RIGHTON BLACKBURNS
AEROSPACE & DEFENCE

Aerospace & Defence

EXPERTISE COLLABORATION INTEGRITY

- Copper Alloys
- Aluminium Alloys
- Stainless Steel Alloys
- Alloy Steels
- Bearing Steel
- Titanium
- Nickel Alloys
- Special Alloys

www.rightonblackburns.co.uk

RIGHTON BLACKBURNS
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Operating from four 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.

ADS SC 21 21st century supply chains

bsi AS/EN 9100 Aviation Space and Defence CERTIFIED

AS 9100 REV D
AS 9120 REV B

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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.

Copper Alloys are used for the manufacture of Safety Critical components and in the case of certain alloys such as Hardiall®, offer through life solutions.

Copper Alloy Grades

AMS4590	AMS4625	NFL14706 (UA11N)
AMS4640	ASTM B150 C63000	MSRR8501
NFL14707 (UZ19A6)	AMS4616	LN9468
DTD498	NFL14702	

Hardiall®

Righton Blackburns is the sole UK distributor of Hardiall®, a high hardness and low friction copper alloy designed for extreme conditions, manufactured by Lebronze alloys.

Hardiall®, manufactured by Lebronze alloys, is a wrought, spinodally hardened copper nickel tin alloy CuNi15Sn8 (C72900) designed for high strength applications where toughness is required. It is non-magnetic and resists mechanical wear, galling, stress relaxation, corrosion and erosion. It is easily machined into complex components and is environmentally friendly being both lead and beryllium free.

Hardiall® is a direct equivalent to Toughmet® 3 and is an ideal proven track record solution. Extensive testing ensures that Hardiall is in full compliance with the relevant specifications: in that regard, using Hardiall® can help high-end industries mitigate their supply chain risks.

Lebronze alloys' manufacturing process for Hardiall® is fully integrated: internal processes include casting, hot and cold working stage, heat treatment and non-destructive testing. Being fully integrated ensures reactivity and complete traceability

Hardiall® Grades

AMS4596*	AMS4597*	AMS4598*
+ Numerous second party Acrreditations		

** Righton Blackburns Aerospace is a preferred distributor in the UK for all LBA produced Copper Alloys. UK exclusivity agreement for all sales of Hardiall® AMS4596, AMS4597, AMS4598*

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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 alloy 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.

Aluminium 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 its 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.

Stainless & Alloy Steel Grades

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

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Bearing Steel

Bearing applications such as crankshafts, landing gear and axle shafts require 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.

Bearing Steel Grades

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

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.

Nickel Alloy Grades

AMS5666 - Alloy 625	AMS5662	AMS5663 - Alloy 718

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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.

Special Alloy Grades

AMS6425 HY-TUF	AMS5844	AMS5758 - MP35N

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.

Titanium Grades

AMS4928	BS TA11 - 6AL4V

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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
- 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
- Curtiss Wright
- Eaton Ltd

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Supplying premium quality products
for over 100 years

PREMIUM QUALITY · FOR OVER 100 YEARS · PREMIUM QUALITY

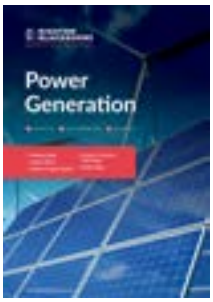
With a vast stock range in aluminium, stainless steel, carbon and alloy steels, titanium, copper alloys and nickel alloys, the Righton Blackburns Aerospace and Defence materials offering is unrivalled.

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.

- 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.



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Contact a Righton Blackburns Aerospace Service Centre

Bristol
+44 (0)117 948 2600
bristol@rblimited.co.uk

Plymouth
+44 (0)1752 844 931
plymouth@rblimited.co.uk

Manchester
+44 (0)1942 758 800
manchester@rblimited.co.uk

Portsmouth
+44 (0)2392 623 070
portsmouth@rblimited.co.uk

AIDIS SC21 21st century supply chains

bsi AS/EN 9100 Aviation Space and Defence CERTIFIED

bsi ISO 9001 Quality Management Systems CERTIFIED

AS 9100 REV D
AS 9120 REV B

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