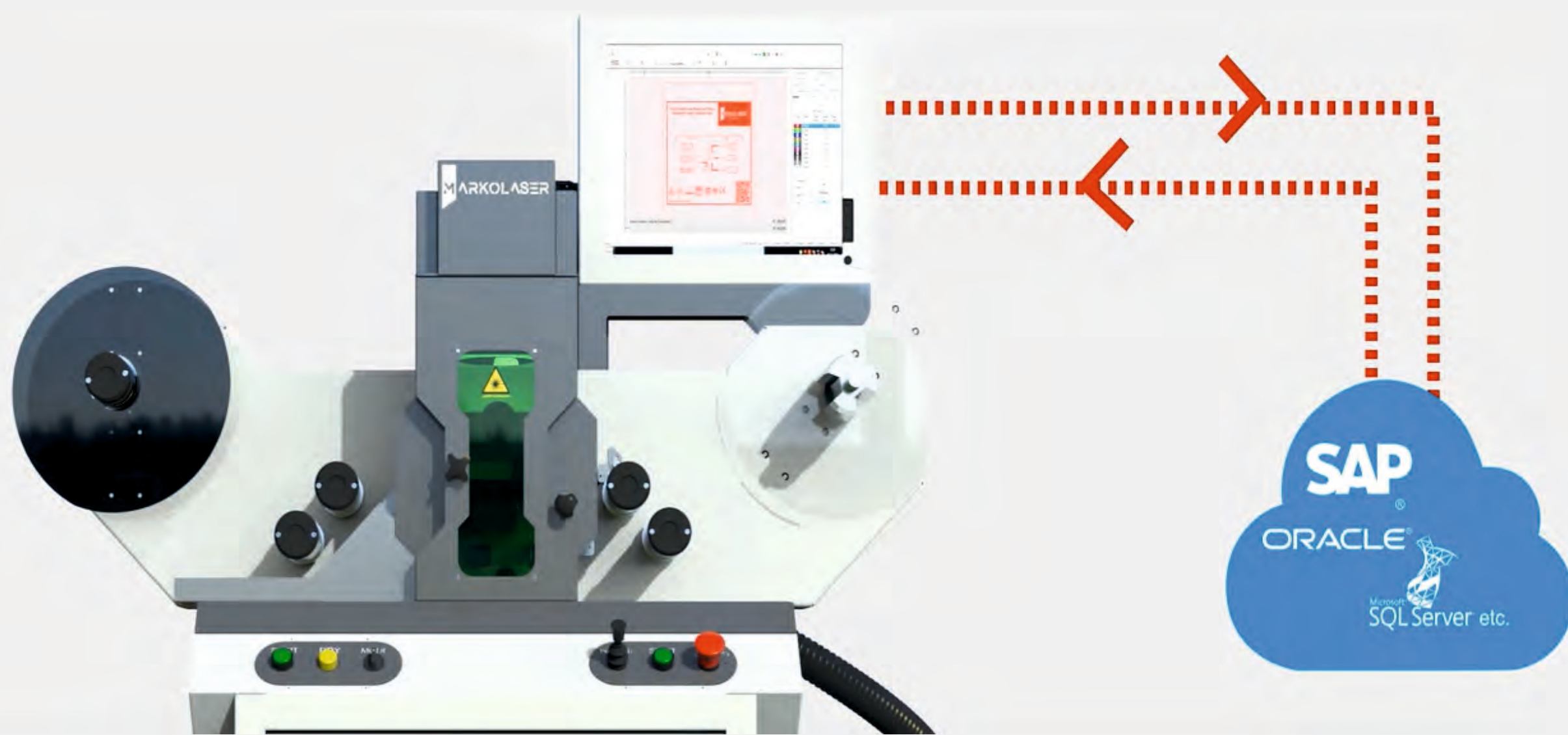
EUROPEAN COMPONENTS SELECTED CAREFULLY

KISS CUT

SET OF LABEL

MARK & CUT

MTRACK®
Traceability Solution

SAP ORACLE SQL Server etc

Benefits at a Glance

- Marking, Kiss Cutting & Cutting in One Process.
- High Definition (HD) Marking Resolution.
- Flexibility in Marking & Label Size Cutting (e.g. Sequential Serial Numbers).
- Realization of Micro Marking (e.g. 2D Barcodes).
- Class 1 Laser Marking Chamber with Integrated Fume Extraction System.
- MTrack® Label Pro Software : Traceability & Data Management Software.
- IOT 4.0 Interfaces Necessary for Programming & Data Transfers Available.
- Excellent Results on Double-Layered Acrylic Security Labels (NHTSA, EEC, GB, Complied Labels).
- Capable to Mark a Set of Labels According to Requirement.

Areas of Applications

Automotive, Bikes, Aeronautical, Motors, Drivers, Electronics etc.

www.markolaser.com

All Logos & Artworks are Property of Respective Companies

![Farbajet logo]

FLATBED UV DIGITAL PRINTING MACHINES

Step into the Future of Printing with Farbajet UV Digital Printing Solutions

CMYK
CMYK (W)
CMYK (W)(V)
CMYK (LC)(LM)

RICOH

REVOLUTIONIZING PRECISION & QUALITY FOR INDUSTRIAL PRINTING & BEYOND

- Quality & Speed
- Static-Free Printing
- Silent Precision
- Effortless Setup
- Enhanced Protection

- Engineered for Various Substrate
- Stunning Photo-Realistic Output
- Perfect Output, Every Time
- Flexible Ink Configurations
- Time-Saving Digital Primer

ACRYLIC	WOOD	PLASTIC	LEATHER
GLASS & CERAMIC	ALUMINUM	PVC BOARD	FABRIC

WORKS BEST WITH FARBAJET UV DIGITAL PRINTING INKS

- Eco-Friendly & Efficient.
- Print Head Compatibility (Ricoh, Konica).
- Enhanced with Primers & Varnishes.
- Dishwasher-Resistant Durability.
- Post-Processing Ready.
- High-Resolution Precision.
- Outdoor Durability.

- **Automotive** • **Electrical** • **Cosmetic** • **Architectural** • **FMCG** • **White Goods**
- **Signage** • **Interior Decoration**

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EPIC
PAD PRINTING

EPIC TRIEX
THREE COLOR PAD PRINTING MACHINES

EPIC
PAD PRINTING
TRIEX-90-3

TRIEX-90-3

INTRODUCING TRIEX

A Revolutionary Innovation. Designed to Address the Challenges of Precision, Speed, & Adaptability, These Machines Redefine Efficiency. Whether You Need to Print Large Parts or Achieve High-Speed Output, Epic Triex is Engineered to Deliver Exceptional Results.

SALIENT FEATURES & ADVANTAGES

- 3 Colour Machines Static Printing Advantage
- Enhancing Accuracy & Sharpness in Printing
- Printing Large Parts With Ease
- Programmable Print Motions
- Automation Ready
- Reducing Errors & Waste
- TCS - Tape Cleaning System (Optional)

Patent Pending No. 202411052257

Cosmetic Industry

Sports Industry

Toy Industry

Watch Industry

Tool Industry

Automotive Industry

www.epicpadprinting.com