



JHE GROUP PROFILE

John Huddleston Engineering has been established for over 45 years and in January 2010 the JHE Group acquired King & Fowler providing it with the opportunity to provide a vertically integrated solution to its customer base. Today it has a highly skilled workforce of 290 employees at 2 manufacturing and 2 treatments facilities, with a sales turnover of £ 23.5 million (GBP).

The JHE Group continually succeeds in meeting the diverse demands of market-leading customers, earning an enviable reputation for expertise, excellence and quality of workmanship.

As an integrated supplier to the global aerospace industry the extensive capabilities of the JHE Group, in machining, assembly, logistics and supply chain management, are supported by a Quality System maintained to International Aerospace Standards.

Manufacturing Quality Assurance

- ISO 9001:2008
- AS EN9100
- Agusta Westland
- AIRBUS UK
- Aircele
- A.P. Precision Hydraulics
- Asco Industries
- BAE Systems
- Bombardier Aerospace (Shorts)
- Fokker Aerospace
- GKN Aerospace
- Magellan Aerospace
- Messier Dowty
- RUAG
- Smiths Aerospace
- Spirit Aerosystems
- Terma
- Thales Air Defence

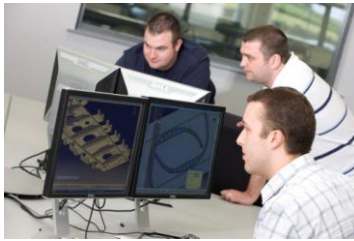
Treatments Quality Assurance

- ISO 9001:2008
- ASEN9100
- NADCAP for Non-Destructive Testing
- NADCAP for Chemical Processing
- NADCAP for Shot Peening
- Airbus
- BAE Systems
- Boeing Aircraft Corporation
- Bombardier Aerospace (Shorts)
- EADS
- GE Aviation
- GKN
- Goodrich
- Hamilton Sundstrand
- Hawker Beechcraft
- Honeywell
- Messier-Dowty
- MOOG
- Parker Aerospace
- Pratt & Whitney
- Rolls Royce
- Sikorsky
- Stork Fokker
- Westland Helicopters

With modern purpose built production facilities located in Blackpool, England and Greyabbey, Northern Ireland, the JHE Group is equipped with world leading multi-axis machine tools for high speed 5-axis milling and up to 9-axis turn/mill to meet the cost effective demands required for both today and tomorrows aircraft.

Investment

Through a progressive and structured £11 million (GBP) investment programme that commenced in 2004 and an additional £6 million (GBP) investment plan launched in 2009 the JHE Group today provides Customers with the resource, capability and capacity of leading edge machining and CAD/CAM technology. This investment has enabled the JHE Group to be at the forefront of machining technology, providing Customers with the benefits of a substantial high-speed 5-axis machine capacity. The investment of these world leading machines is supported by experienced engineers using Catia V5 and Mastercam CAD/CAM software along with Vericut electronic machining and product simulation.



Machine investments since 2008 include:

- 2 off Makino MAG 3EX High Speed 5 axis, with 33000RPM 80Kw Spindle – 2008
- 3 off Chiron M2000 5 axis with 22000RPM 60Kw Spindle – 2008
- 2 off Makino MAG 1 High Speed 5 axis Horizontal Production Centre, with 33000RPM 80Kw Spindle – 2009
- Sieki Systems DNC and OEE system - 2009
- 2 off DMG DMC 125U 5-Axis High Powered Machining Centre – 8000 rpm, 750 Nm Torque Spindle with 120 tool carousel - 2009

2010 / 2011 Machine Investment plans currently include:

- 1 off Makino MAG 1 High Speed 5 axis Horizontal Production Centre, with 33000RPM 80Kw Spindle – 2009
- 70 pallet Flexible Manufacturing System (FMS) linked to 3 Makino MAG 1 High Speed 5 Axis Horizontal Production Centre

Treatments & Special Processing

King & Fowler was established in 1887 and has been providing surface treatments to the aerospace industry for more than 60 years. In 2006 King & Fowler Polska was established in Mielec, Poland to provide low cost surface treatments to the European aerospace industry. Both facilities provide a broad range of NADCAP approved special processes, NDT and painting operations. In January 2010 the JHE Group acquired King & Fowler providing it with the opportunity to provide a vertically integrated solution to it's customer base.

Treatments & Special Processing Capabilities

Wet Coatings and Special Processes include:

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| <ul style="list-style-type: none">▪ Wet Coatings and Special Processes:▪ Alocrom▪ Anodising - Chromic, Sulphuric and Boric Sulphuric▪ Brass▪ Bronze▪ Cadmium▪ Copper▪ Hard Chrome▪ Stress Relieving and De-embrittlement | <ul style="list-style-type: none">▪ Nickel▪ Paint Spraying - primers, top coats & dry film lubricants▪ Passivation – Chromate and clear▪ Phosphating▪ Silver▪ Tin▪ Vacu-blasting & Nut-blasting▪ Zinc |
|--|--|
- **Processing capability up to 2.4m**

Non-Destructive Testing capability includes:

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| <ul style="list-style-type: none">▪ Magnetic Flaw Detection▪ Penetrant Flaw Detection▪ Anodic Flaw Detection▪ Acid Etch Inspection | <ul style="list-style-type: none">▪ Hardness Testing▪ Conductivity Testing▪ Grain Flow Testing▪ In-house NDT Level III |
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King & Fowler are committed to developing it's processes and methods to meet the latest treatments processing development, such as TSA (Tartaric) and meeting environmental standards.



Integrated Supply

With the extensive manufacturing capability and comprehensive treatments resource, the JHE Group deliver **Integrated Supply Solutions** to fit the needs of world class Customers. Providing individually tailored lean logistics solutions through product manufacture, total project management, product kitting, sub-assemblies, global supply chain management and advanced logistics management, the JHE Group manage the complete supply chain delivering a single point of contact for Customers.

The JHE Groups' capabilities include:

- CNC 5-Axis High Speed Milling, up to 4.0 metres
- CNC Milling and Turning
- CNC Turn/Mill, up to 8 axis
- CNC Cylindrical Grinding
- CNC Tool and Cutter Grinding
- CAD/CAM Catia & Mastercam
- NC Simulation Module (Vericut)
- Treatments & Special Processes, up to 2.4 metres (NADCAP approved)
- Sub-Assembly
- Total Project Management
- Lean Integrated Logistic Solutions
- Kitting
- Direct Line Feed
- Global Supply Chain Management

The Future Together

At JHE our mission is to excel in the supply of machined components, sub-assemblies and logistics to the global aerospace and defense industry, to exceed customer expectations, manufacture to customer requirements and to establish long-term partnership supply agreements to the benefit of all stakeholders.

demonstrating commitment . . .

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