



AeroMetallic

Aerospace Metallic Supply Limited



Aerospace Metallic Supply Ltd

Delivering world class service, logistics and supply chain solutions to the aerospace and defence industry.



Our mission is to establish Aerospace Metallic Supply as a world class Service Provider by becoming the preferred supply partner to the aerospace and defence industry.

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Aerospace Metallic Supply Ltd (Aero Metallic) is a privately owned company which can be ranked among the top processors and distributors in the aerospace and defence industry.

Aero Metallic offers its customers more than competitively priced products. Our experience and expertise in Supply Chain Management supports our customers in areas of cost reduction, demand/inventory management, and tailored supply and processing solutions, this ensures we provide our customers with a first class service.

Our mission is “to establish Aerospace Metallic Supply Ltd as a world class Service Provider by becoming the preferred supply partner to the aerospace and defence industry”.

We stock a comprehensive range of UK and international aerospace specifications in:

- Aluminium
- Titanium
- Steel
- Stainless Steel
- Bronze and Yellow Metals
- Nickel based alloys



Aerospace Metallic Supply has a stock range that covers standard and hard to find material specifications. Our sales team has a wealth of experience and knowledge in the aerospace and defence markets. This enables us to offer quick and reliable deliveries and provide rapid solutions to our customers' needs.

The company is approved to ISO 9001:2000, AS9100: Revision B and AS9120:2002 and has several other approvals from major Aircraft and Defence manufactures including Agusta Westland, Aircelle Safran Group, BAE Systems, Bombardier, Eaton Aerospace, Embraer, GKN Aerospace, Hawker Beechcraft Corporation and many others. The full list and approval numbers can be found on our web site: **www.aerometallic.com**



services

Strategically located in Reading, Aero Metallic is ideally placed to service the UK, situated between the M4 and M40 motorways and close to the M25 and M3 covering the major road networks.

Our facility includes bar saws with the capability of cutting a wide range of material from aluminium to fully aged nickel based alloys and a guillotine with the capabilities of cutting to close tolerances.

The Company holds many long term Supply Chain Agreements supporting global and local contracts. Our strategic approved partners expand our facilities by offering added value services:

- Sheet routing
- Laser cutting
- Precision grinding
- Global logistics
- Water jet cutting
- Heat treatment
- First stage machining
- Manufacturing and non-destructive testing

Materials are purchased in mill quantities, with the relevant national and international approvals. Aero Metallic also offer a supporting service by means of our testing facilities, with hardness and conductivity testing equipment approved to industry standards.

Our wealth of experience and knowledge allows Aero Metallic to offer our customers a tailored, first class service

Our wealth of experience and knowledge allows Aero Metallic to offer our customers a tailored, first class service.

We pride ourselves on our high level of customer service and believe we offer all encompassing service that is both personal and professional.



supply chain management

Aero Metallic's philosophy is about partnership and service.

We operate a lean/continuous improvement business model within our organisation. This model utilises industry recognised lean tools and techniques which are shared with suppliers and customers to help drive performance, mature relationships and reduce costs throughout our Supply Chain Management activity.

We pride ourselves on our high level of customer service and we offer all encompassing services that are both personal and professional.

What does our lean model look like?

- We use visual management tools throughout our organisation that are used to ensure the necessary levels of transparency
- A Business Vision is used to ensure our aims and strategy as an organisation are clear, understood and embraced by our people. It also allows our valued customers and partners visibility of what the company is trying to achieve.
- To strive for that Business Vision we use balanced scorecards with key performance indicators embedded across areas such as safety, quality, cost delivery and people. These KPIs are discussed and driven on a daily basis, to ensure a relentless bench marking of performance
- We use industry recognised lean techniques to maximise performance and minimise costs
- We operate in a structured, disciplined and generic way of working that ensures every employee understands their role and responsibility in achieving their targets and our customers' expectation

We offer an all encompassing service that is both personal and professional

supply chain management

Lean Culture

- Every employee understands the Company's lean strategy and structure. The knowledge, skills and ownership is a key element of our employees in their development program
- Aero Metallic's management team and personnel strive to deliver a first rate service and are committed to an effective business plan crucial to achieving our goal

Supply Chain experience & expertise

Our lean and continuous improvement methodology is used to help us deliver not only the wide variety of metallic products, but also the supply chain services that our customers come to expect.

Our experience and expertise includes:

- Demand and inventory management
- Forecast v consumption control development
- Order book management
- The implementation and management of a wide range of major service provision/supply chain contracts within the aerospace and defence industry
- Extensive product and industry knowledge
- Innovative supply chain solutions covering a wide range of services including: Project and Programme Management, JIT, DLF, KANBAN, KITTING
- Our custom made supply chain solutions cover a wide variety of products and materials from semi-finished and finished parts to bought out consumables and MRO components
- Lean and Continuous improvement initiatives





Supply Chain benefits

Aero Metallic's open approach to Supply Chain Management ensures our customers benefit from:

- Continuous improvement activity to drive performance and reduce cost at all levels of business
- A structured pro-active approach
- Systematic controls within our company ensuring high levels of operational and quality performance
- Best practice identification and integration with our suppliers and customers
- Transparency through tailored KPIs and communication, ensuring visibility of performance in all areas

export

Aero Metallic provides products and services globally. We have a wealth of experience in dealing with international organisations, and our management team have a proven track record in providing competitive products and supply chain solutions to the global market.

By providing our customers with a single point of contact, supported by a network of agents, we can offer our customers a local service.

The expansion in our company's customer base has been considerable with growth across the world market in:

- Australia
- China
- Europe
- Far East
- India
- North & South America
- Middle East

To support the infrastructure of Aero Metallic, we have drawn on a dedicated international shipping agent to ensure our products arrive at its destination on time. This enables our company to offer a supportive service with transportation, licenses, documentation, and customs clearance in the UK and overseas to a standard expected of a truly global company.

quality assurance

Great emphasis is placed upon our quality assurance systems and understanding our customers requirements and application. This means we will not compromise on our quality.

The company operates a Quality Management System which complies with requirements of ISO 9001:2000 AS9100: Revision B and AS9120:2002.

The awarding of this certification confirms and complements Aero Metallic's long-established quality controls and commitment to continuous improvement.

Our adherence to the stringent guidelines set by the aerospace and defence industry is supported by being independently assessed and approved by leading aerospace and defence companies:

Independently assessed
and approved by
leading aerospace and
defence companies

- AIM Aviation (Jecco) Ltd
- Agusta Westland
- BAE Systems
- BAE Systems Regional Aircraft
- Bombardier Aerospace
- Britten-Norman
- Eaton Aerospace (FR-HiTEMP)
- GKN Aerospace
- Hawker Beechcraft
- Matra Marconi
- Mettis Aerospace
- Singapore Aerospace Manufacturing
- Spirit Aerosystems

Aluminium Rolled Mill Products			
Alloy & Temper	Aerospace – AMS	Federal Specification	Product
1100	AMS-4001	AMS-QQA-250/1	Sheet & Plate
2014-T0	AMS-4028	AMS-QQA-250/3	Sheet & Plate
2014-T651	AMS-4029	AMS-QQA-250/3	Sheet & Plate
2124-T851	AMS-4101	AMS-QQA-250/29	Plate
2219-T0	AMS-4031	AMS-QQA-250/30	Sheet & Plate
2219-T0 Alclad	AMS-4096		Sheet & Plate
2219-T31 Alcad	AMS-4095		Sheet & Plate
2219-T851 Alcad	AMS-4094		Sheet & Plate
2024-'0' Alclad	AMS-4040	AMS-QQA-250/5	Sheet & Plate
2024-'0'	AMS-4035	AMS-QQA-250/4	Sheet & Plate
2024-T3 & T351	AMS-4037	AMS-QQA-250/4	Plate
2024-T3 & T351 Alclad	AMS-4041	AMS-QQA-250/5	Sheet & Plate
6061-'0'	AMS-4025	AMS-QQA-250/11	Sheet & Plate
6061-T4 & T451	AMS-4026	AMS-QQA-250/11	Sheet & Plate
6061-T6 & T651	AMS-4027	AMS-QQA-250/11	Sheet & Plate
7010-T7351	AMS-4203		Plate
7010-T7651	AMS-4204		Plate
7050-T7451	AMS-4050		Plate
7050-T7651	AMS-4201		Plate
7075-'0'	AMS-4044	AMS-QQA-250/12	Sheet & Plate
7075-'0' Alclad	AMS-4048	AMS-QQA-250/13	Sheet & Plate
7075-T6 & T651	AMS-4045	AMS-QQA-250/12	Sheet & Plate
7075-T6 & T651 Alclad	AMS-4049	AMS-QQA-250/13	Sheet & Plate
7075-T7351	AMS-4078	AMS-QQA-250/12	Plate
7075-T76 & T7651		AMS-QQA-250/24	Sheet & Plate
7475-T7351	AMS-4202		Plate
7475-T61	AMS-4084		Sheet
7475-T761 Alclad	AMS-4100		Sheet
7475-T761	AMS-4085		Sheet
7475-T7651	AMS-4089		Plate
7475-T651	AMS-4090		Plate

Aluminium Tube			
Alloy & Temper	Aerospace – AMS	Federal Specification	Product
2024-T3	AMS-4088	WWT-700/3	Drawn Tube Seamless
2024-T3	AMS-4086		Drawn Hydraulic Tube
2219-T351	AMS-4068		Drawn Tube Seamless
3003-H14	AMS-4067	WWT-700/2	Drawn Tube Seamless
5052-0	AMS-4070	WWT-700/4	Drawn Tube Seamless
6061-0	AMS-4080	WWT-700/6	Drawn Tube
6061-0	AMS-4079	WWT-700/6	Drawn Tube Special Tols
6061-T4	AMS-4081	MIL-T-7081	Drawn Hydraulic Tube
6061-T6	AMS-4083	MIL-T-7081	Drawn Hydraulic Tube
6061-T6	AMS-4082	WWT-700/6	Drawn Tube

Aluminium Extruded Bar and Sections			
Alloy & Temper	Aerospace – AMS	Federal Specification	Product
2014-T6	AMS-4153	AMS-QQA-200/2	Extruded Bar and Sections
2024-T3	AMS-4152	AMS-QQA-200/3	Extruded Bar and Sections
2024-T3510	AMS-4164	AMS-QQA-200/3	Extruded Bar and Sections
2024-T3511	AMS-4165	AMS-QQA-200/3	Extruded Bar and Sections
2219-T8511	AMS-4162		Extruded Bar and Sections
2219-T3511	AMS-4163		Extruded Bar and Sections
6061-'0'	AMS-4160		Extruded Bar and Sections
6061 - T4	AMS-4161		Extruded Bar and Sections
6061-T4511	AMS-4172		Extruded Bar and Sections
6061-T6	AMS-4150	AMS-QQA-200/8	Extruded Bar and Sections
6061-T6511	AMS-4173	AMS-QQA-200/8	Extruded Bar and Sections
7075-T6	AMS-4154	AMS-QQA-200/11	Extruded Bar and Sections
7075-T6511	AMS-4169	AMS-QQA-200/11	Extruded Bar and Sections
7075-T73	AMS-4166	AMS-QQA-200/11	Extruded Bar and Sections
7075-T73511	AMS-4167	AMS-QQA-200/11	Extruded Bar and Sections

Steel	
Stainless & High Temp Alloys	Aerospace – AMS
AMS-4674 :405 Nickel Alloy	AMS-4674
AMS-4675 :400 Nickel Alloy	AMS-4675
AMS-5610 :416 Condition A	AMS-5610
410 Condition A	AMS-5612
410 Condition A	AMS-5613
418 (Greek Ascology) Condition A	AMS-5616
440C Consumable Electrode Vacuum Melted	AMS-5618
420 F Condition A	AMS-5620
420 Condition A	AMS-5621
430 Condition A	AMS-5627
431 Condition A	AMS-5628
13-8 PH MO	AMS-5629
440C Condition A	AMS-5630
440A Condition A	AMS-5631
440F SE (Type2)	AMS-5632
302 High Tensile (Condition B)	AMS-5637
304 Condition A	AMS-5639
303 Condition A	AMS-5640
303 Selenium Condition A	AMS-5641
17/4 PH Condition A **	AMS-5643
17/7 PH Condition A	AMS-5644
321 Condition A	AMS-5645
347 Condition A	AMS-5646
304L Condition A	AMS-5647
316 Condition A	AMS-5648
309 Condition A	AMS-5650
310 Condition A	AMS-5651
316L Condition A	AMS-5653
Nitronic 40 (21-6-9)	AMS-5656
15/5 PH Condition A **	AMS-5659
718 Nickel Alloy Solution Heat Treated, Precipitation Hardenable	AMS-5662
718 Nickel Alloy Solution and Precipitation Heat Treated	AMS-5663
718 Nickel Alloy Solution Heat Treated, Precipitation Hardenable	AMS-5664
600 Nickel Alloy	AMS-5665
625 Nickel Alloy	AMS-5666
750 Nickel Alloy	AMS-5667
Waspaloy	AMS-5708
Haynes Alloy 41 (Rene 41)	AMS-5712
330 Condition A	AMS-5716

** can be supplied in H900, H1000, H1025 and H1150.

Steel (cont.)	
Stainless & High Temp Alloys	Aerospace – AMS
A286 Solution Treated (1800' 1 Hour)	AMS-5731
A286 Solution Treated (1800') & aged	AMS-5732
A286 Solution Treated (1650' 2 Hours)	AMS-5734
A286 Solution Treated (1650') & aged	AMS-5737
303 Selenium High Yield (Condition B)	AMS-5738
AM-355	AMS-5743
Hastelloy C	AMS-5750
Hastelloy X	AMS-5754
L-605 (six. Haynes 25)	AMS-5759
Nitronic 50 (XML-19) (22-13-5)	AMS-5764
410 Condition A	AMS-5504
321 Condition A	AMS-5510
330 Condition A	AMS-5592
347 Condition A	AMS-5512/BS5527
304 Condition A	AMS-5513
302 Condition A	AMS-5515/6
301 Quarter Hard	AMS-5517
17-4 PH	AMS-5604
17-7 PH	AMS-5528
PH15-7Mo	AMS-5520
316 Condition A	AMS-5524
301 Fully Hard	AMS-5519
301 Half Hard	AMS-5518
MSRR6504	JETHETE
MSRR6514	FV607

Titanium Alloys		
(A) 99.1Ti	AMS4900 : Commercially Pure Sheet, Strip and Plate Annealed 55.0 Ksi**	MIL-T-9046 Type 1 Comp. C
(A) 99.0Ti	AMS4901 : Commercially Pure Sheet, Strip and Plate Annealed 70 Ksi**	MIL-T-9046 Type 1 Comp. B
(A) 99.2Ti	AMS4902 : Commercially Pure Sheet, Strip and Plate Annealed 40 Ksi**	MIL-T-9046 Type 1 Comp. A
(AB) 6Al.2.5V	AMS4911 : Titanium Alloy Sheet, Strip and Plate, Annealed**	MIL-T-9046 Type III Comp. C
6Al.4V	AMS4928 : Titanium Alloy Bar, Rod and Wire, Annealed**	MIL-T-9047
	ASTM-B-221 : Extruded Bar Products	
	ASTM-B-211 : Cold Finished Products	
	ASTM-B-209 : Sheet & Plate	
	ASTM-A-270	
	ASTM-A-479	
	ASTM-A-564	
	ASTM-A-581	
	ASTM-A-582	
	ASTM-A-638	

** also available in BS and TA specifications.

Circle

Area = π x radius squared
 Circumference = π x diameter
 Area of segment = area of sector – area of triangle
 Area of sector = length of arc x $1/2$ radius
 Length of arc = degrees in arc x radius x 0.01745

Triangle: Area = $1/2$ base x perpendicular height

Square Rhombus Rhomboid: Area = base x height

Ellipse: Area = long axis x short axis x 0.7854

Trapezium: Area = height x ($1/2$ the sum of two parallel sides)

Cone

Surface = $1/2$ (slant height x perimeter of base) + area of base

Volume = (area of base x perpendicular height) divided by 3

Cylinder

Surface = (length x perimeter) + (area of two ends)
 Volume = area of base x height

Sphere

Surface = square of diameter x π
 Volume = cube of diameter x 0.5236

Pyramid

Surface = $1/2$ (slant height x base perimeter) + area of base

Volume = (area of base x perpendicular height) divided by 3

Prism

Surface = (length x perimeter) + (area of two ends)
 Volume = area of base x height

$\pi = 3.1416$

$\pi^2 = 9.8696$

$1/\pi = 0.3183$

$\sqrt{\pi} = 1.7725$

To obtain weight of	Density (weight lb/cubic inch)	Multiply weight of steel by
2014 Aluminium	.101	.3568
2024 Aluminium	.101	.3568
3003 Aluminium	.099	.3498
5052 Aluminium	.097	.3427
5056 Aluminium	.095	.3356
5083 Aluminium	.096	.3392
5086 Aluminium	.096	.3392
6061 Aluminium	.098	.3462
6063 Aluminium	.097	.3427
7075 Aluminium	.101	.3568
7178 Aluminium	.102	.3604
Molybdenum	.369	1.303
Copper	.324	1.144
Nickel	.322	1.137
Brass	.307	1.084
Monel	.307	1.084
Stainless Steels		
300 Series	.286	1.01
400 Series	.283	1.0
Carbon & Alloy Steels	.283	1.0
Titanium	.163	.579
Beryllium	.067	.236
Magnesium	.055	.229

useful formulae & conversion factors

Length	1mm	= 107 A = 39.37 mil = 0.03937 in	1 A 1 mil (0.001 in) 1 in. (")	= 10-7 mm = 0.0254 mm = 25.399 mm
	1cm	= 0.3937 in		= 2.5399 cm
	1m	= 39.37 in = 3.2808 ft	1 ft (12 in)	= 0.0254 m = 0.3048 m
		= 1.0936 yd	1 yd (3ft = 36 in)	= 304.799 mm = 0.9144 m
Area	1mm ²	= 1973.5 cm = 0.00155 sq in	1 cm (1 sq mil $\pi/4$) 1 sq in (in ²)	= 0.000645 mm ² = 645.15 mm ²
	1 cm ²	= 0.1550 sq in		= 6.4516 cm ²
	1 m ²	= 10.764 sq ft = 1.196 sq yd	1 sq ft (144 sq in) 1 sq yd (9 sq ft)	= 0.093 m ² = 0.8361 dm ³
Volume	1 cm ³	= 0.061 cu in (in ³)	1 cu in (in ³)	= 16.387 cm ³
	1 dm ³ (1 litre)	= 61.022 cu in = 0.353 cu ft	1 cu in 1 cu ft (ft ³)	= 0.01639 dm ³ = 28.3167 dm ³
	1m ³	= 35.315 cu ft (ft ³) = 1.308 cu yd (yd ³)	1 cu yd (yd ³) (27 cu ft)	= 0.765 m ³
Weight	1 g	= 0.0353 oz	1 oz (1/16 lb)	= 28.3495 g
	1 kg	= 2.2046 lb	1 lb	= 0.4536 kg
	1 lt	= 1.1023 sh.t = 0.9842 long t (UK)	1 sh.t (112 lb) 1 long ton (UK) (1.12 sh.t)	= 907.185 kg = 1016.05 kg = 1.016 t.
	1 kg/m	= 0.672 lb/ft = 2.016 lb yd	1 lb/ft 1 lb/yd	= 1.488 kg/m = 0.496 kg/m
	1 g/cm ³	= 0.03613 lb/cu in	1 lb/cu in	= 27.680 g/cm ³
Force	1 N	= 0.102 kg	1 kg	= 9.807 N
	1 lbf	= 4.4 N	1N	= 0.224 lbf
	1 tonf	= 9.99- 10 ³ N		= 1.004- 10 ⁻⁴ tonf
Energy, heat	1 kcal	= 3.9683 BTU	1 BTU	= 0.252 kcal
	1 J	= 0.5- 10 ⁻⁴ BTU		= 1.1- 10 ³ J
	1 kgm	= 0.807 J	1 J	= 0.102 kgm
Pressure, stress	1 atm	= 1.013- 105 Pa	1 Pa	= 9.87- 10 ⁻⁵ atm
		= 1.013 bar	1 bar	= 1.02- 1 ⁻⁵ at
				= 0.9869 atm
				= 1.0- 10 ⁵ Pa
				= 1.020 at
	1 kg/mm ²	= 9.807 N/mm ²	1 N/mm ²	= 0.102 kg/mm ²
	1hbar	= 10 N/mm		= 0.1 hbar
1 psi	= 68.9- 10 ⁻⁴ N/mm ²		= 0.0145- 10 ⁻⁴ psi	
1 ksi	= 6.89- N/mm ²		= 0.145 ksi	
1 tonf/sq in	= 15.45 N/mm ²		= 0.065 tonf/sq in	
1 lbf/sq in	= 0.689 N/mm ²	1 N/cm ²	= 1.45 lbf/sq in	
Temperature	0 K	= -273.15°C	0°C	= 273.15 K
	1 °F	= 9/5 °C + 32	1°C	= oF - 32
Thermal expansion	1/°C	= 0.5556 1 °F	1/ °F	= 1,800 1/ oC
Physical properties				
	Thermal conductivity	1 kcal-h-°C	= 1.163 W/m-K = 0.08	1 W/m-K 1
Electrical conductivity	1 m/Ohm-mm ²	= 10 ⁶ S/m	1 S/m	= 10 ⁻⁶ m/Ohm-mm ²
	Spec. electrical resistivity	1 Ohm-mm ² /m	= 10 ⁻⁴ Ohm-cm	1 Ohn-cm
Impact strength	1 mkp/cm ³	= 9.807 Nm/cm ²	1 nM/cm ²	= 0.102 mkp/cm ²

a worldwide reputation for service and quality



Visit our website:
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