



## Alloy Guide: **Stainless Steel**

The South East's Premier Stainless Steel,  
Aluminium and Brass Stockholder and Processor





One of the largest  
stockholders  
of stainless  
steel, brass and  
aluminium in the  
South East of  
England.



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## Welcome to Orion Alloys Ltd

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Orion Alloys is the South East's premier stainless steel, brass and aluminium stockist. We are a family-owned business based in Harlow, Essex, with over 100 years of experience between us. Our company has grown to become one of the largest stockholders of stainless steel, aluminium and brass in the South East of England.

Our company was founded in 1991 by John Halford who has over 50 years of experience in the industry. Since then, we have been committed to providing a friendly and reliable service to our customers. We have invested heavily in recent years in two fully automated sheet polishing lines, plate and bar section polishing equipment, and cutting machinery for bar, hollow section, and sheet. We have also increased our warehouse capacity to over 70,000 square feet to be able to keep sufficient stock and buy and sell competitively. This has enabled us to increase our range of products significantly.

We operate our own fleet of modern trucks delivering to the South East of England.

### ISO 9001 Certified

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Our ISO 9001 certification from NQA demonstrates our commitment to the highest industry standards. This internationally recognised standard ensures streamlined processes, rigorous quality control, and continuous improvement. At Orion Alloys, ISO 9001 means efficient operations, scheduled deliveries, and a customer-focused approach. Clients benefit from our dedication to excellence, providing assurance that they are partnering with a reliable supplier.





## About the Company

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At Orion Alloys Ltd, we take pride in being the sole stockist in the South East of England equipped with two fully automated sheet polishing production lines. Our commitment to cutting-edge technology allows us to satin polish stainless steel, brass, and aluminium sheets up to 6mm in thickness, with a maximum width of 1500mm. What sets us apart is our extensive stock of polished sheets, readily available for immediate despatch, and bespoke or special orders processed and turned around within 1-2 days.

In-house, we possess the capability to bespoke satin polish stainless steel, brass, and aluminium lengths, as well as hollow sections. Offering a range of different grained finishes tailored to meet our customers' specific requirements, we take pride in providing the fastest lead times compared to other stockists in the South East of England.

With our fast cutting service for lengths and hollow sections, along with our in-house guillotine capable of shearing sheet up to 1500mm wide, we ensure that your requirements are met promptly and efficiently.

## A Comprehensive Inventory

Our Essex-based facility houses a comprehensive inventory, including a full range of mirror-polished sheets up to 1500mm wide and 3mm thick. Additionally, we keep circle-polished sheets ex-stock, providing our customers with a diverse selection to meet various project specifications.

## Convenient Logistics

At Orion Alloys Ltd, we understand the importance of convenience. All our stock is readily available in Essex, welcoming same-day collections for our clients. For those who prefer scheduled deliveries, our next-day timed delivery service ensures that your materials arrive precisely when you need them.





## Guide to Grades

Euro Standard	Old British Standard	Austenitic Stainless Grades
1.4305	303 S31	Free machining version of 302. By addition of more sulphur and selenium the machinability is greatly improved. Only available in bar form.
	304 S15	18% Cr-9% Ni. A general purpose stainless steel. Good formability with lower carbon content than 302 (0.06%). Non-Magnetic when annealed, slightly magnetic when cold worked. Application's include Architectural exteriors, Brewing equipment, Cooking utensils, Dairy, Hospital, Refrigeration and Catering equipment.
1.4307 1.4301	304 S11 304 S31	(304L) 18% Cr-10% Ni. Low C. A very low carbon stainless steel, weldable and resistant to corrosion and oxidation. Recommended for use with parts fabricated by welding and which cannot be subsequently annealed. Widely used in the nuclear industry.
1.4404 1.4401	316 S11 316 S31	(316L) 17% Cr-12% Ni-2.25% Mo. Low C. A very low carbon stainless steel similar to type 316 S31 but with superior resistance to intergranular corrosion following welding or stress relieving. Non magnetic when annealed, slightly magnetic when cold worked.
1.4541	321 S31	18% Cr-9% Ni-Ti. The addition of titanium to this stainless steel makes it suitable for parts fabricated by welding but cannot be subsequently annealed. Recommended for parts between 800oF and 1650oF. Non magnetic when annealed, slightly magnetic when worked cold. Applications include some Pressure vessels and heating equipment.
	325 S31	Free machining form of 321. By adding more sulphur the machinability is greatly improved. Available in bar form only.

Euro Standard      Old British Standard

## Martensitic

This group contains a minimum of 12% Chrome and usually a maximum of 14% with Carbon in the range of 0.08%-2.00%. Due to the high Carbon content of the Steel it responds well to heat treatment to give various mechanical strengths, such as hardness, but the Carbon is detrimental when welding and care must be taken during this operation. In the heat treated condition this group of steels show a useful combination of corrosion resistance and mechanical properties that qualify them for a wide range of applications.

1.4006	TYPE 410	A 13% Chrome, 0.15% Carbon Stainless Alloy possessing good ductility and corrosion resistance. It can be easily forged and machined and exhibits good cold working properties.
1.4005	TYPE 416	Similar to Type 410 but has added Sulphur to improve machinability, usually in Bar form.
1.4057	TYPE 431	A 17% Chrome, 2 % Nickel, 0.15% max Carbon Stainless Steel Alloy which has superior corrosion resistance to 410 or 416 due to the addition of Nickel. It can be heat treated to achieve good tensile strength, in the range 55/65 tons tensile, due to its good machining properties combined with strength it has numerous applications, particularly in machined components where the above mechanical property is required. The material is usually supplied in Bar form.

## Ferritic

This group contains a minimum of 17% Chrome and Carbon in the range of 0.08%-2.00%. The increase in Chromium imparts increased resistance to corrosion at elevated temperatures, but the lack of mechanical properties due to the fact that it cannot be heat treated, limits its applications. Like Martensitics they are magnetic and the welding of this group should be carried out with the necessary precautions.

1.4016	TYPE 430	A 17% Chrome, low Alloy Ferritic Steel that is non-hardenable and possessing only mild cold working properties due to the high Chrome content. This Alloy possesses good corrosion resistance properties up to a temperature of approximately 800oC. Its lack of tensile properties and poor machinability limit its applications and as a result is usually only in strip and sheet form.
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## Stainless Steel Round Bar

Finishes Available: Plain / Satin / Mirror

### Stainless Steel Round Bar

Crafted from high-grade stainless steel, our round bars boast exceptional durability, corrosion resistance, and aesthetic appeal. Ideal for environments demanding longevity and minimal maintenance, these bars are a top choice in industries ranging from construction to culinary.

Whether it's for structural supports, ornamental work, or manufacturing tools and machinery, our stainless steel round bars provide the reliability and performance essential for your projects. At Orion Alloys Ltd, we ensure each bar meets stringent quality standards, delivering a product you can trust in both form and function.

Size	Kg/M
1/16"	0.0160
5/64"	0.0240
2mm	0.0260
3/32"	0.0360
7/64"	0.0460
3mm	0.0560
1/8"	0.0620
9/64"	0.0750
5/32"	0.0950
4mm	0.0990
11/64"	0.1148
3/16"	0.1400
5mm	0.1600
13/64"	0.1640
7/32"	0.1930
15/64"	0.2200
6mm	0.2400
11/64"	0.2500
17/64"	0.2900
7mm	0.2980
9/32"	0.3110
19/64"	0.3500
5/16"	0.3900
8mm	0.4000
21/64"	0.4320
11/32"	0.4700
9mm	0.5000
23/64"	0.5200
3/8"	0.5600
10mm	0.6200
13/32"	0.6520
11mm	0.7500
7/16"	0.7600
15/32"	0.8850
12mm	0.8900
1/2"	0.9930
13mm	1.0400
14mm	1.2100
9/16"	1.2600
15mm	1.3900
5/8"	1.5510
16mm	1.5800
17mm	1.7800
11/16"	1.8800

Size	Kg/M
18mm	2.000
19mm	2.227
3/4"	2.250
20mm	2.469
13/16"	2.624
21mm	2.719
22mm	3.000
7/8"	3.070
23mm	3.260
15/16"	3.509
24mm	3.542
25mm	3.870
1"	4.030
11/16"	4.493
28mm	4.821
1 1/8"	5.070
30mm	5.543
1 3/16"	5.608
1 1/4"	6.250
32mm	6.297
1 5/16"	6.855
1 3/8"	7.478
36mm	8.010
1 1/2"	9.010
40mm	9.872
1 5/8"	10.600
1 3/4"	12.168
45mm	12.560
1 7/8"	14.100
50mm	15.420
2"	16.000
2 1/8"	18.100
55mm	18.663
2 1/4"	20.110
60mm	22.205
2 5/8"	26.900
2 3/8"	22.402
2 1/2"	24.829
65mm	26.043
2 3/4"	30.208
70mm	30.300
3"	36.000
80mm	39.458
3 1/4"	42.000
3 1/2"	49.800

Size	Kg/M
90mm	49.291
3 3/4"	57.100
100mm	61.820
4"	64.045
4 1/4"	73.400
110mm	74.587
4 1/2"	82.300
120mm	88.789
4 3/4"	91.700
5"	102.000
130mm	104.000
5 1/4"	109.520
5 1/2"	123.000
140mm	121.000
5 3/4"	132.000
150mm	139.010
6"	146.000
6 1/4"	155.520
160mm	158.010
6 1/2"	169.000
170mm	178.020
6 3/4"	183.000
7"	199.000
180mm	199.940
7 1/4"	210.000
190mm	223.000
7 1/2"	230.000
7 3/4"	240.000
200mm	247.050
8"	262.000
8 1/4"	273.000
8 1/2"	289.000
220mm	297.910
8 3/4"	306.000
9"	324.228
9 1/2"	361.254
250mm	383.870
10"	400.282
10 1/2"	441.000
11"	484.341
280mm	482.300
11 1/2"	529.370
300mm	554.490
12"	576.458



## Stainless Steel Hexagon Bar

Finishes Available: Plain

### Stainless Steel Hexagon and Square Bar

These bars, known for their unique six-sided shape, offer a mix of strength and versatility, making them perfect for manufacturing, engineering, and construction applications. They're particularly favoured for their increased torque capability in mechanical components, like nuts and bolts.

Our square profile bars are widely used across various industries, including construction, architectural applications, and manufacturing. Its square shape provides increased strength and stability, making it ideal for structural supports, frames, and balustrades.

Size	Kg/M
0.152"	0.101
0.193"	0.167
5 mm	0.170
5.5 mm	0.206
0.218"	0.207
6 mm	0.259
0.248"	0.272
0.250"	0.274
7 mm	0.334
8 mm	0.436
0.324"	0.462
0.375"	0.640
10 mm	0.679
0.413"	0.721
0.437"	0.849
0.445"	0.869
0.500"	1.115
13 mm	1.151
0.525"	1.207
0.562"	1.387
0.600"	1.535
0.625"	1.710
17 mm	1.958
0.687"	2.070
19 mm	2.450
0.750"	2.500

Size	Kg/M
0.820"	2.886
0.875"	3.346
0.920"	3.674
0.937"	3.838
24 mm	3.937
1.010"	4.363
1.101"	5.216
1.125"	5.544
30 mm	6.135
1.200"	6.201
1.250"	6.843
1.300"	7.219
1.375"	8.282
36 mm	8.825
1.480"	9.318
1.500"	9.843
1.670"	12.136
1.750"	13.800
1.860"	14.737
1.875"	15.421
2.050"	19.964
2.220"	21.648
2.250"	22.172
2.750"	33.183
3.000"	39.425



## Stainless Steel Square Bar

Finishes Available: Plain / Satin / Mirror

Size	Kg/M
5mm	0.197
6mm	0.282
1/4"	0.320
8mm	0.502
3/8"	0.711
10mm	0.784
12mm	1.128
1/2"	1.264
15mm	1.764
5/8"	1.979
16mm	2.050
3/4"	2.842
20mm	3.038
7/8"	3.877

Size	Kg/M
25mm	5.020
1"	5.064
30mm	7.055
1 1/4"	7.911
1 1/2"	11.391
40mm	12.542
50mm	20.160
2"	20.254
60mm	28.280
2 1/2"	31.645
75mm	44.096
3"	45.567
4"	81.010





## Stainless Steel Sheet

Finishes Available: Plain / Satin /  
Bright Annealed / Mirror

Thickness	2M x 1M	2.5M x 1.25M	3M x 1M	3M x 1.5M
0.5mm	7.80	12.19		
0.7mm	11.50	17.90		
0.9mm	14.73	23.02	21.06	32.40
1.0mm	16.37	25.57		
1.2mm	19.64	30.69	28.08	44.19
1.5mm	24.55	38.36	35.10	55.24
2.0mm	32.74	51.15		73.66
2.5mm	40.92	63.94		92.08
3.0mm	49.11	76.73		110.49
4.0mm	65.48	102.31		147.33
5.0mm	81.85	127.89		184.16
6.0mm	98.22	153.47		220.99
8.0mm	130.96	204.62		294.66
10.0mm	163.70	255.78		368.32
12.0mm	196.44	306.93		441.99

## Stainless Steel Sheet & Circle Polished Sheet

Stainless steel sheets are renowned for their sleek finish, durability, and resistance to corrosion. These sheets are an indispensable resource in industries ranging from construction and automotive to medical and culinary.

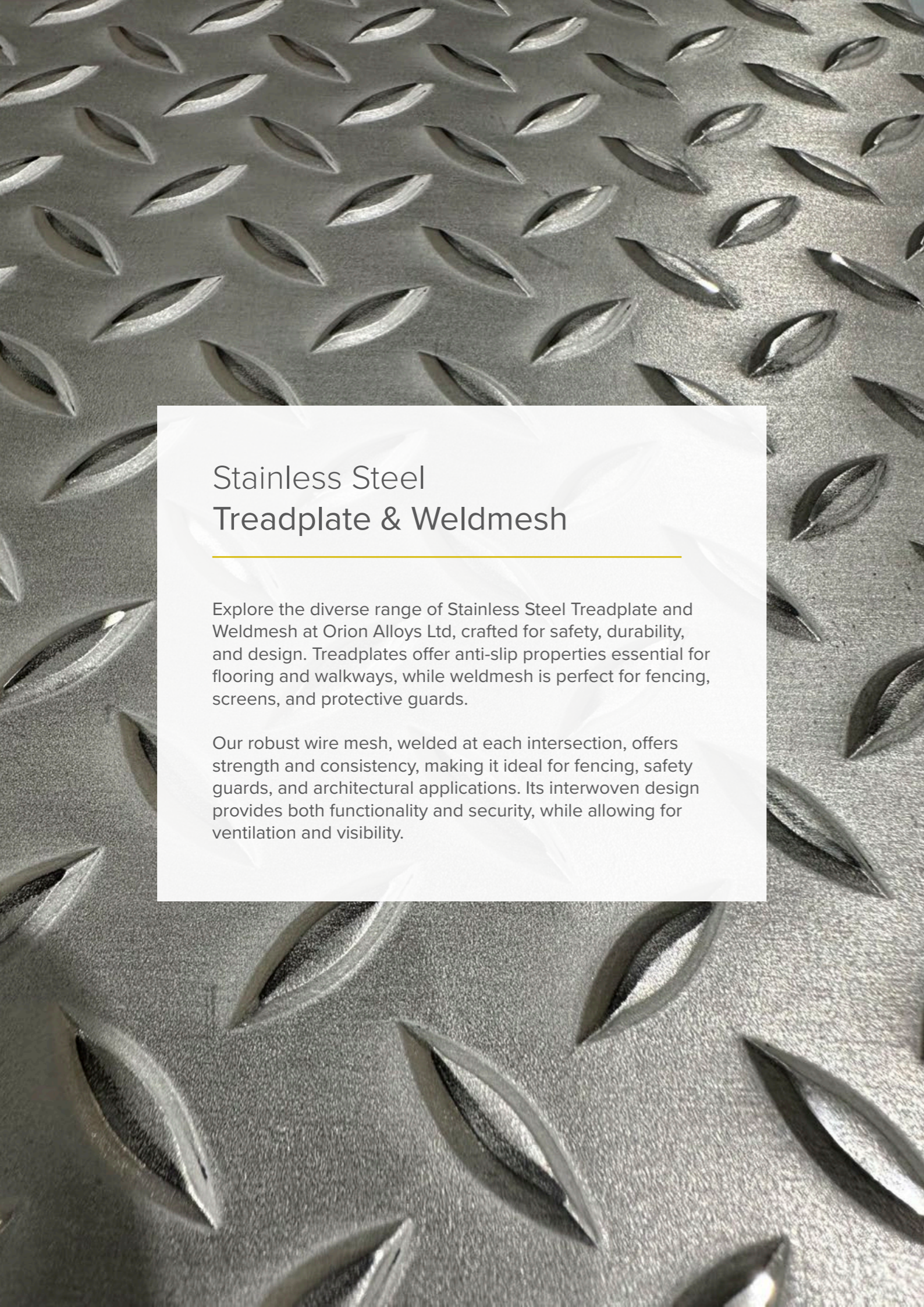
At Orion Alloys we do all our own satin polishing of sheet in-house on two fully automated production lines. With this in mind, we can offer non-standard polished items turned around within 1-2 days. Our sheet stock range is from 0.5mm to 3mm, and our plate stock ranges from 3mm to 12mm.

Circle polished stainless steel sheets feature a mechanically applied, overlapping circular pattern on the surface. Perfect for food preparation areas where aesthetics matter, such as counter units or bar tops. The patterned sheets are less prone to showing fingerprints compared to flat sheets, combining practicality with visual appeal.

## Stainless Steel Circle Polished Sheet

Size	Kg/Sheet
2500x1250x0.7mm	17.06
2500x1250x0.8mm	17.06
2500x1250x0.9mm	21.93
2500x1250x1.2mm	29.25
3000x1500x1.2mm	42.12





## Stainless Steel Treadplate & Weldmesh

Explore the diverse range of Stainless Steel Treadplate and Weldmesh at Orion Alloys Ltd, crafted for safety, durability, and design. Treadplates offer anti-slip properties essential for flooring and walkways, while weldmesh is perfect for fencing, screens, and protective guards.

Our robust wire mesh, welded at each intersection, offers strength and consistency, making it ideal for fencing, safety guards, and architectural applications. Its interwoven design provides both functionality and security, while allowing for ventilation and visibility.



### Stainless Steel Treadplate T304

Finishes Available: Plain

Size	Kg/Plate
2000mm x 1000mm x 3mm	51.08
2000mm x 1000mm x 4.5mm	73.8
2500mm x 1250mm x 4.5mm	115.85
3000mm x 1000mm x 3mm	76.62
3000mm x 1250mm x 4.5mm	139.00
3000mm x 1250mm x 6mm	185.00



### Stainless Steel Weldmesh T304

Size	6' x 3'	6' x 4'	8' x 4'	10' x 4'
1/2 x 1/2 x 1.6mm				
1" x 1" x 2.5mm				
2" x 2" x 2.5mm				
1" x 1" x 3.0mm			Also in 316L	
1 1/2 x 1 1/2 x 3.0mm				
2" x 2" x 3.0mm			Also in 316L	
3" x 1 1/2 x 2.5mm				
3" x 1 1/2 x 3.0mm				



## Stainless Steel Equal & Unequal Angle

Stainless steel angle is a cornerstone product for structural and architectural applications. These L-shaped profiles offer superior strength and corrosion resistance, making them ideal for frame construction, reinforcements, and decorative trims.

The unequal angle options provide flexibility in design and application, while the inherent strength and corrosion resistance of stainless steel ensure durability and long-lasting performance in various environments.

## Stainless Steel Angle

Finishes Available: Plain / Satin / Mirror

Size	Kg/M
15 x 15 x 3mm	0.750
20 x 20 x 3mm	0.872
25 x 25 x 3mm	1.110
25 x 25 x 5mm	1.770
25 x 25 x 6mm	2.120
30 x 30 x 3mm	1.340
30 x 30 x 5mm	2.100
30 x 30 x 6mm	2.520
40 x 40 x 3mm	1.830
40 x 40 x 5mm	2.970
40 x 40 x 6mm	3.520
50 x 50 x 3mm	2.330
50 x 50 x 5mm	3.730
50 x 50 x 6mm	4.470
50 x 50 x 10mm	7.110
60 x 60 x 6mm	5.900
75 x 75 x 6mm	7.280
75 x 75 x 10mm	11.100
80 x 80 x 6mm	8.000
80 x 80 x 10mm	12.250
100 x 100 x 6mm	9.210
100 x 100 x 8mm	12.400
100 x 100 x 10mm	15.350

## Stainless Steel Unequal Angle

Finishes Available: Plain / Satin / Mirror

Dimensions	Kg/M	1.4301 304	1.4571 316 TI
20 x 10 x 3	0.71	•	•
25 x 15 x 3	0.89	•	•
30 x 15 x 3	1.01	•	•
30 x 20 x 3	1.12	•	•
30 x 20 x 4	1.50	•	•
40 x 20 x 3	1.36	•	•
40 x 20 x 4	1.80	•	•
40 x 30 x 4	2.10	•	•
40 x 30 x 5	2.55	•	•
45 x 30 x 3	1.73	•	•
45 x 45 x 4	2.27	•	•

Continued on next page >



## Stainless Steel Unequal Angle Finishes Available: Plain / Satin / Mirror

Dimensions	Kg/M	1.4301304	1.4571316 TI
45 x 45 x 5	2.75	•	•
50 x 25 x 4	2.23	•	•
50 x 30 x 3	1.85	•	•
50 x 30 x 4	2.43	•	•
50 x 30 x 5	2.95	•	•
50 x 40 x 5	3.50	•	•
60 x 30 x 5	3.37	•	•
60 x 30 x 6	4.03	•	•
60 x 30 x 7	4.50	•	•
60 x 40 x 5	3.73	•	•
60 x 40 x 6	4.40	•	•
60 x 40 x 8	5.82	•	•
65 x 50 x 5	4.35	•	•
65 x 50 x 7	6.00	•	•
65 x 50 x 9	7.60	•	•
70 x 50 x 6	5.30	•	•
50 x 30 x 3	1.85	•	•
50 x 30 x 4	2.43	•	•
50 x 30 x 5	2.95	•	•
50 x 40 x 5	3.50	•	•
60 x 30 x 5	3.37	•	•
60 x 30 x 6	4.03	•	•
60 x 30 x 7	4.50	•	•
60 x 40 x 5	3.73	•	•
60 x 40 x 6	4.40	•	•
60 x 40 x 8	5.82	•	•
65 x 50 x 5	4.35	•	•
65 x 50 x 7	6.00	•	•
65 x 50 x 9	7.60	•	•
70 x 50 x 6	5.30	•	•
100 x 65 x 6	7.66	•	•
100 x 65 x 7	8.77	•	•
100 x 65 x 8	9.84	•	•
100 x 65 x 9	11.09	•	•
100 x 65 x 10	12.30	•	•
100 x 75 x 8	10.70	•	•
100 x 75 x 9	11.80	•	•
100 x 75 x 10	13.10	•	•



## Stainless Steel Channels

Finishes Available: Plain / Satin

### Stainless Steel Channels

Stainless Steel Channels are a vital component for structural and design applications. These U-shaped profiles are known for their durability and strength, making them suitable for load-bearing structures, vehicle frames, and architectural elements.

Their open channel shape is ideal for routing wires or pipes, providing both support and protection. With high resistance to corrosion and a clean finish, our stainless steel channels are also used in environments where hygiene is paramount, such as in the food and pharmaceutical industries.

Dimensions	Kg/M	1.4301304	1.4571316 TI
20 x 10 x 3 x 3.5	0.86	•	•
30 x 15 x 3 x 3.5	1.37	•	•
30 x 15 x 4 x 4.5	1.78	•	•
30 x 33 x 5 x 7	4.30	•	•
40 x 20 x 3 x 3.5	1.80	•	•
40 x 20 x 4 x 4.5	2.40	•	•
40 x 35 x 5 x 7	4.80	•	•
50 x 25 x 3 x 3	2.28	•	•
50 x 5 x 5	3.60	•	•
50 x 5 x 6	3.90	•	•
50 x 6 x 6	4.10	•	•
50 x 38 x 5 x 7	5.70	•	•
60 x 30 x 5 x 5	4.37	•	•
60 x 6 x 6	5.10	•	•
65 x 42 x 5.5 x 7.5	7.40	•	•
80 x 40 x 4 x 4	4.90	•	•
80 x 5 x 5	5.94	•	•
80 x 6 x 6	7.00	•	•
80 x 45 x 6 x 8	8.64	•	•
100 x 50 x 4 x 4	6.20	•	•
100 x 5 x 5	7.65	•	•
100 x 6 x 6	8.94	•	•
100 x 6 x 8.5	10.60	•	•
120 x 55 x 7 x 9	13.50	•	•
120 x 60 x 6 x 6	10.93	•	•
130 x 65 x 6 x 6	12.08	•	•
140 x 60 x 7 x 10	16.40	•	•
140 x 70 x 7 x 7	14.62	•	•
150 x 75 x 6 x 6	13.80	•	•
160 x 65 x 7.5 x 10.5	19.30	•	•
160 x 80 x 8 x 8	19.21	•	•
180 x 70 x 8 x 11	22.00	•	•
200 x 75 x 8.5 x 11.5	25.30	•	•
200 x 10 x 13	29.52	•	•
220 x 80 x 9 x 12.5	29.40	•	•
220 x 10 x 13	31.80	•	•
240 x 85 x 9.5 x 13	33.20	•	•
300 x 100 x 10 x 16	46.20	•	•



## Stainless Steel Equal & Unequal Tee Sections

Our stainless steel equal and unequal tee sections at Orion Alloys Ltd are engineered for structural integrity and versatility. These T-shaped profiles, available in both equal and unequal arm lengths, are ideal for a variety of applications, including supports, frameworks, and bracing in construction and architectural projects.

Their unique shape provides an excellent combination of strength, stability, and resistance to corrosion, making them a popular choice in harsh environmental conditions and for projects requiring a distinct design element.

T

### Stainless Steel Equal Tee Sections

Finishes Available: Plain / Satin

Dimensions	Kg/M	1.4301304	1.4571316 TI
20 x 20 x 3	0.88	•	•
20 x 20 x 4	1.15	•	•
25 x 25 x 3	1.13	•	•
25 x 25 x 3.5	1.31	•	•
25 x 25 x 4	1.50	•	•
30 x 30 x 3	1.36	•	•
30 x 30 x 4	1.77	•	•
35 x 35 x 4	2.10	•	•
40 x 40 x 4	2.50	•	•
40 x 40 x 5	2.96	•	•
45 x 45 x 5.5	3.67	•	•
50 x 50 x 5	3.80	•	•
50 x 50 x 6	4.50	•	•
60 x 60 x 6	5.50	•	•
70 x 70 x 7	7.30	•	•
80 x 80 x 8	9.70	•	•
90 x 90 x 9	12.50	•	•
100 x 100 x 8	12.40	•	•
100 x 100 x 10	15.10	•	•
120 x 120 x 13	23.70	•	•

T

### Stainless Steel Unequal Tee Sections

Finishes Available: Plain / Satin

Dimensions	Kg/M	1.4301304	1.4571316 TI
20 x 40 x 4	1.79	•	•
25 x 50 x 5	2.76	•	•
30 x 60 x 5.5	3.70	•	•
35 x 70 x 6	4.70	•	•
40 x 60 x 4	3.20	•	•
40 x 80 x 7	6.20	•	•
50 x 100 x 8.5	9.50	•	•
60 x 120 x 10	13.40	•	•



## Stainless Steel Box Section

Finishes Available: Plain / Satin / Mirror

### Stainless Steel Box Section

Explore the robust and versatile stainless steel box section range at Orion Alloys Ltd, a product designed for high durability and diverse applications.

This hollow, square or rectangular tubing is frequently used in construction, architectural design, and industrial fabrication, offering both aesthetic appeal and structural strength. Resistant to corrosion and easy to maintain, these box sections are ideal for outdoor and indoor applications, from building frameworks to decorative installations and protective barriers.

Size	Kg/M
12 x 12 x 1.5mm	0.590
15 x 15 x 1.2mm	0.538
15 x 15 x 1.5mm	0.661
20 x 20 x 1.2mm	0.729
20 x 20 x 1.5mm	0.900
20 x 20 x 2mm	1.175
25 x 25 x 1.2mm	0.925
25 x 25 x 1.5mm	1.146
25 x 25 x 2mm	1.495
25 x 25 x 3mm	2.216
30 x 30 x 1.2mm	1.106
30 x 30 x 1.5mm	1.371
30 x 30 x 2mm	1.840
30 x 30 x 3mm	2.720
40 x 40 x 1.2mm	1.496
40 x 40 x 1.5mm	1.859
40 x 40 x 2mm	2.454
40 x 40 x 3mm	3.756
40 x 40 x 4mm	4.808
50 x 50 x 1.5mm	2.329
50 x 50 x 2mm	3.080
50 x 50 x 3mm	4.650
50 x 50 x 4mm	5.960
50 x 50 x 5mm	7.410
50 x 50 x 6mm	8.832
60 x 60 x 1.5mm	2.802
60 x 60 x 2mm	3.711
60 x 60 x 3mm	5.491
60 x 60 x 4mm	7.222
60 x 60 x 5mm	8.902

Size	Kg/M
70 x 70 x 3mm	6.480
80 x 80 x 2mm	4.988
80 x 80 x 3mm	7.530
80 x 80 x 4mm	9.816
80 x 80 x 5mm	12.395
80 x 80 x 6mm	14.600
100 x 100 x 2mm	6.400
100 x 100 x 3mm	9.530
100 x 100 x 4mm	12.400
100 x 100 x 5mm	15.380
100 x 100 x 6mm	17.500
120 x 120 x 3mm	11.300
120 x 120 x 4mm	15.030
120 x 120 x 5mm	18.660
120 x 120 x 6mm	21.200
150 x 150 x 3mm	14.064
150 x 150 x 4mm	18.624
150 x 150 x 5mm	22.400
150 x 150 x 6mm	27.360
200 x 200 x 4mm	24.600
200 x 200 x 5mm	30.800
200 x 200 x 6mm	36.900
250 x 250 x 5mm	38.400
250 x 250 x 6mm	45.700
250 x 250 x 8mm	59.450
250 x 250 x 10mm	73.500
300 x 300 x 5mm	46.200
300 x 300 x 6mm	55.300
300 x 300 x 8mm	72.800
300 x 300 x 10mm	89.800



## Stainless Steel Rectangular Box Section

Finishes Available:  
Plain / Satin / Mirror

### Stainless Steel Rectangular Box Section

The stainless steel rectangular box section at Orion Alloys Ltd offers a blend of strength, versatility, and aesthetic appeal. Ideal for a wide range of applications, from construction and architecture to machinery manufacturing, these rectangular tubes provide robustness in load-bearing structures and elegant solutions for design-centric projects.

Their corrosion-resistant properties and ease of maintenance make them a preferred choice for both indoor and outdoor applications, ensuring longevity and performance.

Size	Kg/M
20 x 10 x 1.5mm	0.700
25 x 10 x 1.5mm	0.780
25 x 15 x 1.5mm	1.140
30 x 10 x 1.5mm	0.900
30 x 15 x 1.5mm	1.020
30 x 20 x 1.2mm	0.925
30 x 20 x 1.5mm	1.146
30 x 20 x 2.0mm	1.495
40 x 10 x 1.5mm	1.146
40 x 10 x 2.0mm	1.495
40 x 15 x 1.5mm	0.830
40 x 20 x 1.2mm	1.106
40 x 20 x 1.5mm	1.371
40 x 20 x 2.0mm	1.840
40 x 30 x 1.2mm	1.310
40 x 30 x 1.5mm	1.620
40 x 30 x 2.0mm	2.150
40 x 30 x 3.0mm	3.152
50 x 10 x 1.5mm	1.371
50 x 10 x 2.0mm	1.840
50 x 20 x 1.2mm	1.310
50 x 20 x 1.5mm	1.620
50 x 20 x 2.0mm	2.150
50 x 25 x 1.2mm	1.415
50 x 25 x 1.5mm	1.758
50 x 25 x 2.0mm	2.319
50 x 25 x 3.0mm	3.456
50 x 30 x 1.2mm	1.496
50 x 30 x 1.5mm	1.859
50 x 30 x 2.0mm	2.454
50 x 30 x 3.0mm	3.756
50 x 30 x 4.0mm	4.808
50 x 40 x 1.5mm	2.122
50 x 40 x 2.0mm	2.804
50 x 40 x 3.0mm	4.131
60 x 20 x 1.2mm	1.496
60 x 20 x 1.5mm	1.859
60 x 20 x 2.0mm	2.454
60 x 30 x 1.5mm	2.122
60 x 30 x 2.0mm	2.804
60 x 30 x 3.0mm	4.131
60 x 30 x 4.0mm	4.650
60 x 40 x 1.5mm	2.329
60 x 40 x 2.0mm	3.080
60 x 40 x 3.0mm	4.650
60 x 40 x 4.0mm	5.960

Size	Kg/M
80 x 40 x 1.5mm	2.802
80 x 40 x 2.0mm	3.711
80 x 40 x 3.0mm	5.491
80 x 40 x 4.0mm	7.222
80 x 40 x 5.0mm	8.902
80 x 50 x 1.5mm	2.964
80 x 50 x 2.0mm	4.060
80 x 50 x 3.0mm	5.928
80 x 50 x 4.0mm	7.808
80 x 50 x 5.0mm	9.469
80 x 60 x 2.0mm	4.380
80 x 60 x 3.0mm	6.530
80 x 60 x 4.0mm	8.450
80 x 60 x 5.0mm	10.629
100 x 40 x 2.0mm	4.380
100 x 40 x 3.0mm	6.530
100 x 40 x 4.0mm	8.450
100 x 40 x 5.0mm	10.629
100 x 50 x 2.0mm	4.680
100 x 50 x 3.0mm	6.950
100 x 50 x 4.0mm	9.090
100 x 50 x 5.0mm	11.240
100 x 50 x 6.0mm	13.490
100 x 60 x 2.0mm	4.988
100 x 60 x 3.0mm	7.530
100 x 60 x 4.0mm	9.816
100 x 60 x 5.0mm	12.395
100 x 60 x 6.0mm	14.600
100 x 80 x 2.0mm	5.624
100 x 80 x 3.0mm	8.388
100 x 80 x 4.0mm	11.050
100 x 80 x 5.0mm	13.750
100 x 80 x 6.0mm	16.220
120 x 40 x 2.0mm	4.988
120 x 40 x 3.0mm	7.530
120 x 40 x 4.0mm	9.816
120 x 40 x 5.0mm	12.395
120 x 60 x 2.0mm	5.624
120 x 60 x 3.0mm	8.388
120 x 60 x 4.0mm	11.050
120 x 60 x 5.0mm	13.750
120 x 60 x 6.0mm	16.220
120 x 80 x 2.0mm	6.400
120 x 80 x 3.0mm	9.530
120 x 80 x 4.0mm	12.400
120 x 80 x 5.0mm	15.380
120 x 80 x 6.0mm	17.500





## Stainless Steel Pipe

Finishes Available: Plain / Satin

### Stainless Steel Pipe

At Orion Alloys Ltd, our stainless steel pipes are a symbol of strength and reliability. Widely used in industries such as oil and gas, plumbing, and water supply, these pipes offer excellent corrosion resistance and durability.

Suitable for high-pressure applications and harsh environmental conditions, our stainless steel pipes ensure safe and efficient transport of liquids and gases. They are also a popular choice in architectural and structural applications, providing both functional and aesthetic benefits.

NB Pipe Size	OD Inches	Wall Thickness (in)				
		Sch. 5	Sch. 10	Sch. 40	Sch. 80	Sch. 160
1/8	0.405	0.035	0.049	0.068	0.095	-
1/4	0.540	0.049	0.065	0.088	0.119	-
3/8	0.675	0.049	0.065	0.091	0.126	-
1/2	0.840	0.065	0.083	0.109	0.147	0.187
3/4	1.050	0.065	0.083	0.113	0.154	0.218
1	1.315	0.065	0.109	0.133	0.179	0.250
1 1/4	1.660	0.065	0.109	0.140	0.191	0.250
1 1/2	1.900	0.065	0.109	0.145	0.200	0.281
2	2.375	0.065	0.109	0.154	0.218	0.343
2 1/2	2.875	0.083	0.120	0.203	0.276	0.375
3	3.500	0.083	0.120	0.216	0.300	0.438
3 1/2	4.000	0.083	0.120	0.226	0.318	-
4	4.500	0.083	0.120	0.237	0.337	0.531
5	5.563	0.109	0.134	0.258	0.375	0.625
6	6.625	0.109	0.134	0.280	0.432	0.718
8	8.625	0.109	0.148	0.322	0.500	0.906
10	10.750	0.134	0.165	0.365	0.593	1.125
12	12.750	0.156	0.180	0.406	0.687	1.312



## Stainless Steel Welded Tubes

Finishes Available: Plain / Satin / Mirror

### Stainless Steel Welded Tubes

Orion Alloys' stainless steel welded tubes epitomize precision and quality. Ideal for applications requiring strong, high-quality tubing, such as in automotive, construction, and food processing industries, these tubes offer great strength and durability.

Welded for increased reliability, they withstand high pressures and harsh environments, ensuring safe and efficient operations. Available in various sizes and grades, our welded tubes meet diverse application needs with exceptional performance.

Diameter	Thickness								
	1.0MM	1.2MM	1.5MM	2.0MM	2.5MM	3.0MM	4.0MM	5.0MM	6.0MM
10	0.225	0.264	0.319						
12	0.275	0.325	0.394	0.500					
16	0.376	0.445	0.545	0.701					
17.2	0.406	0.481	0.590	0.761	0.921				
18	0.426	0.505	0.620	0.801					
19.05	0.452	0.536	0.659	0.854					
20	0.476	0.565	0.685	0.901					
21.3	0.508	0.604	0.744	0.967	1.177				
22	0.526	0.625	0.770	1.002					
23	0.551	0.655	0.808	1.051					
25	0.601	0.715	0.883	1.152	1.409				
26.9	0.649	0.772	0.954	1.247	1.527	1.795			
28	0.676	0.805	0.995	1.302	1.596	1.878			
30	0.726	0.865	1.070	1.402	1.722	2.028			
32	0.776	0.925	1.146	1.502	1.847	2.178			
33.7	0.819	0.977	1.209	1.588	1.953	2.306			
35	0.851	1.016	1.258	1.653	2.035	2.404			
38.1	0.929	1.109	1.375	1.808	2.229	2.637			
40	0.977	1.166	1.446	1.903	2.348	2.779			
42.4	1.037	1.238	1.536	2.023	2.498	2.960	3.847		
44.5	1.089	1.301	1.615	2.128	2.629	3.117			
45	1.102	1.316	1.634	2.153	2.661	3.155			
48.3	1.184	1.415	1.758	2.319	2.867	3.403	4.438		
50	1.227	1.466	1.822	2.404	2.974	3.531	4.607		
50.8	1.247	1.490	1.852	2.444		3.591			
52	1.277	1.526	1.897	2.504	3.099	3.681			
54	1.327	1.587	1.972	2.604	3.224	3.831			
57			2.085	2.754	3.412	4.057	5.309		
60.3	1.485	1.776	2.209	2.920	3.618	4.304	5.640		
63.5	1.565		2.329	3.080	3.819	4.545	5.960		
70	1.728	2.067	2.573	3.405	4.226	5.033	6.611		
76.1	1.881	2.251	2.802	3.771	4.607	5.491	7.222		
80.0						5.780			
88.9			3.283	4.352	5.409	6.453	8.504		
101.6			3.760	4.988	6.204	7.407	9.776	12.094	14.363
114.3			4.237	5.624	6.999	8.361	11.048	13.684	16.271
129			4.789	6.360	7.919	9.465	12.520	15.525	18.480
139.7			5.191	6.896	8.589	10.269	13.592	16.864	20.087
154			5.728	7.612	9.484	11.343	15.024	18.655	22.236
168.3			6.245	8.328	10.379	12.417	16.456	20.445	24.384
193.7			7.219	9.600	11.969	14.325	19.000	23.625	28.200
204			7.606	10.116	12.614	15.099	20.032	24.915	29.748
219.1			8.173	10.872	13.559	16.233	21.544	26.805	32.016



## Stainless Steel Flat Bar

Finishes Available: Plain / Satin / Mirror

### Stainless Steel Flat Bar

Discover the functional elegance of stainless steel flat bar at Orion Alloys. This versatile profile is essential in manufacturing, construction, and architectural designs, offering a blend of strength, workability, and corrosion resistance.

Flat bars are frequently used for bracing, structural supports, and decorative trims, proving their adaptability in various applications. Their smooth surface and clean lines make them a popular choice for both practical and aesthetic purposes in diverse projects.

Size	Kg/M
10 x 3	0.240
12 x 3	0.290
12 x 5	0.510
12 x 6	0.570
15 x 3	0.363
15 x 5	0.605
15 x 6	0.726
20 x 3	0.470
20 x 5	0.790
20 x 6	0.941
20 x 8	1.290
20 x 10	1.580
20 x 12	1.890
20 x 15	2.400
25 x 3	0.610
25 x 5	1.010
25 x 6	1.210
25 x 8	1.610
25 x 10	2.020
25 x 12	2.420
25 x 15	3.300
25 x 20	4.040
30 x 3	0.705
30 x 5	1.178
30 x 6	1.410
30 x 8	1.890
30 x 10	2.351
30 x 12	2.820
30 x 15	4.120
30 x 20	4.702
30 x 25	5.880
35 x 5	1.374
35 x 6	1.649
35 x 8	2.198
35 x 10	2.748
40 x 3	0.941
40 x 5	1.567
40 x 6	1.882
40 x 8	2.509
40 x 10	3.135
40 x 12	3.762
40 x 15	4.703
40 x 20	6.270
40 x 25	7.840
40 x 30	9.600
45 x 3	1.061

Size	Kg/M
45 x 5	1.767
45 x 6	2.121
45 x 8	2.827
45 x 10	3.530
45 x 12	4.242
50 x 3	1.178
50 x 5	1.961
50 x 6	2.357
50 x 8	3.135
50 x 10	3.919
50 x 12	4.703
50 x 15	5.880
50 x 20	7.840
50 x 25	9.798
50 x 30	11.76
60 x 3	1.414
60 x 5	2.356
60 x 6	2.820
60 x 8	3.762
60 x 10	4.703
60 x 12	5.650
60 x 15	7.062
60 x 20	9.420
60 x 25	11.770
60 x 30	14.120
65 x 5	2.546
65 x 6	3.060
65 x 8	4.076
65 x 10	5.094
65 x 12	6.120
65 x 15	7.640
65 x 20	10.190
65 x 25	12.740
75 x 3	1.767
75 x 5	2.945
75 x 6	3.534
75 x 8	4.712
75 x 10	5.890
75 x 12	7.070
75 x 15	8.840
75 x 20	11.780
75 x 25	14.730
80 x 6	3.765
80 x 8	5.020
80 x 10	6.278

Continued on next page >



## Stainless Steel Handrail Tubes Welded

Our welded slotted handrail tubes provide sturdy, corrosion-resistant solutions for railings and balustrades. These products combine practicality with aesthetic appeal, suitable for a wide array of applications in industrial, commercial, and residential settings. Stainless steel slotted handrail tubes are available in both grades 304 and 316. Standard finish is 240 grit satin.

## Stainless Steel Flat Bar

Finishes Available: Plain / Satin / Mirror

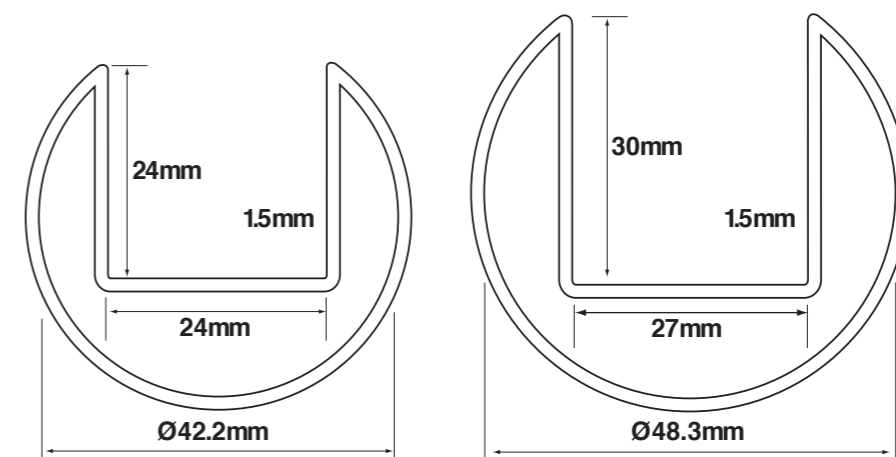
Size	Kg/M
80 x 12	7.530
90 x 6	4.234
90 x 10	7.060
90 x 12	8.465
100 x 3	2.360
100 x 5	3.930
100 x 6	4.706
100 x 8	6.271
100 x 10	7.840
100 x 12	9.410
100 x 15	11.770
100 x 20	15.680
100 x 25	19.604
100 x 30	23.524
126 x 6	5.880

Size	Kg/M
125 x 8	7.840
125 x 10	9.800
125 x 12	11.760
150 x 5	5.265
150 x 6	6.750
150 x 8	9.020
150 x 10	11.260
150 x 12	13.500
200 x 6	9.401
200 x 8	12.600
200 x 10	15.700
200 x 12	18.820
250 x 10	19.600
250 x 12	23.520

## Stainless Steel Slotted Handrail Tubes Welded

Finishes Available: Satin

Dimensions	Kg/M	1.4301/304	1.440/316L
42.2 x 24.0 x 24.0 x 1.5	1.99	•	•
48.3 x 27.0 x 30.0 x 1.5	2.41	•	•





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