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## High-Performance OES Equipment

Precisely detecting the compositions of Aluminium alloy via PMT
optical equipment.
The equipment is supported by single-substrate and multi-subst-
rate configurations and trace analysis function, as well as on-line
impurity analysis.

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

Universal Material Experiment Machine
Experiment range: $0-50 \mathrm{KN}, 0-200 \mathrm{KN}, 0-100 \mathrm{KN}$

Aluminium Extrusion Section Full-Scale Automatic Measuring Machine
This is specially designed for industrial aluminium extrusions with highly
dimension tolerance requrrements.
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


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:
CMM
The research of new Aluminium alloys with high strength, high
elongation, high tenacity, anti-fatigue, high welding performan-
Ageing simulation oven
crush/ductility/expansion test machin
Upgrade tensile test machine


- The design, simulation and production of Aluminium extrusions with complicated sections
The influence of heat treatment process on joining property a-
nd 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)
Polishing/etching for microscope samples Reference material for spectrometer SCC and IGC corrosion test


## SEM

TEM


| Test | Specification | INITRNAL | External Partuer |
| :--- | :--- | :---: | :---: |
| Cushh, GBTT 31467 | GBT 31467 | x |  |
| Poller Test | GBTT 31467 | x |  |
| Mechanical Shock, ZB. | GBTT 31467 | x | $(\mathrm{x})$ |
| Vibration, Shaker, Fatigue | diverse | $(\mathrm{X})$ | x |

The car part factory as the " lightweight traffic practice cent of Kam Kiu, strictly conforms with <lATF16949> and ded cates itself in constructing a comprehensive practice base technology development, production, quality control, mark 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 an d developing new lightweight materials and is willing to join ha nds with our shareholders and establish more strategic partne ships. Let s contribute to the future of lightweight automob es together!


