



Large Autoclaves, used in the production of our composite components

## Delivering tailored, **Composite Solutions** for our customers

Our composite design, tooling and component manufacturing service is recognised and respected worldwide. We operate under strict total quality management processes and our long-standing collaboration with OEM customers and advanced material supply partners ensures we maintain our lead position in the composites industry.

Composites are an effective alternative to conventional & traditional materials and ideal as a low volume production solution. Consumers increasingly demand greater product differentiation and our composites service allows us to meet this need. The market for composite materials in automotive, aerospace, defence and leisure applications has never been stronger. With an increasing range of both structural and non-structural materials, visual quality, colours & finishes on offer from ARRK, the possibilities are endless.

**Our competence includes consultation, concept evaluation and product development right through to the production of tools and components.**

### Consultation

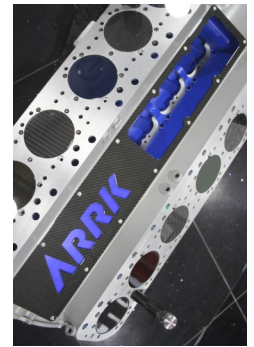
- Concept analysis and assessment
- Material and process qualification
- Development of methods for material qualification
- Manufacturing technology and materials
- Design strategy
- Evaluation of CAE & simulation results

### Concept & Product Development

- Analysis and design of composite components and products
- Design and simulation of structures and components
- Increasing the level of integration by the use of fibre composite materials
- Definition of material specifications and manufacturing technologies
- Optimisation analysis and safety strategies

### Production Support

- Production & process documentation (laminates books, etc.)
- Aerodynamic and thermal optimisation of manufacturing processes
- Optimisation of handling & production systems (lightweight construction & functional integration)



Carbon Deco™ by ARRK



Composite Production & Assembly



Painting & Finishing

## Composite Tooling:

Production to CAD data with Gauge R&R activity

Pattern and Moulds

Tooling Validation

Inspection Fixtures

Assembly Jigs

## Composites processing:

Specialist, niche, tailored service providing low volume quantities for a variety of industries

## Markets we serve:

Automotive

Aerospace

Oil & Gas

Film & TV Special Effects

Medical & Scientific

Defence & Security

Marine & Transportation

## Some of the technologies & processes we employ include:

Large scale CNC Machining

Large In-house paint shop

Prototype, Production Tooling & Blow Mould Tools

Composite Lay Up pre-preg

Water-cooled Scholz autoclaves:

5m long x 2.1m diameter, temp 200c, pressure 14 bar

2.2m long x 1.8m diameter, temp 175c, pressure 20 bar

Full on/off site system / logistic control allowing for real time monitoring

Live cure control traceability for automotive and aerospace requirements



Large scale CNC Machining



For more information, please contact:

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Kit Cut / Nest Scanning room



Large in-house paint shop

**COMPOSITES & MANUFACTURING SOLUTIONS**

**ARRK**

[uk.arrk.com](http://uk.arrk.com)