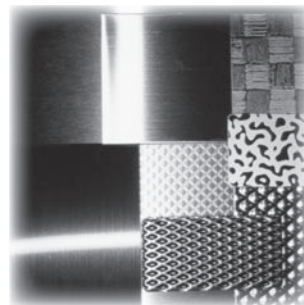
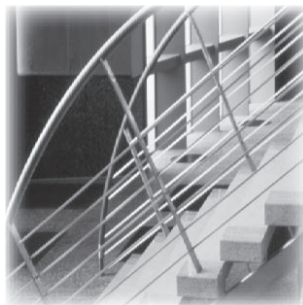
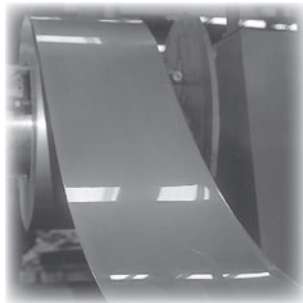

STAINLESS STEEL STOCK GUIDE

A generic stock list of products reported to be regularly available ex stock



**Essential information for anyone designing in
stainless steel.**

Edition 2 – July 2003

Australian Stainless
Steel Development
Association

ASSDA

HOW TO USE THIS GUIDE

The ASSDA *Stainless Steel Stock Guide* has been produced from information provided to ASSDA by suppliers and is intended as a general indication of common availability only. ASSDA does not warrant the accuracy or completeness of the information contained in the *Guide*, does not warrant the availability of any particular product and does not accept any liability for errors or omissions in the *Guide* or the unavailability of particular products.

In addition to the products listed in this *Guide*, other products are available but stocked less frequently. Australian suppliers have the capacity to tailor many products to individual specifications. Special product runs can be arranged provided sufficient time is allowed. Please contact your local supplier for details. A list of suppliers is provided on the Australian Stainless Steel Development Association's website – www.assda.asn.au.

STAINLESS STEEL

Alloy steels containing, by weight, 1.2% or less of carbon and 10.5% or more of chromium with or without other elements. Iron must be the predominant element.

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ABBREVIATIONS

ANN	Annealed
AW	As welded
AWBP	As welded buff polished
BA	Bright annealed
BD	Bright drawn
CD	Cold drawn
CF	Cold finished (cold drawn or smooth turned)
CG	Centreless ground
CW	Cold worked
DN	Diameter nominal
DWAC	Drawn welded annealed coil
DWHD	Drawn welded hard drawn
H&T	Hardened and tempered
HRA	Hot rolled, annealed
HRAP	Hot rolled, annealed and pickled – also referred to as N°1.
POL	Polished
PC	Polyethylene (PE) coated
RT	Rough turned
SMLS	Seamless
SRE	Slit rolled edge
ST	Spring temper
WLD	Welded
2B	Lightly cold rolled coil

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METRIC OR IMPERIAL?

Both metric and imperial sized products are available in the Australian market. In some products, both sizes are available. In other products, only the metric or only the imperial sizes are commonly available.

Where there are metric and imperial sizes that are very close it is possible that both will not always be available. It is recommended that stockists be consulted at an early stage where exact sized product is required.

Some examples ...

Flat Product

Ordering at standard width and thickness is the best way to keep steel costs down. Each mill has equipment capable of a certain maximum width and running narrower steel is less productive. The standard width varies from mill to mill, with most European mills following the metric system and mills in Asia using imperial widths. The following table shows the comparison:

Commonly available flat product widths from stainless mills

Width (mm)	Europe	Asia
900	X	X
914	X	✓
1000	✓	X
1200	X	X
1219	X	✓
1250	✓	X
1500	✓	X
1524	X	✓

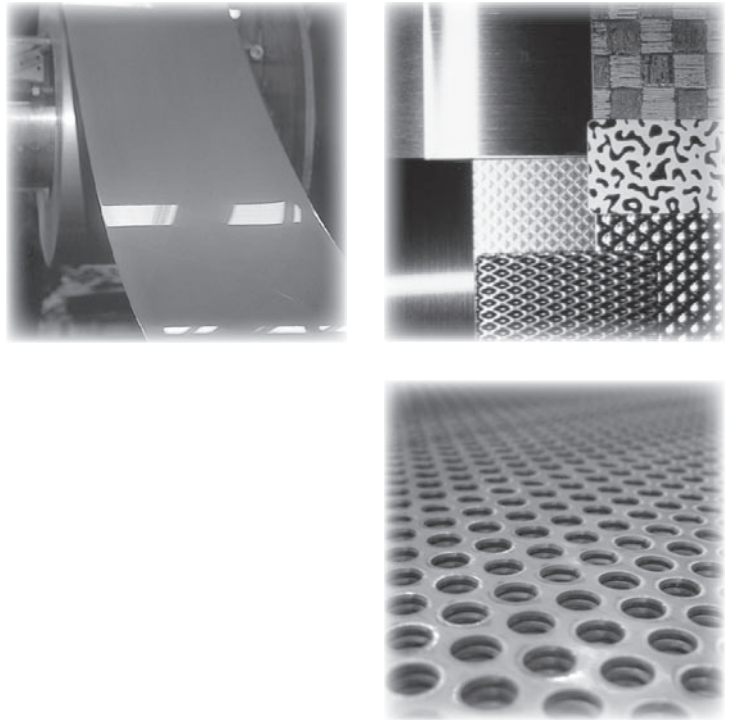
✓ = readily available

X = sometimes but not readily available

Round bar

Round bar is commonly available in imperial sizes, eg. 15.88mm, but may also be available in hard metric sizes, eg. 16.00mm diameter.

In some product areas, particularly flat product, the metric size appears and is taken to include the closest imperial measurement. Users of the *Guide* are strongly advised to contact their supplier to determine available sizes at an early stage in the design process.



COIL, SHEET AND PLATE

Product Description

Flat product up to and including 4.75mm in thickness, with a 2B finish or better, is referred to as sheet although it may be delivered in coils or as flat sheet. Plate is flat product greater than 4mm thick with a N⁰₁ finish; 2B finish may be available in some products up to 8.00mm.

Relevant Standards

ASTM A240/A240M	Heat resisting chromium and chromium-nickel stainless steel plate, sheet and strip for pressure vessels.
ASTM A480/A480M	General requirements for flat rolled stainless and heat resisting steel plate, sheet and strip.
ASTM A167	Stainless and heat resisting chromium-nickel steel plate, sheet and strip.
ASTM A176	Stainless and heat resisting chromium steel plate, sheet and strip.
ASTM A666	Austenitic stainless steel sheet, strip, plate and flat bar for structural applications.
EN 10088-2	Stainless steels - Part 2: Technical delivery conditions for sheet/plate and strip for general purposes.
ASTM B625	UNS No8904 plate, sheet and strip.

Stainless Steel COIL

Thickness (mm)	Width (mm)	304 2B	304 No 4 PC	304 BA PC	304 HRAP	316/316L 2B	316 No 4 PC	316L HRAP	321 2B	321 HRAP	430 BA PC	430 No 4 PC	Duplex 2205 2B	3CR12/5CR12	253 MA
0.45	914	•				•									
	1219	•				•					•				
0.50	914	•									•				
	1219	•				•					•				
0.55	914	•		•		•					•				
	1219	•				•					•				
0.70	914	•	•	•		•					•	•			
	1219	•	•	•		•					•	•			
0.90	600	•	•												
	750	•	•								•	•			
	914	•	•			•					•	•			
	1219	•	•	•		•	•				•	•			
1.20	600	•	•												
	750	•	•												
	914	•	•								•	•			
	1000	•	•												
	1214	•	•	•		•	•		•		•	•		•	
	1500*	•	•												
1.50/1.60	914	•	•			•									
	1000		•												
	1219	•	•			•	•		•					•	•
	1500*	•	•			•							•		
	2000												•		
2.00	914	•	•			•									
	1219	•	•			•	•		•				•	•	
	1500*	•				•							•	•	
	2000												•		•
2.50	914	•													
	1219	•				•								•	
	1500*	•				•									

***This size also covers the closest imperial measurement (1524mm). Check with your stockist for availability. For more information on metric and imperial sizing, turn to page 4.**

Key to abbreviations appears on page 2

Stainless Steel COIL

Thickness (mm)	Width (mm)	304 2B	304 No 4 PC	304 BA PC	304 HRAP	316/316L 2B	316 No 4 PC	316L HRAP	321 2B	321 HRAP	430 BA PC	430 No 4 PC	Duplex 2205 2B	3CR12/5CR12	253 MA
3.00	914	•				•									
	1219	•				•			•					•	
	1500*	•				•			•				•	•	
	2000	•				•							•		•
4.00	1500*	•			•	•		•						•	
	2000	•			•	•		•					•		•
5.00	1500*	•			•	•		•	•					•	
	2000	•			•	•		•	•						
6.00	1500*	•			•	•		•	•					•	
	2000	•			•	•		•		•				•	
8.00	1500*	•			•			•						•	
	2000				•			•							
10.00	1500*				•			•		•					
	2000				•			•							

*This size also covers the closest imperial measurement (1524mm). Check with your stockist for availability. For more information on metric and imperial sizing, turn to page 4.

Stainless Steel SHEET[◇]

Thickness (mm)	Width (mm)	Length (mm)*	304 2B	304 No 4 PC	304 BA PC	316/ 316L 2B	316 No 4 PC	321 2B	430 No 4 PC	430 BA PC	Duplex 2205 2B	3CR12/ 5CR12	253 MA
0.45	914	1800	•										
		2400	•	•									
	1219	1800	•			•							
		2400	•	•		•				•			
0.55	914	1800	•	•						•			
		2400	•	•									
	1219	1800	•	•		•							
		2400	•	•		•	•			•			
0.70	914	1800	•	•					•	•			
		2400	•	•					•	•			
	1219	1800	•	•		•				•			
		2400	•	•		•	•			•	•		
		3000	•	•					•				
0.90	914	1800	•	•		•	•		•	•			
		2400	•	•					•				
	1219	1800	•	•		•			•	•			
		2400	•	•	•	•	•			•	•		
		3000	•	•		•							
		3600	•	•									
1.20	914	1800	•	•		•	•						
		2400	•	•		•							
		3000	•	•									
		3600		•									
	1219	1800	•	•		•							
		2400	•	•	•	•	•	•	•	•	•		
		3000	•	•									
		3600		•									
1500*	3000	•	•		•								
	3600		•										

*This size also covers the closest imperial measurement (1524mm). Check with your stockist for availability. For more information on metric and imperial sizing, turn to page 4.

◇ 2B finish - for N°1 finish refer to Plate.

Key to abbreviations appears on page 2

STAINLESS STEEL STOCK GUIDE

Stainless Steel SHEET[◇]

Thickness (mm)	Width (mm)	Length (mm)*	304 2B	304 No 4 PC	304 BA PC	316/316L 2B	316 No 4 PC	321 2B	430 No 4 PC	430 BA PC	Duplex 2205 2B	3CR12/5CR12	253 MA
1.50/1.60	914	1800	•	•		•							
		2400	•	•		•							
		3000		•									
		3600	•	•									
	1219	2400	•	•	•	•	•	•					•
		3000	•	•		•							•
		3600		•		•							
	1250	2500											•
	1500*	2400	•	•		•							
		3000	•	•		•	•				•		
2.00	914	1800	•	•		•							
		2400	•	•		•							
		3000	•										
	1219	1800	•	•		•							
		2400	•	•		•	•	•					•
		3000	•	•		•							•
	1250	2500										•	
	1500*	2400	•	•		•		•					
		3000	•	•		•	•				•	•	
	2000	3000									•		•
2.50	914	1800	•										
		2400	•										
	1219	1800	•	•									
		2400	•	•		•							
		3000	•	•									
1500*	3000	•			•								
3.00	914	1800	•			•							
		2400	•			•							

*This size also covers the closest imperial measurement (1524mm). Check with your stockist for availability. For more information on metric and imperial sizing, turn to page 4.

◇ 2B finish - for N^o1 finish refer to Plate.

Stainless Steel SHEET[◇]

Thickness (mm)	Width (mm)	Length (mm)*	304 2B	304 No 4 PC	304 BA PC	316/316L 2B	316 No 4 PC	321 2B	430 No 4 PC	430 BA PC	Duplex 2205 2B	3CR12/5CR12	253 MA
	1219	1800	•	•		•							
		2400	•	•		•	•	•				•	
		3000	•	•		•							
	1250	2500									•		•
	1500*	3000	•	•		•		•			•	•	
		6000	•			•		•			•	•	
	2000	6000	•			•					•		•
4.00	1219	2400	•			•						•	
	1500*	3000	•			•							
		6000	•			•							
	2000	6000	•			•							
5.00	1219	2400	•			•							
	1500*	3000	•			•							
		6000	•			•							
	2000	6000	•			•							
6.00	1219	2400	•			•							
	1500*	3000	•			•							
		6000	•			•							
	2000	6000	•			•							
8.00	1500*	3000	•			•							
		6000	•			•							

*This size also covers the closest imperial measurement (1524mm). Check with your stockist for availability. For more information on metric and imperial sizing, turn to page 4.

◇ 2B finish - for N^o1 finish refer to Plate.

Stainless Steel PERFORATED SHEET - GRADE 304

Hole dia (mm)	Centres (mm)	Thickness (mm)	Width (mm)	Length (mm)
1.60	2.54	0.7	1200	2400
2.01	3.00	0.9	1200	2400
3.25	4.52	0.9	1200	2400
3.25	5.59	1.5	1200	2400
4.80	*	0.9	1200	2400
4.80	*	1.2	1200	2400
4.80	*	1.6	1200	2400
6.35	9.55	1.5	1200	2400
9.53	14.30	1.5	1200	2400
12.70	17.30	1.5	1200	2400

*variable - contact supplier

Stainless Steel PLATE*

Thickness (mm)	Width (mm)	Length (mm)	304/304L HRAP	316/316L HRAP	321 HRAP	Duplex 2205 HRAP	3CR12/ 5CR12 HRAP	253MA HRAP
4.00	1500	3000	•	•			•	
		6000	•	•				
5.00	2000	6000	•	•		•		•
		1500	3000	•	•		•	
	1500	6000	•	•	•	•	•	
6.00	2000	6000	•	•	•	•	•	•
		1500	6000	•	•		•	•
	2500	6000	•	•				
8.00	3000	7500	•	•				
		1500	6000	•	•	•	•	•
	2000	6000	•	•	•	•	•	
	2500	6000	•	•				
	1500	3000	•	•				
10.00	3000	7500	•	•				
		1500	6000	•	•	•	•	•
	2000	6000	•	•	•	•	•	
	2500	7500	•	•			•	
12.00	3000	7500	•	•				
		1500	6000	•	•	•	•	•
	2000	6000	•	•	•	•	•	
	2500	7500	•	•			•	
13.00	3000	7500	•	•				
		1500	6000	•	•	•	•	•
	2000	6000	•	•	•	•	•	

NB. Sizes also cover the closest imperial measurement. For more information turn to page 4.

*N°1 finish (HRAP) is standard. 2B finish may be available in thicknesses up to about 8.00mm. See page 9.)

Stainless Steel PLATE*

Thickness (mm)	Width (mm)	Length (mm)	304/304L HRAP	316/316L HRAP	321 HRAP	Duplex 2205 HRAP	3CR12/ 5CR12 HRAP	253MA HRAP
15.00	2000	6000	•					
	2750	5000	•					
16.00	1500	6000	•	•				
	2000	6000	•	•	•	•	•	•
	2500	7500	•	•				
19.00	3000	7500	•	•				
	2000	6000	•	•	•		•	•
	2500	8000	•	•				
20.00	2000	6000	•	•	•	•	•	
	2500	8000	•	•				
	3000	7500	•	•				
25.00	1500	6000	•	•				
	2000	6000	•	•	•	•	•	•
	2500	7500	•	•				
32.00	3000	7500	•	•				
	1500	6000	•	•				
	2000	6000	•	•	•	•		
40.00	2500	8000	•	•				
	3000	6000	•	•				
	2000	6000	•	•	•	•		
50.00	2000	6000	•	•		•		
65.00	3000	4000	•	•				
80.00	3000	3000	•	•				
100.00	2000	3000		•				

NB. Sizes also cover the closest imperial measurement. For more information turn to page 4.

*N°1 finish (HRAP) is standard. 2B finish may be available in thicknesses up to about 8.00mm. See page 9.



BAR

Product Description

Stainless steel bar comprises numerous long products referred to by the shape, the section dimension, grade, condition and surface finish.

Sizes 25.4mm and lower are generally drawn. Sizes above 25.4mm and less than 101.6mm are generally annealed, turned and polished. Sizes above 101.6mm are generally rough turned to k12 tolerance.

Grades 431 and 2205 are often stocked in a smooth turned or centreless ground finish.

Relevant Standards

ASTM A276	Stainless and heat resisting steel bars and shapes.
ASTM A484/A484M	General requirements for stainless and heat resisting steel bars, billets and forgings.
ASTM A479/A479M	Stainless and heat resisting steel bars and shapes for use in boilers and other pressure vessels.
AS 2837	Wrought alloy steels – stainless steel bars and semi-finished products.
ASTM A564/A564M	Hot rolled and cold finished age-hardening stainless and heat resisting steel bars and shapes.
ASTM A582/A582M	Free machining stainless and heat resisting steel bars and hot rolled or cold finished.
ASTM A193/A193M	Alloy steels and stainless steel bolting materials for high temperature service.
ASTM A194/A194M	Carbon and alloy steel nuts for bolts for high pressure and high temperature service.
ASTM A320/A320M	Alloy steel bolting materials for low temperature service.
ASTM A453/A453M	Bolting materials, high temperature 345-827MPa yield strength with expansion coefficients comparable to austenitic steel.
EN 10088-3	Stainless steels – Part 3: Technical delivery conditions for semi-finished products, bars, rods and sections for general purposes.

Stainless Steel ROUND BAR

Diameter (mm)	Diameter (inches)	303	304/ 304L	316/ 316L	431	Duplex 2205	253 MA
3.18	0.125	•	•	•			
3.97	0.156		•	•			
4.76	0.187	•	•	•			
5.00	0.197	•	•	•			
6.00	0.236	•	•	•			
6.35	0.250	•	•	•			
7.95	0.313	•	•	•			
8.00	0.315	•	•	•			•
9.52	0.375	•	•	•	•		
10.00	0.394	•	•	•		•	•
11.11	0.437	•	•	•			
12.00	0.472	•	•	•		•	•
12.70	0.500	•	•	•	•		
14.00	0.551			•			
14.29	0.563	•	•	•			
15.88	0.625	•	•	•	•		
16.00	0.630	•	•	•		•	•
18.00	0.709			•			
19.05	0.750	•	•	•	•	•	
20.00	0.787	•	•	•		•	•
22.00	0.866	•		•			
22.23	0.875	•	•	•	•	•	
24.00	0.945		•	•		•	
25.00	0.984	•	•	•		•	•
25.40	1.000	•	•	•	•	•	
28.58	1.125	•	•	•	•	•	
30.00	1.181		•	•		•	
31.75	1.250	•	•	•	•	•	
34.93	1.375	•	•	•	•	•	
35.00	1.378		•	•			•
36.00	1.417		•	•		•	
38.10	1.500	•	•	•	•	•	

Improved machinability quality is available in most grades of stainless steel.

Stainless Steel ROUND BAR

Diameter (mm)	Diameter (inches)	303	304/ 304L	316/ 316L	431	Duplex 2205	253 MA
40.00	1.575	•	•	•	•	•	•
41.27	1.625		•	•			
44.45	1.750	•	•	•	•	•	
47.63	1.875			•			
50.00	1.969	•	•	•	•	•	•
50.80	2.000	•	•	•	•	•	
53.97	2.125	•	•	•			
57.15	2.250		•	•	•	•	
60.00	2.362			•	•	•	
63.50	2.500		•	•	•	•	
65.00	2.559			•		•	
69.85	2.750		•	•	•	•	
70.00	2.756					•	•
76.20	3.000	•	•	•	•	•	
80.00	3.150					•	•
82.55	3.250		•	•	•	•	
88.90	3.500		•	•	•	•	
95.25	3.750			•		•	
101.60	4.000		•	•	•	•	
110.00	4.330		•	•		•	•
114.30	4.500		•	•			
120.00	4.724			•			
127.00	5.000		•	•			
130.00	5.118		•	•			
140.00	5.512			•		•	
152.40	6.000		•	•		•	•
165.00	6.496			•			
170.00	6.693			•			
180.00	7.087		•	•			

Improved machinability quality is available in most grades of stainless steel.

Stainless Steel ROUND BAR

Diameter (mm)	Diameter (inches)	303	304/ 304L	316/ 316L	431	Duplex 2205	253 MA
203.20	8.000			•		•	
205.00	8.071			•			
228.60	9.000			•			
254.00	10.000			•		•	
280.00	11.020			•			
304.80	12.000			•			
310.00	12.204					•	
330.00	12.992			•		•	
355.60	14.000			•		•	
375.00	14.764			•			
400.00	15.748			•		•	

Improved machinability quality is available in most grades of stainless steel.

Stainless Steel HEXAGONAL BAR[§]

Across Flats mm	Across Flats inches	Weight kg/m	303	316
9.53	0.375	0.62		•
13.34	0.525	1.21	•	•
15.27	0.601	1.59	•	•
18.03	0.710	2.21	•	•
19.05	0.750	2.47	•	•
20.83	0.820	2.95	•	•
22.23	0.875	3.36		•
23.37	0.920	3.72	•	
24.00	0.945	3.92	•	
25.65	1.010	4.48	•	•
28.58	1.125	5.56		•
30.48	1.200	6.32	•	•
31.75	1.250	6.86		•
33.05	1.300	7.42		•
34.92	1.374	8.30		•
37.59	1.479	9.59		•
42.42	1.670	12.22		•
47.63	1.875	15.40		•
50.80	2.000	17.52		•
57.15	2.250	22.17		•

[§] cold drawn

Stainless Steel FLAT BAR

Thickness (mm)	Width (mm)	304	316
3.00	12.00	•	•
	20.00	•	•
	25.00	•	•
	30.00	•	•
	40.00	•	•
	50.00	•	•
	75.00	•	•
5.00	20.00	•	•
	25.00	•	•
	30.00	•	•
	40.00	•	•
	50.00	•	•
	65.00	•	•
	75.00	•	•
6.00	100.00	•	•
	12.00	•	•
	20.00	•	•
	25.00	•	•
	30.00	•	•
	40.00	•	•
	50.00	•	•
	65.00	•	•
	75.00	•	•
	100.00	•	•
8.00	150.00	•	•
	200.00	•	•
	25.00	•	•
	30.00	•	•
	40.00	•	•
	50.00	•	•

Flat bars are manufactured by either hot rolling (HRAP) or by cold slitting of coil (SRE).

Stainless Steel FLAT BAR

Thickness (mm)	Width (mm)	304	316
	65.00	•	•
	75.00	•	•
	100.00	•	•
	150.00	•	•
10.00	20.00	•	•
	25.00	•	•
	30.00	•	•
	40.00	•	•
	50.00	•	•
	65.00	•	•
	75.00	•	•
	100.00	•	•
	125.00	•	•
	150.00	•	•
	200.00	•	•
	250.00	•	
12.00	25.00	•	•
	30.00	•	•
	40.00	•	•
	50.00	•	•
	65.00	•	•
	75.00	•	•
	100.00	•	•
	125.00	•	•
	150.00	•	•
16.00	40.00	•	•
	50.00	•	•
	75.00	•	•

Flat bars are manufactured by either hot rolling (HRAP) or by cold slitting of coil (SRE).

Stainless Steel
FLAT BAR

Thickness (mm)	Width (mm)	304	316
	100.00	•	•
	150.00	•	
20.00	40.00	•	•
	50.00	•	•
	65.00	•	
	75.00	•	•
	100.00	•	•
25.00	50.00	•	•
	75.00	•	•
	100.00	•	•

Flat bars are manufactured by either hot rolling (HRAP) or by cold slitting of coil (SRE).

Stainless Steel SQUARE BAR[✧]

Across Flats (mm)	Across Flats (inches)	304	316
5.00	0.20	•	
6.00	0.24		•
6.35	0.25		•
8.00	0.32		•
9.52	0.38		•
10.00	0.39	•	•
12.00	0.47	•	•
12.70	0.50		•
16.00	0.63	•	•
19.05	0.75		•
20.00	0.78	•	•
25.00	0.98	•	•
25.40	1.00		•
31.75	1.25	•	•
32.00	1.26	•	•
35.00	1.38		•
38.00	1.50	•	•
40.00	1.60	•	•
50.00	2.00	•	•

[✧] May be available in cold drawn or hot rolled finish.

Stainless Steel EQUAL ANGLE BAR

Size (mm)	Approx weight (kg/m)	304	316
20 x 20 x 3	0.9	•	•
25 x 25 x 3	1.2	•	•
25 x 25 x 5	1.8	•	•
25 x 25 x 6	2.1	•	•
30 x 30 x 3	1.4	•	•
30 x 30 x 4	1.8	•	•
30 x 30 x 5	2.2	•	•
30 x 30 x 6	2.6	•	•
40 x 40 x 3	1.9	•	•
40 x 40 x 4	2.5	•	•
40 x 40 x 5	3.0	•	•
40 x 40 x 6	3.5	•	•
50 x 50 x 3	2.4	•	•
50 x 50 x 5	3.8	•	•
50 x 50 x 6	4.5	•	•
50 x 50 x 10	7.1	•	•
60 x 60 x 6	5.5	•	•
65 x 65 x 6	6.0	•	•
65 x 65 x 8	7.7	•	•
65 x 65 x 10	9.5	•	•
75 x 75 x 6	6.9	•	•
75 x 75 x 8	8.9	•	•
75 x 75 x 10	11.1	•	•
75 x 75 x 12	13.1		•
100 x 100 x 6	9.3	•	•
100 x 100 x 8	12.2	•	•
100 x 100 x 10	15.0	•	•
100 x 100 x 12	17.8		•

Stainless Steel UNEQUAL ANGLE BAR GRADE 316

Size (mm)	Approx weight (kg/m)
75 x 50 x 6	5.71
100 x 75 x 6	8.10
150 x 90 x 9	16.50

Unequal angle bar can be made in a wide variety of sizes. Contact supplier for details.

Stainless Steel CHANNELS - GRADE 316

Dimensions (mm) Thickness x Flange x Web [(B) x (H) x (t)]
40 x 20 x 3
50 x 25 x 3
80 x 40 x 5
100 x 50 x 6
130 x 65 x 6
150 x 75 x 6
200 x 100 x 10

Stainless Steel HOLLOW BAR - GRADE 316[^]

Outside diameter (mm)	Inside diameter (mm)	Average weight (kg/m)	Chucked true to the OD Max OD (mm)	Chucked true to the OD Max ID (mm)	Chucked true to the ID Max OD (mm)	Chucked true to the ID Max ID (mm)
32	20	4.20	31.0	21.9	30.1	21.0
	16	5.07	31.0	18.0	30.0	17.0
36	25	4.55	35.0	26.9	34.1	26.0
	20	5.91	35.0	22.0	34.0	21.0
	16	6.78	35.0	18.1	33.9	17.0
40	28	5.49	39.0	29.9	38.1	29.0
	25	6.47	39.0	27.0	38.0	26.0
	20	7.83	39.0	22.1	37.9	21.0
45	32	6.7	44.0	33.9	43.1	33.0
	28	8.17	44.0	30.0	43.0	29.0
	20	10.5	44.0	22.2	42.8	21.0
50	36	8.01	49.0	38.0	48.0	37.0
	32	9.7	49.0	34.1	47.9	33.0
	25	12.1	49.0	27.2	47.8	26.0
56	40	10.2	55.0	42.0	54.0	41.0
	36	12.1	55.0	38.1	53.9	37.0
	28	15.2	55.0	30.3	53.7	29.0
63	50	9.9	62.0	51.9	61.1	51.0
	40	15.4	62.0	42.2	60.8	41.0
	32	19.0	62.0	34.4	60.6	33.0
71	56	12.9	69.9	58.0	68.9	57.0
	45	19.6	69.9	47.3	68.6	46.0
	36	24.1	69.9	38.5	68.4	37.0
80	63	16.4	78.8	65.0	77.8	64.0
	50	25.3	78.6	52.4	77.4	51.0
	45	28.3	78.8	47.5	77.3	46.0
	40	30.9	78.8	42.6	77.2	41.0
85	45	33.5	83.7	47.6	82.1	46.0

[^] Usually available in Grade 316L.

Stainless Steel HOLLOW BAR - GRADE 316[^]

Outside diameter (mm)	Inside diameter (mm)	Average weight (kg/m)	Chucked true to the OD Max OD (mm)	Chucked true to the OD Max ID (mm)	Chucked true to the ID Max OD (mm)	Chucked true to the ID Max ID (mm)
90	71	20.6	88.6	73.1	87.6	72.1
	63	27.1	88.6	65.3	87.3	64.0
	50	36.1	88.6	52.6	87.0	51.0
95	50	42.1	93.5	52.7	91.8	51.0
100	80	24.4	98.5	82.3	97.4	81.2
	71	32.7	98.5	73.4	97.2	72.1
	56	42.3	98.5	58.7	96.8	57.0
106	80	32.3	104.4	82.5	103.1	81.2
	71	40.6	104.4	73.5	103.0	72.1
	56	52.1	104.4	58.9	102.5	57.0
112	90	30.2	110.3	92.5	109.2	91.4
	80	40.6	110.3	82.6	108.9	81.2
	63	55.3	110.3	65.8	108.5	64.0
118	90	39.0	116.2	92.7	114.9	91.4
	80	49.4	116.2	82.8	114.6	81.2
	63	64.2	116.2	66.0	114.2	64.0
125	100	38.3	123.1	102.7	121.9	101.5
	90	49.8	123.1	92.8	121.7	91.4
	71	68.5	123.1	74.0	121.2	72.1
132	106	42.0	130.0	108.8	128.8	107.6
	90	61.1	130.0	93.0	128.4	91.4
	71	79.7	130.0	74.2	127.9	72.1
140	112	47.8	137.9	115.0	136.6	113.7
	100	63.3	137.9	103.1	136.3	101.5
	80	85.2	137.9	83.3	135.8	81.2
150	125	47.4	147.7	128.1	146.5	126.9
	106	74.2	147.7	109.3	146.0	107.6
	80	101.0	147.7	83.6	145.3	81.2

[^] Usually available in Grade 316L.

Stainless Steel HOLLOW BAR - GRADE 316[^]

Outside diameter (mm)	Inside diameter (mm)	Average weight (kg/m)	Chucked true to the OD Max OD (mm)	Chucked true to the OD Max ID (mm)	Chucked true to the ID Max OD (mm)	Chucked true to the ID Max ID (mm)
160	132	56.2	157.6	135.3	156.3	134.0
	112	85.8	157.6	115.5	155.8	113.7
170	140	63.8	167.4	143.5	166.0	142.1
	118	98.4	167.4	121.7	165.5	119.8
180	150	68.4	177.3	153.6	176.0	152.3
	125	110.0	177.3	128.9	175.3	126.9
190	160	73.0	187.1	163.8	185.7	162.4
	132	123.0	187.0	136.0	185.1	134.0
200	160	97.6	197.0	164.0	195.4	162.4
	140	134.0	197.0	144.2	194.9	142.1
212	170	109.0	208.8	174.2	207.2	172.6
	130	182.0	208.6	134.6	206.2	132.0
224	180	121.0	220.6	184.4	218.9	182.7
	140	199.0	220.6	144.8	217.9	142.1
236	190	133.0	232.4	194.6	230.7	192.9
	150	216.0	232.4	155.0	229.7	152.3
250	200	153.0	246.2	204.9	244.3	203.0

[^] Usually available in Grade 316L.



WIRE

Product Description

A wide range of wire types is produced to order for use in diverse applications.

Relevant Standards

ASTM A313/A313M	Chromium-nickel stainless and heat resisting steel spring wire.
ASTM A493	Stainless and heat resisting steel for cold heading and cold forging wire.
ASTM A580/A580M	Stainless and heat resisting steel wire.
ASTM A581/A581M	Free machining stainless and heat resisting steel wire and wire rods.
ASTM A555/A555M	General requirements for stainless and heat resisting steel wire and wire rods.
JIS G4309	Stainless steel wires.
JIS G4314	Stainless steel wires for springs.
AWS A5.4	Specification for covered corrosion resisting chromium and chromium-nickel steel welding electrodes.
AWS A5.9	Specification for corrosion resisting chromium and chromium-nickel steel bar and composite metal cored and stranded welding electrodes and welding rods.

Stainless Steel

GENERAL ENGINEERING WIRE

Condition and finish	Description	Size range (mm)
Annealed and pickled (ANN)	Grey matt finish, annealed and pickled after drawing to size.	3.00 - 16.00
Bright annealed (BA)	Semi bright finish obtained by strand annealing in a protective environment.	1.00 - 7.00
Bright drawn (BD)	Bright finish - wire given a cold draw in oil and cleaned to improve surface lustre.	1.00 - 16.00
Cold drawn (CD)	Semi matt finish - lightly drawn in soap. Can be supplied cleaned.	1.00 - 16.00
Temper drawn	Cold drawn in oil (BD) or soap (CD) to produce specific tensile strength.	1.00 - 12.00
Spring temper (ST)	Cold drawn to spring hard temper. Supplied with lubricant coating to aid spring coiling. Can be supplied cleaned.	1.00 - 16.00
Super-coat (SC)	Semi bright finish, coated with non-metallic lubricant and lightly drawn in soap; or annealed and coated at final size for cold heading.	1.00 - 16.00

Grades: 302HQ, 303, 304, 304L, 316 and 316L. Other grades on request.

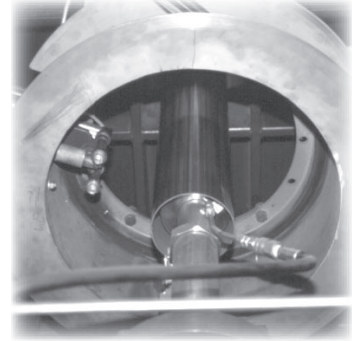
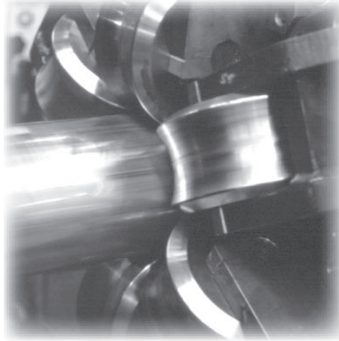
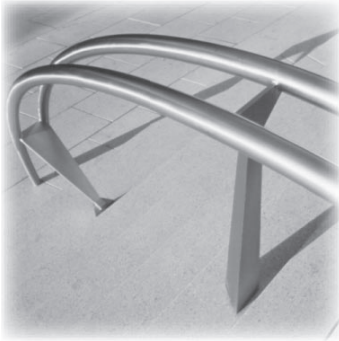
Diameter range: Drawn wire (CD, BD) 1.00 to 16.00 mm.
Bright annealed (BA) 1.00 to 6.00 mm.
Annealed and pickled (ANN) 3.00 to 16.00 mm.
Other sizes on request.

Coatings: **Super-coat/spring-coat:** Water soluble coatings applied by dipping and baking to act as a lubricant carrier in subsequent forming. Wire can be drawn in soap to provide an additional stearate lubricant coating.

Lime: A thin uniform coating of lime applied by dipping and baking.

Soap-coated: CD wire is usually supplied with drawing soap left on to facilitate subsequent forming.

Oiled: BD wire can be supplied with the drawing oil left on to assist subsequent fabrication.



PIPE AND TUBE

Product Description

Pipe is defined by nominal size and schedule. Welded pipe to ASTM A312/A312M (usually stocked) is manufactured from strip and longitudinally welded without the addition of filler metal. Seamless pipe is produced from hollow billets drawn to the desired length.

Tube is defined by an outside dimension (OD) and wall thickness. It is manufactured in round, square or rectangular sections.

Relevant Standards

ASTM A312/A312M	Seamless and welded austenitic stainless steel pipe.
ASTM A790/A790M	Seamless and welded ferritic/austenitic stainless steel pipe.
ASTM A358/A358M	Electric-Fusion-Welded (EFW) austenitic chromium-nickel alloy steel pipe for high temperature service.
ASTM A409/A409M	Welded large diameter austenitic steel pipe for corrosive or high temperature service.
ASTM A731/A731M	Seamless and welded ferritic and martensitic stainless steel pipe.
ASTM A450/A450M	General requirements for carbon, ferritic alloy and austenitic alloy steel tubes.
ASTM A530/A530M	General requirements for specialised carbon and alloy steel pipe.
ASTM A999/A999M	General requirements for alloy and stainless steel pipe.
JIS G3459	Stainless steel pipes (Japanese manufacture).
ANSI/ASME B36.10M	Welded and seamless wrought steel pipe.
ANSI/ASME B36.19M	Stainless steel pipe.
ASTM B673/B673M	UNS No8904 welded pipe.
ASTM B677	UNS No8904 seamless pipe and tube.
ASTM A789/A789M	Seamless and welded ferritic/austenitic stainless steel tubing for general service.
ASTM A511	Seamless stainless steel mechanical tubing.
ASTM A450/A450M	General requirements for carbon, ferritic alloy and austenitic alloy tubes.
DIN 17 456	General purpose seamless circular stainless steel tubes – ferritic and austenitic.

Stainless Steel PIPE

Schedule	DN	304/304L SMLS	304L WLD	316/316L SMLS	316L WLD	321 SMLS	Duplex 2205 SMLS	Duplex 2205 WLD
10S	6			•	•			
	8			•				
	10			•				
	15	•	•	•	•			
	20	•	•	•	•			
	25	•	•	•	•		•	
	32	•	•	•	•			
	40	•	•	•	•		•	
	50	•	•	•	•		•	
	65	•	•	•	•			
	80	•	•	•	•		•	
	90		•	•	•			
	100	•	•	•	•		•	
	125				•			
	150	•	•	•	•			•
	200	•	•			•		
	250		•			•		
	300		•			•		
	350					•		
	400					•		
450					•			
500					•			
600								
40S	6			•				
	8			•	•			
	10			•				
	15	•	•	•	•		•	
	20	•	•	•	•		•	
	25	•	•	•	•		•	
	32	•	•	•	•			
	40	•	•	•	•		•	

Stainless Steel PIPE

Schedule	DN	304/304L SMLS	304L WLD	316/316L SMLS	316L WLD	321 SMLS	Duplex 2205 SMLS	Duplex 2205 WLD
	50	•	•	•	•	•	•	
	65	•	•	•	•	•		
	80	•	•	•	•	•	•	
	90		•					
	100	•	•	•	•	•		
	125	•	•		•			
	150	•	•	•	•			
	200		•		•			
	250		•		•			
	300		•		•			
	350		•		•			
	400		•		•			
	450		•		•			
	500		•		•			
80S	6				•			
	10			•				
	15	•		•				
	20			•		•		
	25	•		•		•		
	32	•		•		•		
	40	•		•		•		
	50			•		•		
	65			•				
	80	•		•		•		
	100			•				
	125							

Stainless Steel PIPE

Schedule	DN	304/304L SMLS	304L WLD	316/316L SMLS	316L WLD	321 SMLS	Duplex 2205 SMLS	Duplex 2205 WLD
160S	15			•				
	20	•		•				
	25			•				
	32			•				
	40			•				
	50			•				
	65			•				
	80			•				
	100			•				
	XXS	20			•			
25				•				
32				•				
40				•				
50				•				
65				•				
80				•				

Fittings are available to match the standard pipe sizes. These are most commonly in grade 316L welded construction, but 316L seamless and other grades – such as 304L, 316, 304, 321 and 2205 – may also be available.

Standard fittings include:

- >butt welding – 90° and 45° bends, tees, reducers, crosses and caps
- >BSP “150lb” threaded fittings – sockets, elbows, tees, plugs, etc.
- >threaded NPT fittings, commonly in classes 3000 or 6000
- >socket welding fittings, commonly in classes 3000, 6000 or 9000
- >ASME forged flanges, SORF, WNRF etc.
- >AS 2129 “Table” flanges; Tables D and E are standard.

STAINLESS STEEL STOCK GUIDE

Stainless Steel ROUND TUBE

Wall Thickness (mm)	Outside Diameter (mm)	304 AW	304 AW POL	304 AW ANN	304 SMLS CW ANN	304 AW ANN POL	316 AW	316 AW POL	316 AW ANN	316 AW ANN POL	316 AW CW ANN	316 SMLS CW ANN	316 SMLS	321 SMLS CW ANN	409 AW
0.41	3.18						DWAC		•						
0.46	15.90			•											
0.50	4.76	•		•											
	6.35	•		•											
	7.90			•											
	9.53	•		•											
	12.70	•		•											
	15.88		•												
	19.05	•													
0.70	3.18						DWAC								
	6.35			•										•	
	12.70	•	•	•									•		
	15.88	•	•												
	19.05	•						•							
	38.10	•		•									•		
0.79	3.18											•			
0.90	4.76											•			
	6.35											•		•	
	7.94											•			
	9.53											•		•	
	12.70				•							•		•	
	19.05											•			
1.20	6.35											•		•	
	7.95											•			
	9.53	•	•	•	•		•		•			•	•	•	
	11.11	•		•											
	12.70	•	•	•	•		•	•	•	•		•	•	•	
	15.88	•	•	•			•		•			•	•		
	19.05	•	•	•	•	•	•	•	•	•		•	•		
	22.20	•	•	•		•	•	•	•	•					
	25.40	•	•	•	•	•	•	•	•	•	•	•	•	•	
	31.75	•	•	•					•	•					

Stainless Steel ROUND TUBE

Wall Thickness (mm)	Outside Diameter (mm)	304 AW	304 AW POL	304 AW ANN	304 SMLS CW ANN	304 AW ANN POL	316 AW	316 AW POL	316 AW ANN	316 AW ANN POL	316 AW CW	316 SMLS CW ANN	316 SMLS	321 SMLS CW ANN	409 AW
	38.10	•	•	•		•	•		•	•	•	•	•		
	50.80	•	•							•		•			
1.50	38.10														•
	41.27														•
	44.50														•
	47.62														•
	50.80														•
	57.15														•
	63.50														•
1.60	6.35				•							•	•		
	7.94											•	•		
	9.53	•		•			•		•			•	•	•	
	12.70	•	•	•	•	•	•	•	•	•		•	•	•	
	15.88	•	•				•		•	•		•	•	•	
	19.05	•FT	•	•	•	•	•	•	•	•		•	•	•	
	22.20	•	•	•		•	•	•	•	•		•		•	
	25.40	•FT	•	•	•	•	•	•	•	•	•	•	•	•	
	31.75	•FT	•	•		•	•	•	•	•			•		
	38.10	•FT	•	•	•	•	•	•	•	•	•	•	•	•	
	44.45	•	•	•		•		•							
	50.80	•FT	•	•	•	•	•	•	•	•	•	•	•	•	
	63.50	•FT	•	•		•	•	•	•	•	•	•	•		
	76.20	•FT	•	•		•	•	•	•	•	•	•	•		
	88.90	•		•			•		•		•				
	101.60	•FT	•	•		•	•	•	•	•	•				
	127.00	•					•		•						
	152.40						•		•						
2.00	12.70											•	•	•	
	19.05			•								•	•		
	25.40	•		•								•	•		
	31.75	•													

FT: Food Tubing available to AS 1528 Part 1, as welded (not annealed) polished and not.

Key to abbreviations appears on page 2

STAINLESS STEEL STOCK GUIDE

Stainless Steel ROUND TUBE

Wall Thickness (mm)	Outside Diameter (mm)	304 AW	304 AW POL	304 AW ANN	304 SMLS CW ANN	304 AW ANN POL	316 AW	316 AW POL	316 AW ANN	316 AW ANN POL	316 AW CW ANN	316 SMLS CW ANN	316 SMLS	321 SMLS CW ANN	409 AW
	38.10	•		•								•	•		
	50.80	•		•			•		•						
	63.50	•													•
	76.20	•		•			•								
	101.60	•					•		•						
	152.40	•													
	203.20	•					•								
2.11	12.70												•		
	19.05												•		
	25.40												•		
2.60	12.70												•		
2.64	19.05												•		
	25.40												•		
	44.45												•		
3.00	76.20	•													
3.20	31.75											•	•		
	25.40											•			
	38.10											•	•		
	50.80											•	•	•	
	76.20	•										•			
3.25	19.05											•			
	25.40											•			
	50.80	•		•											
	63.50											•			
	76.20	•										•			
	101.60	•										•			

Fittings are available for common tube sizes. These are most commonly stocked in grade 304 and to a lesser extent in grade 316. The fittings are generally in compliance with AS 1528, Parts 2 to 4 for food industry applications, in 1.6mm wall thickness and standard inch series outside diameters: bends, tees, reducers, 304, polished and not, sanitary fittings, clamp liners.

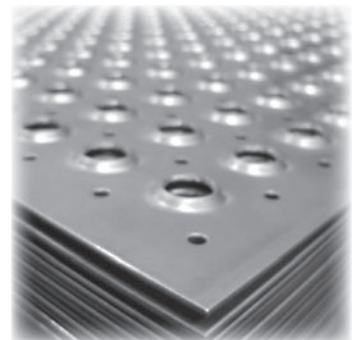
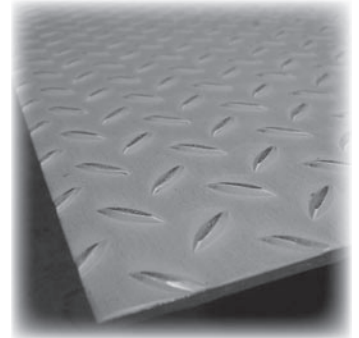
Stainless Steel
SQUARE TUBE

Diameter (mm)	Wall thickness thickness	304	316
12.70	0.9	•	
12.70	1.2	•	•
19.05	1.2	•	•
19.05	1.6	•	•
22.20	1.2	•	
22.20	1.6	•	
25.00	2.0	•	•
25.00	3.0	•	
25.40	1.2	•	•
25.40	1.6	•	•
31.75	1.2	•	•
31.75	1.6	•	•
32.00	2.0	•	•
38.10	1.2	•	•
38.10	1.6	•	•
38.10	3.0	•	•
40.00	3.0	•	•
50.00	1.6	•	•
50.00	2.0	•	
50.00	3.0	•	•
60.00	3.0	•	•
80.00	2.0	•	
80.00	3.0	•	•
100.00	3.0	•	•
100.00	5.0	•	•
150.00	3.0	•	•
150.00	5.0	•	•

Stainless Steel RECTANGULAR TUBE[□]

Dimensions (mm)	Wall thickness (mm)	304	316
31.75 x 12.7	1.2	•	
31.75 x 12.7	1.6	•	
38.1 x 12.7	1.2	•	
38.1 x 25.4	1.6	•	•
40.0 x 10.0	1.5		•
40.0 x 20.0	1.2	•	•
40.0 x 20.0	1.6	•	•
40.0 x 20.0	2.0	•	•
50.0 x 10.0	1.5	•	•
50.0 x 25.0	1.2	•	•
50.0 x 25.0	1.6	•	•
50.0 x 25.0	3.0	•	•
60.0 x 40.0	3.0	•	•
65.0 x 38.0	3.0	•	•
76.2 x 25.4	1.6	•	•
80.0 x 40.0	1.5	•	
80.0 x 40.0	3.0	•	•
84.1 x 38.1	1.6	•	•
84.0 x 38.0	3.0	•	•
100.0 x 50.0	2.0	•	
100.0 x 50.0	3.0	•	•
100.0 x 50.0	5.0	•	•
150.0 x 75.0	5.0	•	
150.0 x 100.0	5.0	•	•
200.0 x 100.0	6.0	•	•

[□] May be available in AW and AWBP finishes.



SAFETY FLOORING PRODUCT

Product Description

Highly effective non-slip plates and sheets, intended for use in industrial, agricultural and some commercial applications. Not intended for high volume public thoroughfares.

Safety Floor Sheet is a unique perforated material with 360° grip design and drain holes so liquids do not pool.

Floor(Chequer) Plate in hot rolled or cold pressed with a universal grip design and ridge strength.

Standards

ASTM A480/A480M General requirements for flat rolled stainless and heat resisting steel plate, sheet and strip

ISO 10630 Industrial plate screens – Specifications and test methods

Stainless Steel

SAFETY FLOORING PRODUCTS

Product	Thickness (mm)	Width (mm)	Length (mm)	304 HR	304 Pressed	3CR12/ 5CR12
Safety Floor Sheet	2.00	1220	2440		•	
		1220	3000		•	
		1500	3000		•	
Floor (Chequer) Plate	1.00	1200	2400		•	
		1200	2400		•	
		1200	2400	•	•	
		1200	2400	•		
		1200	2400	•		
		1500	3000	•		
		1200	2400	•		
		1200	3000			•
		1500	3000	•		
		1500	3000	•		

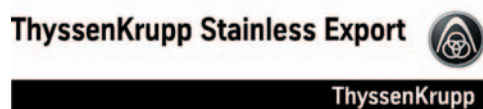
ASSDA

AUSTRALIAN STAINLESS STEEL DEVELOPMENT ASSOCIATION

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