

Design, Manufacture, Assembly & Test

Automotive - Aerospace - Power - Rail



At Acres Engineering Ltd, we specialise in providing quality engineered custom products whilst designing for manufacture and assembly (DFMA). Products are risk assessed at the design stage and the designs meet appropriate European directives. Our products are designed for safety, integration, standardisation, low maintenance, easy use and low cost life cycle.

Production Support Equipment	Transport trolleys for aerospace 'blade mould' castings	Ground Support Equipment	Traction stands for fitting out and inspecting locomotive carriages.	Lifting	Designed for loading/unloading of fixtures that cut the suction and pressure surfaces of aerospace turbine blades.	Manual Handling	pipes' re	trolleys for 'hot eplacement during tation outage project.
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We design, manufacture, assemble, load test and CE mark. We take care of any additional elements required for custom machines or small automation jobs; including electrical, pneumatic and hydraulic control elements, and where needed we provide regular thorough examinations. Although we focus on manufacturing custom solutions we continue providing a sub-contract parts and sub assembly service to our customer's own drawings and designs. We put a lot of emphasis on partnership and flexibility. That means that whatever the contract, we'll keep you in the loop... from initial consultation and CAD design, to prototyping and manufacturing in the quantities you need, when you need them. It's this approach that makes us a preferred supplier of leading names across a broad range of industries.

Below you will see a selection of clients from a wide variety of market sectors, including (but not limited to), Aerospace, Automotive, Rail, Pharmaceutical, Power Generation and Material Handling:

-Brush Electric Machines	-Rolls Royce	-Atkins
-Balfour Beatty Rail Technologies	-Bombardier	-Siemens
-Napier Turbochargers	-Unipart Rail	-E.ON
-GlaxoSmithKline	-Brush Traction/Transformers	-Alstom
-Doosan Babcock	-Hoppecke Industrial Batteries Ltd	-Toyota
-Reckitt Benckiser	-Fluor Power Division	-Telent Technology

Bespoke



Capacity/ Resource List:

Solidworks 3-D CAD, IGIS, STEP, DXF & DWG. Mild Steel, Stainless Steel & Aluminium. Coded MIG, TIG & Spot Welding. CNC Punching up to 6mm. CNC Forming 3m x 135 Tonne. In-house machining. Assembly with Wood, Polymers, Rubber, Electrics, Hydraulics & Pneumatics. Load Test, CE Marking & Regular Inspection.

Flexible

Responsive

Innovative

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'A- Frame' Shadow Boarding System – fully implemented in major aerospace company's production line.

Project specification:

Carry assembly components in build sequence order directly to the build line from a decanting area using standardised handling equipment.

The A Frame trolley achieved the project specification giving maximum flexibility whilst assuring that the product is delivered safely, securely and in the correct build sequence order.

Acres carried out the design, manufacture, project management, shadow creation and assembly of the A frame trolleys. In regards to the shadows, Acres have created and cut all of the shadows featured on the boards using a vinyl cutter. During a rebalance these shadows can be re printed and re organised to suit the new board layouts. A team (onsite or offsite) can be provided to fit shadows and fixings to the boards if you do not have the available resource. Acres can manage the trolleys loop cycle and provide a maintenance contract.



The A Frame does not suit all applications, and for this reason Acres has manufactured other trolleys in this range which all share common design features like wheel centres, castor type, handle type etc.

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West -

Fork-truck Battery Changing Machine







The battery changing machine shown above is an example of a 'designed and develop', Acres product. The machine fits onto any powered pallet truck (PPT). Acres have a manufacturing partnership with Hoppecke Batteries and sell the machine solely to them. The machine is powered by a hydraulic power pack which moves a carriage forwards and reverse. On the end of the carriage is a pair of powerful magnets which are attached to the battery.

The machine pulls batteries off and onto fork trucks and battery charging racks. Fork truck batteries can weigh up to 2.25 Tonnes.

A Servo and pneumatic system to insert and extract tooling for an inertia welding machine. The tooling weighs 300kg. Prior to automation the tooling was inserted using an overhead crane and webbing bands. It took 3 people to carry out the operation, and there were often pinch and strain injuries associated with tool changing. Following supplying the servo system pinch & strain injuries were reduced to zero and the tool change time reduced by 50%.

Automation











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	Monitors and Load Testing

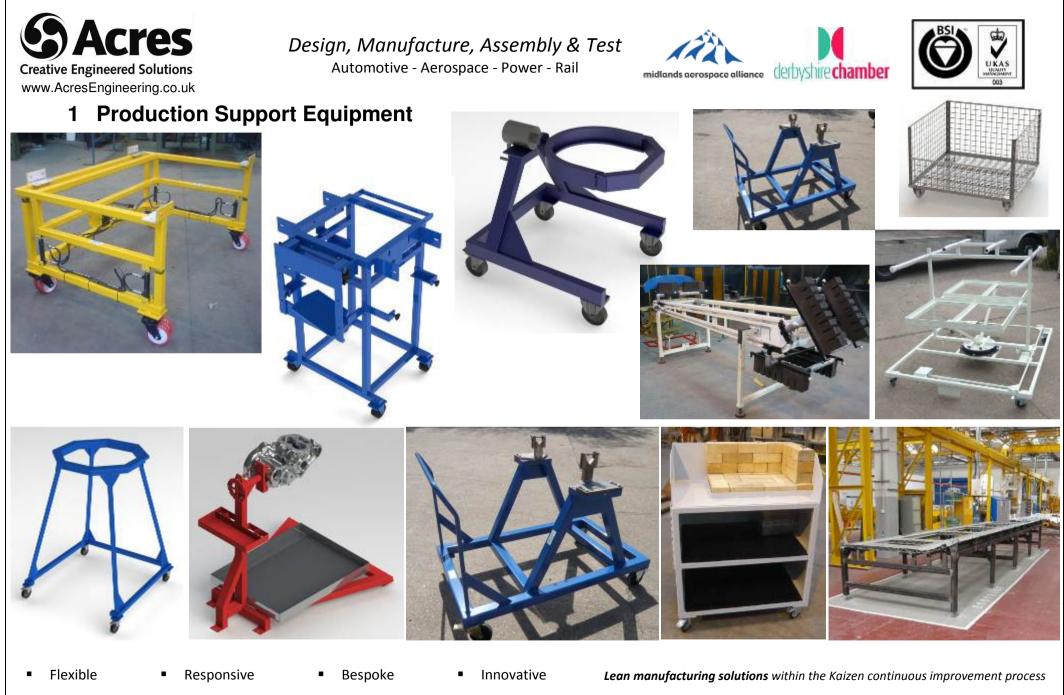
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4 Inspection

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5 Flow Racks and Conveyor Systems











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11 Workstations

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13 Monitors and Load Testing







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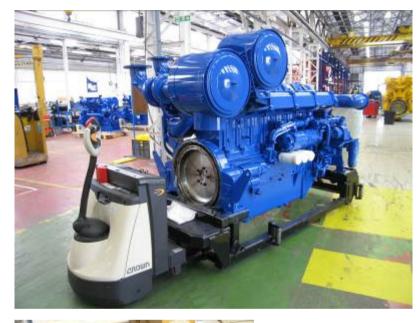
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14 Post Manufacture Modifications













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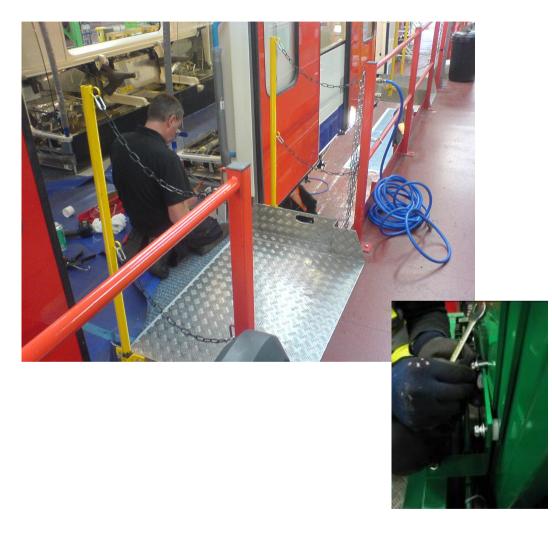


15 Site Installations

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