

SUPPLY & DEVELOPMENT SOLUTION PARTNER

About the Company

Since 2008, we have been providing solutions with an experienced team that has expertise in Purchasing, Sales, Product Development, and Quality departments.

We are confident in our strong supply network, both domestically and internationally, through our reliable suppliers.

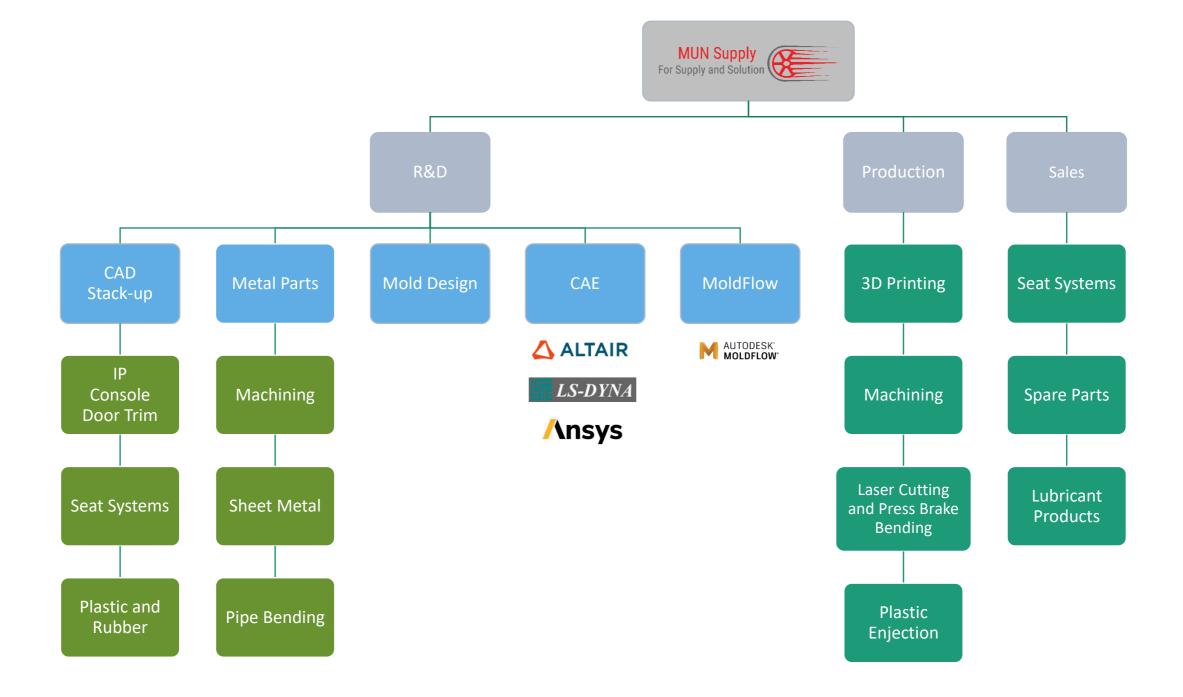
We offer tailored solutions with a commitment to innovation, quality, and excellence. Our vision is to be the most trusted partner for our clients, driving success through innovative project delivery and exceptional service.



Business Scope

- Development and prototyping of cooling, heating, and ventilation systems for the automotive industry.
- Development of frame and mechanism systems for vehicle seats, along with design validations. Production of alternative solutions for ventilation and seat heating systems.
- Design and development of plastic products, along with production based on customer requests.
- Capability for prototype production with 3D printing.
- Meeting customer demands with machining, laser cutting/press brake bending, and tube bending products.







With our expertise, state-of-the-art tools, and established supply chain, we reduce lead times and optimize costs, enabling our clients to focus on their core competencies.

Making necessary analysis and simulations of the product and creating a model

Expertise in design software such as CATIA SIEMENS and Creo

Making Technical Drawing publications of the products for which design studies are carried out

Design of Requested Parts

20 years of experience in Design and Product Development

Stack-Up studies

Preparation of Design, Simulation and Tolerance Chain Reports

Organizing and managing technical meetings with customers / suppliers

Design and Development Studies



Development studies for vehicle seats











Expertise in seat system design and product development with a competent team.

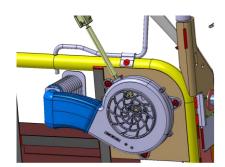
We maintain our leading position in the industry with our innovative and high-quality products, and customer satisfaction is always our top priority.

Our organization uses the latest technology and materials to meet special design needs, such as passenger seats, Tractor Seats, Construction Equipment Seats and Ambulance Seats, providing solutions that align with the expectations of each customer.

Our R&D team continuously analyzes our products and achieves excellent results through testing processes. This enables us to develop seats that offer both safety and comfort. With our customer-focused approach, we take pride in understanding your projects and providing customized solutions.

Our experienced designers and engineers work diligently to create the best designs tailored to your needs.

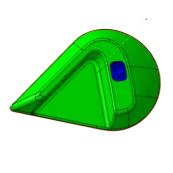
We would be pleased to collaborate with you to provide excellent seating solutions that combine quality and comfort. Please feel free to contact us for more information or to discuss your projects.



Alternative solutions for ventilation systems.





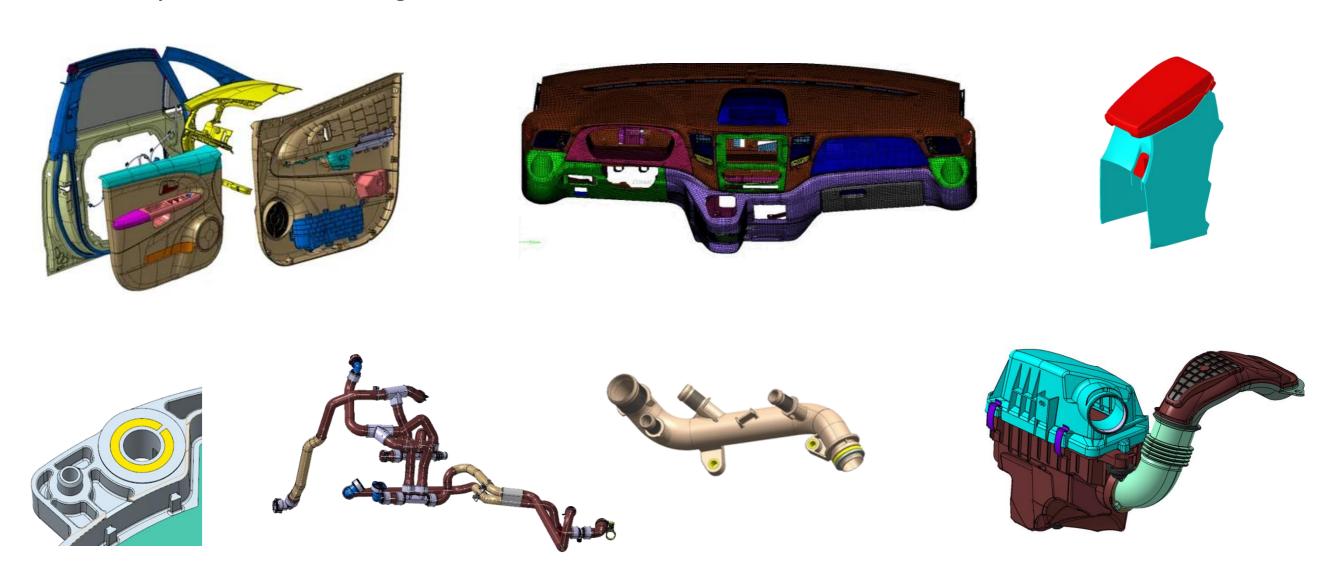


Examples of mechanism studies and development for seat systems.

Design and Development Studies

MUN Supply
For Supply and Solution

Interior, Exterior, Bumpers and Vehicle Parts Design Studies



Injection molding technology for plastic housing units with high strength and lightweight properties.

*** Our Project Management team focuses on understanding client needs and delivering turnkey project solutions. From initial consultation to final implementation, we ensure seamless execution aligned with your objectives.

Design and Development Studies

Sheet Metal Forming, Machining and Metal Pipe Bending development studies and Production examples





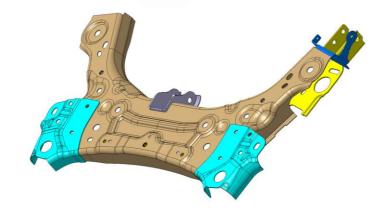
















CNC machining used for automotive engine components, ensuring precision and durability.



Verification of designs through analysis studies.

The finite element method is used to facilitate the analysis, preparation of innovative and better products, and to minimize the prototyping time. Structural analysis enables static and dynamic analyses required in advanced engineering, ensuring the creation of minimum prototypes and the pre-resolution of potential design issues under load.

Advantages:

1.Digital Testing Method:

At its core, it is a digital testing method. Components can be virtually examined in a computer environment before physically producing them.

2. Facilitates Design Revisions:

Since potential issues are visualized in a computer environment, adjustments can be made to the design, paving the way for a seamless design revision process.

3. Visualizes Structural Behavior under Various Loading Conditions:

Structural behavior and failure can be well visualized under various loading conditions.

4.Insight into Critical Design Parameters:

Insightful information is obtained regarding critical design parameters (Weight, Power, Cost).

5. Faster and Cost-Effective Design Cycles:

Enables a faster and more cost-effective design cycle.

6. Weight Reduction, Topology Optimization, Material Substitution:

Activities such as weight reduction, topology optimization, and material substitution studies can be performed more rapidly, effectively, and economically through the finite element method.



Regulation Analysis for Customer



According to OEM specifications, the following tasks need to be performed for Mercedes Axor vehicle:

- *Lightweighting studies on the mudguard carrier and battery carrier parts
- *Bio-material studies on the screen carrier component
- *Static and dynamic analysis modeling of components
- *Correlation of analyses and tests
- *Reporting design suggestions to the design team based on analysis results
- *Conducting tests of completed analyses
- *Project management, including regular meetings with customers and suppliers regarding analyses



- *Modeling of static and dynamic analyses for the DCIV and Shuttle bus seats of the Ford V710 vehicle according to ECE-R safety regulations and OEM specifications.
- *Correlation of analyses and tests. Reporting design suggestions to the design team based on analysis results.
- *Conducting tests of completed analyses.
- *Project management, including organizing regular meetings with customers and suppliers regarding analyses.





















- *Modeling of static and dynamic analyses for the center console and rear seat backrest of Hyundai vehicles according to ECE-R safety regulations and OEM specifications within the scope of the R&D project.
- *Reporting design suggestions to the design team based on analysis results.
- *Project management, including organizing regular meetings with customers and suppliers regarding analyses.
- *Modeling of static and dynamic analyses for the rear passenger seat and composite trunk lid of Günsel Model 1 vehicle according to ECE-R safety regulations and OEM specifications.
- *Reporting design suggestions to the design team based on analysis results.
- *Project management, including organizing regular meetings with customers and suppliers regarding analyses.

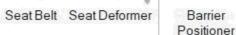




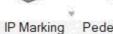
Mechanism











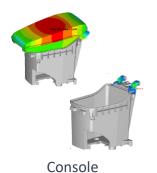
Pedestrian

Impacts

Occupant

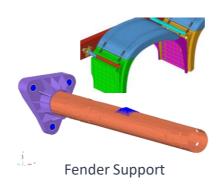


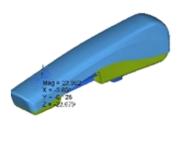
Special analyzes according to customer demands





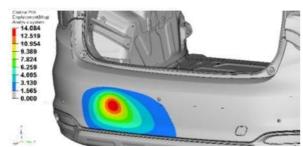




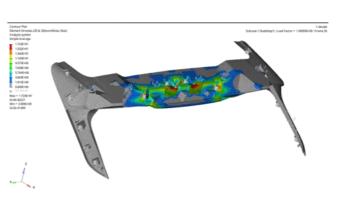


Armrest









Rear Bumper

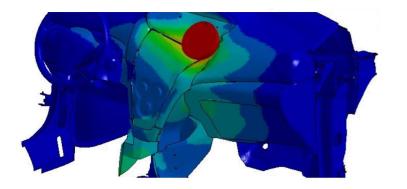
FEM Carrier

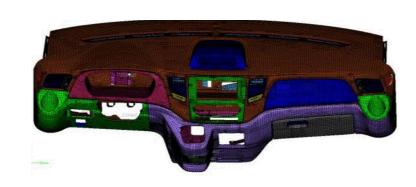
Spoiler



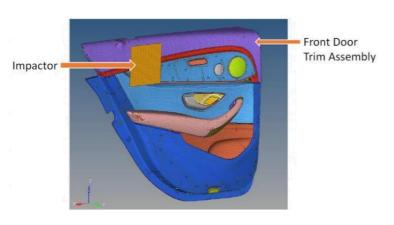


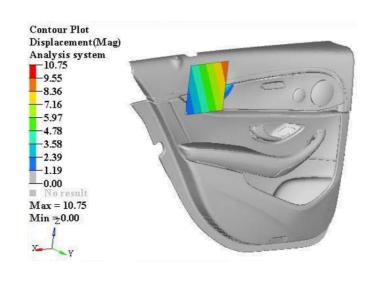
Special analyzes according to customer demands

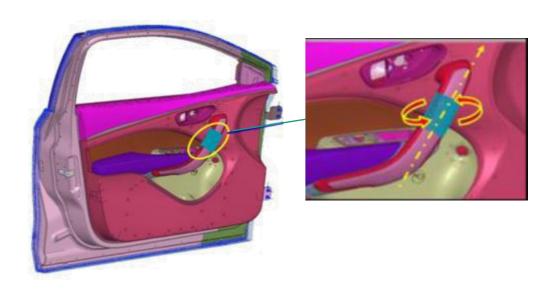
















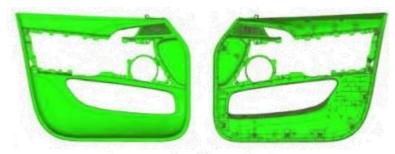


***Real image regarding IP console simulation could not shared due to NDA.

This pictures are representative demonstrating our skills about simulating IP console.

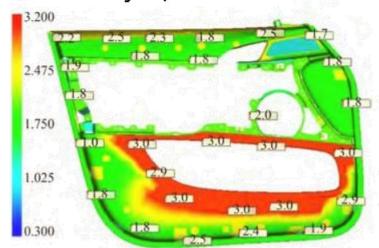


MoldFlow Analysis

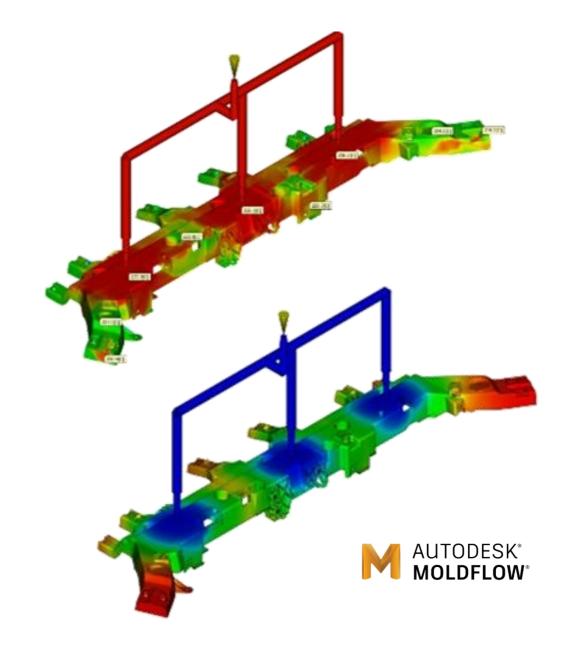


Automotive door plastic parts

Grid thickness diagnosis/mm



Door trim thickness analysis



Production



Development studies for vehicle seats

Main Products and Activities;

- 1. Ambulance Seats / Ambulance Interior Plastic Trims.
- 2. Bus / Minibus Passenger Seats
- 3. Tractor Seats, Construction Equipment Seats
- 4. Various products (Aluminum Sunbeds, Aluminum Chairs, various metal parts).



Production



Prototyping capabilities with 3D printing.











F	DM

+ ABS

+ ASA

+ PC

+ ULTEM™

+ PEEK

Various materials, large parts, fast delivery, competitive prices

MJF

High quality, semi-

production, parts

close to injection

molding

+ PA12

SLS

Complex geometries,

small and batch

productions

+ PA12

+ TPU

SLA

+ xCLEAR

+ xFLEX

+ xABS

+ x35

+ x45

Transparent, flexible, and opaque, delivering highquality surface

DMLS

+ ALUMİNYUM

+ TİTANYUM

+ 316L

results.

3D printing technology for metal prototyping



3D printing Production Line



HP Jet Fusion 4200



3DGence F420



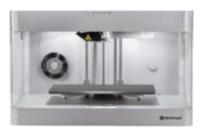
3DGence F420



3DGence F350



Nexa XIP



Markforged Mark Two



Sintratec S2



1000x1000x1000 Vakum



1020x600x600 Dik İşlem



Paintworks

PRODUCTION PLANTS & LOCAL SUPPLIERS



Working with local suppliers enables faster delivery times, enhanced communication, and cost-effective solutions tailored to regional needs.

Advantages

Fast Service:

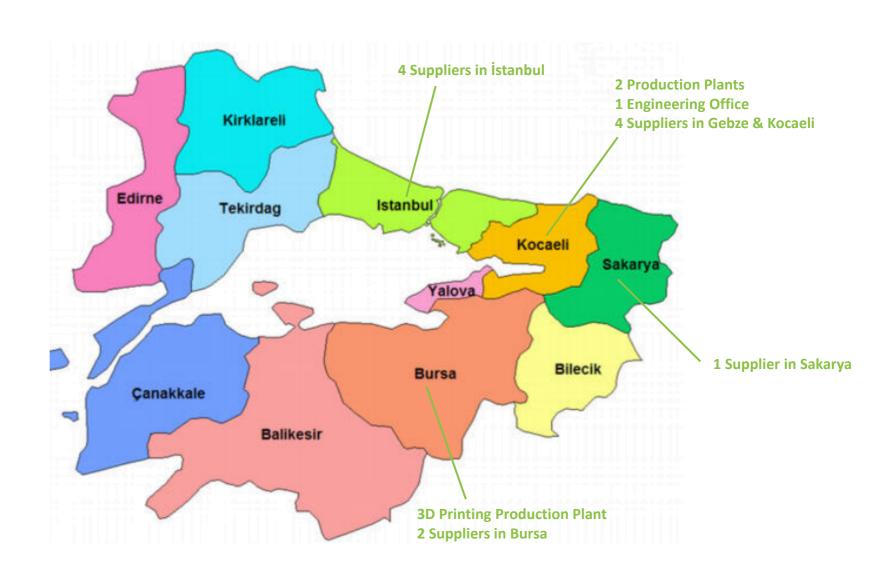
Short time from production to delivery thanks to regional access.

Flexibility:

Fast solution production from local resources.

Cost Advantage:

Reduction of transportation and logistics expenses.





Our expectations and demands from Our Customers / Business Partners

To move forward, we would like to understand your specific project needs and discuss how we can best support you.

We look forward to scheduling a follow-up meeting to align on the next steps.





THANK YOU FOR YOUR ATTENTION

Center Office & Engineering Office

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