



## **Body & Chassis**

Magna provides a comprehensive range of body, chassis and engineering solutions to global customers. Through our robust product engineering, outstanding tooling capabilities and diverse process expertise, we continue to bring lightweight and innovative products to market. For our full range of products and capabilities visit: magna.com

BODY SYSTEMS CHASSIS SYSTEMS ENGINEERING & TESTING

### Customer Base

BMW, Daimler AG, Ford Motor Company, General Motors, Honda, Hyundai, Jaguar Land Rover, Kia, Mercedes-Benz, PACCAR, Porsche, Renault-Nissan-Mitsubishi, Stellantis, Toyota, Volkswagen Group, Navistar, Freightliner, Mahindra, Tata Motors, Volvo and their respective operating divisions and subsidiaries.

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### Capabilities

- **Body Systems**
- Complete Body-In-White
- Floor Pans
- Underbody Assemblies
- Door, Hood & Deck Assemblies
- Roof Panels
- Fender & Quarter Panels
- Tailgate & Liftgate Assemblies
- A, B, C & D Pillars
- Bumper Beams
- Door Intrusion Systems
- Heat Shields
- Battery Enclosures

### **Chassis Systems**

- Crossmember Assemblies
- Radiator Supports
- Shock Towers
- Engine Cradles
- Front & Rear Sub-Frame Assemblies
- Front & Rear Suspension Modules
- Control Arms
- Frame Rails
- Full Frame Assemblies

### **Engineering & Testing**

- Program Management
- Program Engineering
- CAE Design Verification
- Prototype Build
- Testing & Validation
- Tooling & Automated Systems
- Research & Development



### Innovations

#### **Aluminum Casting**

As the need continues to grow for lightweight designs, Magna has recently added aluminum casting to its portfolio of process solutions. Complex shapes for critical areas of both body and chassis structures can be achieved through two variations of the casting process, high pressure vacuum casting and traditional low pressure casting. Not only do these provide our customers with innovative design options, it continues to show that we are leader in lightweight structures.

### Hydroforming

Magna has pioneered the application of hydroforming to the automotive industry in a variety of products such as frames, subframes, and front end structures. This innovative process allows for considerable flexibility in product design, reduction in the number of components in the overall system, and considerable benefits in many areas of vehicle performance.

### Rollforming

For products such as bumper beams, frame rails and roof bows, where the safety of the vehicle occupant is dependent on rigidity and structural integrity of these components, we offer expertise in the process of rollforming ultra high strength materials. With the ability to tightly bend (sweep), pierce and weld rollformed components in sequence, along with less material waste, the customer sees the full benefit of this cost effective process.

### Stamping

From the smallest reinforcement, to the largest body system, our expertise in providing innovative stamping solutions includes the forming of a wide range of materials such as advanced high strength steels and aluminum.

### **Battery Enclosures**

Magna offers a complete array of battery tray production and engineering solutions. The battery tray contributes to the structural and safety aspects of the body in white while protecting high-voltage batteries from damage and water. These complex assemblies are available in steel, aluminum, and multi-material configurations including lightweight composites.

