RIGHTON BLACKBURNS AEROSPACE & DEFENCE

With a vast stock range in aluminium, stainless steel, carbon and alloy steels, titanium, copper alloys and nickel alloys, the Righton Blackburns Aerospace and Defence materials offering is unrivalled.

The standard aerospace stock range is available in round bar, hollow bar, forged bars, tube & plate and blanks & rings. Contract driven ferrous & non-ferrous material can be sourced if required.

Why use Righton Blackburns Aerospace?

- Customer inventory and stores management
- Direct feed to line service
- State of the art cutting and processing equipment
- Import and export services
- Non-destructive/destructive testing
- Metal heat treatment to customer requirements
- PMI inspection on goods inwards and outwards
- Third party chemical and mechanical testing
- Pre-machining operations such as bore drilling, skimming of scale and chamfering
- Metallurgical and material application suitability support designers, procurement and machine shops
- Kaizen events with customers

Specialist Markets

For further information on the full range of products we supply into our specialist markets, please contact your local Service Centre to request a copy of the brochures dedicated to those specific markets.



Architecture &

Infrastructure



Transport

Process Plant



Automotive &

Marine & Shipbuilding











RIGHTON BLACKBURNS AEROSPACE & DEFENCE

Contact your local Righton Blackburns Aerospace Service Centre

1 BRISTOL Tel: +44 (0)117 948 2600 Email: bristol@rblimited.co.uk

> Tel: +44 (0)1752 844 931 Email: plymouth@rblimited.co.uk

3 PORTSMOUTH Tel: +44 (0)2392 623 070 Email: portsmouth@rblimited.co.uk

www.rightonblackburns.co.uk



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RIGHTON BLACKBURNS A E R O S P A C E & D E F E N C E

AERISPACE &







AS 9100 REV D AS 9120 REV B

Righton Blackburns Aerospace is part of Righton & Blackburns Limited



www.rightonblackburns.co.uk

EXPERTISE • COLLABORATION • INTEGRITY

RIGHTON BLACKBURNS AEROSPACE & DEFENCE



Operating from three AS 9100 REV D and AS 9120 REV B licensed sites, Righton Blackburns Aerospace stockholds and distributes aerospace and speciality alloys to the UK and worldwide markets.

The company is dedicated to offering customers the complete supply package - an approach that has consistently proven to reduce total acquisition costs and always with emphasis on:

- Exceptional levels of quality and OTIF
- Relationship and partnership
- Technical knowledge
- Value added methods of supply
- Supply chain management and integration at all levels

All Righton Blackburns Aerospace Service Centres hold the prestigious SC21 Silver Award and are fully engaged in the SC21 programme to deliver continuous and sustainable improvements in all areas of the business including: productivity, competitiveness, quality, relationships and stakeholder benefit.

www.rightonblackburns.co.uk



AS 9100 REV D AS 9120 REV B

The specialist supplier of aerospace & speciality alloys





Copper Alloys

Copper-based alloys are widely used in aircraft manufacture, as they offer: high strength, good impact and fatigue resistance, excellent oxidisation and corrosion resistance, good electrical and thermic conductivity properties. In addition, this group of materials exhibits good anti-friction properties and lubricity, they are also non-magnetic and excellent for machining.

Hardiall®, offer through life solutions.

Aerospace Grades

for all sales of Hardiall® AMS4596, AMS4597, AMS4598

Aluminium Alloys

Aluminium is ideal for aircraft manufacture because it is lightweight, rigid, strong and corrosion resistant. Aluminium is roughly a third the weight of steel, allowing an aircraft to carry more weight and/or become more fuel efficient. Aluminium is extensively used in aircraft manufacture and its ease of fabrication makes it an ideal choice. One particularly favoured allov is 7075, which is often used to strengthen aircraft structures. It's estimated that up to 80% of the material used in modern-day aircraft is aluminium.

Aerospace Grades

AMS4342 - 7050, QQA200/11, AMS4166, AMS4168, AMS4124, AMS4169 - 7075, QQA225/9 - 7075, QQA200/8, AMS4150, AMS4173 - 6061, QQA225/8, AMS4117 - 6061, QQA225/6, AMS4120 - 2024, QQA200/3, AMS4164, AMS4165 - 2024, L168, L111, DTD5014A, L160, L102

Stainless & Alloy Steels

steel can be up to three times stronger than aluminium, although it is also heavier and therefore applications must be chosen carefully

Its strength, hardness and resistance to heat make it particularly suitable for use on the skin surface of the aircraft and in the landing gear where extremes of temperature and variation in load are common. The durability of steel is probably ts most important characteristic and thus the material is commonly used for hinges, cable and fasteners. Steel typically comprises around 11-13% of the materials used in an aircraft.

Aerospace Grades

AMS5659 - 15/5PH, AMS5643/AMS5622/AMS5604, 17/4, AMS5629 - 13/8PH, 2S143D,3S144, 3S145, 2S130D, AMS5646, 7S80D, AMS5628, S154, S99





Copper Alloys are used for the manufacture of Safety Critical components and in the case of certain alloys such as

AMS4596*, AMS4597*, AMS4598 (Hardiall®)*, AMS4590, AMS4625, BSB23, AMS4640, ASTM B150 C63000, NFL14706 (UA11N), NFL14707 (UZ19A6), AMS4616, MSRR8501, DTD498, NFL14702, LN9468

* Righton Blackburns Aerospace is a preferred distributor in the UK for all LBA produced Copper Alloys. UK exclusivity agreement









Bearing applications such as crankshafts, landing gear and axle shafts equire specialist steels that have high hardness, corrosion, wear and fatigue resistance. Bearing steel is a high carbon, chromium containing low alloy steel that is made by low-temperature heat treatment. The material can be used in highly stressed applications where standard materials are not suitable due to the extremes imposed by a component's service life.

Aerospace Grades

Cronidur 30 (AMS5898), AMS6491, AMS6490 - M50; BG42 (AMS5749), AMS5618, AMS5880, AMS5630 - 440C, AMS6444, AMS6440 - 52100, AMS6414, AMS6415 - 4340, Ovako 803F

Titanium

Titanium is a high-performance material particularly suited to aircraft applications due to its excellent physical properties which include very high strength, temperature and corrosion resistance. Titanium is used in numerous areas of an aircraft including wings, engine components, pumps and landing gear. A premium material with a corresponding cost, Titanium is expected to become more widely used as the number and variety of applications are increased.

Aerospace Grades

AM54928, BS TA11 - 6AL4V

Nickel Alloys

Nickel alloys are widely used in aerospace engineering due to the range of excellent performance characteristics including corrosion and high temperature resistance. Nickel alloys are structurally tough and have excellent creep resistance properties. A common application for this range of materials is in the turbines of jet engines where immense heat is generated and where the performance of nickel alloys at high temperatures make them the perfect choice. Nickel alloys can also be found in exhaust valves, thermostat valves, tanks and piping - indeed, wherever material and component integrity needs to be maintained at temperature extremes.

Aerospace Grades

AMS5666 - Alloy 625, AMS5662, AMS5663 - Alloy 718

Special Alloys

Often regarded as 'upgrades' of conventional stainless steels and high strength alloy steels, special alloys are being increasingly specified for components where standard grades cannot meet the performance criteria of critical applications.

Aerospace Grades

AMS6425 HY-TUF, AMS5844, AMS5845, AMS5758 - MP35N

Righton Blackburns Aerospace sub tier and end user supply chain customers

- **AIRBUS UK**
- BAE SYSTEMS
- BOEING
- CLAVERHAM (COLLINS)
- COBHAM/FLIGHT REFUELLING
- COLLINS AEROSPACE
- **ROLLS ROYCE CONTROLS &** DATA SERVICES
- **CURTISS WRIGHT**
- EATON LTD
- GE DOWTY PROPELLERS
- **GE AVIATION**
- GKN AEROSPACE
- **HEROUX DEVTEK (APPH)**
- HONEYWELL
- MBD (SAFRAN LANDING SYSTEMS)
- MBDA
- MEGGITT
- MoD
- PCC AEROSTRUCTURES
- PRATT & WHITNEY (COLLINS)
- **ROLLS ROYCE**
- SAFRAN
- SCHAEFFLER GROUP
- SKF
- THALES
- TRIUMPH AEROSPACE