



KAM KIU ALUMINIUM GROUP



Automotive



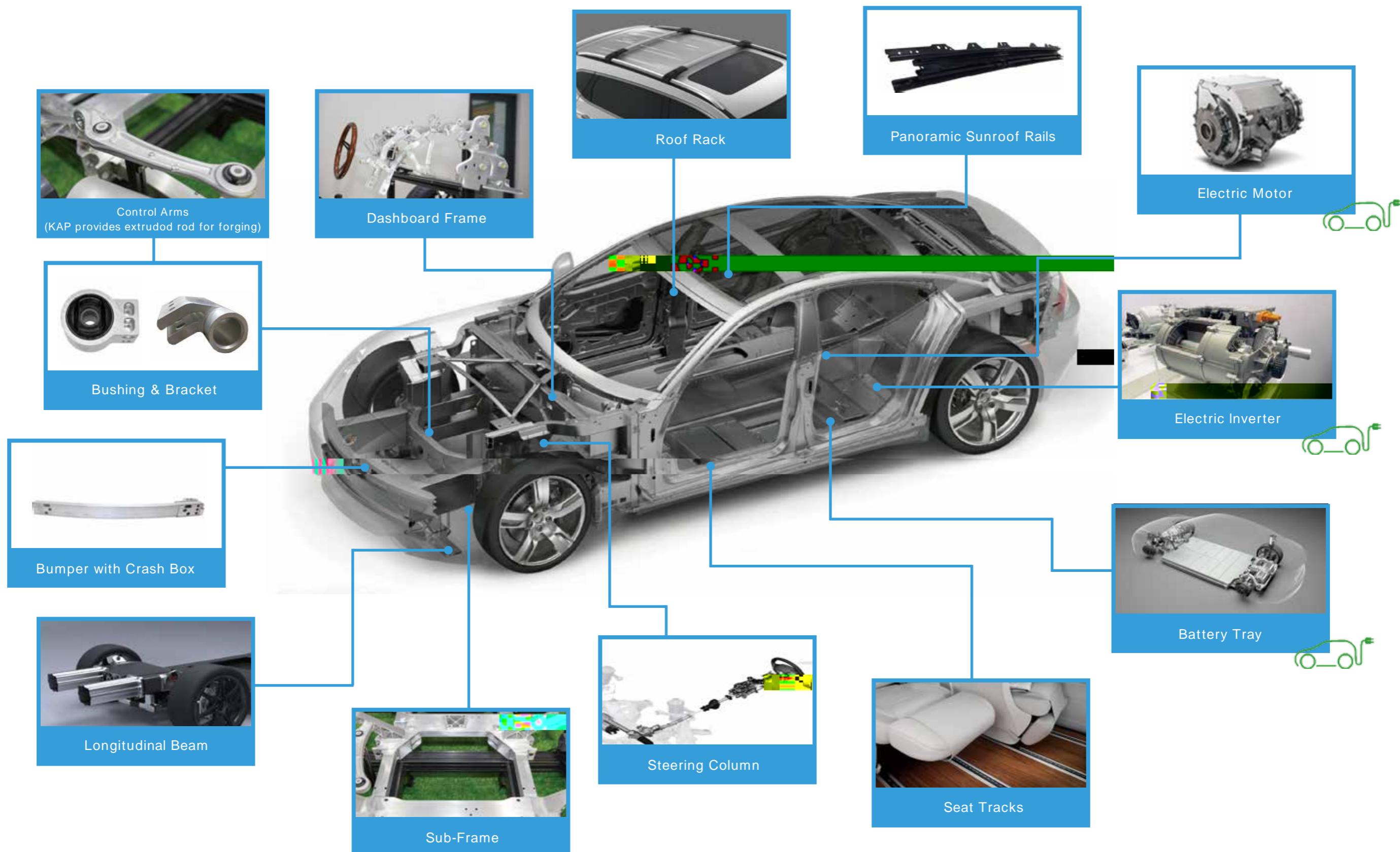
总公司 HQ:

生产基地 Production Facility:





## Product introduction (Auto Parts)



## Production Equipment

## Testing Equipment

## High-Performance OES Equipment

Precisely detecting the compositions of Aluminium alloy via PMT optical equipment.

The equipment is supported by single-substrate and multi-substrate configurations and trace analysis function, as well as on-line impurity analysis.

Full-scale-immersing flaw detecting method is employed. After water coupling, the ultrasound propagates onto the aluminium billet and reflects if there is any impurity or cracks in the aluminium billet. The ultrasonic equipment will record the reflections and send realtime alerts.

Universal Material Experiment Machine

Experiment range: 0-50KN, 0-200KN, 0-100KN

Aluminium Extrusion Section Full-Scale Automatic Measuring Machine

This is specially designed for industrial aluminium extrusions with highly dimension tolerance requirements. High-resolution optical technology is employed for measuring the extrusion section and a report will be generated automatically afterwards.

Aluminium Part CMM 3-Coordinate Measuring Machine

Employed in many industrial practices: the testing of the initial workpiece and the final workpiece, the verification of clamp and the control of the production process, et \_ 弊賜操驰乘唇/狹乘辯/唇摈乘辯/唇操驰s: t ! 雖護粉汕 鶲d 髮陁嬪婢婢罰弊摈 ” 涌 \_ 眼 真 辨探 读剗虞 for the%smFucation and testing of 瘋轄龐薦鑑銓覩龐薦罷蒞鑑銓嗜 觀龐剗剗蒂鰥 麗薦蒞觀鰥snfte汕q 東 菲 灵高涸 續繕繫 { w 駢 sntfen tlutevhe%specifically for the procesting i

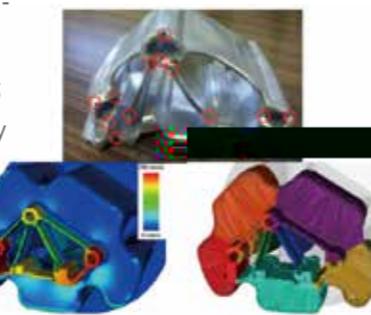
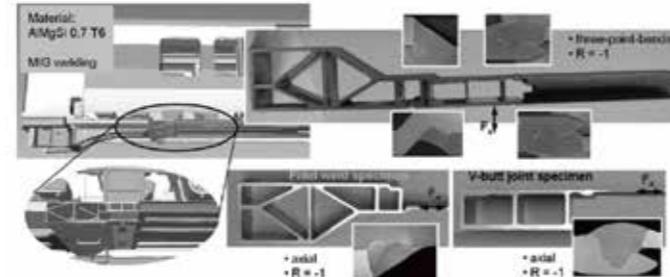
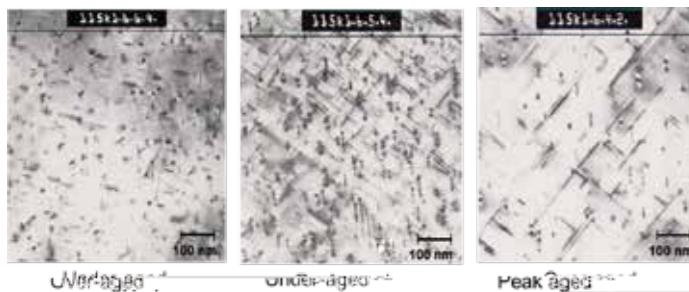
## R&D Department

The lightweight of cars can effectively enhance energy efficiency and reduce harmful gas emission.

Kam Kiu has built an independent R & D center to positively promote Aluminium as the material for the sustainable development of lightweight cars.

The R & D projects include:

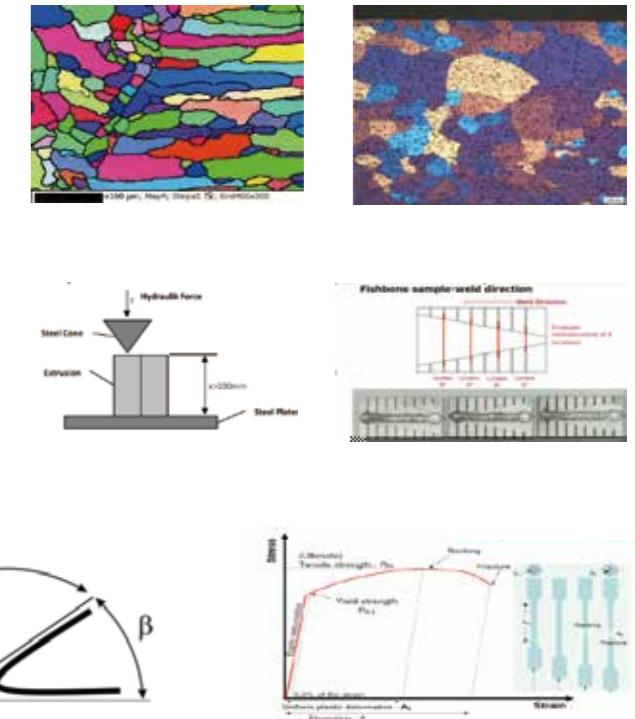
- The research of new Aluminium alloys with high strength, high elongation, high tenacity, anti-fatigue, high welding performance, high formability, high extrusion efficiency;
- The design, simulation and production of Aluminium extrusions with complicated sections;
- The influence of heat treatment process on joining property and crashworthiness;
- The influence of joining techniques on assembly performance; Aluminium alloy assembly (steering system, sub-frame, battery tray, chassis);
- High-strength Aluminium alloy tubing;
- High crashworthiness assembly parts;
- Molding techniques (MIG/FSW/Hydroforming)



## Prototype Shop & Lab Identified Equipment

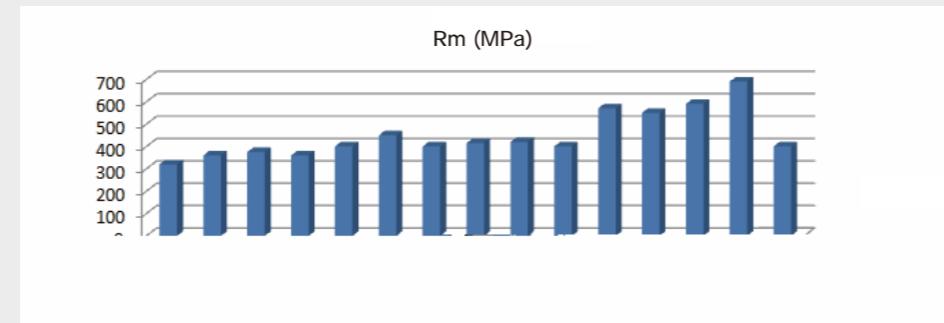
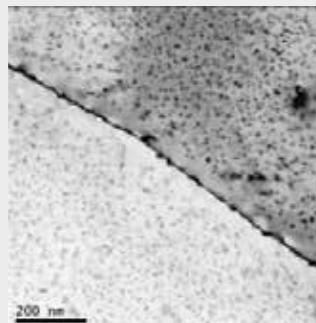
Prototype Shop and Lab Identified equipment:

- CMM
- Ageing simulation oven
- Crush/ductility/expansion test machine
- Upgrade tensile test machine
- Polishing/etching for microscope samples
- Reference material for spectrometer
- SCC and IGC corrosion test
- SEM
- TEM



## Third-Party Assembled Parts Testing Capability

Test	Specification	INTERNAL	External Partner
Crush, GB/T 31467	GB/T 31467	X	
Poller Test	GB/T 31467	X	
Mechanical Shock, z.B.	GB/T 31467	X	(X)
Vibration, Shaker, Fatigue	diverse	(X)	X



Sled car test 30 km/h, Quasistatic tests

Drop tower

Intrusion tests 200kN

Low-Frequency Tests

## Auto Parts Production Plant

**Kam Kiu Aluminium Group** established in 2016 an independent “car part factory” to develop lightweight car part products.

The car part factory as the “lightweight traffic practice center” of Kam Kiu, strictly conforms with <IATF16949> and dedicates itself in constructing a comprehensive practice base of technology development, production, quality control, marketing & sales.

At the same time, industrial automation and data visualization management techniques are employed. The production data are display real-time and is integrated into Kam Kiu new SAP management system.

The company is actively expanding the car product market and developing new lightweight materials and is willing to join hands with our shareholders and establish more strategic partnerships. Let's contribute to the future of lightweight automobiles together!

