

## WE PROVIDE:

- Standard / exclusive extrusions
  - Product sourcing
- Cutting plate / extrusion to size
  - Repetitive cutting
    - Drilling
- Handy man pieces
  - Delivery
- Open Saturdays



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## TEMPER DEFINITIONS

- T1 Air-cooled from the extrusion temperature and naturally aged to a substantially stable condition.
- T3 Solution heat-treated and cold worked to improve strength.
- T4 Solution heat-treated and naturally aged to a substantially stable condition. These products are normally water quenched at the press or separately solution heat-treated in a salt bath.
- T5 Air cooled from the extrusion temperature and artificially aged to improve mechanical properties.
- T591 A variation of the T5 temper designed to combine good bending properties with strength intermediate between T1 & T5.
- T593 The air quenched and aged temper for Alloy 7005.
- T595 A forming quality temper of 6060, capable of being flared, flattened or bent, yet giving a reasonable level of typical Mechanical Properties.
- T6 Solution heat-treated and artificially aged.
- T61-T64 Variations of the T6 temper giving controlled combinations of mechanical properties and electrical conductivity in Alloy 6101.
- T9 Solution heat-treated, artificially aged and then cold drawn.

## ALLOY USES AND CHARACTERISTICS

### CHARACTERISTICS

Alloy	Typical Application	Corrosion Resistance	Machining	Anodising	Forming	Welding	Heat Treatable
2011	Commercial machining alloy. Used as feed stock for machining.	D	A	D	C	D	Yes
5083	High Strength alloy used in transport, marine and general applications where welding is of major importance.	A	C	C	B	A	Yes
6060 and 6063	The most commonly used extrusion alloy. Used for all architectural applications, light duty structural framework. Can also be chemically brightened for modules and trims.	A	C	A	A	A	Yes
6061	A structural alloy used where strength and corrosion resistance are required.	A	B	C	B	A	Yes
6101	Combines strength and high electrical conductivity.	A	B	A	A	A	Yes
6106	A medium strength alloy. Used for Architectural applications where additional strength is required and for structural applications not involving welding.	A	C	A	B	A	Yes
6262	Commercial machining alloy combines machinability with good anodizing characteristics. Used for hollow machining feed stock.	A	A	B	C	A	Yes
6351	Medium strength structural alloy, used where strength and corrosion resistance are required.	A	B	B	A	A	Yes
7005	A high strength structural alloy suitable for large & complex extrusions; eg. Load bearing members in road and rail vehicles.		C			A	Yes

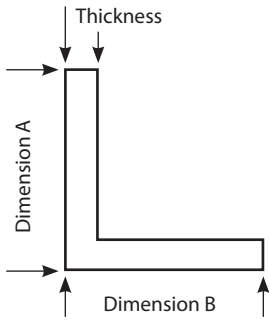
FOOTNOTE: Relative ratings in decreasing order of merit = ABCD (A where most applicable).

## ALLOY USES AND CHARACTERISTICS

### CHARACTERISTICS

Alloy	Typical Application	Corrosion Resistance	Machining	Anodising	Forming	Welding	Heat Treatable
1200	Commercial pure aluminium. Uses include cooking utensils, packing containers, building components (not stressed) and domestic appliances. Deep drawing quality available.	A	D	B	A	B	
5005	A stronger alloy than 1200. This is the general purpose alloy most suitable for a wide range of sheet metal applications. Suitable for welding.	A	D	B	A	B	
5083	Used in high strength structural applications principally in the form of sheet and plate for welded marine applications and road transport vehicles.	A	C	C	A	B	
5251 And 5052	A medium strength alloy with reasonable ductility-work hardens rapidly. Very suitable for welding with a high corrosion resistance, particularly in marine atmospheres. Uses include boats, paneling and pressings for transport, boxes and containers. Suitable for applications specifying 5052.	A	C	C	A	B	

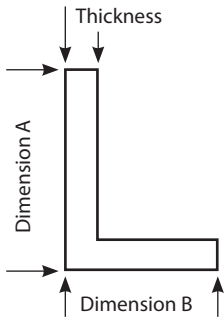
FOOTNOTE: Relative ratings in decreasing order of merit = ABCD (A where most applicable).



## ANGLE - EVEN LEG

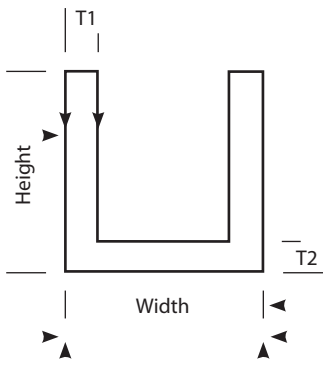
Description	Dimension 'A'	Dimension 'B'	Thickness	Length
12 x 12 x 1.6	12	12	1.6	6000
15 x 15 x 1.6	15	15	1.6	6000
16 x 16 x 1.6	16	16	1.6	6500
20 x 20 x 1.6	20	20	1.6	6500
25 x 25 x 1.6	25	25	1.6	6500
40 x 40 x 1.6	40	40	1.6	6500
50 x 50 x 1.6	50	50	1.6	6500
12 x 12 x 3	12	12	3	6500
16 x 16 x 3	16	16	3	6500
20 x 20 x 3	20	20	3	6500
25 x 25 x 3	25	25	3	6500
32 x 32 x 3	32	32	3	6500
40 x 40 x 3	40	40	3	6500
50 x 50 x 3	50	50	3	6500
40 x 40 x 6	40	40	6	6500
50 x 50 x 6	50	50	6	6500
80 x 80 x 6	80	80	6	6000
100 x 100 x 6	100	100	6	6500
76.2 x 76.2 x 6.35	76.2	76.2	6.35	6500
63.5 x 63.5 x 6.5	63.5	63.5	6.5	6500
80 x 80 x 10	80	80	10	6500
100 x 100 x 10	100	100	10	6500





### ANGLE - UNEVEN LEG

Description	Dimension 'A'	Dimension 'B'	Thickness	Length
20 x 12 x 1.6	20	12	1.6	6000
25 x 12 x 1.6	25	12	1.6	6500
25 x 20 x 1.6	25	20	1.6	6500
32 x 20 x 1.6	32	20	1.6	6500
40 x 12 x 1.6	40	12	1.6	6500
40 x 20 x 1.6	40	20	1.6	6500
40 x 25 x 1.6	40	25	1.6	6500
50 x 25 x 1.6	50	25	1.6	6500
60 x 20 x 1.6	60	20	1.6	6500
70 x 20 x 1.6	70	20	1.6	6500
70 x 25 x 1.6	70	25	1.6	6500
70 x 40 x 1.6	70	40	1.6	6500
70 x 25 x 1.6	70	25	1.6	6500
20 x 12 x 3	20	12	3	6500
25 x 20 x 3	25	20	3	6500
32 x 20 x 3	32	20	3	6500
32 x 25 x 3	32	25	3	6500
40 x 12 x 3	40	12	3	6000
40 x 20 x 3	40	20	3	6500
40 x 25 x 3	40	25	3	6500
50 x 25 x 3	50	25	3	6500
60 x 25 x 3	60	25	3	6500
80 x 20 x 3	80	20	3	6000
125 x 50 x 3	125	50	3	6500
100 x 50 x 3	100	50	3	6500
80 x 40 x 6	80	40	6	6500
100 x 50 x 6	100	50	6	6500
76.2 x 50.8 x 6.35	76.2	50.8	6.35	5500
101.6 x 50.8 x 6.35	101.6	50.8	6.35	5500



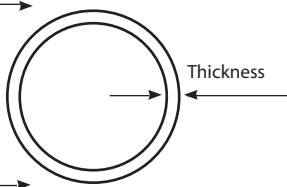
### CHANNEL - EVEN LEG

DESCRIPTION	WIDTH	HEIGHT	THICKNESS	LENGTH
10 x 10 x 1.6	10	10	1.6	6500
12 x 12 x 1.6	12	12	1.6	6500
16 x 16 x 1.6	16	16	1.6	6500
20 x 20 x 1.6	20	20	1.6	6000
25 x 25 x 1.6	25	25	1.6	6500
20 x 20 x 3	20	20	3	6500
25 x 25 x 3	25	25	3	6500
50 x 50 x 3	50	50	3	6500

### CHANNEL - UNEVEN LEG

DESCRIPTION	WIDTH	HEIGHT	THICKNESS	LENGTH
28 x 15 x 1.4	28	15	1.4	4200
25.4 x 15.88 x 1.58	25.4	15.88	1.58	4200
20 x 16 x 1.6	20	16	1.6	6000
25 x 20 x 1.6	20	25	1.6	6500
28 x 25 x 1.6	28	25	1.6	4200
25 x 20 x 2.5	25	20	2.5	6500
25 x 12 x 3	25	12	3	6000
25 x 40 x 3	25	40	3	6500
32 x 25 x 3	25	40	3	6500
40 x 20 x 3	40	20	3	6500
40 x 25 x 3	40	25	3	6500
50 x 25 x 3	50	25	3	6000
60 x 32 x 3	60	32	3	6500
80 x 25 x 3	80	25	3	6500
80 x 40 x 3	80	40	3	6500
100 x 25 x 3	100	25	3	6000
100 x 50 x 3	100	50	3	6500
100 x 45 x 4.8	100	45	4.8	6500
150 x 75 x 5	150	75	5	6500
127 x 63.5 x 6.35	127	63.5	6.35	5500
76.2 x 38.1 x 7.92	76.2	38.1	7.92	5500
101.6 x 50.8 x 7.92	101.6	50.8	7.92	5500

Diameter

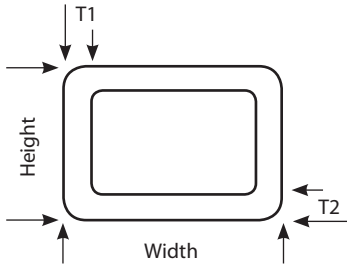


## ROUNDTUBE

DESCRIPTION	DIAMETER	THICKNESS	LENGTH
6.35 x 0.91	6.35	0.91	4000
12 x 1	12	1	6500
16 x 1.2	16	1.2	6500
19 x 1.2	19	1.2	6500
25 x 1.2	25	1.2	6500
10 x 1.6	10	1.6	6000
12 x 1.6	12	1.6	6500
16 x 1.6	16	1.6	6000
19 x 1.6	19	1.6	6000
20 x 1.6	20	1.6	6500
25 x 1.6	25	1.6	6500
25.4 x 1.6	25.4	1.6	6000
28 x 1.6	28	1.6	6500
32 x 1.6	32	1.6	6500
44 x 1.6	44	1.6	6500
48 x 1.6	48	1.6	6000
50 x 1.6	50	1.6	6500
63.5 x 1.6	63.5	1.6	6500
101 x 1.6	101	1.6	6500
20 x 2	20	2	6500
40 x 2	40	2	6500
50 x 2	50	2	6500
60 x 2	60	2	6500
80 x 2	80	2	6500
152 x 2.4	152	2.4	6500
20 x 3	20	3	6500
25 x 3	25	3	6000
32 x 3	32	3	6000
38 x 3	38	3	6000
40 x 3	40	3	6500
44 x 3	44	3	6500
50 x 3	50	3	6500
60 x 3	60	3	6500
80 x 3	80	3	6500
100 x 3	100	3	6500
38.1 x 3.2	38.1	3.2	6500
63.5 x 3.25	63.5	3.25	6500
48.4 x 4.47	48.4	4.47	6500
48.4 x 4.7	48.4	4.7	6100
69.85 x 4.95	69.85	4.95	6000
63.35 x 6.35	63.35	6.35	6500

Please check with our office for current stock and other sizes which may not be listed.

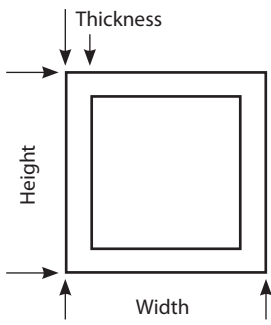
Alloy for stock items is 6060 unless specified differently.



## RECTANGULAR HOLLOW SQUARE

DESCRIPTION	WIDTH	HEIGHT	THICKNESS	LENGTH
38.1 x 25.4 x 1.5	38.1	25.4	1.5	6000
38 x 19 x 1.6	38	19	1.6	6100
50 x 10 x 1.6	50	10	1.6	6000
50 x 25 x 1.6	50	25	1.6	6500
100 x 50 x 1.6	100	50	1.6	6100
38 x 25 x 2	38	25	2	6500
101.6 x 76.2 x 2.29	101.6	76.2	2.29	6100
76.2 x 25.4 x 2.4	76.2	25.4	2.4	6500
50 x 25 x 2.5	50	25	2.5	6500
100 x 25 x 2.5	100	25	2.5	6000
40 x 25 x 3	40	25	3	6500
50 x 25 x 3	50	25	3	6000
60 x 40 x 3	60	40	3	6500
80 x 40 x 3	80	40	3	6500
80 x 50 x 3	80	50	3	6500
100 x 50 x 3	100	50	3	6100
125 x 40 x 3	125	40	3	6500
150 x 50 x 3	150	50	3	6100
200 x 50 x 3	200	50	3	6500
38.1 x 17.45 x 3.18	38.1	17.45	3.18	6500
38.1 x 25.4 x 3.18	38.1	25.4	3.2	6000
76.2 x 38.1 x 3.2	76.2	38.1	3.2	6500

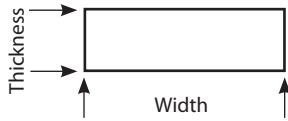
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**SQUARE BOX**

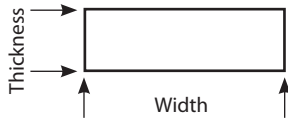
DESCRIPTION	HEIGHT	WIDTH	THICKNESS	LENGTH
20 x 1.2	20	20	1.2	6000
25.4 x 1.22	25.4	25.4	1.22	6000
12 x 1.6	12	12	1.6	6500
16 x 1.6	16	16	1.6	6500
20 x 1.6	20	20	1.6	6500
25 x 1.6	25	25	1.6	6500
32 x 1.6	32	32	1.6	6500
38 x 1.6	38	38	1.6	6500
40 x 1.6	40	40	1.6	6000
50 x 1.6	50	50	1.6	6500
45 x 1.8	45	45	1.8	5500
65.5 x 1.8	65.5	65.5	1.8	5500
19.05 x 1.83	19.05	19.05	1.83	6000
25 x 2	25	25	2	6000
38 x 2	38	38	2	6500
40 x 2	40	40	2	6500
50 x 2	50	50	2	6500
60 x 2.5	60	60	2.5	6500
20 x 3	20	20	3	6500
25 x 3	25	25	3	6000
32 x 3	32	32	3	6500
38 x 3	38	38	3	6500
39 x 3	39	39	3	6500
40 x 3	40	40	3	6000
50 x 3	50	50	3	6500
75 x 3	75	75	3	6500
31.75 x 3.2	31.75	31.75	3.2	6000
100 x 3.2	100	100	3.2	6500
45 x 4.8	45	45	4.8	6500
140 x 6	140	140	6	6500

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## FLAT BAR

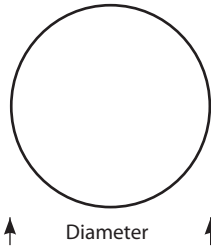
DESCRIPTION	WIDTH	THICKNESS	LENGTH
100 x 1.5	100	1.5	3600
20 x 1.6	20	1.6	4000
25 x 1.6	25	1.6	4000
35 x 1.6	35	1.6	4000
100 x 2	100	2	4000
10 x 3	10	3	4000
12 x 3	12	3	4000
16 x 3	16	3	4000
20 x 3	20	3	4000
25 x 3	25	3	4000
32 x 3	32	3	4000
40 x 3	40	3	4000
50 x 3	50	3	4000
60 x 3	60	3	4000
80 x 3	80	3	4000
100 x 3	100	3	4000
12 x 4	12	4	4000
20 x 4	20	4	4000
25 x 4	25	4	4000
40 x 4	40	4	4000
50 x 4	50	4	4000
100 x 4	100	4	4000



## FLAT BAR

DESCRIPTION	WIDTH	THICKNESS	LENGTH
12 x 6	12	6	4000
20 x 6	20	6	4000
25 x 6	25	6	4000
32 x 6	32	6	4000
40 x 6	40	6	4000
50 x 6	50	6	4000
60 x 6	60	6	4000
80 x 6	80	6	4000
100 x 6	100	6	4000
160 x 6	160	6	4000
50 x 8	50	8	4000
25 x 10	25	10	4000
32 x 10	32	10	4000
40 x 10	40	10	4000
50 x 10	50	10	4000
60 x 10	60	10	4000
80 x 10	80	10	4000
100 x 10	100	10	4000
160 x 10	160	10	4000
25 x 12	25	12	4000
50 x 12	50	12	4000
100 x 12	100	12	4000
160 x 12	160	12	4000
80 x 16	80	16	4000
50 x 20	50	20	4000
50 x 25	50	25	4000
100 x 25	100	25	4000

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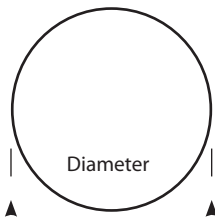


## MACHINING ROD

DESCRIPTION	DIAMETER	GRADE	LENGTH	WEIGHT
Rod/Round Bar	6mm	2011-T6	3.6m	0.298kg
Rod/Round Bar	9mm	2011-T3	3.6m	0.63507kg
Rod/Round Bar	10mm	2011-T3	3.6m	0.767kg
Rod/Round Bar	10mm	6262-T9	3.6m	.640kg
Rod/Round Bar	12mm	6061-T6	3.6m	1.15kg
Rod/Round Bar	12mm	6262-T9	3.6m	.922kg
Rod/Round Bar	12mm	2011-T3	3.6m	1.16kg
Rod/Round Bar	16mm	2011-T3	3.6m	1.962kg
Rod/Round Bar	16mm	6061-T651	3.6m	1.967kg
Rod/Round Bar	16mm	6262-T9	3.6m	1.97kg
Rod/Round Bar	20mm	2011-T3	3.6m	3.064kg
Rod/Round Bar	20mm	6061-T6	3.55m	15.20kg
Rod/Round Bar	20mm	6262-T6	3.0m	2.609kg
Rod/Round Bar	25.4mm	6061-T6	3.6m	4.995kg
Rod/Round Bar	25.4mm	2011-T3	3.6m	5.21kg
Rod/Round Bar	30mm	2011-T3	3.0m	6.00kg
Rod/Round Bar	36mm	2011-T3	3.6m	10.42kg
Rod/Round Bar	36mm	6262-T9	3.6m	10.07kg
Rod/Round Bar	39mm	2011-T6	3.6m	12.42kg
Rod/Round Bar	39mm	6061	3.6m	11.52kg
Rod/Round Bar	40mm	2011-T3	3.6m	13.04kg
Rod/Round Bar	40mm	6061	3.6m	12.35kg
Rod/Round Bar	40mm	6262-T9	3.6m	12.5kg
Rod/Round Bar	45mm	2011-T3	3.6m	15.891kg
Rod/Round Bar	45mm	6061-T6	3.6m	15.6kg
Rod/Round Bar	45mm	6262-T9	3.6m	15.67kg
Rod/Round Bar	50mm	2011-T6	3.6m	13.95kg
Rod/Round Bar	50mm	2011-T3	3.6m	19.6kg
Rod/Round Bar	50mm	6061-T6	3.6m	19.45kg
Rod/Round Bar	50mm	6262-T9	3.6m	19.3kg

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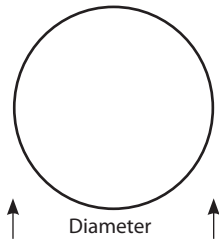


## MACHINING ROD

DESCRIPTION	DIAMETER	GRADE	LENGTH	WEIGHT
Rod/Round Bar	55mm	2011-T3	3.6m	23.7172kg
Rod/Round Bar	55mm	6061-T6	3.6m	22.86kg
Rod/Round Bar	55mm	6262-T6	3.6m	23.2kg
Rod/Round Bar	60mm	2011-T3	3.6m	28.2254kg
Rod/Round Bar	60mm	2011-T6	3.6m	28.3kg
Rod/Round Bar	60mm	6061-T651	3.6m	27.89kg
Rod/Round Bar	60mm	6262-T6	3.6m	27.9kg
Rod/Round Bar	65mm	2011-T6	3.6m	33.65kg
Rod/Round Bar	65mm	6061-T651	3.6m	32.22kg
Rod/Round Bar	65mm	6262-T6	3.0m	32.6kg
Rod/Round Bar	65mm	7075-T6	3.6m	33.454kg
Rod/Round Bar	70mm	2011-T6	3.6m	39.44kg
Rod/Round Bar	70mm	6061-T6	3.6m	37.7kg
Rod/Round Bar	75mm	2011-T6	1.8m	22.67kg
Rod/Round Bar	75mm	6061-T6	3.6m	43.216kg
Rod/Round Bar	75mm	6262-T6	3.6m	43.216kg
Rod/Round Bar	80mm	2011-T6	3.6m	49.2kg
Rod/Round Bar	80mm	6061-T6	3.6m	49.2kg
Rod/Round Bar	80mm	6082-T6	3m	42.9kg
Rod/Round Bar	80mm	6262-T6	1.8m	24.6kg
Rod/Round Bar	85mm	2011-T6	1.8m	28.9kg
Rod/Round Bar	85mm	6061-T6	1.8m	27.5kg
Rod/Round Bar	90mm	2011-T6	1.8m	32.63kg
Rod/Round Bar	90mm	6061-T651	3.0m	62.23kg
Rod/Round Bar	90mm	6262-T6	3.6m	62.9kg
Rod/Round Bar	100mm	2011-T3	1.8m	40.35kg
Rod/Round Bar	100mm	6061-T6	1.8m	38.5kg
Rod/Round Bar	100mm	6262-T6	3.0m	64.17kg
Rod/Round Bar	110mm	2011-T6	1.8m	49.09kg
Rod/Round Bar	110mm	6061-T651	3.6m	92.8kg
Rod/Round Bar	110mm	6262-T6	3.6m	

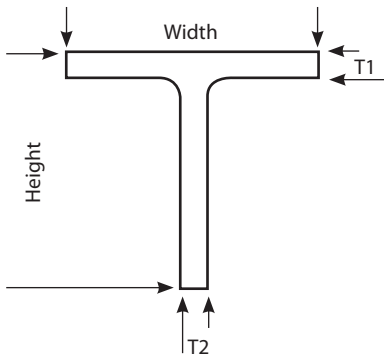
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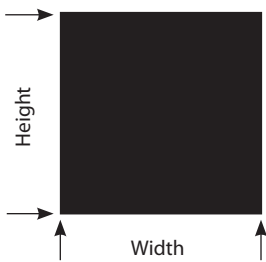
## MACHINING ROD

DESCRIPTION	DIAMETER	GRADE	LENGTH	WEIGHT
Rod/Round Bar	120mm	2011-T6	1.8m	58.44kg
Rod/Round Bar	120mm	6061-T6	3.6m	111.24kg
Rod/Round Bar	120mm	6262-T6	3.6m	111.70kg
Rod/Round Bar	130mm	2011-T6	1.8m	68kg
Rod/Round Bar	130mm	6061-T651	3.6m	130.5kg
Rod/Round Bar	130mm	6262-T6	3.6m	132kg
Rod/Round Bar	140mm	6061-T6	1.8m	75.5kg
Rod/Round Bar	150mm	6061-T6	1.8m	86.45kg
Rod/Round Bar	160mm	2011-T65	1.8m	103kg
Rod/Round Bar	160mm	6061-T6	1.8m	98.35kg
Rod/Round Bar	160mm	6262-T6	2.6m	143kg
Rod/Round Bar	170mm	6061-T6	1.8m	111.02kg
Rod/Round Bar	180mm	6061-T6	1.8m	124.4kg
Rod/Round Bar	200mm	2011-T6	1.520m	134kg
Rod/Round Bar	200mm	6061-T6	1.2m	102.45kg
Rod/Round Bar	230mm	6061-T6	1.8m	205kg



### TEE SECTION

DESCRIPTION	HEIGHT	WIDTH	THICKNESS	LENGTH
20 x 20 x 1.6	20	20	1.6	4000
25 x 25 x 1.6	25	25	1.6	6500
40 x 20 x 1.6	40	20	1.6	6500
40 x 40 x 1.6	40	40	1.6	6000
20 x 20 x 3	20	20	3	4000
25 x 25 x 3	25	25	3	4000
40 x 40 x 3	40	40	3	4000
50 x 50 x 3	50	50	3	6500



### SOLID SQUARE

DESCRIPTION	HEIGHT	WIDTH	LENGTH
6 x 6	6	6	4000
10 x 10	10	10	4000
12 x 12	12	12	4000
20 x 20	20	20	4000
25 x 25	25	25	4000
40 x 40	40	40	4000
50 x 50	50	50	4000
65 x 65	65	65	4000

Please check with our office for current stock and other sizes which may not be listed.  
Alloy for stock items is 6060 unless specified differently.

## SHEET/PLATE

### ALUMINIUM 5005

Aluminium alloy 5005 contains nominally 0.8% magnesium. It has medium strength, good weldability, and good corrosion resistance in marine atmospheres. It also has the low density and excellent thermal conductivity common to all aluminium alloys. It is the most commonly used grade of aluminium in sheet and plate form.

#### Typical Applications

Architectural applications, general sheet metal work, high strength foil.

Element	%	Element	%
Aluminium	Balance	Manganese	0.20 max
Magnesium	0.50 – 1.10	Chromium	0.10 max
Silicon	0.30 max	Zinc	0.25 max
Iron	0.07 max	Others, each	0.05 max
Copper	0.20 max	Others, total	0.15 max

#### Description

Aluminium 5005 is a lean aluminium magnesium alloy which can be hardened by cold work: it is not heat treatable to higher strength.

#### Corrosion Resistance

5005 has the same high resistance to general corrosion as other non heat treatable aluminium alloys. It also has the higher resistance to slightly alkaline conditions common to the 5000 series alloys. Since aluminium is a reactive metal, it may corrode more quickly when in electrical contact with most other metals.

#### Fabrication

Aluminium 5005 is not generally hot worked. It is readily cold formable in the annealed condition, as it is relatively soft and ductile alloy. Forming loads and tool & press wear are generally less than with carbon steel.

#### Machinability

5005 is readily machinable by conventional methods. It should be machined at high speed with copious lubrication to avoid thermal distortion of the work piece. Sharp tools are essential. High speed steel or tungsten carbide may be used. Cuts should be deep and continuous, with high cutting speeds.

#### Welding

5005 is readily weldable by standard techniques. It is frequently welded with GTAW (TIG) or GMAW (MIG). Aluminium must be very dry and clean to avoid contamination and porosity of the weld. Filler metal used is usually 4043. 5556 or 5005 may also be used. Shielding gas must be dry & free of hydrogen.

#### Heat Treatment

Aluminium 5005 is annealed at 345 degrees C, time and temperature and cooling rate are unimportant. Stress relief is rarely required, but can be carried out at about 220 degrees C. If loss of strength is of concern, stress relief tests should be conducted.

## SHEET/PLATE

### ALUMINIUM 5052

Aluminium alloy 5052 contains nominally 2.5% magnesium & 0.25% chromium. It has good workability, medium static strength, high fatigue strength, good weldability and a very good corrosion resistance, especially in marine atmospheres. It also has the low density and excellent thermal conductivity common to all aluminium alloys. It is commonly used in sheet, plate & tube form.

#### Typical Applications

Architecture, general sheet metal work, heat exchangers. Boat, dinghies & other applications requiring resistance to marine corrosion.

Element	%	Element	%
Aluminium	Balance	Manganese	0.10 max
Magnesium	2.2 – 2.8	Chromium	0.15 – 0.35
Silicon	0.25 max	Zinc	0.10 max
Iron	0.40 max	Others, each	0.05 max
Copper	0.10 max	Others, total	0.15 max

#### Description

Aluminium 5052 is an aluminium magnesium alloy which can be hardened by cold work: it is not heat treatable to higher strength. It is about mid way through the series of aluminium magnesium alloys for alloying content and strength.

#### Corrosion Resistance

5052 has the same high resistance to general corrosion as other non heat treatable aluminium alloys. It also has the higher resistance to slightly alkaline conditions common to the 5000 series alloys. The resistance of 5052 to corrosion in marine atmospheres is excellent, exceeding that of 5005, hence the frequent use of 5053 in marine applications.

#### Fabrication

Aluminium 5052 is not generally hot worked. It is very readily cold formable in the annealed condition, as it is ductile. Forming loads and tool & press wear are generally less than with carbon steel. For piercing and blanking the punch to die clearance should be about 7% of the thickness per side for the H32 & H34 tempers. Sharp tools are required.

#### Machinability

5052 is readily machinable by conventional methods. It should be machined at high speed with copious lubrication to avoid thermal distortion of the workpiece. Sharp tools are essential. High speed steel or tungsten carbide may be used. Cuts should be deep and continuous, with high cutting speeds.

#### Welding

5052 is readily weldable by standard techniques. It is frequently welded with GTAW (TIG) or GMAW (MIG). Aluminium must be very dry and clean to avoid contamination and porosity of the weld. Filler metal used is 5356 when welding 5052 to itself, 6xxx series alloys, 7xxx series alloys and most other 5xxx alloys. When welding alloy 5052 to 5005, 5020, 1xxx series or 3xxx series alloys, the recommended filler wire is 4043. Shielding gas must be dry and free of hydrogen.

#### Heat Treatment

Aluminium 5052 is annealed at 345 degrees C, time and temperature and cooling rate are unimportant. Stress relief is rarely required, but can be carried out at about 220 degrees C. If loss of strength is of concern, stress relief tests should be conducted.

Please check with our office for current stock and other sizes which may not be listed.  
 Alloy for stock items is 6060 unless specified differently.

## SHEET/PLATE

### ALUMINIUM 5083

Aluminium alloy 5083 contains nominally 4.5% magnesium, 0.7% manganese and 0.1% chromium. In the tempered condition, it is strong, and retains good formability due to excellent ductility. 5083 has high resistance to corrosion and is used in marine applications. It has the low density and excellent thermal conductivity common to all aluminium alloys.

#### Typical Applications

Requires a weldable alloy of high to moderate strength, with good corrosion resistance. Marine applications, unfired welded pressure vessels, TV towers, drilling rigs, transportation equipment, armour plate.

Marine, pressure vessels, cryogenics and structure. Not to be used above 65 degrees C.

Element	%	Element	%
Aluminium	Remainder	Manganese	0.40 – 1.0
Magnesium	4.0 – 4.9	Chromium	0.05 – 0.25
Silicon	0.40 max	Others, each	0.05 max
Iron	0.40 max	Others, total	0.15 max
Copper	0.10 max		

#### Description

Aluminium 5083 is a strong magnesium-manganese-chromium-aluminium alloy. It can be hardened by cold work, but is not heat treatable to higher strength. It has good ductility for the strength level, better than most other 5xxx series alloys.

#### Corrosion Resistance

Alloy 5083 has excellent resistance to general corrosion, and is used in marine applications. Resistance is excellent in aqueous solutions in the pH range 4 – 9. Alloy 5083 can be anodized to improve the corrosion resistance by thickening the protective surface film.

#### Fabrication

Aluminium 5083 is readily cold formable, as it is ductile. Forming loads and tool & press wear are generally less than with carbon steel.

#### Welding

Alloy 5083 is readily welded by the TIG and MIG processes. Welding the H116 temper will reduce the tensile and yield strengths in the heat affected zone to those of the annealed condition. Aluminium must be very dry & clean to avoid contamination and porosity of the weld. It is essential that all traces of flux used in welding or brazing are removed by scrubbing with hot water. When welding 5083 to itself or another 5xxx alloy the recommended filler metal is 5356. Other suitable fillers are 5183 and 5556.

#### Heat Treatment

Aluminium 5083 is annealed at 345 degrees C, time and temperature and cooling rate are unimportant. Stress relief is rarely required, but can be carried out at about 220 degrees C. If loss of strength is of concern, stress relief tests should be conducted.

## SHEET / PLATE

DESCRIPTION	FINISH	5005	5052	5251	5083
0.5 x 900 x 1800	Mill	•			
0.6 x 900 x 1800	Mill	•			
0.6 x 1200 x 2400	Mill	•			
0.8 x 900 x 1800	Mill	•	•		
0.8 x 1200 x 2400	Mill	•			
1 x 900 x 1800	Mill	•			
1 x 1200 x 2400	Mill	•	•		
1.2 x 900 x 1800	Mill	•			
1.2 x 1200 x 2400	Mill	•	•		
1.2 x 120 x 3000	Mill	•			
1.2 x 1200 x 3600	Mill	•			
1.6 x 900 x 1800	Mill	•			
1.6 x 900 x 2400	Mill	•			
1.6 x 1200 x 2400	Mill	•	•		
1.6 x 1200 x 3000	Mill	•			
1.6 x 1200 x 3600	Mill	•			
1.6 x 1500 x 3000	Mill	•			
1.6 x 1500 x 3600	Mill	•			
2 x 900 x 1800	Mill	•			
2 x 1200 x 1800	Mill	•			
2 x 1200 x 2400	Mill	•	•		
2 x 1200 x 3000	Mill	•			
2 x 1200 x 3600	Mill	•			
2 x 1200 x 6000	Mill	•			
2 x 1500 x 2400	Mill	•	•		
2 x 1500 x 3000	Mill	•			
2 x 1500 x 3600	Mill	•			

Please check with our office for current stock and other sizes which may not be listed.  
 Alloy for stock items is 6060 unless specified differently.

## SHEET / PLATE

DESCRIPTION	FINISH	5005	5052	5251	5083
2.5 x 900 x 1800	Mill	.			
2.5 x 1200 x 1800	Mill	.			
2.5 x 1200 x 2400	Mill	.	.	.	
2.5 x 1200 x 3000	Mill	.	.		
2.5 x 1500 x 2400	Mill	.	.		
2.5 x 1500 x 3000	Mill	.	.		
2.5 x 1500 x 3000		.			
3 x 900 x 1800	Mill	.			
3 x 900 x 2400	Mill	.	.		
3 x 1200 x 1800		.			
3 x 1200 x 2400	Mill	.	.		.
3 x 1200 x 3000	Mill	.			
3 x 1200 x 3600	Mill	.			
3 x 1500 x 2400	Mill	.	.		
3 x 1500 x 3000	Mill	.			
3 x 1500 x 3600	Mill	.			
3 x 1525 x 6100	Mill				.
4 x 1200 x 2400	Mill	.			.
4 x 1525 x 6100	Mill				.
5 x 1200 x 2400	Mill	.			.
5 x 1525 x 6100	Mill				.
6 x 1200 x 2400	Mill	.			.
6 x 1525 x 6100	Mill				.
8 x 1200 x 2400	Mill				.
10 x 1200 x 2400	Mill				.
12 x 1200 x 2400	Mill				.

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 Alloy for stock items is 6060 unless specified differently.



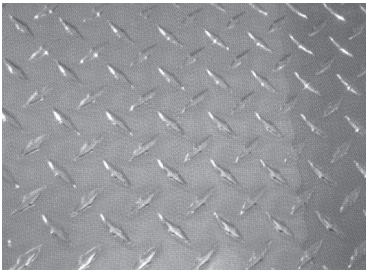
## ANODISED SHEET

DESCRIPTION	FINISH	ALLOY
1 x 1200 x 2400	Clear 15UM An. 1 Side	5005
1.2 x 1200 x 2400	Clear 15UM An. 1 Side	5005
1.2 x 1200 x 3000	Clear 15UM An. 1 Side	5005
1.2 x 1200 x 3600	Clear 15UM An. 1 Side	5005
1.6 x 1200 x 2400	Clear 15UM An. 1 Side	5005
1.6 x 1200 x 3000	Clear 15UM An. 1 Side	5005
1.6 x 1200 x 3660	Clear 15UM An. 1 Side	5005
3 x 1200 x 2400	Clear 15UM An. 1 Side	5005
3 x 1200 x 3050	Clear 15UM An. 1 Side	5005
3 x 1200 x 3660	Clear 15UM An. 1 Side	5005

## COIL

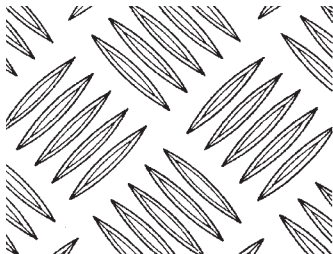
DESCRIPTION	FINISH	5005-H34	5052-H32
0.55 x 1220	Violet Tone White	•	
0.6 x 900	Mill	•	
0.6 x 1200	Mill	•	
0.8 x 2525	Mill		
1.2 x 1200	Mill	•	•
1.6 x 900	Mill	•	
1.6 x 1200	Mill	•	•
2 x 900	Mill	•	
2 x 1200	Mill	•	•
2 x 1500	Mill	•	
2.5 x 900	Mill	•	
2.5 x 1200	Mill	•	
3 x 900	Mill	•	•
3 x 1200	Mill	•	•

Please check with our office for current stock and other sizes which may not be listed.  
 Alloy for stock items is 6060 unless specified differently.



### PROPELLAR PLATE

DESCRIPTION	FINISH	5052
1.6 x 1219 x 2438	Four Bar	•
2.28 x 1219 x 2438	Four Bar	•
3.18 x 1219 x 2438	Four Bar	•
4.76 x 1219 x 2438	Four Bar	•



### TREAD PLATE

DESCRIPTION	FINISH	5052	5251
1.6 x 1200 x 2400	Five Bar	•	•
2 x 1200 x 2400	Five Bar	•	
2.5 x 1200 x 2400	Five Bar	•	•
2.5 x 1200 x 3600	Five Bar	•	
3 x 1200 x 2400	Five Bar	•	•
3 x 1200 x 3600	Five Bar	•	
3 x 1500 x 2400	Five Bar	•	•
3 x 1500 x 3000	Five Bar	•	•
5 x 1200 x 2400	Five Bar	•	•
5 x 1200 x 3600	Five Bar	•	•
5 x 1500 x 2400	Five Bar	•	•
6 x 1200 x 2400	Five Bar		•

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 Alloy for stock items is 6060 unless specified differently.

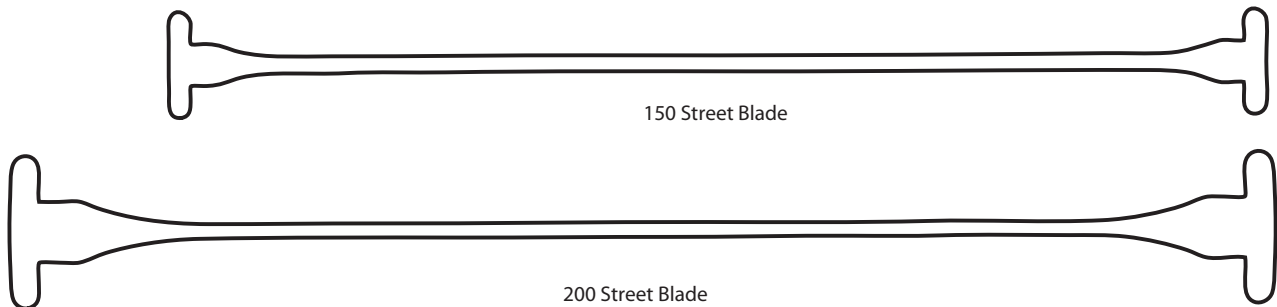
## STREET SECTIONS

We specialize in a number of different street sections from street blade to road sign brackets which can be cut and drilled to any specifications.

Street blade sections can be sold as whole lengths or cut and drilled to the measurements you require upon request.

This is the same for road sign brackets which can be cut and drilled to suit 150/200mm street blade and hole spacings to suit.

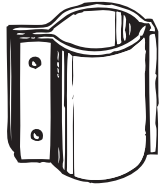
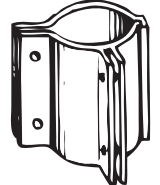
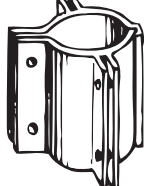
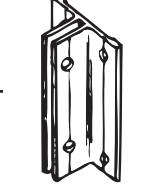

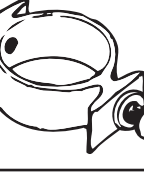
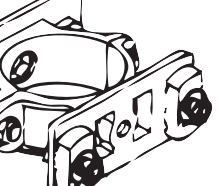
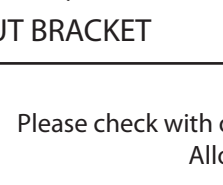

### STREET BLADE



DESCRIPTION	WIDTH	LENGTH
150 LIGHT GUAGE	150	6000
150 HEAVY GUAGE	150	6000
200 LIGHT GUAGE	200	6000
200 HEAVY GUAGE	200	6000

## STREET SECTIONS


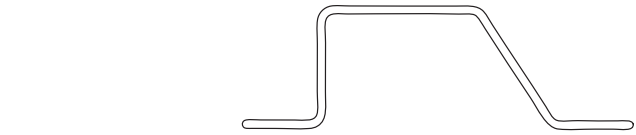

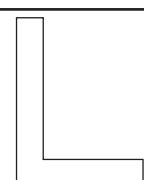

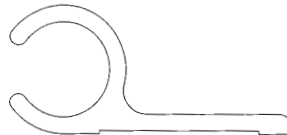
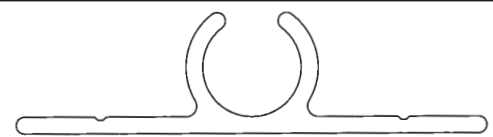
### BRACKETS

DESCRIPTION	SIZE	SUITABLE FOR	USE
AL 16 	135	150 BLADE	1 WAY
AL 18 	185	200 BLADE	1 WAY
AL 26 	135	150 BLADE	2 WAY
AL 28 	185	200 BLADE	2 WAY
AL 36 	135	150 BLADE	3 WAY
AL 38 	185	200 BLADE	3 WAY
ALT 6 	135	150 BLADE	TELEGRAPH POLE
ALT 8 	185	200 BLADE	TELEGRAPH POLE
TD1 	60mm OD	FACE SIGNS	ROAD SIGNS
TD2	60mm OD	FACE SIGNS	ROAD SIGNS
 UNI STRUT BRACKET	60mm OD		ROAD SIGNS

Please check with our office for current stock and other sizes which may not be listed.  
 Alloy for stock items is 6060 unless specified differently.

## TRANSPORT SECTIONS

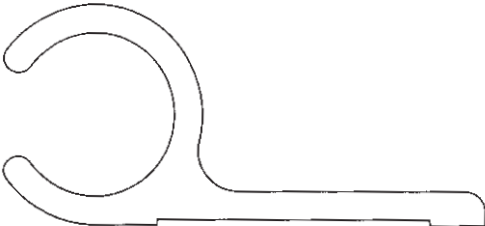

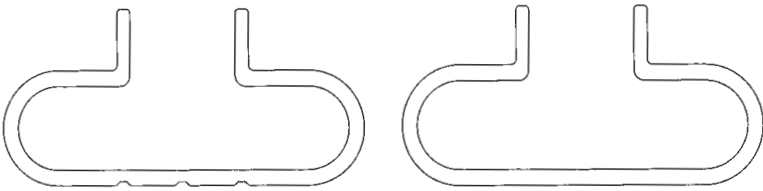
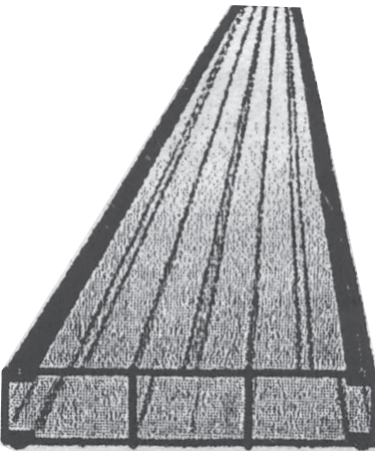
We deal with a few transport sections as listed in the table below. The roofing coil can be cut to your requirements with no minimum length required.

DESCRIPTION	WIDTH	LENGTH
 BOTTOM RAIL	180	6000
 RUB RAIL - SINGLE		4885
 RUB RAIL - DOUBLE		4885
END CAPS		
 TRANSPORT ANGLE	100 x 100	6000
 ROOFING COIL	2515 X 0.8mm Thick	Upon Request
 ROPETRACK - SINGLE		6500
 ROPETRACK - DOUBLE		6500

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 Alloy for stock items is 6060 unless specified differently.

## MISCELLANEOUS SECTIONS

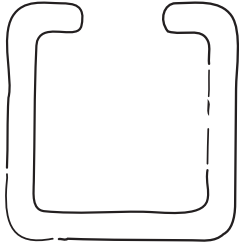
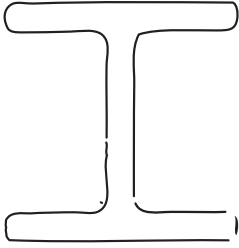
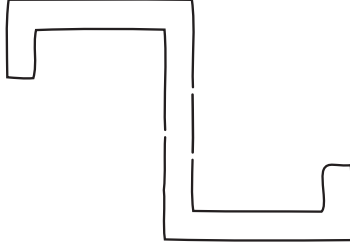
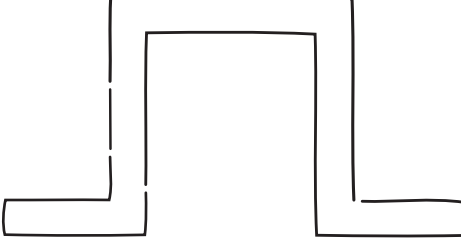
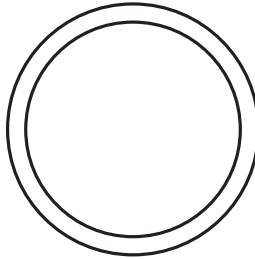
There are a number of miscellaneous sections that we deal with and can be ordered upon your request. Some of the more common miscellaneous sections are listed below.

DESCRIPTION	
 <p>SAIL TRACK</p>	6500
 <p>J-MOULD</p>	4 metres long
 <p>SLATWALL</p>	2.4 metres long
 <p>SCAFFOLDING PLANKS</p>	3, 4, 5, 6 metre lengths
SECURITY GRILL	VARIOUS

Please check with our office for current stock and other sizes which may not be listed.  
 Alloy for stock items is 6060 unless specified differently.

## MISCELANEOUS SECTIONS - cont.

There are a number of miscellaneous sections that we deal with and can be ordered upon your request. Some of the more common miscellaneous sections are listed below.

DESCRIPTION	
LIPPED CHANNELS	
I-BEAMS	
Z-SECTIONS	
TOP HATS	
DRAWNTUBE	



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Alloy for stock items is 6060 unless specified differently.