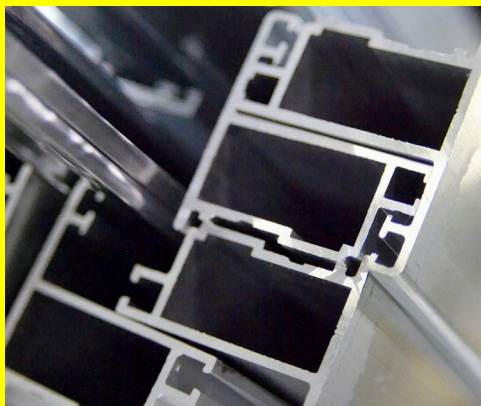




STOCKISTS
ANODISERS
FABRICATORS
POLISHERS

A Complete Service in Aluminium



Contact Us

Please feel free to contact us for a free no obligation quotation, from a single length of standard material to ongoing stock holding and supply of bespoke products.

Spa Aluminum Ltd.

Unit 1
Chapman Way
Tunbridge Wells
Kent
TN2 3EG

Tel: (01892) 533911

Enquiries:

sales@spaaluminium.co.uk

Accounts:

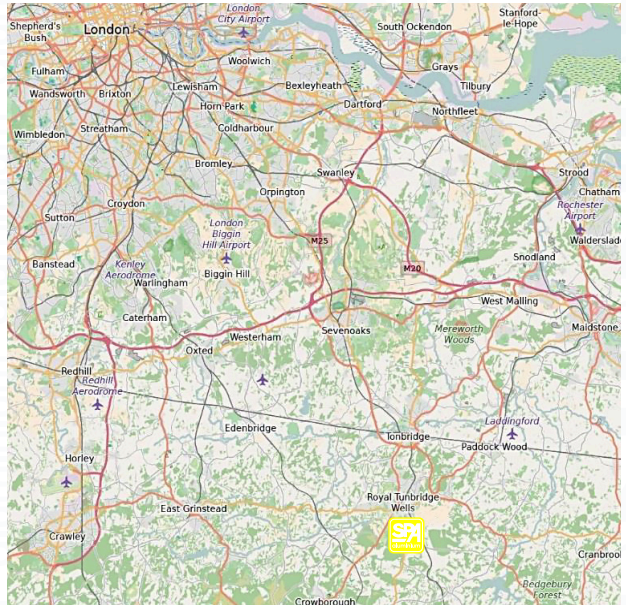
accounts@spaaluminium.co.uk

Website:

www.spaaluminium.co.uk

Office Opening Times:

9am - 5pm
Monday to Friday



We welcome the opportunity to meet new and existing customers here at our premises in Tunbridge Wells or have one of our team visit you to discuss your aluminium requirements.

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The information contained herein is for guidance only.

No liability will be accepted by the Company.

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Introduction

Company History

Formed in 1971, Spa Aluminium Ltd remains one of the UK's leading specialist stockholders of aluminium extrusions & sheet. We hold a unique position as the country's only major stockist with on-site anodising, polishing & fabrication facilities giving us an unrivalled knowledge & experience in the supply of finished products.



From our 30,000ft² site in Tunbridge Wells, Kent we are ideally placed to service the majority of the UK with our fleet of vehicles supported by an overnight service. We also export across the globe to destinations including Paris, Geneva, Oslo, Beijing & New York!

Unique Service

Spa Aluminium is able to offer their customers a complete solution to their aluminium requirements. From die design, through fabrication and finishing all under one roof.

Our complete service affords customers the peace of mind that they will experience the highest standards of technical advice, design, support and customer service, from the concept to the completion of their project.



Design

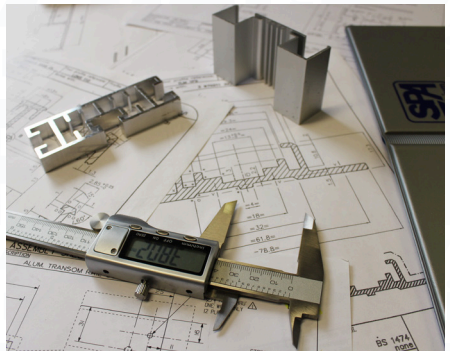


Accurate CAD drawings are essential when creating extrusion dies and evaluating complex CNC machining work. We offer our customers a **free** design service, eliminating the need for a third-party design house.

Our bespoke design software is compatible with our CNC centres and other automated tools, allowing us to work seamlessly from your design, straight to production, ensuring the best tolerances and continuity of the finished parts.

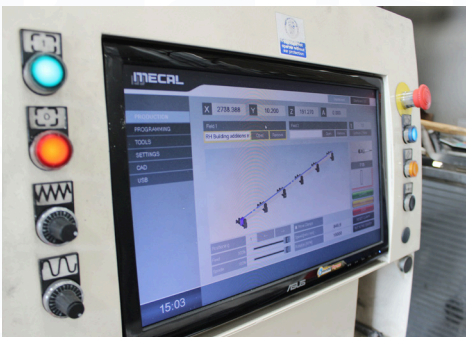
Research & Development

We are involved in many projects from the initial concept stage right through to the production and supply of the finished components.



Our extensive portfolio of extrusions encompasses a wide variety of industry types including architectural, marine and advertising to name a few.

We specialise in decorative applications and service key customers within the furniture, shower screen, curtain track & partitioning industries.



Ongoing Training

We believe that one of our most valuable assets is our wealth of knowledge and experience. We follow a philosophy of continual training and improvement for all staff.

Stock Holding

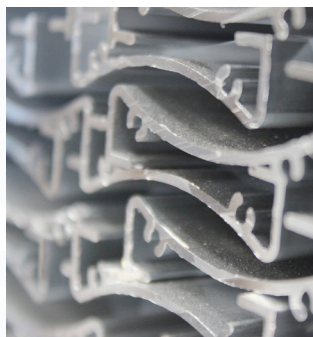


Within our temperature-controlled warehouse we hold over one hundred and fifty tonnes of various extrusions and sheet.

The majority of our extrusions are stocked in 6063T6 alloy and cover a comprehensive range of different profile shapes; including our standard range and customer exclusive. As we specialise in the supply of decorative finishes, all our material is stored, packed and handled with great care. Our own thorough quality control procedure ensures that we continually strive to supply the highest quality possible.

Bespoke Stock Holding

If required, our design team can help you create your own profile. At Spa we can hold stock of your bespoke extrusions and deliver to you or your customers as and when you require, helping you manage valuable space and cash flow more efficiently.



Standard Stock

Our warehouse stocks an extensive range of standard extrusions and sheet **see pages 13-20**. Please contact our sales department for current availability and pricing. Other sizes and profiles are often available within a few days, we welcome your enquiries.

Quality Control

We are dedicated to supplying the best quality possible and are committed to demonstrating this by following a rigorous routine of inspection throughout the production chain. From the moment the aluminium is received from our supplier to the point of despatch to our customer, our staff are trained to monitor the product through all the possible processes.



Aluminium Extrusions: BS EN 525, BS EN 573, EN 755

Sheet Aluminium: BS EN 485

Anodising: BS EN 12373

First Article Inspection

We can create, complete and electronically record customised inspection documents, tailored with your unique specifications

Anodising Quality

When inspecting anodised material, the anodised parts must be free of visible defects on significant surfaces when viewed from the following minimum distances:

- Architectural Applications 3 metres
 - Decorative Applications 1 metres
- (Decorative anodising needs to be specified by the client and agreed by Spa prior to commencement of an order)*

On large or ongoing jobs, the extent of admissible variations in appearance that are acceptable to both parties should be agreed before production commences, along with upper and lower limits of colour where applicable.

During any comparison between products and reference samples, both the anodised part and the sample(s) should be level with one another and oriented in the same direction of rolling/extrusion/machining. It must be noted that shade variations between different alloys (as well as between sheet and extrusion) are unavoidable.

Certificates of Conformity

On request, at the time of placing the order, we can produce certificates of conformity as well as anodic seal and micron test documents.

Anodising

Our in-house anodising plant is capable of processing extrusion lengths up to 7800mm and sheets up to a depth of 1250mm, making it one of the largest production lines in the UK.

We are able to anodise to internal decorative finish (AA05 and AA10 film thickness) as well as a more durable 25 microns suitable for external environments (AA25 film thickness)



Free Issue Anodising

We also offer a competitive “Free Issue” service to a wide range of industries, including Marine, Road Transport, POS Display, Lighting and Shopfront systems. For a quotation please contact a member of our team, please note: drawings of your profile will be required for pricing.

Clamp Marks

To enable the anodising process to be carried out successfully it is essential that a positive contact is made between the metal being anodised and the “carrying stick”. It should be noted that where this contact point occurs there will be no protective film and in the case of colours, no colouring. These marks are normally restricted to within 25mm of each end, where possible so that they can be cut out with the minimum of waste. Please consult us at an early stage for specific advice on this subject.

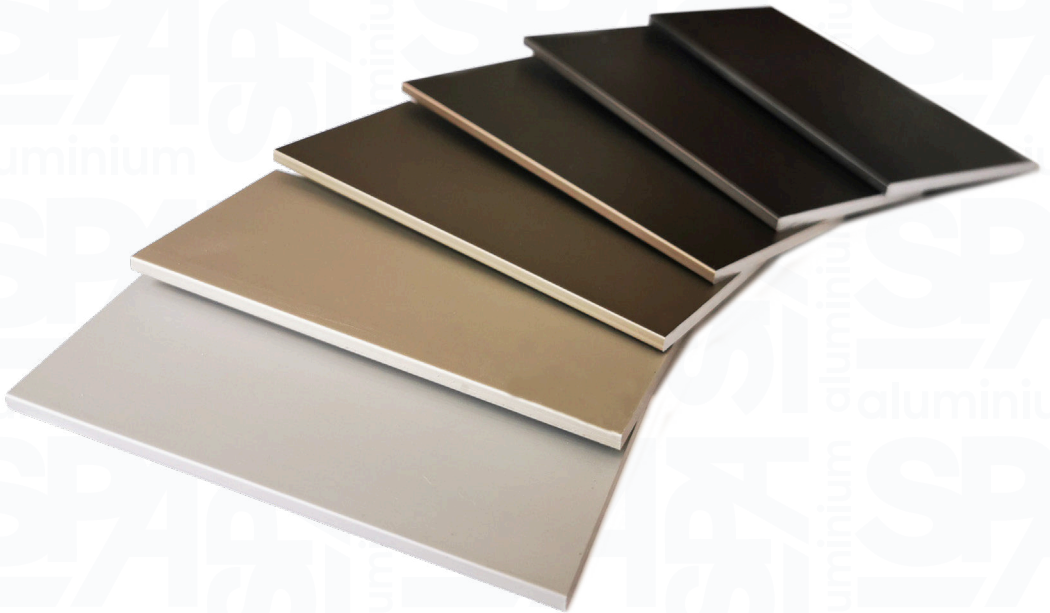
Colour Anodising

As well as a natural (silver) finish we can also offer black and a range of bronze and grey shades. These can be combined with polished textures to create some unique effects.

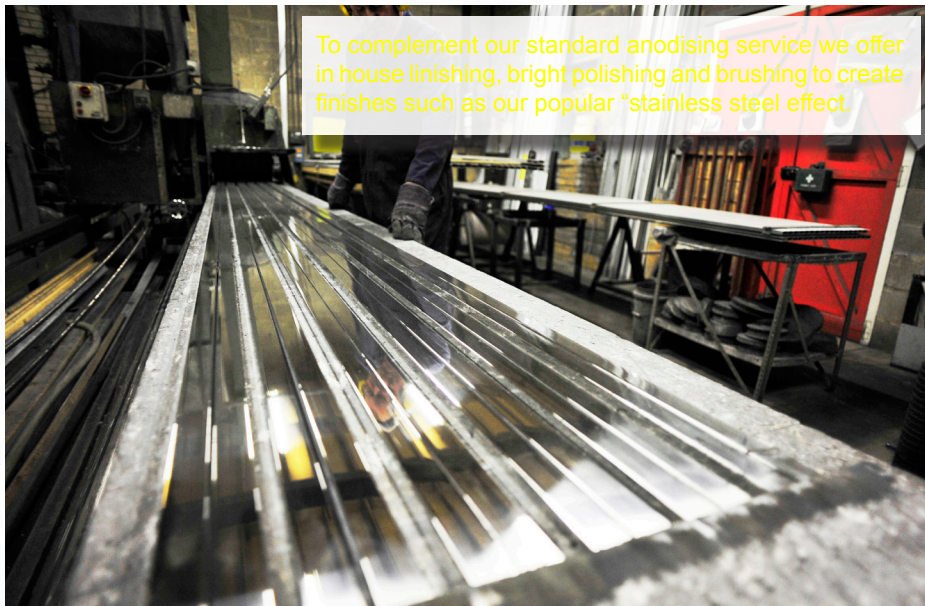
Anodising & Finishing

We will always work to a predefined in-house inspection standard unless an alternative agreement has been established prior to processing. On larger contracts, we may be able to work with clients to establish mutually acceptable upper/lower tolerances. Any work that is rejected by a client should be returned for inspection by our quality department, only then will a decision to strip and re-anodise be made.

There are some restrictions on the type of profile that we can offer in our bespoke finishes there are also some production limitations in regard to polishing/finishing large extrusion & sheet. Please speak to our sales team prior to specification to ensure we can achieve your requirements



Finishing



To complement our standard anodising service we offer in house finishing, bright polishing and brushing to create finishes such as our popular “stainless steel effect”.

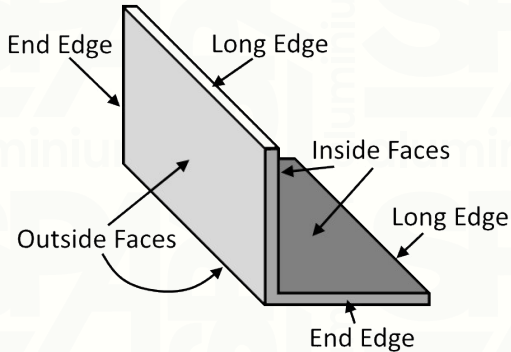
Using a variety of chemical and mechanical techniques prior to anodising we can radically affect the final appearance of aluminium. The resulting finish is UV stable, weatherproof and hard wearing.

Unique Finishes

Our unique “stainless steel effect” highlights aluminium’s amazing versatility and is one of our most popular finishes particularly with structural glazing and partitioning companies. We also work with customers to create bespoke finishes to match their requirements.



Powdercoating



When requesting powder coated material please specify which of the surfaces are to be seen as this affects processing.

Depending on the finish required or profile shape, holes may be required for jiggling, please ensure this is checked at the point of quotation.

Type of Finish

Powder coating is a form of electrostatic coating using an electric charge to bond particles of powder to the surface of the material offering a vast range of shades & gloss levels. The difference between anodising and powder coating is more than just a colour choice, whilst anodising retains the natural characteristics of the aluminium surface, powder coating is applied as an additional layer.



Fabrication

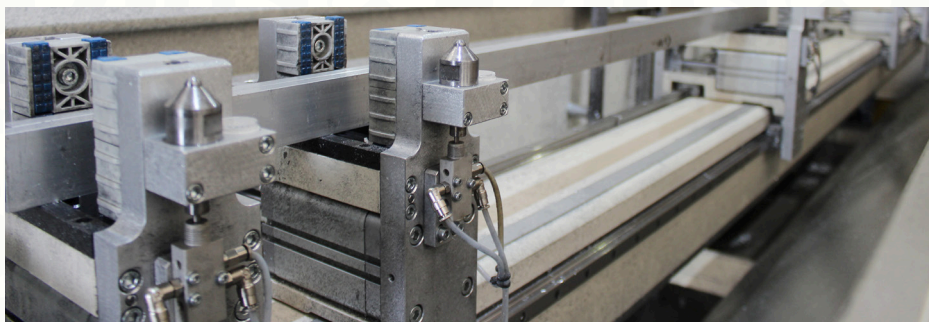
Our extensive facilities include a wide range of automated machines allowing us to create prototypes and handle large scale projects. Our fabrication department also assembles many items by hand using pillar drills, fly press, crimping, glueing and riveting, to name but a few.



4 Axis (X, Y, Z, A) Milling Centre

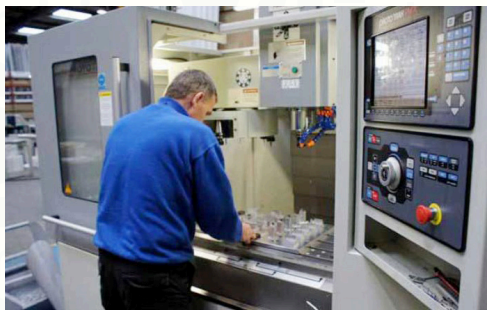
We can work on multiple sides of a section (up to 530 x 410 x 4225mm), ideal for high repetition parts

The workpieces are held by means of 6 pneumatic vices on the mobile beam, that can be positioned at any angle between +125° and -125°.



3 Axis Component XYZ Machine

Using the latest "Lean Production" technology from XYZ, we are capable of running cost effective small batch work through to highly competitive large volume orders.



Fabrication

Automated Cutting

High feed rate
Variable angle Double mitring
Fast turn-around

Guillotining

Ability to cut aluminium sheet up to 3048mm wide with a thickness of between 1 to 6.35mm

Drilling

0.3-20mm diameter
With countersinking and tapping options available.

Punching

We have capabilities for large volume precision hole cutting with our seven tonne air press with auto-feeder.



Bespoke Production

We can assemble and pack components to create "ready for retail" solutions for our customers, please enquire with our sales team for more information.

Technical Information

Many standard extrusion dies are created in imperial measurements and hollow wall thickness are shown as a gauge. Please use these tables to convert into millimetres. European sourced products and some newer profiles are often listed in metric.

Imperial to Metric Conversion

Metric mm	Imperial inches
1.59	1/16
3.174	1/8
4.76	3/16
6.35	1/4
7.94	5/16
9.53	3/8
11.1	7/16
12.7	1/2
15.8	5/8
19.05	3/4
22.22	7/8
25.4	1"
28.57	1.1/8
31.75	1.1/4
34.93	1.3/8
38.1	1.1/2
41.27	1.5/8
44.45	1.3/4
47.62	1.7/8
50.8	2"
57.15	2.1/4
60.325	2.3/8
63.5	2.1/2
69.85	2.3/4
76.2	3"
101.6	4"
127	5"
152.4	6"

Gauge	Metric mm
20g	0.914
18g	1.22
17g	1.40
16g	1.63
14g	2.03
12g	2.64
10g	3.25

You can find an electronic copy of our catalogue online at www.spaaluminium.co.uk

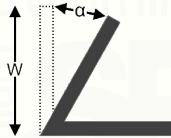
Extrusion Tolerances

In accordance with BS EN 525 • BS EN 573 • BS EN 755

Angularity

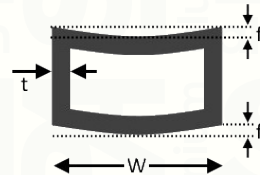
The degree of deviation from a specified angle, for unequal angles/rectangular box sections W is the shortest side

W (mm)	α +/- (mm)
< 30	0.4
30 to 50	0.7
50 to 80	1
80 to 120	1.4
120 to 180	2
180 to 240	2.6



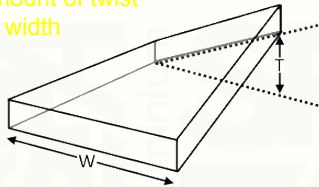
Convexity - Concavity

The bow of any flat surface on an extrusion



Twist

The excepted amount of twist along a sections width

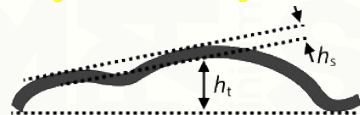


W (mm)	$t \leq 5\text{mm}$ f +/- (mm)	$t > 5\text{mm}$ f +/- (mm)
< 30	0.3	0.2
30 to 60	0.4	0.3
60 to 100	0.6	0.4
100 to 150	0.9	0.6
150 to 200	1.2	0.8
200 to 350	1.8	1.2

W (mm)	T +/- (mm)
< 30	2.5
30 to 50	3
50 to 100	3.5
100 to 200	5

Straightness

Along an extruded length

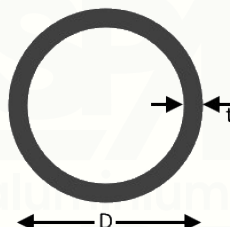


$h_t < 2.5\text{mm/mtr}$ deviation from straightness
 $h_s < 1.3\text{mm}$ deformation per kink

Round Tube

Diameter tolerances for round tube

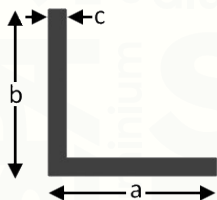
Diameter (mm)	+/- (mm)
8 to 18	0.6
18 to 30	0.7
30 to 50	0.9
50 to 80	1.1
80 to 120	1.4
120 to 200	2
200 to 350	3



t (mm)	+/- (%)
< 3	7
3 to 5	6
5 to 7	5

Catalogue

Angles



The profiles shown over the next eight pages are by no means a complete list of all those available. If you require a specific item or require advice on weight, finish quality, delivery charges or anything else please contact us on

01892 533911.

Code	a	b	c	Length
AN009/20	3/8"	3/8"	1/16"	4000mm
AN012/20	1/2"	1/2"	1/16"	4000mm
AN012/24	1/2"	1/2"	1/8"	4000mm
AN016/20	5/8"	5/8"	1/16"	4000mm
AN016/24	5/8"	5/8"	1/8"	5000mm
AN019/12	3/4"	3/8"	1/16"	4000mm
AN019/15	3/4"	1/2"	1/16"	4000mm
AN019/23	3/4"	3/4"	1/16"	5000mm
AN019/27	3/4"	3/4"	1/8"	5000mm
AN022/20	7/8"	7/8"	1/16"	4000mm
AN022/24	7/8"	7/8"	1/8"	5000mm
AN025/10	1"	1/2"	1/16"	4000mm
AN025/15	1"	1/2"	1/8"	5000mm
AN025/31	1"	3/4"	1/16"	4000mm
AN025/34	1"	3/4"	1/8"	5000mm
AN025/40	1"	1"	1/16"	4000mm
AN025/46	1"	1"	1/8"	5000mm
AN032/15	1.1/4"	3/4"	1/8"	5000mm
AN032/17	1.1/4"	1"	1/8"	5000mm
AN032/21	1.1/4"	1.1/4"	1/16"	5000mm
AN032/24	1.1/4"	1.1/4"	1/8"	5000mm
AN038/13	1.1/2"	1/2"	1/8"	5000mm
AN038/18	1.1/2"	3/4"	1/8"	5000mm
AN038/34	1.1/2"	1"	1/8"	5000mm
AN038/41	1.1/2"	1.1/2"	1/16"	5000mm
AN038/45	1.1/2"	1.1/2"	1/8"	5000mm
AN038/66	1.1/2"	1.1/2"	1/4"	5000mm
AN044/22	1.3/4"	1.3/4"	1/8"	5000mm

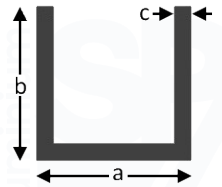
Code	a	b	c	Length
AN050/11	2"	1/2"	1/8"	5000mm
AN050/14	2"	3/4"	1/8"	5000mm
AN050/19	2"	1"	1/8"	5000mm
AN050/33	2"	1"	1/4"	5000mm
AN050/34	2"	1.1/4"	1/8"	5000mm
AN050/36	2"	1.1/2"	1/8"	5000mm
AN050/38	2"	1.1/2"	1/4"	5000mm
AN050/41	2"	2"	1/16"	5000mm
AN050/45	2"	2"	1/8"	5000mm
AN050/61	2"	2"	1/4"	5000mm
AN056/20	2.1/4"	1.1/4"	1/8"	5000mm
AN063/05	2.1/2"	1/2"	1/8"	5000mm
AN063/31*	2.1/2"	2"	3/16"	5000mm
AN063/34	2.1/2"	2"	1/4"	5000mm
AN063/43	2.1/2"	2.1/2"	1/8"	5000mm
AN075/15	3"	1"	1/4"	4000mm
AN075/16	3"	1"	1/8"	5000mm
AN075/20	3"	1.1/2"	1/4"	5000mm
AN075/32	3"	2"	1/8"	5000mm
AN075/38	3"	2"	1/4"	5000mm
AN075/41	3"	3"	1/8"	5000mm
AN075/44	3"	3"	1/4"	5000mm
AN100/12	4"	1"	1/8"	5000mm
AN100/15	4"	2"	1/8"	5000mm
AN100/18	4"	2"	1/4"	5000mm
AN100/34	4"	3"	1/4"	5000mm
AN125/11	5"	2"	1/8"	5000mm
AN150/10	6"	3"	1/4"	5000mm

When specifying a finish please notify which faces & edges are required as visible.

*All extrusions are supplied as a 6063T6 grade unless marked "***" these are only stocked as 6082T6*

Catalogue

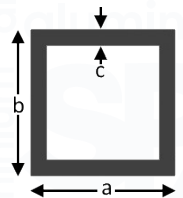
Channels



Code	a	b	c	Length
CH009/21	3/8"	3/8"	1/16"	4000mm
CH012/21	1/2"	1/2"	1/16"	4000mm
CH016/22	5/8"	5/8"	1/16"	5000mm
CH019/21	3/4"	3/4"	1/16"	4000mm
CH019/25	3/4"	3/4"	1/8"	5000mm
CH022/21	7/8"	7/8"	1/8"	4000mm
CH025/15	1"	3/4"	1/8"	5000mm
CH025/21	1"	1"	1/8"	4000mm
CH025/23	1"	1"	1/8"	5000mm
CH025/27	1"	1.1/2"	1/8"	5000mm
CH025/32	1"	2"	1/8"	5000mm
CH028/16*	1.1/8"	1"	1/8"	5000mm
CH032/12	1.1/4"	1/2"	1/8"	5000mm
CH032/15	1.1/4"	3/4"	1/8"	5000mm

Code	a	b	c	Length
CH032/21	1.1/4"	1.1/4"	1/8"	4000mm
CH032/25	1.1/4"	2"	1/8"	5000mm
CH038/15	1.1/2"	3/4"	1/8"	5000mm
CH038/22	1.1/2"	1.1/2"	1/8"	5000mm
CH038/25	1.1/2"	2"	1/8"	5000mm
CH050/12	2"	1"	1/8"	5000mm
CH050/22	2"	2"	1/8"	5000mm
CH063/13*	2.1/2"	1"	1/8"	5000mm
CH075/11	3"	1"	1/8"	5000mm
CH075/15	3"	1.1/2"	1/8"	5000mm
CH075/31	3"	2"	1/8"	5000mm
CH089/06	3.1/2"	1"	1/8"	5000mm
CH100/11	4"	1"	1/8"	5000mm
CH100/14	4"	2"	1/8"	5000mm

Boxes



When surface polishing and/or brushing is required, the outside faces of the channel/box can be finished but the inside ones generally cannot.

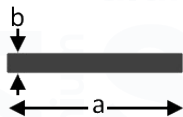
Code	a	b	c	Length
BX012/22	1/2"	1/2"	16g	5000mm
BX019/21	3/4"	3/4"	16g	4000mm
BX025/25	1"	1"	10g	5000mm
BX032/25	1.1/4"	1.1/4"	10g	5000mm
BX038/25	1.1/2"	1.1/2"	10g	5000mm
BX050/12	2"	1"	10g	5000mm
BX050/22	2"	2"	10g	5000mm

Code	a	b	c	Length
BX060/07	60mm	40mm	3mm	6000mm
BX075/15	3"	1"	10g	5000mm
BX075/41	3"	3"	10g	5000mm
BX080/1	80mm	20mm	2mm	5000mm
BX100/11	4"	1"	10g	5000mm
BX100/36	4"	2"	10g	6000mm

All extrusions are supplied as a 6063T6 grade unless marked "" these are only stocked as 6082T6*

Catalogue

Flat Bars



Code	a	b	Length
FB009/01	3/8"	1/8"	4000mm
FB012/06	1/2"	1/8"	4000mm
FB016/06	5/8"	1/4"	4000mm
FB019/01	3/4"	1/16"	4000mm
FB019/04	3/4"	1/8"	4000mm
FB025/01	1"	1/16"	4000mm
FB025/03	1"	1/8"	4000mm
FB025/11	1"	1/4"	5000mm
FB025/16	1"	1/2"	4000mm
FB025/22*	1"	3/4"	4000mm
FB028/01	1.1/8"	1/8"	4000mm
FB032/01	1.1/4"	1/8"	4000mm

Code	a	b	Length
FB032/14*	1.1/4"	1/2"	4000mm
FB038/04	1.1/2"	1/8"	4000mm
FB038/17	1.1/2"	3/8"	5000mm
FB038/19	1.1/2"	1/2"	4000mm
FB044/01	1.3/4"	1/8"	4000mm
FB050/01	2"	1/8"	4000mm
FB050/09	2"	1/4"	5000mm
FB063/01	2.1/2"	1/8"	4000mm
FB075/01	3"	1/8"	4000mm
FB100/01	4"	1/8"	4000mm
FB100/10*	4"	3/8"	4000mm

Square Bars

Code	a	Length
SB006/01	1/4"	4000mm
SB009/01	3/8"	4000mm
SB025/01	1"	4000mm
SB038/02	1.1/2"	5000mm



These profiles are by no means a complete list of all those available. If you require a specific item or require advice on weight, finish quality, delivery charges or anything else please contact us on

01892 533911.

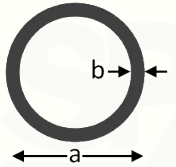
Round Bars

Code	a	Length
RB006/01*	1/4"	4000mm
RB008/02	5/16"	5000mm
RB009/01*	3/8"	4000mm
RB010/01	10mm	4000mm
RB012/01*	1/2"	4000mm



All extrusions are supplied as 6063T6 grade unless marked "" these are only stocked as 6082T6*

Tubes

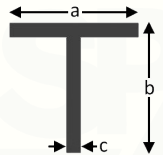


When applying brushed effects, the grain marks are lateral

Code	a	b	Length
TU008/01	8mm	1mm	4000mm
TU010/01	10mm	1mm	4000mm
TU012/01	12mm	1.5mm	4000mm
TU012/12	1/2"	18g	4000mm
TU015/01	15mm	1.5mm	5000mm
TU016/12	5/8	18g	4000mm
TU020/01	20mm	1.6mm	5000mm
TU025/11*	1"	16g	5000mm
TU025/15*	1"	2mm	4000mm
TU028/02*	1.1/8"	16g	5000mm

Code	a	b	Length
TU028/02*	1.1/8"	10g	5000mm
TU032/13*	1.1/4"	16g	5000mm
TU038/11*	1.1/2"	16g	5000mm
TU038/14*	1.1/2"	14g	5100mm
TU038/22	1.1/2"	10g	5000mm
TU050/10*	2"	16g	4000mm
TU050/41*	2"	12g	4500mm
TU063/11*	2.1/2"	16g	5000mm
TU075/116	3"	10g	5000mm
TU100/09*	4"	10g	5000mm

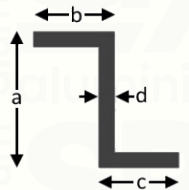
Tees



Code	a	b	c	Length
TE012/20	1/2"	1/2"	1/16"	4000mm
TE019/20	3/4"	3/4"	1/16"	4000mm
TE025/20	1"	1"	1/16"	4000mm
TE025/21	1"	1"	1/16"	5000mm
TE025/24	1"	1"	1/8"	5000mm
TE038/18	1.1/2"	1.1/2"	1/16"	5000mm

Code	a	b	c	Length
TE038/21	1.1/2"	1.1/2"	1/8"	5000mm
TE050/11	2"	1"	1/8"	5000mm
TE050/21	2"	2"	1/8"	5000mm
TE050/27	2"	2"	1/4"	5000mm
TE075/20	3"	3"	1/4"	5000mm

Zeds



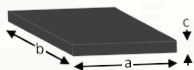
Code	a	b	c	d	Length
ZED019/5	3/4"	1/2"	1/2"	1/16"	4000mm
ZED025/1	1"	3/4"	3/4"	3/32"	4000mm
ZED032/1	1.1/4"	1"	1"	1/8	4000mm
ZED044/1	1.3/4"	1"	1"	1/8"	4000mm

All extrusions are supplied as 6063T6 grade unless marked "*" these are only stocked as 6082T6

Catalogue

These are examples of the various sheet kept in stock, other sizes are available and can be cut to size prior to dispatch.

Sheet



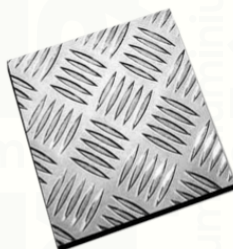
Code	a	b	c	Alloy
SHT10/05	2500mm	1250mm	3mm	5005 H14
SHT14/06	2500mm	1250mm	2mm	5005 H14
SHT16/06	2500mm	1250mm	1.5mm	5005 H14
SHT20/06	2500mm	1250mm	1mm	5005 H14

These profiles are by no means a complete list of all those available. If you require a specific item or require advice on weight, finish quality, delivery charges or anything else please contact us on

01892 533911.

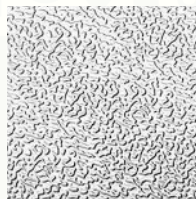
5 - Bar Treadplate

Code	a	b	c	Alloy
PAT14/01	2500mm	1250mm	2mm	5754
PAT10/01	2500mm	1250mm	3mm	5754

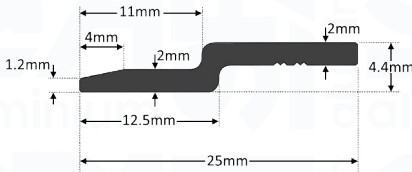


Stucco Sheet

Code	a	b	c	Alloy
PAT26/01	2500mm	1250mm	0.5mm	1050 H14
PAT24/01	2500mm	1250mm	0.6mm	1050 H14



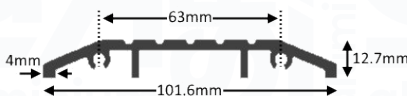
Boardhook Zed



Code	Length	Alloy
ZED015/1	4000mm	6063T6

These split batons are used throughout the shop fitting, exhibition and display industries for hanging panel to walls by a discreet method of fixing.

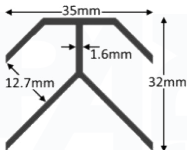
Threshold



Code	Length	Alloy
SD793/01	4500mm	6063T6

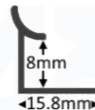
Wallboard Sections

Wallboard sections are suitable for specific width wallboard, the below examples are our more popular, but we can supply several other variants.



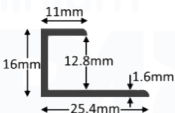
Code	Length
MWB1092/0	4000mm

13mm External Corner



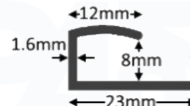
Code	Length
MWB571/0	4000mm

8mm Internal Corner



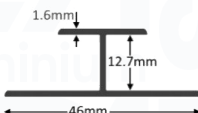
Code	Length
MWB1094/0	4000mm

13mm End Stop



Code	Length
MWB572/0	4000mm

8mm End Cap



Code	Length
MWB1093/0	4000mm

13mm Continual Run

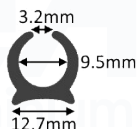


Code	Length
MWB573/0	4000mm

8mm Continual Run

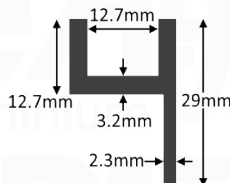
Catalogue

Miscellaneous Channels



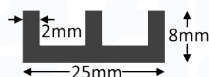
Code	Length
MC2367/0	4000mm

Luff track



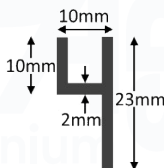
Code	Length
MC329/1	4000mm

Y section



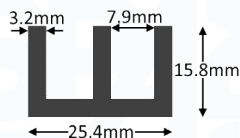
Code	Length
MC325/1	4000mm

Double channel



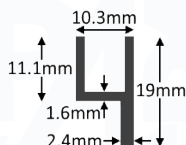
Code	Length
MC330/1	4000mm

Y section



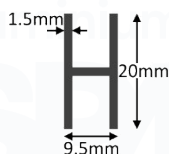
Code	Length
MC326/1	4000mm

Double channel



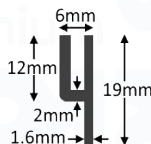
Code	Length
MC331/1	4000mm

Y section



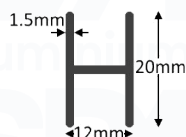
Code	Length
MC327/1	4000mm

H section



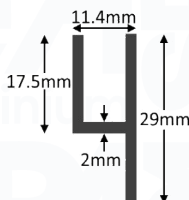
Code	Length
MC332/1	4000mm

Y section



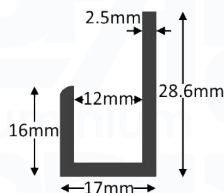
Code	Length
MC328/1	4000mm

H section



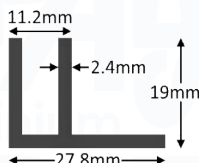
Code	Length
MC333/1	4000mm

Y section



Code	Length
MC336/1	4000mm

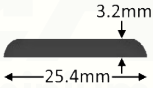
J section



Code	Length
MC334/1	4000mm

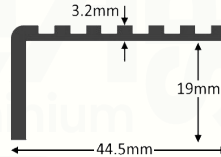
F section

Mouldings



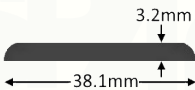
Code	Length
MDF025/1	4000mm

Double feather edge



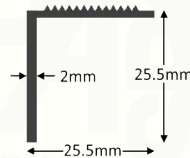
Code	Length
MFN254/0	4000mm

Fluted nosing



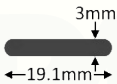
Code	Length
MDF038/1	4000mm

Double feather edge



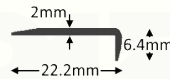
Code	Length
MFA258/0	4000mm

Fluted Angle



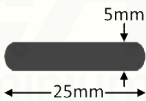
Code	Length
MDR019/1	6000mm

Double round edge



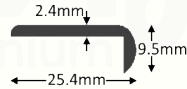
Code	Length
MCM285/0	4000mm

Cope Moulding



Code	Length
MDR025/1	6000mm

Double round edge



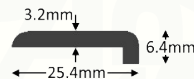
Code	Length
MCM287/0	4000mm

Cope Moulding



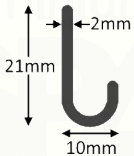
Code	Length
MDF038/1	4000mm

Half round moulding



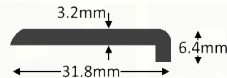
Code	Length
MCM294/0	4000mm

Cope Moulding



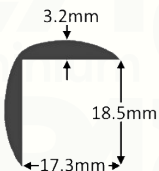
Code	Length
MGU201/0	4000mm

Gutter Moulding



Code	Length
MCM295/0	4000mm

Cope Moulding



Code	Length
MCM283/0	4000mm

Cope Moulding

Packing

Our dedicated packing department is highly skilled in ensuring our customers' orders reach them in optimum condition.

As standard we tissue interleaved anodised material to prevent metal to metal contact on critical faces. We can also offer low tack taping on finished material if additional protection is required.



Using fully automated spiral wrappers material is securely packed, this also gives a durable clear protective coating to all bundles.

We create bespoke labelling as required and are happy to use our customer's own branded packaging.



We offer an "export packing" service of customised cardboard or wooden cartons made to measure for international deliveries.

Other packaging solutions including heat-sealed polythene tubing, rigid cardboard tubes, boxes and cardboard lined stillages are all available on request.



Delivery



Our vehicles can deliver larger sections of aluminium (up to 8000mm). They follow fixed routes across mainland England every week as well as dedicated "one-off" deliveries to suit our customer's needs.



External Couriers

For an overnight service or deliveries not covered by our own transport, we use Tuffnells as well as several other companies for exporting overseas. For orders using external couriers, the cost is based on weight and speed of delivery. We pack this type of consignment in rigid cardboard tubes to give the best possible protection through the rigours of a trunker system.

Aluminium Extrusion

6063 “Decorative” Alloy

Developed as an extrusion alloy with relatively high tensile properties. Excellent finishing characteristics and high corrosion resistance. It is one of the best-suited alloys for anodising.

6063 is the most commonly used alloy for general aluminium extrusion. It allows complex shapes to be formed with smooth surfaces fit for anodising and is popular for visible architectural applications such as window frames, door frames, roofs, and sign frames as well as a host of decorative applications such as furniture, display cases, exhibition stands etc.

Aluminium:	90.45% min
Chromium:	0.10% max
Copper:	0.10% max
Iron:	0.35% max
Magnesium:	0.45% to 0.90%
Manganese:	0.10% max
Silicon:	0.20% to 0.60%
Titanium:	0.10% max
Zinc:	0.10% max
Residuals:	0.15% max

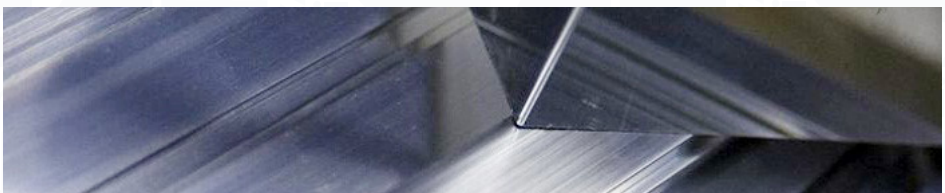
6082 “Commercial” Alloy

With a slightly higher tensile strength to the 6063, aluminium alloy 6082 is a medium strength alloy with excellent corrosion resistance. It has the highest strength of the 6000 series alloys. Alloy 6082 is known as a structural alloy. In plate form, 6082 is the alloy most commonly used for machining. The addition of a large amount of manganese controls the grain structure which in turn results in a stronger alloy. It is difficult to produce thin-walled, complicated extrusion shapes in alloy 6082. The extruded surface finish is not as smooth as other alloys in the 6000 series.

Aluminium:	95.2% to 98.3%
Chromium:	0.25% max
Copper:	0.10% max
Iron:	0.50% max
Magnesium:	0.6% to 1.2%
Manganese:	0.4% to 1.0%
Silicon:	0.7% to 1.3%
Titanium:	0.1% max
Zinc:	0.2% max
Residuals:	0.15% max

Heat treatment designations for aluminium and aluminium alloys (TX).

Suffix	Description
T1	Cooled from an elevated temperature shaping process and naturally aged.
T2	Cooled from an elevated temperature shaping process cold worked and naturally aged.
T3	Solution heat-treated cold worked and naturally aged to a substantially.
T4	Solution heat-treated and naturally aged to a substantially stable condition.
T5	Cooled from an elevated temperature shaping process and then artificially aged.
T6	Solution heat-treated and then artificially aged. T5 and T6 are often interchangeable
T7	Solution heat-treated and overaged/stabilised.
T8	Solution heat treated, cold worked and artificially aged
T9	Solution heat treated, artificially aged, and cold worked
T10	Cooled from hot working, cold-worked, and artificially aged



Aluminium Sheet

5005 “Decorative” Alloy

5005 is an aluminium alloy with good resistance to atmospheric corrosion. It is used in decorative and architectural applications. It is a member of the 5000 series of aluminium-magnesium wrought alloys. As such, it is not used in casting. It can attain moderate to high strength by cold working and has relatively high welded strength compared to other aluminium alloy families

Aluminium:	97% to 99.5%
Chromium:	0.10% max
Copper:	0.20% max
Iron:	0.70% max
Magnesium:	0.05% to 1.1%
Manganese:	0.20% max
Silicon:	0.30% max
Zinc:	0.05% max
Residuals:	0.15% max

1050 “Commercial” Alloy

It is commonly used in the electrical and chemical industries, on account of having high electrical conductivity, corrosion resistance, and workability. 1050 alloy is also sometimes used for the manufacture of heat sinks since it has a higher thermal conductivity than other alloys. It has low mechanical strength compared to more significantly alloyed metals. It can be strengthened by cold working, but not by heat treatment. Tempers H116 and H321 can be used in fresh and saltwater.

Aluminium:	99.5% min
Copper:	0.05% max
Iron:	0.4% max
Magnesium:	0.05% max
Manganese:	0.05% max
Silicon:	0.25% max
Titanium:	0.03% max
Vanadium:	0.05% max
Zinc:	0.05% max

The non-heat treatable alloys can have their properties adjusted by various methods (e.g. cold working). These adjusted properties depend upon the degree of cold work and whether working is followed by annealing or stabilising thermal treatment.

Nomenclature to describe these treatments uses a letter, O (Full soft – annealed), F (as fabricated) or W (Solution heat treated only)

First number refers to the worked condition the second number the degree of tempering. (HXX) Strain hardened (cold worked) with or without thermal treatment alloy designations

Suffix	Description
H1X	Work hardened
H2X	Work hardened and partially annealed
H3X	Work hardened and stabilized by low-temperature treatment
H4X	Work hardened and stoved
HX2	Quarter-hard – degree of working
HX4	Half-hard – degree of working
HX6	Three-quarter hard – degree of working
HX8	Full-hard – degree of working
HX9	Extra hard

Temper codes for plate

Suffix	Description
H112	Some tempering from shaping limited strain-hardening or thermal treatment.
H321	Strain hardened to an amount less than required for a controlled H32 temper
H323	H32 has been hardened to provide acceptable resistance to stress corrosion cracking
H343	H34 has been hardened to provide acceptable resistance to stress corrosion cracking.
H115	Armour plate.
H116	Special corrosion-resistant temper.

Anodising in Detail

Anodising is an electrolytic treatment for aluminium that produces a controlled coating of aluminium oxide. This becomes an integral part of the surface unlike paint or plating, making it fully integrated with the underlying aluminium substrate, so it cannot chip or peel. It has a highly ordered, porous structure which, when sealed correctly gives excellent corrosion resistance and an aesthetically pleasing finish.

In addition to “natural” anodising (the satin silver finish), we offer electrolytic colour anodising - this involves an additional process to add tin to the anodic layer giving the aluminium a range of shades from light bronze to black.

Anodic Thickness

We follow the ISO 7599 standard AA designations to specify coating thickness: AA5, AA10, AA15, AA20, AA25 to establish minimum micron thickness. As a standard we offer AA25 (25µm) - this is considered marine grade and is hard wearing with a lifespan in a marine environment in excess of 20 years. More specific guarantees and testing are available on request.

Sealing and Corrosion Resistance

Anodic films are naturally porous and must be sealed to offer corrosion resistance. We use a cold sealing (nickel fluoride) process which is the most energy efficient method available. Once sealed, aluminium shows high corrosion resistance in aggressive environments and, unlike mill finish or polished aluminium, it does not tarnish provided maintenance procedure are followed as anodising will be vulnerable to concentrated alkalis and acids.



The unique look of anodised material refracts light - this can make the same shade of material look different if viewed at different angles.



It is important to understand that production tolerances are inevitable with colour finishes. Therefore upper/lower limits should be discussed with our sales team prior to specification.

General Considerations

Welding

We rarely anodise pre-welded aluminium or material destined for welding. This is due to many factors, the welding rod is usually of a different alloy, and so the anodic layer will be of a different shade, the heat involved in welding also affects the surrounding material. Welding affects the conductivity of the material and welds are porous, absorbing acid from the tanks and damaging its integrity.

Forming & Bending

Once the material is anodised or powder coated it is not recommended that additional forming, is undertaken to avoid crazing to the sealed film. Therefore, any intensive fabrication (such as bending & folding) should generally be completed before anodising/ powder coating. Our staff can advise you further.

Anodising Lead Times

Natural anodising from our stock takes around three working days, we do not keep anodised material in stock unless by prior arrangement with our customers.

Fabrication Lead Times

Our fabrication department has a varied schedule. At the point of sale, we will give you an accurate lead time based on our current workload. For regular requirements, we suggest entering into a stocking arrangement of your finished parts to avoid the current lead time at the point of order. This method of ordering can also help us offer the most competitive price options.

Freight

Aluminium in the alloys supplied has a weight of 2.70g/cm^3 , appropriate packing adds to this depending on the size of the order and what packaging is required for the destination.



Recycling and accountability

The ethos of Spa Aluminium is to evaluate the environmental impact of every process and product we supply. We recycle all waste aluminium and work hard to reduce our company's carbon footprint.



Aluminium
Stockholders
Association

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Tunbridge Wells
Kent, TN2 3EG.



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