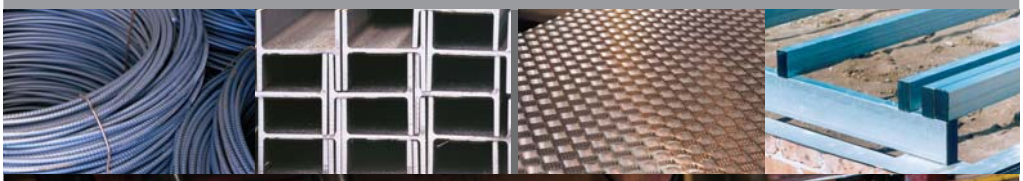
tubular | beams | channels | columns | angles | bar | plate | reinforcing



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Know Your Steel

Steel Mass Reference & Product Catalogue

Yes,

we can.

tubular | beams | channels | columns | angles | bar | plate | reinforcing

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February 2014: Edition 1

Foreword

This publication has been prepared by OneSteel Metalcentre which is an operating business of OneSteel Distribution, OneSteel Trading Pty Limited ABN 50 007 519 646.

The aim of this booklet is to provide customers with useful information regarding steel and accessory products. Every effort has been made to ensure that the information contained in this publication is accurate. However, it should be noted that the company cannot accept responsibility for errors or omissions, or for changes which have taken place since the printing of this edition. Unless required by law, the company cannot accept any responsibility for any loss, damage or consequence resulting from the use of this publication. The preferred range of sizes only has been covered, some of these sizes may be subject to minimum order quantities, and every care should be taken to establish availability before proceeding based on the specifications provided. Additional information concerning non-preferred sizes, range of specifications available, or related data not included in this booklet is available on request through OneSteel Metalcentre Branches.

Note: Mass Calculations have been based on a mass for carbon steel of 7,850 kg/m^3 rounded off and includes a 2.5 per cent rolling tolerance where applicable.

Trademarks

- Australian Tube Mills Pty Ltd - DuraGal, DuraGal^{Plus}, DuraGal Plus$^{ZB135/135}$, DuraGal^{Ultra}
- OneSteel Manufacturing Pty Ltd - 300PLUS
- OneSteel Trading Pty Ltd - DuraGal Flooring System, DuraGal Mezzanine Flooring System, Tubecolor
- OneSteel Reinforcing Pty Ltd - HANDIMESH, ONEMESH, POOLSTEEL, 500PLUS, UTEMESH
- BlueScope Steel Limited - Xlerplate, Xlerplate Lite, Brightform, Blackform, Galvabond, Galvaskin, Zincanneal, Zincalume, Colorbond, LY-TEN, Lysaght, Longline 305, Multiclad, Easyclad, Quad 115 Hi Front, Trimline, Sheerline, Emline, Half Round, Ranceline, Colonial, Novaline, Bondek, W-Dek, Neetascreen, Smartascreen, Miniscreen, Customscreen, Flatdek, Flatdek II, Firmlok, Headland, Manor Red, Jasper, Sandbank, Classic Cream, Surfmist, Paperbark, Dune, Shale Grey, Windspray, Woodland Grey, Bushland, Pale Eucalypt, Wilderness, Cottage Green, Plantation, Blue Ridge, Deep Ocean, Night Sky
- Bisalloy Steels Pty Ltd - Bisplate
- Stramit Corporation Pty Ltd - Speed Deck Ultra, Corrugated, Monoclad, Megaclad, Longspan, Capacity Plus, Minirib, Mini Corry
- Lincoln Global Inc - Easymig, Easyarc, Powercraft
- Illinois Tool Works Inc - Galmet, Buildex, Teks, Shed Teks, Ripple Teks, AutoTeks, SuperTEKS, RoofZips, Hi-Teks, BattenZips, PolyZips, Pryda

Sources of Information

- OneSteel Market Mills - Pricing and Availability Guide - Hot Rolled and Welded Structural Steel
- OneSteel Market Mills - Pricing and Availability Guide - Merchant Bar
- Australian Tube Mills - Pricing and Availability Guide - Pipe and Tube Structural Products
- Australian Tube Mills - Pricing and Availability Guide - DuraGal Profiles
- OneSteel Reinforcing National Product and Services Catalogue
- BlueScope Steel Hot Rolled Price Schedule
- BlueScope Steel Xlerplate Price Schedule
- BlueScope Steel Xlerplate Lite Schedule
- BlueScope Steel - Aluminium Catalogue
- BlueScope Steel - Steel Guide
- Nationwide Stainless Weights

Terms & Conditions of Sale

A full copy of OneSteel Terms & Conditions of Sale is located at: **www.onesteelmetalcentre.com**

Note: OneSteel Metalcentre reserve the right to change specifications without notice. Not all products are available at all OneSteel Metalcentre Branches. OneSteel Metalcentre also has access to a wide network of products not necessarily listed in this book. Please check with your local OneSteel Metalcentre Branch for product availability.

We understand.

The support and stability of one of Australia's largest organisations, OneSteel; allows OneSteel Metalcentre to offer a range of products and services to suit a variety of industries.

With extensive experience in the steel industry, our staff can advise on ways to estimate, streamline and tailor steel solutions to deliver more cost-effective outcomes on any project.

Having confidence in a supplier to process large or small volumes of steel and manage the complexities and risks to deliver an accurate, on-time project is critical. At OneSteel Metalcentre we ensure that from your project planning to your steel supply, through to processing and delivery, we are working to optimise your steel usage to minimise waste and maximise cost efficiencies.

We make it easier.

With our processing equipment owned and operated by OneSteel Metalcentre you can consult with our experts at every stage to manage your processing requirements. Whether its accuracy, tolerance or repeatability you need, we achieve this through fully programmable machinery, and the long term experience of our people. This extensive industry knowledge and national support network ensures you and your projects are receiving the best level of service.

We deliver.

Having steel supplied and processed in the one place can make projects a lot easier. Through our integrated supply chain we can add value to clients by sourcing complementary products through our industry partners and can deliver in an order that suits your schedule. Whether your steel needs are large or small, we offer delivery to site or your warehouse - or you can pick-up from one of our locations.

Our products.

Our range includes structural and tubular steel, reinforcing and merchant bar, sheet and plate as well as pipes, valves and fittings, flooring, complementary products and accessories. We also have the ability to source local and international products with short lead times.

Engineering & design optimisation.

As part of the broader OneSteel network, we also have significant expertise in working with our customers to provide engineering and design optimisation to minimise risk whilst reducing waste and cost. Optimising material use can also aid in the sustainability credentials needed for awarding Green Star® steel credit points. Customers should talk to OneSteel Metalcentre early in their project to see how more sustainable practices can be adopted.

Our Processing Services

- Profile Cutting
- Oxy Cutting
- Plasma Cutting
- Flame Cutting
- Stitch Cutting
- Punching
- Drilling
- Shearing
- Stamping
- Notching
- Marking
- Tapping
- Slotting
- Coping
- Bevelling
- Penetrations
- Counter Boring
- Counter Sinking
- Cut to Length
- Pack Cutting

tubular | beams | channels | columns | angles | bar | plate | reinforcing

Compliance & Traceability.

OneSteel supplies products that are compliant to the relevant Australian Standards. The quality of our products are checked by NATA endorsed testing laboratories. At all of our manufacturing sites, OneSteel has third party accreditation to Quality Management System ISO 9001 and Environmental Management System ISO 14001. In addition, our hot rolled products are all produced at mills with ACRS third party accreditation ensuring certification for reinforcing, pre-stressing and structural steels. OneSteel Metalcentre also supports the Build With Standards initiative undertaken by OneSteel which aims to improve compliance and generate confidence in the quality, identification, certification and traceability of structural and reinforcing steels. Further information can be found at **www.onesteelmetalcentre.com**

National Branch Network.

Our national branch processing network means that we can provide solutions for you, wherever you need them. You also benefit from the comprehensive service that comes from national account management. So when you're relying on a quality result, you can trust us to deliver it.

Safety at our sites.

OneSteel does not compromise on safety, and we believe that all injuries, occupational illnesses and incidents are preventable. Achieving zero incidents is possible in all OneSteel businesses by maintaining a strong focus on the health and safety of all employees, contractors and customers. OneSteel's "Goal Zero" target aims to ensure employees can go home in the same condition that they came to work. OneSteel has implemented stringent safety policies and procedures that enable us to strive for our safety goal.

We appreciate your compliance with our safety policies when you visit our sites.

NO INCIDENTS GOAL ZERO NO INJURIES

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ACRS Independent Third Party Australasian Standards Certification & Verification of Reinforcing, Prestressing & Structural Steels Compliance

Build with Standards

Yes, we can.

tubular | beams | channels | columns | angles | bar | plate | reinforcing

www.onesteelmetalcentre.com

Our Valued Suppliers

OneSteel Metalcentre stock quality products and brands from the suppliers you know and trust.

Note: OneSteel Metalcentre reserve the right to change specifications without notice. Not all products are available at all OneSteel Metalcentre Branches. OneSteel Metalcentre also has access to a wide network of products not necessarily listed in this book. Please check with your local OneSteel Metalcentre Branch for product availability.

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Contents

Note: OneSteel Metalcentre reserve the right to change specifications without notice. Not all products are available at all OneSteel Metalcentre Branches. OneSteel Metalcentre also has access to a wide network of products not necessarily listed in this book. Please check with your local OneSteel Metalcentre Branch for product availability.

Equal Angles - Various Standard Lengths

Size mm x mm	Mass kg/m	Metres per Tonne
125 x 125 x 8	14.9	67
x 10	18.0	56
x 12	22.5	44
x 16	29.1	34
150 x 150 x 10	21.9	46
x 12	27.3	37
x 16	35.4	28
x 19	42.1	24
200 x 200 x 13	40.0	25
x 16	48.7	21
x 18	54.4	18
x 20	60.1	17
x 26	76.8	13

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets Meets AS/NZS 3679.1:2010
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

Unequal Angles - Various Standard Lengths

Size mm x mm	Mass kg/m	Metres per Tonne
150 x 90 x 8	14.3	70
x 10	17.3	58
x 12	21.6	46
x 16	27.9	36
150 x 100 x 10	18.0	56
x 12	22.5	44

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets Meets AS/NZS 3679.1:2010
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

Note: See page 12 for Merchant Bar Angles.

Universal Beams - Various Standard Lengths

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets Meets AS/NZS 3679.1:2010
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

Metric Designation	Size mm x mm	Mass kg/m	Metres per Tonne
150 UB	150 x 75	14.0	71
	155 x 75	18.0	56
180 UB	173 x 90	16.1	62
	175 x 90	18.1	55
	179 x 90	22.2	45
200 UB	198 x 99	18.2	55
	202 x 133	22.3	45
	203 x 133	25.4	39
	207 x 134	29.8	34
250 UB	248 x 124	25.7	39
	252 x 146	31.4	32
	256 x 146	37.3	27
310 UB	298 x 149	32.0	31
	304 x 165	40.4	25
	307 x 166	46.2	22
360 UB	352 x 171	44.7	22
	356 x 171	50.7	20
	359 x 172	56.7	18
410 UB	403 x 178	53.7	19
	406 x 178	59.7	17
460 UB	454 x 190	67.1	15
	457 x 190	74.6	13
	460 x 191	82.1	12
530 UB	528 x 209	82.0	12
	533 x 209	92.4	11
610 UB	602 x 228	101	10
	607 x 228	113	9
	612 x 229	125	8

Welded Beams - Various Standard Lengths

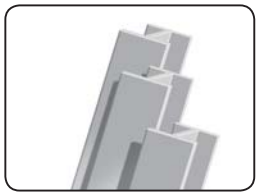
Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets Meets AS/NZS 3679.1:2010
- Up to 20% stronger for better strength to weight ratios
- Requires no special pre-heating for welding

Metric Designation	Size mm x mm	Mass kg/m	Metres per Tonne
700 WB	692 x 250	115	8.70
	700 x 250	130	7.69
	710 x 250	150	6.67
	716 x 275	173	5.78
800 WB	792 x 250	122	8.20
	800 x 275	146	6.85
	810 x 275	168	5.95
	816 x 300	192	5.21
900 WB	900 x 300	175	5.71
	910 x 350	218	4.59
	916 x 400	257	3.89
	924 x 400	282	3.55
1000 WB	1000 x 300	215	4.65
	1010 x 350	258	3.88
	1016 x 400	296	3.38
	1024 x 400	322	3.11
1200 WB	1170 x 275	249	4.02
	1170 x 350	278	3.60
	1176 x 400	317	3.15
	1184 x 400	342	2.92
	1184 x 500	392	2.55
	1192 x 500	423	2.36
	1200 x 500	455	2.20

Notes: Made to order. Lead times may apply.

Taper Flange Beams – Various Standard Lengths



Size mm x mm	Mass kg/m	Metres per Tonne
100 x 45	7.20	139
125 x 65	13.1	76

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets Meets AS/NZS 3679.1:2010

Universal Columns – Various Standard Lengths

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Metric Designation	Size mm x mm	Mass kg/m	Metres per Tonne
100 UC	97 x 99	14.8	68
150 UC	152 x 152	23.4	43
	158 x 153	30.0	33
	162 x 154	37.2	27
200 UC	203 x 203	46.2	22
	206 x 204	52.2	19
	210 x 205	59.5	17
250 UC	254 x 254	72.9	14
	260 x 256	89.5	11
310 UC	308 x 305	96.8	10
	315 x 307	118	8
	321 x 309	137	7
	327 x 311	158	6

Features:
- Meets Meets AS/NZS 3679.1:2010
- Up to 20% stronger for better strength to weight ratios
- Requires no special pre-heating for welding

Welded Columns – Various Standard Lengths

Features:
- Meets Meets AS/NZS 3679.1:2010

Notes: Made to order. Lead times may apply.

Metric Designation	Size mm x mm	Mass kg/m	Metres per Tonne
350WC	331 x 350	197	5.08
	339 x 350	230	4.35
	347 x 350	258	3.88
	355 x 350	280	3.57
400WC	382 x 400	144	6.94
	390 x 400	181	5.52
	400 x 400	212	4.72
	414 x 400	270	3.70
	422 x 400	303	3.30
	430 x 400	328	2.77
	430 x 400	361	3.05
500 WC	490 x 500	228	4.39
	500 x 500	267	3.75
	506 x 500	290	3.45
	514 x 500	340	2.94
	472 x 500	383	2.61
	480 x 500	414	2.42
	480 x 500	440	2.27

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Parallel Flange Channels - Various Standard Lengths

Size mm x mm	Mass kg/m	Metres per Tonne
150 x 75	17.7	56.5
180 x 75	20.9	47.9
200 x 75	22.9	43.7
230 x 75	25.1	39.8
250 x 90	35.5	28.2
300 x 90	40.1	24.9
380 x 100	55.2	18.1

Typical uses:
- Engineering Construction
- Residential & Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets Meets AS/NZS 3679.1:2010
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

Rails

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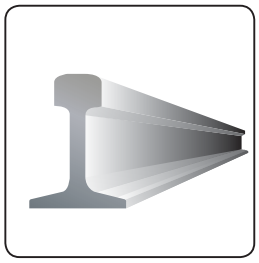

Section	Mass kg/m	Metres per Tonne
10	10.10	99.00
15	15.20	65.79
22	22.30	44.84
30	30.10	33.22
41	40.80	24.51
50	50.60	19.76
53	53.00	18.87
60	60.60	16.50
68	67.50	14.81
73	73.63	13.58
86	85.50	11.70

Note: Rails are not normally a stocked item - Lead times may apply.

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tubular | beams | channels | columns | angles | bar | plate | reinforcing

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OneSteel Metalcentre's national network of branches offers you an expansive range of processing solutions, combined with our entire range of products, project management and technical expertise; as well as being able to seamlessly access additional processing and finishing resources as required. OneSteel Metalcentre's comprehensive range of in-house processing equipment and proven experience aims to reduce your risk on projects whilst maximising the quality of results.

we can.

lintels | reinforcing bar & mesh | flooring systems | aluminium | floorplate

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Equal Angles - Various Standard Lengths

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets AS/NZS 3679.1:2010
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

Size mm x mm	Mass kg/m	Metres per Tonne
25 x 25 x 3	1.12	893
x 5	1.65	606
x 6	2.08	481
30 x 30 x 3	1.35	741
x 5	2.01	498
x 6	2.56	391
40 x 40 x 3	1.83	546
x 5	2.73	366
x 6	3.50	286
50 x 50 x 3	2.31	433
x 5	3.48	287
x 6	4.46	224
x 8	5.68	176
55 x 55 x 5	3.84	260
x 6	4.93	203
65 x 65 x 5	4.56	219
x 6	5.87	170
x 8	7.51	133
x 10	9.02	111
75 x 75 x 5	5.27	190
x 6	6.81	147
x 8	8.73	115
x 10	10.5	95
90 x 90 x 6	8.22	122
x 8	10.6	94
x 10	12.7	79
100 x 100 x 6	9.16	109
x 8	11.8	85
x 10	14.2	70
x 12	17.7	57

Unequal Angles - Various Standard Lengths

Size mm x mm	Mass kg/m	Metres per Tonne
65 x 50 x 5	4.02	249
x 6	5.16	194
x 8	6.59	152
75 x 50 x 5	4.40	227
x 6	5.66	177
x 8	7.23	139
100 x 75 x 6	7.98	125
x 8	10.3	97
x 10	12.4	81
125 x 75 x 6	9.16	109
x 8	11.8	85
x 10	14.2	70
x 12	17.7	57

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets AS/NZS 3679.1:2010
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

Note: See page 7 for Structural Angles.

Flat Bar - Square Edge - 6m

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets AS/NZS 3679.1:2010
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

Size mm x mm	Mass kg/m	Metres per Tonne
20 x 3	0.48	2123
x 5	0.81	1274
x 6	0.96	1062
x 10	1.61	637
25 x 3	0.60	1695
x 5	1.00	1019
x 6	1.21	847
x 8	1.61	637
x 10	2.01	510
x 12	2.42	424
32 x 3	0.77	1333
x 5	1.29	794
x 6	1.55	662
x 8	2.06	498
x 10	2.57	398
x 12	3.09	332
40 x 3	0.96	1064
x 5	1.61	637
x 6	1.93	532
x 8	2.57	398
x 10	3.22	318
x 12	3.86	265
x 16	5.15	199
x 20	6.44	159
50 x 3	1.21	847
x 5	2.01	510
x 6	2.42	424
x 8	3.22	318
x 10	4.03	254
x 12	4.83	212
x 16	6.44	159
x 20	8.05	127
x 25	10.1	102
65 x 3	1.57	654
x 5	2.61	392
x 6	3.14	327
x 8	4.18	245
x 10	5.23	196
x 12	6.27	163
x 16	8.36	123
x 20	10.5	98
x 25	13.1	78
75 x 5	3.01	340
x 6	3.62	283
x 8	4.83	212
x 10	6.04	170
x 12	7.25	141
x 16	9.66	106
x 20	12.1	85
x 25	15.1	68
x 40	24.2	42
90 x 5	3.62	283
x 6	4.35	236
x 8	5.79	177
x 10	7.25	141
x 12	8.69	118

Note: Mass Calculations include a 2.5 per cent rolling tolerance for this product.

Flat Bar - Square Edge - 6m

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets AS/NZS 3679.1:2010
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

Size mm x mm	Mass kg/m	Metres per Tonne
100 x 5	4.03	254
x 6	4.83	212
x 8	6.44	159
x 10	8.05	127
x 12	9.66	106
x 16	12.9	79
x 20	16.1	64
x 25	20.1	51
x 50	40.3	25
110 x 6	5.31	193
x 8	7.08	145
x 10	8.86	116
x 12	10.7	96
130 x 5	5.23	196
x 6	6.27	163
x 8	8.36	123
x 10	10.5	98
x 12	12.5	82
x 16	16.7	61
x 20	20.9	49
x 25	26.1	39
150 x 5	6.04	170
x 6	7.25	141
x 8	9.66	106
x 10	12.1	85
x 12	14.5	71
x 16	19.3	53
x 20	24.2	42
x 25	30.1	34
x 50	60.4	17
180 x 5	7.25	141
x 6	8.69	118
x 10	14.5	71
x 12	17.4	59
x 16	23.2	44
x 20	29.0	35
x 25	36.2	28
200 x 6	9.66	106
x 8	12.9	79
x 10	16.1	64
x 12	19.3	53
x 16	25.7	40
x 20	32.2	32
x 25	40.3	25
250 x 6	12.1	85
x 8	16.1	64
x 10	20.1	51
x 12	24.2	42
x 16	32.2	32
x 20	40.3	25
x 25	50.3	20
300 x 6	14.5	71
x 8	19.3	53
x 10	24.2	42
x 12	29.0	35
x 16	38.6	27
x 20	48.3	21
x 25	60.4	17

Note: Mass Calculations include a 2.5 per cent rolling tolerance for this product.

Flat Bar - Round Edge - 4m

Size mm x mm	Mass kg/m	Metres per Tonne
10 x 3	0.25	4132
13 x 3	0.32	3185
x 5	0.53	1912
x 6	0.65	1592
16 x 3	0.40	2590
x 5	0.66	1552
x 8	1.06	971

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets AS/NZS 3679.1:2010
- Requires no special pre-heating for welding

Note: Mass Calculations include a 2.5 per cent rolling tolerance for this product.

Round Bar - 6m

300 PLUS

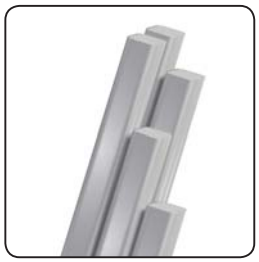
Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets AS/NZS 3679.1:2010
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

Diameter mm	Mass kg/m	Metres per Tonne
10	0.64	1613
12	0.91	1124
13	1.07	962
14	1.24	826
16	1.62	633
18	2.05	500
20	2.53	405
22	3.05	336
24	3.64	282
27	4.61	222
30	5.69	180
33	6.88	149
36	8.19	125
39	9.61	107
42	11.2	92
45	12.8	80
48	14.6	70
50	15.8	65
56	19.8	52
60	22.8	45
65	26.7	38
75	35.6	29
80	40.5	25
90	51.1	20
100	63.2	16
110	76.7	13
120	91.2	11
130	108	10
140	124	8
150	142	7
160	162	6
170	183	6
180	206	5
190	229	4
200	253	4

Note: Mass Calculations include a 2.5 per cent rolling tolerance for this product.

Square Bar - 6m



Size mm x mm	Mass kg/m	Metres per Tonne
10 x 10	0.81	1266
12 x 12	1.16	885
16 x 16	2.06	498
20 x 20	3.22	318
25 x 25	5.03	204
32 x 32	8.24	124
40 x 40	12.9	79

Note: Mass Calculations include a 2.5 per cent rolling tolerance for this product.

Typical uses:
- Engineering Construction
- Residential & Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets AS/NZS 3679.1:2010
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

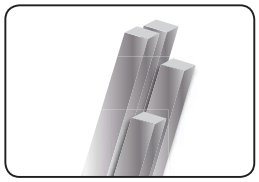
Parallel Flange Channels - Various Standard Lengths

Size mm x mm	Mass kg/m	Metres per Tonne
75 x 40	5.92	169
100 x 50	8.33	120
125 x 65	11.9	84.0

Typical uses:
- Engineering Construction
- Residential & Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:
- Meets AS/NZS 3679.1:2010
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

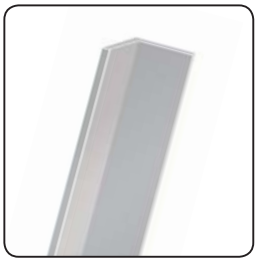
Billets - 6m



Size mm x mm	Mass kg/m	Metres per Tonne
45 x 45	16.30	61
50 x 50	27.80	36
63 x 63	31.20	32
75 x 75	45.27	22

Note: OneSteel Metalcentre reserve the right to change specifications without notice. Not all products are available at all OneSteel Metalcentre Branches. OneSteel Metalcentre also has access to a wide network of products not necessarily listed in this book. Please check with your local OneSteel Metalcentre Branch for product availability.

Profile Angles – Various Standard Lengths



Typical uses:
- Residential Construction
- Non-Residential Construction

Features:
- Meets Australian Tube Mills Technical Specification TS100
- Features the revolutionary DuraGal Ultra coating technology
- Smooth quality finish
- Significantly lighter than traditional hot rolled sections
- Smooth surface allows easy powdercoating and painting

DuraGal Ultra

Size mm	Nominal Thickness mm	Mass kg/m	Metres per Tonne	Length/Pack	
				Standard	
				6.0	9.0
30 x 30	2.5	1.06	947	80	
40 x 40	2.5	1.43	699	60	
	4.0	2.20	455	39	
45 x 45	2.5	1.62	617	54	
	4.0	2.50	400	36	
50 x 50	2.5	1.81	553	33	33
	4.0	2.79	357	27	27
	5.0	3.42	294		24
	6.0	4.21	238		21
65 x 65	4.0	3.69	271		22
	5.0	4.52	222		22
	6.0	5.62	178		18
75 x 75	4.0	4.29	233		22
	5.0	5.26	190		22
	6.0	6.56	152	18	
	8.0	8.59	116	18	
90 x 90	5.0	6.37	157	22	
	8.0	10.5	95.2	18	
100 x 100	6.0	8.92	112		16
	8.0	11.7	85.5		14
125 x 125	4.0	7.27	138		20
	5.0	8.95	112		18
	8.0	14.9	67.1		12
150 x 150	5.0	10.8	92.6		18
	8.0	18.0	55.6		12

Profile Channels – Various Standard Lengths

Typical uses:
- Residential Construction
- Non-Residential Construction

Features:
- Meets Australian Tube Mills Technical Specification TS100
- Features the revolutionary DuraGal Ultra coating technology
- Significantly lighter than traditional hot rolled sections
- Smooth surface allows easy powdercoating and painting

DuraGal Ultra

Size mm	Nominal Thickness mm	Mass kg/m	Metres per Tonne	Length/ Pack	
				Standard	
				9.0	12.0
75 x 40	4.0	4.25	235	18	
100 x 50	4.0	5.59	179	18	
125 x 65	4.0	7.23	138	18	
150 x 75	5.0	10.5	95.1		12
180 x 75	5.0	11.6	86.2		12
200 x 75	5.0	12.4	80.7		12
	6.0	15.5	64.6		12
230 x 75	6.0	16.9	59.2		12
250 x 90	6.0	19.2	52.1		8
300 x 90	6.0	21.6	46.3		6
	8.0	28.5	35.1		6

Profile Flats - 6m

Typical uses:
- Residential Construction
- Non-Residential Construction

Features:
- Meets Australian Tube Mills Technical Specification TS100
- Features the revolutionary DuraGal Ultra coating technology
- Smooth quality finish
- Significantly lighter than traditional hot rolled sections
- Smooth surface allows easy powdercoating and painting

DuraGal Ultra

Size mm	Nominal Thickness mm	Mass kg/m	Metres per Tonne	Pack Size (Lns)
50	4	1.49	671	57
	5	1.84	543	45
65	4	1.94	515	44
	5	2.40	417	36
75	4	2.24	447	38
	5	2.77	361	32
100	4	2.98	336	28
	5	3.69	271	28
	6	4.71	212	26
	8	6.28	160	22
130	5	4.80	208	28
150	5	5.53	181	28
	6	7.07	142	24
	8	9.42	106	22
200	5	7.38	136	32
	6	9.42	106	28
	8	12.6	79.6	22
250	5	9.22	108	23
	8	15.7	63.7	16
300	5	11.1	90.1	19
	8	18.8	53.1	12

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Square Hollow Sections - Various Standard Lengths

Surface Finishes

C - DuraGal[Clear]
S - DuraGal[Plus]
Z - DuraGal[Plus ZB135/135]
P - DuraPrimed
O - Oiled

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Investment
- Transport and Storage
- Manufacturing
- Agriculture

Features:
- All sections are available as C450PLUS structural tube to meet AS/NZS1163:2009 C450L0.
- C450PLUS structural tube maintains the elongation properties of C350L0, providing no loss of ductility or workability.
- Available in many coating types including DuraGal[Plus], DuraGal [Plus]ZB135/135, DuraPrimed and NOPC (No Oil or Paint Coating).
- DuraGal[Plus] hot-dip galvanized coating has a minimum average zinc mass of 100g/m^2.

Note: See page 21 for Rectangular Hollow Sections.

Size mm x mm x mm	Surface Finish	Mass kg/m	Metres per Tonne	Length/ Pack	
				Standard	
				6.5	8.0
25 x 25 x 1.6	P,S	1.12	890	100	
x 2.0	P,S	1.36	733	100	
x 2.5	P,S	1.64	610	100	
x 3.0	P,S	1.89	529	100	
30 x 30 x 1.6	P,S	1.38	727		100
x 2.0	P,S	1.68	596		100
x 2.5	P,S	2.03	492		100
x 3.0	P,S	2.36	423		64
35 x 35 x 1.6	P,S	1.63	615		100
x 2.0	P,S	1.99	502		100
x 2.5	P,S	2.42	412		64
x 3.0	P,S	2.83	353		64
40 x 40 x 1.6	P,S	1.88	533		81
x 2.0	P,S	2.31	434		81
x 2.5	P,S	2.82	355		64
x 3.0	P,S	3.30	303		64
x 4.0	P,S	4.09	244		49
50 x 50 x 1.6	P,S	2.38	420		64
x 2.0	P,S	2.93	300		64
x 2.5	P,S	3.60	278		49
x 3.0	P,S	4.25	236		49
x 4.0	P,S	5.35	187		36
x 5.0	P,S	6.39	156		30
x 6.0	O	7.32	137		25
65 x 65 x 1.6	P,S	3.13	319		49
x 2.0	P,S,C,Z	3.88	258		42
x 2.5	P,S,C,Z	4.78	209		42
x 3.0	P,S	5.66	177		36
x 4.0	P,S,C,Z	7.23	138		30
x 5.0	P,S	8.75	114		25
x 6.0	P	10.1	98.6		20
75 x 75 x 2.0	P,S,C,Z	4.50	222		36
x 2.5	P,S,C,Z	5.56	180		30
x 3.0	P,S	6.60	152		30
x 3.5	P,S	7.53	133		25
x 4.0	P,S,C,Z	8.49	118		25
x 5.0	P,S	10.3	96.9		20
x 6.0	P	12.0	83.1		16
89 x 89 x 2.0	S	5.38	186		20
x 3.5	P,S,C,Z	9.07	110		20
x 5.0	P,S	12.5	80.0		16
x 6.0	P	14.7	68.3		12
90 x 90 x 2.0	P,C,Z	5.45	184		20
x 2.5	P,C,Z	6.74	148		20

Square Hollow Sections - Various Standard Lengths

Surface Finishes

C - DuraGal[Clear]
S - DuraGal[Plus]
Z - DuraGal[Plus ZB135/135]
P - DuraPrimed
O - Oiled

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Investment
- Transport and Storage
- Manufacturing
- Agriculture

Features:
- All sections are available as C450PLUS structural tube to meet AS/NZS1163:2009 C450L0.
- C450PLUS structural tube maintains the elongation properties of C350L0, providing no loss of ductility or workability.
- Available in many coating types including DuraGal[Plus], DuraGal [PlusZB135/135], DuraPrimed and NOPC (No Oil or Paint Coating).
- DuraGal[Plus] hot-dip galvanized coating has a minimum average zinc mass of 100g/m^2.

Note: See page 21 for Rectangular Hollow Sections.

Size mm x mm x mm	Surface Finish	Mass kg/m	Metres per Tonne	Length/ Pack	
				Standard	
				8.0	12
100 x 100 x 2.0	P	6.07	165	20	20
x 2.5	P,S	7.53	133	20	
x 3.0	P,S,C	8.96	112	20	16
x 4.0	P,S,C	11.6	86.0	16	12
x 5.0	P,S	14.2	70.2	12	9
x 6.0	P	16.7	59.7	12	9
x 8.0	O	21.4	46.7	9	6
x 9.0	O	23.5	42.5	9	6
x 10.0	O	25.6	39.0		6
125 x 125 x 4.0	P	14.8	67.7	12	9
x 5.0	P	18.2	55.0	12	9
x 6.0	P	21.4	46.6	9	6
x 8.0	O	27.7	36.1	6	4
x 9.0	O	30.6	32.7	8	4
x 10.0	O	33.4	29.9		4
150 x 150 x 5.0	P	22.1	45.3	9	6
x 6.0	P	26.2	38.2	6	6
x 8.0	O	33.9	29.5	6	4
x 9.0	O	37.7	26.6	6	4
x 10.0	O	41.3	24.2		2
200 x 200 x 5.0	O	29.9	33.4	6	4
x 6.0	O	35.6	28.1	4	4
x 8.0	O	46.5	21.5	4	2
x 9.0	O	51.8	19.3	4	2
x 10.0	O	57.0	17.6		2
x 12.5	O	69.4	14.4		2
x 16.0	O	85.5	11.7		1
250 x 250 x 6.0	O	45.0	22.2	4	2
x 8.0	O	59.1	16.9	4	2
x 9.0	O	65.9	15.2	2	2
x 10.0	O	72.7	13.8		2
x 12.5	O	89.0	11.2		1
x 16.0	O	111	9.04		1
300 x 300 x 8.0	O	71.6	14.0		1
x 10.0	O	88.4	11.3		1
x 12.5	O	109	9.21		1
x 16.0	O	136	7.36		1
300 x 300 x 8.0	O	84.2	11.9		1
x 10.0	O	104	9.61		1
x 12.5	O	128	7.80		1
x 16.0	O	161	6.21		1
400 x 400 x 10.0	O	120	8.35		1
x 12.5	O	148	6.76		1
x 16.0	O	186	5.38		1

Rectangular Hollow Sections - Various Standard Lengths

Surface Finishes

C - DuraGal[Clear]
S - DuraGal[Plus]
Z - DuraGal[Plus ZB135/135]
P - DuraPrimed
O - Oiled

Typical uses:

- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Investment
- Transport and Storage
- Manufacturing
- Agriculture

Features:

- All sections are available as C450PLUS structural tube to meet AS/NZS1163:2009 C450L0.
- C450PLUS structural tube maintains the elongation properties of C350L0, providing no loss of ductility or workability.
- Available in many coating types including DuraGal[Plus], DuraGal [PlusZB135/135], DuraPrimed and NOPC (No Oil or Paint Coating).
- DuraGal[Plus] hot-dip galvanized coating has a minimum average zinc mass of 100g/m^2.

Note: See page 19 for Square Hollow Sections.

Size mm x mm x mm	Surface Finish	Mass kg/m	Metres per Tonne	Length/ Pack	
				Standard	
				8.0	12
50 x 20 x 1.6	P	1.63	615	96	
x 2.0	P	1.99	502	96	
x 2.5	P	2.42	412	72	
x 3.0	P	2.83	353	72	
50 x 25 x 1.6	P,S	1.75	571	96	
x 2.0	P,S	2.15	465	96	
x 2.5	P,S	2.62	382	72	
x 3.0	P,S	3.07	326	60	
65 x 35 x 2.0	P,S	2.93	341	54	
x 2.5	P,S	3.60	278	54	
x 3.0	P,S	4.25	236	45	
x 4.0	P	5.35	187	45	
75 x 25 x 1.6	P,S	2.38	420	65	
x 2.0	P,S	2.93	341	65	
x 2.5	P,S	3.60	278	48	
75 x 50 x 1.6	P,S,C,Z	3.01	332	54	54
x 2.0	P,S	3.72	269	42	42
x 2.5	P,S	4.58	218	42	
x 3.0	P,S	5.42	184	35	24
x 4.0	P,S	6.92	145	28	24
x 5.0	P,S	8.35	120	24	
x 6.0	P	9.67	103	20	16
76 x 38 x 2.5	P	4.15	241	45	
x 3.0	P	4.90	204	40	
x 4.0	P	6.23	161	32	
100 x 50 x 1.6	P,S,C,Z	3.64	275	32	32
x 2.0	P,S,C,Z	4.50	222	32	32
x 2.5	P,S	5.56	180	32	24
x 3.0	P,S	6.60	152	32	24
x 3.5	P,S	7.53	133	24	18
x 4.0	P,S	8.49	118	24	18
x 5.0	P,S	10.3	96.9	18	15
x 6.0	P	12.0	83.1	15	12
102 x 76 x 3.5	P	9.07	110	20	
x 5.0	P	12.5	79.9	16	
x 6.0	P	14.7	68.2	12	
125 x 75 x 2.0	P	6.07	165	24	
x 2.5	P,S	7.53	133	24	20
x 3.0	P,S	8.96	112	20	20
x 4.0	P,S	11.6	86.0	15	15
x 5.0	P,S	14.2	70.2	15	12
x 6.0	P	16.7	59.7	12	6
127 x 51 x 3.5	P	9.07	110	21	
x 5.0	P	12.5	79.9	18	
x 6.0	P	14.7	68.2	14	

Rectangular Hollow Sections - Various Standard Lengths

Surface Finishes

C - DuraGal[Clear]
S - DuraGal[Plus]
Z - DuraGal[Plus ZB135/135]
P - DuraPrimed
O - Oiled

Typical uses:

- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Investment
- Transport and Storage
- Manufacturing
- Agriculture

Features:

- All sections are available as C450PLUS structural tube to meet AS/NZS1163:2009 C450L0.
- C450PLUS structural tube maintains the elongation properties of C350L0, providing no loss of ductility or workability.
- Available in many coating types including DuraGal[Plus], DuraGal [PlusZB135/135], DuraPrimed and NOPC (No Oil or Paint Coating).
- DuraGal[Plus] hot-dip galvanized coating has a minimum average zinc mass of 100g/m^2.

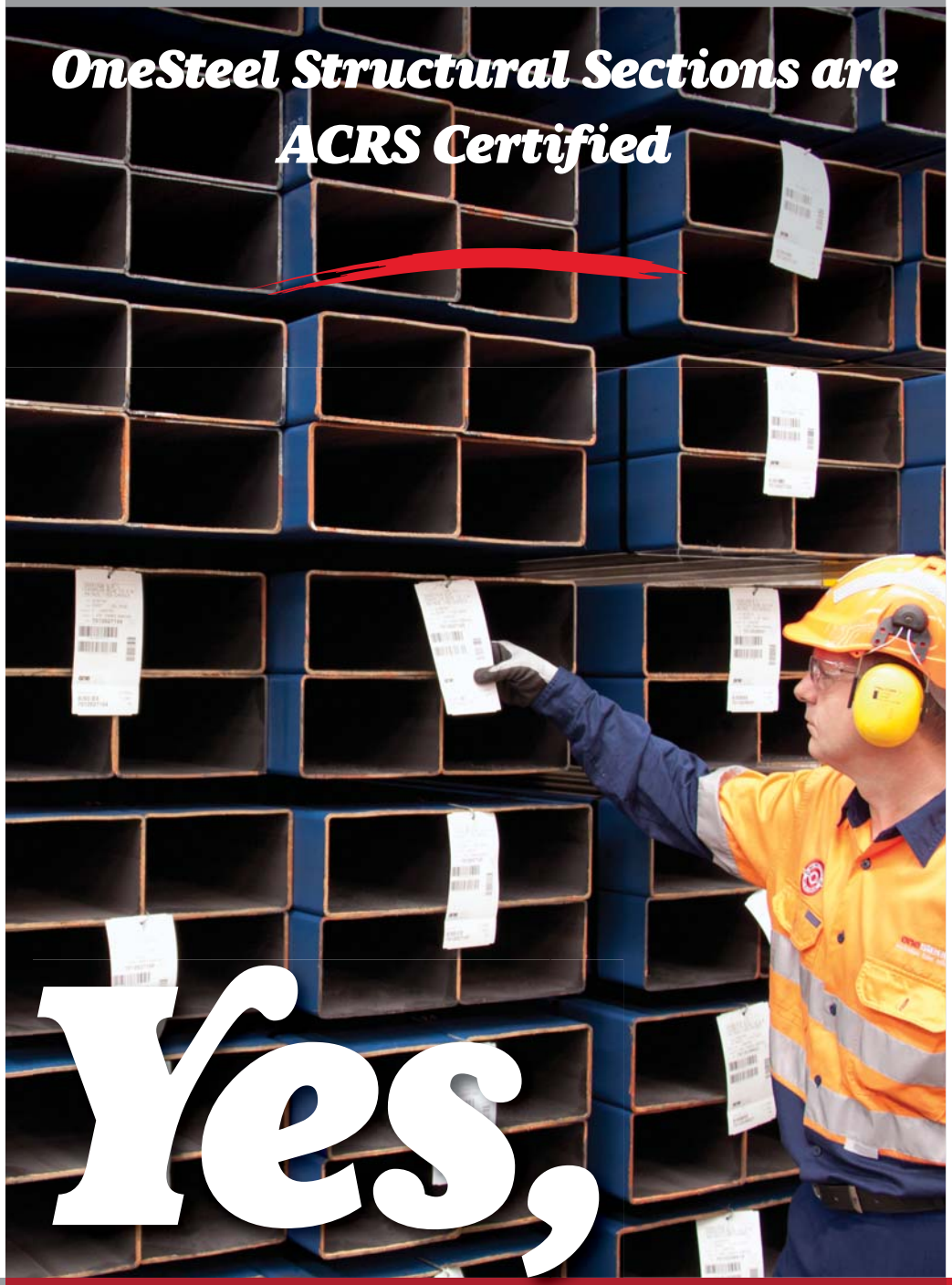
Note: See page 19 for Square Hollow Sections.

Size mm x mm x mm	Surface Finish	Mass kg/m	Metres per Tonne	Length/ Pack	
				Standard	
				8.0	12
150 x 50 x 2.0	P,S,C,Z	6.07	165	21	21
x 2.5	P,S	7.53	133	24	
x 3.0	P,S,C	8.96	112	21	15
x 4.0	P,S	11.6	86.0	15	15
x 5.0	P,S	14.2	70.2	15	9
x 6.0	P	16.7	59.7	15	9
150 x 100 x 4.0	P	14.8	67.7	12	9
x 5.0	P	18.2	55.0	12	8
x 6.0	P	21.4	46.6	9	6
x 8.0	O	27.7	36.1	6	4
x 9.0	O	30.6	32.7	6	4
x 10.0	O	33.4	29.9		4
152 x 76 x 5.0	O	16.4	60.7	12	12
x 6.0	O	19.4	51.5	9	9
200 x 100 x 4.0	P	17.9	55.8	8	6
x 5.0	P	22.1	45.3	8	6
x 6.0	P	26.2	38.2	8	4
x 8.0	O	33.9	29.5	6	4
x 9.0	O	37.7	26.6	6	4
x 10.0	O	41.3	24.2		2
250 x 150 x 5.0	O	29.9	33.4	6	4
x 6.0	O	35.6	28.1	4	4
x 8.0	O	46.5	21.5	4	2
x 9.0	O	51.8	19.3	4	2
x 10.0	O	57.0	17.6		2
x 12.5	O	69.4	14.4		2
x 16.0	O	85.5	11.7		1
300 x 200 x 6.0	O	45.0	22.2		2
x 8.0	O	59.1	16.9		2
x 10.0	O	72.7	13.8		2
x 12.5	O	89.0	11.2		1
x 16.0	O	111	9.04		1
350 x 250 x 6.0	O	54.4	18.4		2
x 8.0	O	71.6	14.0		2
x 10.0	O	88.4	11.3		1
x 12.5	O	109	9.21		1
x 16.0	O	136	7.36		1
400 x 200 x 8.0	O	71.6	14.0		2
x 10.0	O	88.4	11.3		1
x 12.5	O	109	9.21		1
x 16.0	O	136	7.36		1
400 x 300 x 8.0	O	84.2	11.9		1
x 10.0	O	104	9.61		1
x 12.5	O	128	7.80		1
x 16.0	O	161	6.21		1

chs | rhs | shs | precision tube | pipe | tubecolor | cattle rail | silo sections

onesteel

OneSteel Structural Sections are ACRS Certified



Yes,

Build with Standards

ACRS
Independent Third Party Australasian Standards Certification & Verification of Reinforcing, Prestressing & Structural Steels Compliance
www.acrs.net.au | www.steelcertification.com

OneSteel Manufacturing facilities in Rooty Hill, Laverton & Whyalla have recently achieved ACRS certification of product compliance for structural sections manufactured to AS/NZS 1163:2009.

Independent third party product certification helps ensure product compliance. By choosing to have our products third party certified by steel certification authority ACRS*, we're demonstrating our commitment to supplying our customers with quality, compliant products.

* From January 2011 ACRS extended its scope to include structural steels.

we can.

To find out more about the standards contact OneSteel on 1800 178 335 or visit www.buildwithstandards.com.au

www.onesteelmetalcentre.com

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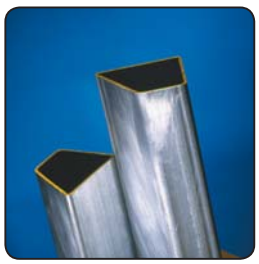
Cattle Rail

Features:
- Steel Quality: SHS & Rail to AS 1450 (steel chemistry only) /C350/ERW
- Galvanized Coating: PreGal to AS/NZS 4792 ZB100/100, ILG TO AS/NZS 4792 ILG100

SHS - Galvanized				
Designation d x b mm	Wall Thickness mm	Mass kg/m	Metres per Tonne	Pack Size (Lns)
40 x 40	1.6	1.88	814	81
	2.0	2.31	640	81
50 x 50	1.6	2.38	502	64
	2.0	2.93	502	64
75 x 75	4.0	8.49	383	25
100 x 100	4.0	11.6	304	16

Rail - DuraPrimed, Galvanized & ILG				
Designation d x b mm	Wall Thickness mm	Mass kg/m	Metres per Tonne	Pack Size (Lns)
53 x 35	1.6	1.77	854	48
60 x 48	2.0	2.88	347	36
66 x 44	1.6	2.23	448	36
75 x 40	1.6	2.39	418	20
75 x 40	2.0	2.97	336	20
97 x 40	2.0	3.65	273	21
115 x 42	2.0	4.27	234	21
115 x 42	2.5	5.30	188	21
120 x 48	2.0	4.53	220	18

Silo Sections



Note: DuraPrimed replaces Painted.

DuraPrimed, DuraGal				
Designation d x b mm	Wall Thickness mm	Mass kg/m	Metres per Tonne	Pack Size (Lns)
75 x 64	2.3	4.43	230	36
	2.5	4.75	210	36
	3.0	5.56	179	36
	4.0	7.20	138	24

Features:
- Meets AS/NZS 1163 C450L0 supplied as C450PLUS as marked
- DuraGal - Section 4 ASNZS 4792 ILG 100

Note: OneSteel Metalcentre reserve the right to change specifications without notice. Not all products are available at all OneSteel Metalcentre Branches. OneSteel Metalcentre also has access to a wide network of products not necessarily listed in this book. Please check with your local OneSteel Metalcentre Branch for product availability.

Pipe - DuraPrimed - 6.5m

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Investment
- Transport and Storage
- Manufacturing
- Agriculture

Features:
- Extra Light and Light tubular sections meet AS/NZS 1163 - C350.
- Medium and Heavy tubular sections meet AS 1074 & AS/NZS 1163 - C250

Note: End Finish: Plain ends, shouldered, roll grooved, screwed BSP or swaged. (Not all end finishes available on all products)

Nominal Size (DN)	Section	Outside Diameter mm	Wall Thickness mm	Mass kg/m	Metres per Tonne	Pack Size (Lns)
15	Medium		2.6	1.21	830	217
20	Extra Light	26.9	2.0	1.23	814	127
	Light		2.3	1.40	717	127
	Medium		2.6	1.56	642	127
	Heavy		3.2	1.87	535	127
	Extra Heavy		4.0	2.26	443	127
25	Extra Light	33.7	2.0	1.56	640	91
	Light		2.6	1.99	501	91
	Medium		3.2	2.41	414	91
	Heavy		4.0	2.94	340	91
32	Extra Light	42.4	2.0	1.99	502	61
	Light		2.6	2.55	392	61
	Medium		3.2	3.10	322	61
	Heavy		4.0	3.80	263	61
40	Extra Light	48.3	2.3	2.61	382	61
	Light		2.9	3.25	308	61
	Medium		3.2	3.57	280	61
	Heavy		4.0	4.38	228	61
	Extra Heavy		5.4	5.71	175	61
50	Extra Light	60.3	2.3	3.29	304	37
	Light		2.9	4.11	244	37
	Medium		3.6	5.03	199	37
	Heavy		4.5	6.19	161	37
	Extra Heavy		5.4	7.31	137	37
65	Extra Light	76.1	2.3	4.19	239	37
	Light		3.2	5.75	174	37
	Medium		3.6	6.43	156	37
	Heavy		4.5	7.93	126	37
	Extra Heavy		5.9	10.2	97.9	37
80	Extra Light	88.9	2.6	5.53	181	19
	Light		3.2	6.76	148	19
	Medium		4.0	8.37	120	19
	Heavy		5.0	10.3	96.8	19
	Extra Heavy		5.9	12.1	82.8	19
90	Extra Light	101.6	2.6	6.35	158	19
	Light		3.2	7.77	129	19
	Medium		4.0	9.63	104	19
	Heavy		5.0	11.9	84.0	19
100	Extra Light	114.3	3.2	8.77	114	19
	Light		3.6	9.83	102	19
	Medium		4.5	12.2	82.2	19
	Heavy		5.4	14.5	69.1	19
125	Extra Light	139.7	3.0	10.1	98.9	13
	Light		3.5	11.8	85.1	13
	Medium		5.0	16.6	60.2	13
	Heavy		5.4	17.9	55.9	13
150	Extra Light	165.1	3.0	12.0	83.4	10
	Light		3.5	13.9	71.7	10
	Medium		5.0	19.7	50.7	10
	Heavy		5.4	21.3	47.0	10

Pipe - Galvanized - 6.5m

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Investment
- Transport and Storage
- Manufacturing
- Agriculture

Features:
- Hot dipped galvanized coating has a minimum zinc mass of 300g/m^2
- Extra Light and Light tubular sections meet AS/NZS 1163 - C350.
- Medium and Heavy tubular sections meet AS 1074 & AS/NZS 1163 - C250

Note: End Finish: Plain ends, shouldered, roll grooved, screwed BSP or swaged. (Not all end finishes available on all products)

Nominal Size (DN)	Section	Outside Diameter mm	Wall Thickness mm	Mass kg/m	Metres per Tonne	Pack Size (Lns)
15	Medium	21.3	2.6	1.24	806	217
20	Extra Light	26.9	2.0	1.28	784	127
	Light		2.3	1.44	694	127
	Medium		2.6	1.60	623	127
	Heavy		3.2	1.92	522	127
25	Extra Light	33.7	2.0	1.62	616	91
	Light		2.6	2.05	487	91
	Medium		3.2	2.47	404	91
	Heavy		4.0	3.00	334	91
32	Extra Light	42.4	2.0	2.07	483	61
	Light		2.6	2.63	381	61
	Medium		3.2	3.18	315	61
	Heavy		4.0	3.87	258	61
40	Extra Light	48.3	2.3	2.70	369	61
	Light		2.9	3.33	300	61
	Medium		3.2	3.65	274	61
	Heavy		4.0	4.46	224	61
50	Extra Light	60.3	3.0	3.40	294	37
	Light		2.9	4.21	237	37
	Medium		3.6	5.14	195	37
	Heavy		4.5	6.30	159	37
65	Extra Light	76.1	2.3	4.33	231	37
	Light		3.2	5.89	170	37
	Medium		3.6	6.56	152	37
	Heavy		4.5	8.07	124	37
80	Extra Light	88.9	2.6	5.70	176	19
	Light		3.2	6.92	144	19
	Medium		4.0	8.53	117	19
	Heavy		5.0	10.5	95.3	19
90	Extra Light	101.6	2.6	6.53	153	19
	Light		3.2	7.95	126	19
	Medium		4.0	9.81	102	19
	Heavy		5.0	12.1	82.7	19
100	Extra Light	114.3	3.2	8.98	111	19
	Light		3.6	10.0	99.6	19
	Medium		4.5	12.4	80.8	19
	Heavy		5.4	14.7	68.1	19
125	Extra Light	139.7	3.0	10.4	6.4	13
	Light		3.5	12.0	83.2	13
	Medium		5.0	16.9	59.3	13
	Heavy		5.4	18.1	55.2	13
150	Extra Light	165.1	3.0	12.3	81.3	10
	Light		3.5	14.3	70.2	10
	Medium		5.0	20.0	49.9	10
	Heavy		5.4	21.6	46.4	10

DuraGal® CHS - Extra Light – 6.5m

AustubeMills SHAPING POSSIBILITIES

Nominal Size (DN)	Outside Diameter mm	Wall Thickness mm	Mass kg/m	Metres per Tonne	Pack Size (Lns)
20	26.9	2.0	1.23	814	127
25	33.7	2.0	1.56	640	91
32	42.4	2.0	1.99	502	61
40	48.3	2.3	2.61	383	61
50	60.3	2.3	3.29	304	37
65	76.1	2.3	4.19	212	37

DuraGal THE DIFFERENCE IS DURAGAL

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Investment
- Transport and Storage
- Manufacturing
- Agriculture

Features:
- All tubular sections are available to meet AS/NZS 1163 C350, guaranteeing strength and elongation properties
- DuraGal hot-dip galvanized coatings have a minimum zinc mass of 100g/m^2 externally

DuraGal^{PLUS} CHS - Extra Light – 6.5m

AustubeMills SHAPING POSSIBILITIES

Nominal Size (DN)	Outside Diameter mm	Wall Thickness mm	Mass kg/m	Metres per Tonne	Pack Size (Lns)
20	26.9	2.0	1.23	814	127
25	33.7	2.0	1.56	640	91
32	42.4	2.0	1.99	502	61
40	48.3	2.3	2.61	383	61
50	60.3	2.3	3.29	304	37

DuraGal Plus

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Investment
- Transport and Storage
- Manufacturing
- Agriculture

Features:
- All tubular sections are available to meet AS/NZS 1163 C350, guaranteeing strength and elongation properties
- DuraGal^{Plus} hot-dip galvanized coatings have a minimum zinc mass of 100g/m^2 externally and internally.

Note: OneSteel Metalcentre reserve the right to change specifications without notice. Not all products are available at all OneSteel Metalcentre Branches. OneSteel Metalcentre also has access to a wide network of products not necessarily listed in this book. Please check with your local OneSteel Metalcentre Branch for product availability.

Large Structural CHS

Typical uses:
- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Investment
- Transport and Storage
- Manufacturing
- Agriculture
- Pressure Pipe

Features:
- All tubular sections are available to meet AS/NZS 1163:2009 C350LO and API5LBX42, guaranteeing strength and elongation properties

Size d_o x t (mm)	Mass kg/m	Pack Size (Lns)
168.3 x 4.8	19.4	1
x 6.4	25.6	1
x 7.1	28.2	1
219.1 x 4.8	25.4	1
x 6.4	33.6	1
x 8.2	42.6	1
273.1 x 4.8	31.8	1
x 6.4	42.1	1
x 9.3	60.5	1
x 12.7	81.6	1
323.9 x 6.4	50.1	1
x 9.5	73.7	1
x 12.7	97.5	1
355.6 x 6.4	55.1	1
x 9.5	81.1	1
x 12.7	107	1
406.4 x 6.4	63.1	1
x 9.5	93.0	1
x 12.7	123	1
457.0 x 6.4	71.1	1
x 9.5	105	1
x 12.7	139	1
508.0 x 6.4	79.2	1
x 9.5	117	1
x 12.7	155	1

Precision Tube

OneSteel Metalcentre have access to a full range of Precision Tube. To discuss your requirements and for pricing and availability please contact your local branch.

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OneSteel Metalcentre's national network of branches offers you an expansive range of processing solutions, combined with our entire range of products, project management and technical expertise; as well as being able to seamlessly access additional processing and finishing resources as required. OneSteel Metalcentre's comprehensive range of in-house processing equipment and proven experience aims to reduce your risk on projects whilst maximising the quality of results.

Processing Capabilities

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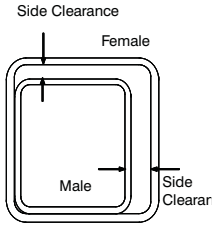
Note: OneSteel Metalcentre reserve the right to change specifications without notice. Not all products are available at all OneSteel Metalcentre Branches. OneSteel Metalcentre also has access to a wide network of products not necessarily listed in this book. Please check with your local OneSteel Metalcentre Branch for product availability.

Telescoping SHS – Square Hollow Sections



Note: SHS is not a precision tube and all dimensions shown in the chart, although in accordance with the specifications, may vary marginally within the tolerance bands permitted.

Sizes shown in bold print are sizes that provide a clearance of less than 2.0mm. The internal weld bead and variation in corner radii between sections will need to be considered when closer fits are indicated. Where telescoping over some length is desired, additional allowance may be needed for straightness. For tight fits it is suggested that some form of testing be carried out prior to committing material.

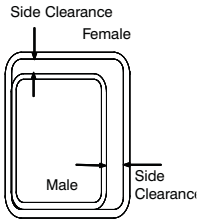
How to use this chart

See page 31.

Female (Outer)			Nominal Clearance		Male (Inner)	
d mm	b mm	t mm	Top mm	Side mm	d mm	b mm
20	20	1.6	**1.8**	**1.8**		
25	25	1.6	**1.8**	**1.8**	20	20
25	25	2.0	**1.0**	**1.0**	20	20
25	25	2.5	**0.0**	**0.0**	20	20
30	30	1.6	**1.8**	**1.8**	25	25
30	30	2.0	**1.0**	**1.0**	25	25
35	35	1.6	**1.8**	**1.8**	30	30
35	35	2.0	**1.0**	**1.0**	30	30
35	35	2.5	**0.0**	**0.0**	30	30
35	35	3.0	4.0	4.0	25	25
40	40	1.6	**1.8**	**1.8**	35	35
40	40	2.0	**1.0**	**1.0**	35	35
40	40	2.5	**0.0**	**0.0**	35	35
40	40	3.0	4.0	4.0	30	30
40	40	4.0	2.0	2.0	30	30
50	50	1.6	6.8	6.8	40	40
50	50	2.0	6.0	6.0	40	40
50	50	2.5	5.0	5.0	40	40
50	50	3.0	4.0	4.0	40	40
50	50	4.0	2.0	2.0	40	40
50	50	5.0	**0.0**	**0.0**	40	40
65	65	1.6	11.8	11.8	50	50
65	65	2.0	11.0	11.0	50	50
65	65	2.5	10.0	10.0	50	50
65	65	3.0	9.0	9.0	50	50
65	65	4.0	7.0	7.0	50	50
65	65	5.0	5.0	5.0	50	50
65	65	6.0	3.0	3.0	50	50
75	75	2.0	6.0	6.0	65	65
75	75	2.5	5.0	5.0	65	65
75	75	3.0	4.0	4.0	65	65
75	75	3.5	3.0	3.0	65	65
75	75	4.0	2.0	2.0	65	65
75	75	5.0	**0.0**	**0.0**	65	65
75	75	6.0	13.0	13.0	50	50
89	89	3.5	7.0	7.0	75	75
89	89	5.0	4.0	4.0	75	75
89	89	6.0	2.0	2.0	75	75
90	90	2.0	11.0	11.0	75	75
90	90	2.5	10.0	10.0	75	75
100	100	2.0	7.1	7.1	89	89
100	100	2.5	6.1	6.1	89	89
100	100	3.0	5.1	5.1	89	89
100	100	4.0	3.1	3.1	89	89
100	100	5.0	**1.1**	**1.1**	89	89
100	100	6.0	13.0	13.0	75	75
100	100	9.0	7.0	7.0	75	75
125	125	4.0	17.0	17.0	100	100
125	125	5.0	15.0	15.0	100	100
125	125	6.0	13.0	13.0	100	100
125	125	9.0	7.0	7.0	100	100
150	150	5.0	15.0	15.0	125	125
150	150	6.0	13.0	13.0	125	125
150	150	9.0	7.0	7.0	125	125
200	200	5.0	40.0	40.0	150	150
200	200	6.0	38.0	38.0	150	150
200	200	9.0	32.0	32.0	150	150
250	250	6.0	38.0	38.0	200	200
250	250	9.0	32.0	32.0	200	200

Note: See page 32 for Circular Hollow Sections and 31 for Rectangular Hollow Sections.

Telescoping RHS – Rectangular Hollow Sections



Note: RHS is not a precision tube and all dimensions shown in the chart, although in accordance with the specifications, may vary marginally within the tolerance bands permitted.

Sizes shown in bold print are sizes that provide a clearance of less than 2.0mm. The internal weld bead and variation in corner radii between sections will need to be considered when closer fits are indicated. Where telescoping over some length is desired, additional allowance may be needed for straightness. For tight fits it is suggested that some form of testing be carried out prior to committing material.

Note: See page 36 for Circular Hollow Sections and 34 for Square Hollow Sections.

Female (Outer)			Nominal Clearance		Male (Inner)	
d mm	b mm	t mm	Top mm	Side mm	d mm	b mm
50	20	1.6	No section available			
50	20	2.0				
50	20	2.5				
50	20	3.0				
50	25	1.6	No section available			
50	25	2.0				
50	25	2.5				
50	25	3.0				
65	35	2.0	11.0	6.0	50	25
65	35	2.5	10.0	5.0	50	25
65	35	3.0	9.0	4.0	50	25
65	35	4.0	7.0	2.0	50	25
75	25	1.6	21.8	**1.8**	50	20
75	25	2.0	21.0	**1.0**	50	20
75	25	2.5	20.0	**0.0**	50	20
75	50	1.6	6.8	11.8	65	35
75	50	2.0	6.0	11.0	65	35
75	50	2.5	5.0	10.0	65	35
75	50	3.0	4.0	9.0	65	35
75	50	4.0	2.0	7.0	65	35
75	50	5.0	**0.0**	5.0	65	35
75	50	6.0	13.0	13.0	50	25
100	50	1.6	20.8	20.8	76	38
100	50	2.0	20.0	20.0	76	38
100	50	2.5	19.0	19.0	76	38
100	50	3.0	18.0	18.0	76	38
100	50	3.5	17.0	17.0	76	38
100	50	4.0	16.0	16.0	76	38
100	50	5.0	14.0	14.0	76	38
100	50	6.0	12.0	12.0	76	38
125	75	2.0	21.0	21.0	100	50
125	75	2.5	20.0	20.0	100	50
125	75	3.0	19.0	19.0	100	50
125	75	4.0	17.0	17.0	100	50
125	75	5.0	15.0	15.0	100	50
125	75	6.0	13.0	13.0	100	50
150	100	4.0	15.0	15.0	127	51
150	100	5.0	13.0	13.0	127	51
150	100	6.0	11.0	11.0	127	51
150	100	9.0	5.0	5.0	127	51
200	100	4.0	40.0	40.0	152	76
200	100	5.0	38.0	38.0	152	76
200	100	6.0	36.0	36.0	152	76
200	100	9.0	30.0	30.0	152	76
250	150	5.0	40.0	40.0	200	100
250	150	6.0	38.0	38.0	200	100
250	150	9.0	32.0	32.0	200	100

How to use this chart

1. Select the appropriate table for the type of hollow section required. Select the size of female (or outside) member closest to your requirements for the left hand column.
2. Depending on the application select the clearance required between the two members. Members may need to slide freely inside each other, or be locked with a pin, spot welded or fixed with wedges. This means, in some cases, a 'sloppy' fit may be suitable, while for others the tightest fit possible may be more appropriate.
3. Having selected the most suitable clearance for your application, take the appropriate size of the male (inner) section from the right hand column, eg:

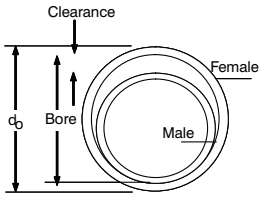
Female Section (outer)	Clearance mm	Male Section (inner)
75 x 75 x 3.0	4.0x4.0	65 x 65

Note that clearance is total available difference between member dimensions, not the gap on both sides.

4. Where two telescoping sections are being used, thickness should be similar and will be determined by normal structural requirements. If a third section is to be used, consideration of both clearance and thickness within the size list available may be required.
5. RHS has the obvious advantage that its shape prevents rotation of the sections. When pipe is used it may need to be fixed against twisting by welding or bolting.
6. Press Fit. For short pieces with no need for separation or sliding an interference fit can be achieved using the available ductility of the steel.

Note: Sizes where clearance is shown as 0.0 will generally require press fit.

Telescoping CHS – Circular Hollow Sections



Note: Clearance = (AS/NZS 1163 Min d_o - 2t) - (AS/NZS 1163 Max d_o).

NOTE: CHS is not a precision tube and all dimensions shown in the chart, although in accordance with the specifications, may vary marginally within the tolerance bands permitted.

Sizes shown in bold print are sizes that provide a clearance of less than 2.0mm. The internal weld bead and variation in corner radii between sections will need to be considered when closer fits are indicated. Where telescoping over some length is desired, additional allowance may be needed for straightness. For tight fits it is suggested that some form of testing be carried out prior to committing material.

Female (Outer)			Male (Inner)		
DN	Quality	d_o mm x t mm	DN	d_i mm	Min. Clearance mm
20	Extra LIght	26.9 x 2.0	15	21.3	**0.4**
25	Extra Light	33.7 x 2.0	20	26.9	**1.6**
	Light	x 2.6	20	26.9	**0.4**
	Medium	x 3.2	15	21.3	4.8
	Heavy	x 4.0	15	21.3	3.2
32	Extra Light	42.4 x 2.0	25	33.7	3.5
	Light	x 2.6	25	33.7	2.3
	Medium	x 3.2	25	33.7	**1.1**
	Heavy	x 4.0	20	26.9	6.3
40	Extra Light	48.3 x 2.3	32	42.4	**0.1**
	Light	x 2.9	25	33.7	7.6
	Medium	x 3.2	25	33.7	7.0
	Heavy	x 4.0	25	33.7	5.4
	Extra Heavy	x 5.4	25	33.7	2.6
50	Extra Light	60.3 x 2.3	40	48.3	6.4
	Light	x 2.9	40	48.3	5.2
	Medium	x 3.6	40	48.3	3.8
	Heavy	x 4.5	40	48.3	2.0
	Extra Heavy	x 5.4	40	48.3	**0.2**
65	Extra Light	76.1 x 2.3	50	60.3	9.8
	Galtube® Plus	x 2.6	50	60.3	9.2
	Light	x 3.2	50	60.3	8.0
	Medium	x 3.6	50	60.3	7.2
	Heavy	x 4.5	50	60.3	5.4
	Extra Heavy	x 5.4	50	60.3	2.6
80	Extra Light	88.9 x 2.6	65	76.1	6.0
	Light	x 3.2	65	76.1	4.8
	Medium	x 4.0	65	76.1	3.2
	Heavy	x 5.0	65	76.1	**1.2**
	Extra Heavy	x 5.9	50	60.3	15.3
90	Extra Light	101.6 x 2.6	80	88.9	5.6
	Light	x 3.2	80	88.9	4.4
	Medium	x 4.0	80	88.9	2.8
	Heavy	x 5.0	80	88.9	0.8
100	Extra Light	114.3 x 3.2	90	101.6	4.1
	Light	x 3.6	90	101.6	3.3
	Medium	x 4.5	90	101.6	**1.5**
	Heavy	x 5.4	80	88.9	12.6
125	Extra Light	139.7 x 3.0	100	114.3	16.9
	Light	x 3.5	100	114.3	15.9
	Medium	x 5.0	100	114.3	12.9
	Heavy	x 5.4	100	114.3	12.1
150	Light	165.1 x 3.0	125	139.7	15.4
	Medium	x 5.0	125	139.7	12.4
	Heavy	x 5.4	125	139.7	11.6

How to use this chart

1. Select the size of female (or outside) member closest to your requirements for the left hand column.
2. Depending on the application select the clearance required between the two members. Members may need to slide freely inside each other, or be locked with a pin, spot welded or fixed with wedges. This means, in some cases, a 'sloppy' fit may be suitable, while for others the tightest fit possible may be more appropriate. (See Note 6 Press Fit).
3. Having selected the most suitable clearance for your application, take the appropriate size of the male (inner) section from the right hand column, eg:

Female Section (outer)	Male Section (inner)	Clearance mm
76.1 x 5.9	60.3	2.6

Note that clearance is total available difference between member dimensions, not the gap on both sides.

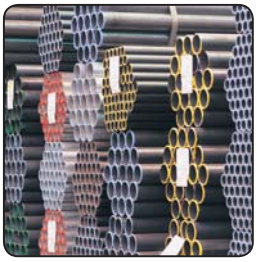
4. Where two telescoping sections are being used, thickness should be similar and will be determined by normal structural requirements. If a third section is to be used, consideration of both clearance and thickness within the size list available may be required.
5. Pipe may need to be fixed against twisting by welding or bolting.
6. Press Fit. For short pieces with no need for separation or sliding an interference fit can be achieved using the available ductility of the steel.

SHS & RHS – End Colour Code

Note: Meets AS/NZS 4496:1997 (Recommended practice for the colour coding of steel products).

Colour	Wall Thickness	
	mm	inch
Purple	1.6	0.063
Chocolate Brown	1.8	0.072
Yellow	2.0	0.080
Silver	2.3	0.091
Pink	2.5	0.098
Gold	2.8	0.110
Dark Blue	3.0	0.118
Grey	3.5	0.138
Green	4.0	0.160
Orange	5.0	0.197
White	6.0	0.236
Pink	7.0	0.276
Red	8.0	0.315
Purple	9.0	0.354

Pipe – End Colour Code



Colour	Gauge
Green end	Extra light (XL)
Yellow end	Light (L)
Blue end	Medium (M)
Red end	Heavy (H)
Cream end	Extra heavy (XH)

Note: Meets AS/NZS 4496:1997 (Recommended practice for the colour coding of steel products).

Plate - Grade 250

Typical uses:
- General fabrication
- Structural members
- High-rise buildings
- Bridges
- Storage tanks

Features:
- Meets AS/NZ 3678:2011. (Structural Steel, Hot Rolled Floor Plates & slabs).
- A medium strength structural steel plate product with nominal yield strength of 250 MPa

Notes: Most products are available in approximately 1200 x 2400 mm lengths.

Thickness mm	Mass kg/m	Width mm	Length m	kg/lineal metre of plate width
5	39.25	2400	9.0	94.20
		3000	9.0	117.75
6	47.10	2400	6.0	113.04
		2400	9.0	113.04
		3000	9.0	141.30
		3200	12	150.72
8	62.80	1800	6.0	113.04
		2400	6.0	150.72
		2400	9.0	150.72
		3000	9.0	188.40
		3200	12	200.96
10	78.50	1800	6.0	141.30
		2400	6.0	188.40
		2400	9.0	188.40
		3000	9.0	235.50
		3200	12	251.20
12	94.20	1800	6.0	169.56
		2400	6.0	226.08
		2400	9.0	226.08
		3000	6.0	282.60
		3000	9.0	282.60
		3200	12	301.44
16	125.60	1800	6.0	226.08
		2400	6.0	301.44
		2400	9.0	301.44
		3000	6.0	376.80
		3000	9.0	376.80
		3200	12	401.92
20	157.00	1800	6.0	282.60
		2400	6.0	376.80
		2400	9.0	376.80
		3000	9.0	471.00
		3200	12	502.40
25	196.25	1800	6.0	353.25
		2400	6.0	471.00
		2400	9.0	471.00
		3000	9.0	588.75
		3200	12	628.00
28	219.80	2400	6.0	527.52
		2400	9.0	527.52
32	251.20	1800	6.0	452.16
		2400	6.0	602.88
		2400	9.0	602.88
36	282.60	2400	6.0	678.24
		2400	9.0	678.24
40	314.00	1800	6.0	565.20
		2400	6.0	753.60
		2400	9.0	753.60
45	353.25	2400	6.0	847.80
		2400	9.0	847.80
50	392.50	1800	6.0	706.50
		2400	6.0	942.00
		2400	9.0	942.00

Plate - Grade 250

Typical uses:
- General fabrication
- Structural members
- High-rise buildings
- Bridges
- Storage tanks

Features:
- Meets AS/NZ 3678:2011. (Structural Steel, Hot Rolled Floor Plates & slabs).
- A medium strength structural steel plate product with nominal yield strength of 250 MPa

Notes: Most products are available in approximately 1200 x 2400 mm lengths.

Thickness mm	Mass kg/m	Width mm	Length m	kg/lineal metre of plate width
55	431.75	2400	6.0	1036.20
		2400	8.4	1036.20
60	471.00	1800	6.0	847.80
		2400	6.4	1130.40
70	549.50	1800	6.0	989.10
		2400	6.0	1318.80
80	628.00	1800	6.0	1130.40
		2400	6.0	1507.20
90	706.50	1800	6.0	1695.60
100	785.00	1800	5.6	1413.00
		2400	5.2	1884.00
110	863.50	1800	5.0	1554.30
		2400	4.0	2072.40
120	942.00	1800	4.6	1695.60
		2400	3.1	2260.80
130	1021.0	1800	4.2	1837.80
		2400	3.1	2450.40
140	1099.0	1800	3.9	1978.20
		2400	2.9	2637.60
150	1177.5	1800	3.6	2119.50
		2400	2.7	2826.00

Plate - Grade 350

Typical uses:
- General fabrication
- Structural members
- High-rise buildings
- Bridges
- Storage tanks

Features:
- Meets AS/NZ 3678:2011. (Structural Steel, Hot Rolled Floor Plates & slabs).
- A medium strength structural steel plate product with nominal yield strength of 250 MPa

Notes: Most products are available in approximately 1200 x 2400 mm lengths.

Thickness mm	Mass kg/m	Width mm	Length m	kg/lineal metre of plate width
5	39.25	2400	9.0	94.20
		3000	9.0	117.75
6	47.10	2400	9.6	113.04
8	62.80	2400	9.6	150.72
10	78.50	2400	9.6	188.40
		3100	9.6	243.35
12	94.20	2400	9.6	226.08
		3100	9.6	292.02
16	125.60	2400	9.6	301.44
		3100	9.6	389.36
20	157.00	2400	9.6	376.80
		3100	9.6	486.70
25	196.25	2400	9.6	471.00
32	251.20	2400	9.6	602.88
40	314.00	2400	7.6	753.60
50	392.50	2400	7.6	942.00
60	471.00	2400	7.6	1130.40
70	549.50	2400	6.0	1318.80
80	628.00	2400	5.5	1507.20
90	706.5	2400	6.3	1695.6
		2400	3.15	1695.6
100		2100	6.5	1648.5
		2100	3.25	1648.5

Plate - Grade K1042

Typical uses:
- General engineering parts
- Profile cut gears
- Wear/abrasion applications

Features:
- Meets AS/NZS 3678: 2011 - K1042
- A heat treatable plate grade for general engineering applications

Thickness mm	Mass kg/m	Width mm	Length m	kg/lineal metre of plate width
12	94.20	2400	6.0	226.08
16	125.60	2400	6.2	301.44
20	157.00	2400	6.0	376.80
25	196.25	2400	6.0	471.00
32	251.20	2400	6.3	602.88
40	314.00	2400	7.6	753.60
50	392.50	2400	6.0	942.00
60	471.00	2400	6.0	1130.40
70	549.50	2400	5.8	1318.80
80	628.00	2400	5.0	1507.20

Plate - Boiler (AS 1548-7 460 NR)

Typical uses:
- Boiler
- Pressure Vessel

Features:
- Meets AS 1548:2008 (Fine grained, weldable steel plates for pressure equipment)
- A fully killed, fine grained, carbon-maganese steel with a guaranteed minimum tensile strength of 430 MPa

Thickness mm	Mass kg/m	Width mm	Length m	kg/lineal metre of plate width
6	47.10	3100	9.6	146.01
8	62.80	3100	9.6	194.68
10	78.50	3100	9.6	243.35
12	94.20	3100	9.6	292.02
16	125.60	3100	9.6	389.36
20	157.00	3100	9.6	486.70
25	196.25	3100	9.6	608.38
32	251.20	3100	9.6	778.72
40	314.00	2400	9.6	753.60
50	392.50	2400	7.6	942.00
60	471.00	2400	6.0	1130.40
70	549.50	2400	6.0	1318.80
80	628.00	2400	5.2	1507.20
90	706.50	2400	5.2	1695.60
100	785.00	2400	5.2	1884.00

Plate - Pressure Vessel

Thickness mm	Mass kg/m	Width mm	Length m	kg/lineal metre of plate width
5	39.25	2400	9.0	94.20

Typical uses:
- Boiler
- Pressure Vessel

Features:
- Meets AS 1548:2008 (Fine grained, weldable steel plates for pressure equipment)
- A fully killed, fine grained, carbon-manganese steel with a guaranteed minimum tensile strength of 430 MPa

Plate - Floor (AS/NZS 3678 - 250)

Thickness mm	Mass kg/m	Width mm	Length m	kg/lineal metre of plate width
6	49.10	1800	6.0	88.38
8	64.80	1800	6.0	116.64
10	80.50	1800	6.0	144.90
12	96.20	1800	6.0	173.16

Typical uses:
- Floorplate

Features:
- Meets AS/NZS 3678: 2011 - 250
- Hot rolled structural product with minimum yield strength of 250MPa; good ductility and good weldability

Plate - Coil

Thickness mm	Mass kg/m²	Width mm	
		910-1550	1765-1800
3	23.55	Typically 1200 mm or 1500 mm wide.	Typically 1800mm wide.
4	31.40		
5	39.25		
6	47.10		
8	62.80		n/a
10	78.50	These coils supplied as mill widths.	n/a
12	94.20		n/a

Typical uses:
- Structural Members
- Roll forming applications
- Brake press forming applications
- General fabrication

Features:
- Meets AS/NZS 1594: 2002 - HA250 (Flat rolled steel products)
- Hot rolled structural product with minimum yield strength of 250MPa; good ductility and good weldability

Plate - Coil Floor

Notes: Most products are available in approximately 1200 x 2400 mm lengths. *2.1mm Thickness Floorplate is considered 1210mm in width. The above sizes of floor plate coils may weigh approximately 14 tonnes each.

Thickness mm	Mass kg/m	Width mm	kg/lineal metre of plate width
2.1*	18.54	1200	22.24
3.0	25.55	1200	30.66
5.0	41.25	1200	49.50
		1500	61.88
6.0	49.10	1200	58.92
		1500	73.65
		1800	88.38
8.0	64.80	1500	97.20

Typical uses:
- Floorplate

Features:
- Meets AS/NZS 1594: 2002 - HA250 (Flat rolled steel products)
- Hot rolled structural product with minimum yield strength of 250MPa; good ductility and good weldability

Plate - Quench & Tempered

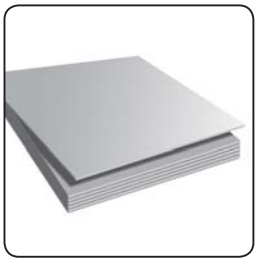
Bisalloy Steel Group Limited

Typical uses:
- Lining equipment
- Transport equipment
- Mining equipment
- Excavator buckets
- Bridges
- Dump truck wear liners
- Deflector plates
- Earthmoving buckets

Thickness mm	Mass kg/m	Bisalloy 80	Bisalloy 400	Bisalloy 450	Bisalloy 500	Bisalloy 600
		Tensile Strength: Typical - 830 MPa	Tensile Strength: Typical - 1320 MPa	Tensile Strength: Typical - 1400 MPa	Tensile Strength: Typical - 1640 MPa	Tensile Strength: -
5	39.25	1525 x 8000	1525 x 8000			
6	47.10	1525 x 8000	1525 x 8000			
		2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000
8	62.80	2485 x 8000	2485 x 8000	2485 x 8000		2485 x 8000
10	78.50	2485 x 8000	2485 x 8000	2485 x 8000		2485 x 8000
		3100 x 8000	3100 x 8000	3100 x 8000		
12	94.20	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000
		3100 x 8000	3100 x 8000	3100 x 8000		
16	125.60	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000
		3100 x 8000	3100 x 8000	3100 x 8000		
20	157.00	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000
		3100 x 8000	3100 x 8000	3100 x 8300		
25	196.25	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000
		3100 x 8000	3100 x 8000	3100 x 8800		
32	251.20	2485 x 8000	2485 x 8000	2485 x 8500	2485 x 8000	2485 x 8000
40	314.00	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000
50	392.50	2485 x 8000	2485 x 8000	2485 x 8000		
60	471.00	2485 x 6000	2485 x 8000			
70		1900 x 6000	1900 x 6000		1900 x 6000	
75		1900 x 6000	1900 x 6000		1525 x 6000	
80		1900 x 6000	1900 x 6000		1525 x 6000	
90		1525 x 6000	1525 x 6000		1525 x 6000	
100		1525 x 6000	1525 x 6000		1525 x 6000	

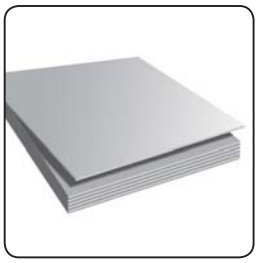
Note: OneSteel Metalcentre reserve the right to change specifications without notice. Not all products are available at all OneSteel Metalcentre Branches. OneSteel Metalcentre also has access to a wide network of products not necessarily listed in this book. Please check with your local OneSteel Metalcentre Branch for product availability.

Plate – International Standards Comparison



Tensile Strength MPa	Australian AS 3678	European EN10025	British BS 4360	German DIN17100	Japanese JIS	American ASTM	International ISO630
290				St33			
300	200						
310						A283A	Fe310-0
330					G3101-SS330		
360		S235JR	40A, B, C, D	St37-2 St37-3		A283B	Fe360A B, C, D
380						A283C	
400					G3101-SS400 G316-SM400 A, B, C	A36, A573-400	
410	250 250L15	S275JR S275J0 S275J2G3 S275J2G4			St44-2 St44-3	A283D A284C, D A529 A572-290	
430	300 300L15	Fe430B C, D1, D2	43A, B, C, D			A633A	Fe430A B, C, D
450	350 350L15					A573-450 A572-345	
480	400 400L15	S355JR S355JD S355J2G3				A572-485	
490			50A, B, C, D	S152-3	G3101-SS490 G3106-SM490 A, B, C G3106-SM490 YA, YB		Fe510 B, C, D
520	450 450L15				G3106-SM520 B, C	A572-415	Fe510 B, C, D
540					G3101-SS540		

Plate – Boiler – International Standards Comparison



Tensile Strength MPa	Australian AS 3678	European EN10025	British BS 4360	German DIN17100	Japanese JIS	American ASTM	International ISO630
310						A285-A	
340						A285-B	
360		2-P235GH	151-360 161-360 164-360	H1			P235
380						A285-C A442-55 A515-55 A516-55	
390		3-P275N					
400			151-400 161-400 164-400 224-400	H11	G3103-SB410 G3115-SPV235 G3118-SGV410 G3126-SLA235	A682-A	P265
410		2P265GH			G3118-SGV410		P265
415						A515-65 A518-60	
430	7-430						
440					G3126-SLA325		
450					G3118-SB450 G3118-SGC450	A515-65 A516-65	
460	7-460	2P295GH				A662-B	P290
480					G3103-SB480 G3118-SGC480		
490	7-490		224-490	19Mn6	G3115-SPV3115	A515-70 A516-70 A841	P315
490	5-490	3-P355GH			G3126-SLA360	A537-C11 A737-B A841	P315
510		2-P355GH					P355
520					G3115-SPV355	A299 A455 A738-A	

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ECO-REO™ - Sustainable Reinforcing Products

eco reo™
economical • environmental

OneSteel Reinforcing have introduced a range of **ECO-REO™** products that offer builders and construction companies a range of REBAR, REOMESH® and Decking products that can provide a more sustainable use of materials in structures.

These products carry the additional branding of **ECO-REO™**, **ECO-BAR™** or **ECO-MESH™**, as they can provide economic and environmental benefits compared to traditional reinforcing steels.

* ECONOMICAL

The products can give more cost-efficient cover and economy in the number of sheets or bars, or the volumes of steel needed to efficiently reinforce the structure and meet the design intent of the project

* ENVIRONMENTAL

OneSteel's manufacturing of reinforcing steel utilises energy reducing polymer injection technology and recycled steel scrap content

OneSteel has introduced a number of initiatives in recent years to assist with more sustainable use of materials.

- The majority of OneSteel's reinforcing bar and reinforcing mesh has been made from recycled scrap for many years – OneSteel announced on 10th June 2009 that the overall percentage of post-consumer recycled content (FY2008 average) was 89% for reinforcing bar and 66% for reinforcing mesh.
- *OneSteel announced on 1st May 2010 that OneSteel's improved energy-efficient steel making process Polymer Injection Technology (PIT), used at the Rooty Hill, Sydney and Laverton, Melbourne electric arc furnaces has allowed OneSteel to achieve an average 66% of reinforcing rod for mesh and 82% of reinforcing bar produced using this technology. In operating this technology as standard practice at OneSteel's Rooty Hill and Laverton steel mills, there is potential to recycle more than 285,000 car tyres per annum.*
- OneSteel Reinforcing is supporting customers to have projects gain up to two Green Building Council of Australia (GBCA) Green Star® steel credits (revised scheme effective 29th April 2010) with enhanced capability to provide off site optimal fabrication of reinforcing steel used in the building structure.

* Supporting information on environmental claims for specific OneSteel Reinforcing **ECO-REO™** products is given below and on the Technical Resources page of the OneSteel Reinforcing website **www.reinforcing.com**

eco bar™

ECO-BAR™ products include:

- **500PLUS® BAMTEC®** – Engineered reinforcing bar carpets can allow the size and positioning of reinforcing steel to be optimised with variable diameters and spacings.
- **500PLUS® PREFAB** – Prefabricated reinforcement is a more efficient process that can be designed to generate less waste and scrap on site.

500PLUS® BAMTEC®
500PLUS® PREFAB

eco mesh™

ECO-MESH™ products include:

- Customised special run **ONEMESH®** can minimise duplication of reinforcing steel and scrap losses that result from excess lapping and trimming of mesh sheets.
- Engineered and tailored mesh solutions can include variable wire spacing and wire diameters, and optimised mesh size (length and width).
- The new **UTEMESH®** and the large (up to 9 x 3 m) **ONEMESH® MADE TO SIZE** sheets give more cost efficient cover and economy in the number of sheets used on projects.

onemesh® made to size
utemesh®

Green Star® Steel Credit Points

- If customers talk to OneSteel Reinforcing in the early stages of the project we can suggest ways of redesigning the reinforcing such as spacing and diameters to optimise material use.
- This can improve the sustainability credentials of the project allowing the awarding of Green Star® steel credit points where appropriate as well as potentially reducing the costs of reinforcing steel in the project.
- OneSteel Reinforcing encourages the practice of moving product off site into prefabrication which fulfils the intent to reduce waste on site. This can provide the opportunity for dematerialisation and potentially speeding up construction, using our off site optimal fabrication techniques such as **500PLUS® BAMTEC®, 500PLUS® PREFAB** and **ONEMESH® MADE TO SIZE.**
- OneSteel Reinforcing is keen to assist customers in making progress towards adopting more sustainable practices.

Off site optimal fabrication techniques*

- Off site optimal fabrication of reinforcing steel used in the building structure includes any combination of the design-driven fabrication techniques in the table (right) which optimise laps in mesh and spacing between bars, thereby reducing material and waste associated with reinforcing steel fabrication and use.

GBCA Table 2 – Off Site Optimal Fabrication Techniques for Reinforcing Steels

- Off site cutting and bending of bars to be hand-laid on site is not considered an optimal fabrication technique for the purpose of this credit
- Post-tensioning tendons are not counted in the reinforcing steel quantities.

***Source:** GBCA Revised Green Star® Credit 24.08.10

Optimisation Technique	Description
Engineered Reinforcing Bar Carpet	Reinforcing bars fabricated off site for rolling out on site
Engineered/ Customised Mesh	Run-to-length meshes, tailored meshes, high ductility meshes, special size meshes, engineered meshes, variable wire diameters and spacing
Prefabricated Reinforcing Cages	Prefabricated reinforcing cages for concrete elements such as slabs, walls, cores, columns, piles and beams

OneSteel Reinforcing can meet the new Green Star® steel credit requirements which are outlined below:

- OneSteel has a valid 14001 Environmental Management System in place.
- OneSteel is a member of the World Steel Association's Climate Action Programme.
- At least 60% of OneSteel Reinforcing steel is produced using Polymer Injection Technology – an energy reducing process in manufacturing.
- At least 95% of all OneSteel Reinforcing REBAR and REOMESH® meets or exceeds 500 MPa strength grade.
- At least 15% by mass of all OneSteel Reinforcing REBAR and REOMESH® is produced using off site optimal fabrication techniques for agreed projects.

For more information on Green Star® related products visit **www.reinforcing.com**

Green Building Council documentation requirements

- Documentation to demonstrate compliance with optimal fabrication techniques is required from the steel fabricator/reinforcement processor in the form of a short report on where optimal steel manufacturing techniques are claimed, the optimal off site fabrication techniques used in the building, and the quantities (by mass) of steel used in each optimal off site fabrication technique.

- **OneSteel Reinforcing can confirm pre-project by letter that it can meet the requirements, and will also complete the post-project GBCA Criteria 3 & 4 charts required for the project.**

For more information on GBCA documentation visit www.gbca.com.au

Mesh – HANDIMESH® Sheet – Galvanized

Product Code	Length (m)	Width (m)	Line Wire (mm)	Cross Wires (mm)	Mass (kg)
G112A	3	2.4	2.5 @ 25	2.5 @ 25	23
G122A	3	2.4	2.5 @ 25	2.5 @ 50	17
G113	3	2.4	3.15 @ 25	3.15 @ 25	36
G123	3	2.4	3.15 @ 25	3.15 @ 50	27
G223	3	2.4	3.15 @ 50	3.15 @ 50	18
G234	3	2.4	4 @ 50	4 @ 75	24
G235	3	2.4	5 @ 50	5 @ 75	38
G224	3	2.4	4 @ 50	4 @ 50	29
G225	3	2.4	5 @ 50	5 @ 50	44
G445	3	2.4	5 @ 100	5 @ 100	23
G445A	3	2.4	5.6 @ 100	5.6 @ 100	29
G112AHS	2	1.2	2.5 @ 25	2.5 @ 25	8
G122AHS	2	1.2	2.5 @ 25	2.5 @ 50	6
G234HS	2	1.2	4 @ 50	4 @ 75	8
G224HS	2	1.2	4 @ 50	4 @ 50	10
G444HS	2	1.2	4 @ 100	4 @ 100	5

Typical uses:
- General Purpose Applications
- DIY & Home Improvement

Features:
- Also available in 'bright wire' on request.

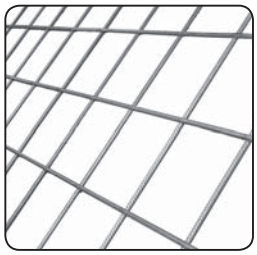
Mesh – Ribbed UTEMESH® AS/NZS 4671 – Class L

Product Code	Std Unit	Longitudinal Wires	Cross Wires	Mass (kg)	Dimensions (m)
SL62UTE	Sheet	11 x 6 @ 200	20 x 6 @ 200	18	4 x 2
SL72UTE	Sheet	11 x 6.75 @ 200	20 x 6.75 @ 200	23	4 x 2
SL82UTE	Sheet	11 x 7.6 @ 200	20 x 7.6 @ 200	30	4 x 2

Typical uses:
- Residential Construction
- Driveways and paths
- Shed slabs
- Smaller concreting jobs

Features:
- Versatile and lightweight
- Minimises wastage
- Can be handled by one person (using the correct handling techniques)
- Safe and legal to transport
- Easy to setup, place and tie

Mesh – Ribbed Square Mesh AS/NZS 4671 – Class L



Product Code	Std Unit	Longitudinal Wires	Cross Wires	Mass (kg)	Dimensions (m)
SL52	Sheet	10 x 4.77 @ 200 +4 x 4 @ 100	30 x 4.77 @ 200	21	6 x 2.4
SL62	Sheet	10 x 6 @ 200 +4 x 4.24 @ 100	30 x 6 @ 200	33	6 x 2.4
SL72	Sheet	10 x 6.75 @ 200 +4 x 4.77 @ 100	30 x 6.75 @200	41	6 x 2.4
SL81	Sheet	25 x 7.6 @ 100	60 x 7.6 @ 100	105	6 x 2.4
SL82	Sheet	10 x 7.6 @ 200 +4 x 5.37 @ 100	30 x 7.6 @ 200	52	6 x 2.4
SL92	Sheet	10 x 8.6 @ 200 +4 x 6 @ 100	30 x 8.6 @ 200	66	6 x 2.4
SL102	Sheet	10 x 9.5 @ 200 +4 x 6.75 @ 100	30 x 9.5 @ 200	80	6 x 2.4

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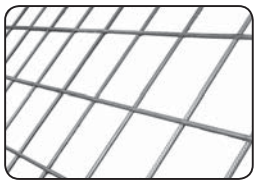
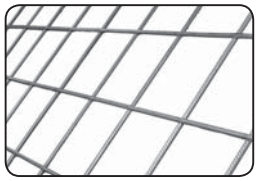
Mesh – Square Mesh 300 x 300 Spacing – Class L



Product Code	Std Unit	Longitudinal Wires	Cross Wires	Mass (kg)	Dimensions (m)
SL53	Sheet	6 x 5 @ 300	20 x 5 @ 300	14	6 x 2.3
SL63	Sheet	6 x 6 @ 300	20 x 6 @ 300	21	6 x 2.3

Note: Only available in WA

Mesh – Plain Square Mesh – Sheet – Class L



Product Code	Std Unit	Longitudinal Wires	Cross Wires	Mass (kg)	Dimensions (m)
F41	Sheet	25 x 4 @ 100	61 x 4 @ 100	29	6 x 2.4
F51	Sheet	25 x 5 @ 100	61 x 5 @ 100	45	6 x 2.4

Mesh – Trench AS/NZS 4671 – Class L Size 8, 11 & 12

Product Code	Std Unit	Longitudinal Wires	Mass (kg)	Dimensions (m)
L8TM200	Sheet	3 x 7.6 @ 100	6.8	6 x 0.2
L8TM300	Sheet	4 x 7.6 @ 100	9.2	6 x 0.3
L8TM400	Sheet	5 x 7.6 @ 100	11.6	6 x 0.4
L8TM500	Sheet	6 x 7.6 @ 100	13.9	6 x 0.5
L11TM200	Sheet	3 x 10.7 @ 100	13.3	6 x 0.2
L11TM300	Sheet	4 x 10.7 @ 100	17.7	6 x 0.3
L11TM400	Sheet	5 x 10.7 @ 100	22.3	6 x 0.4
L11TM500	Sheet	6 x 10.7 @ 100	26.8	6 x 0.5
L12TM200	Sheet	3 x 11.9 @ 100	15.8	6 x 0.2
L12TM300	Sheet	4 x 11.9 @ 100	21.2	6 x 0.3
L12TM400	Sheet	5 x 11.9 @ 100	26.5	6 x 0.4
L12TM500	Sheet	6 x 11.9 @ 100	31.9	6 x 0.5

Deformed Bar

Diameter mm	Mass kg/m	Metres per Tonne
10	0.63	1582
12	0.91	1099
16	1.62	617
20	2.53	395
24	3.64	275
28	4.95	202
32	6.47	155
36	8.19	122
40	10.11	99

Typical uses:
- Commercial Construction
- Housing Construction
- Civil Construction

Features:
- ACRS quality certified products manufactured from Australian steel

Sheet – Hot Rolled Formable HA1S Steel

BLUESCOPE STEEL

Base Metal Thickness mm	Width mm	kg/m²
1.50	1200	11.77
1.50	1210	11.77
1.60	910	12.56
1.60	1195	12.56
1.60	1200	12.56
1.60	1210	12.56
1.95	900	15.30
1.95	1195	15.30
1.95	1200	15.30
1.95	1210	15.30
2.40	1200	18.84
2.50	1195	19.63
2.50	1210	19.63
2.50	1495	19.63
2.50	1510	19.63
2.90	1210	22.77
2.90	1500	22.77
2.95	1200	23.16
2.95	1500	23.16
2.95	1800	23.16
3.00	895	23.55
3.00	1195	23.55
3.00	1210	23.55
3.00	1495	23.55
3.00	1510	23.55
3.00	1800	23.55

Typical uses:
- Shelving
- Light structural members
- Tanks

Features:
- Meets AS/NZS 1594: 2002 (Flat rolled steel products) and and AS/NZS 1365: 1996 (Tolerances for flat rolled steel products)
- Skin-passed, Hot-rolled low carbon steel suitable for simple forming, bending and welding operations.

Sheet – Hot Rolled Formable Brightform® Steel

BLUESCOPE STEEL

Base Metal Thickness mm	Width mm	kg/m²
1.60	910	12.56
1.60	1210	12.56
1.60	1510	12.56
2.00	910	15.70
2.00	1210	15.70
2.00	1510	15.70
2.50	1210	19.63
2.95	1210	23.16
3.00	910	23.55
3.00	1210	23.55

Typical uses:
- Tubing
- Shelving
- Simple pressings
- Hidden appliance panels

Features:
- Meets AS/NZS 1365: 1996 (Tolerances for flat rolled steel products)
- Pickled, skin-passed low carbon steel with a good surface, suitable for bending and moderate drawing and pressing.

Sheet – Hot Rolled Pickled HA3-P LY-TEN®

BLUESCOPE STEEL

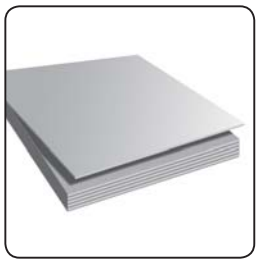
Base Metal Thickness mm	Width mm	kg/m²
1.60	1210	12.56
2.00	910	15.70
2.00	1210	15.70
2.50	1210	19.63
3.00	1210	23.55
4.00	1210	31.40
5.00	1210	39.25
6.00	1210	47.10

Typical uses:
- Agricultural machinery
- Automotive components
- Sealed unit housings
- Mower parts
- Brackets
- Furniture

Features:
- Meets joint AS/NZS 1594: 2002 (Flat rolled steel products) and and AS/NZS 1365: 1996 (Tolerances for flat rolled steel products)
- Hot rolled, formable steel suitable when pickled for medium drawing and heavy pressing operations.

Sheet – Cold Rolled CA3SN-G

BLUESCOPE STEEL



Base Metal Thickness mm	Width mm	kg/m²
0.60	1220	4.71
0.80	1220	6.28
1.00	1220	7.85
1.20	1220	9.42
1.50	1220	11.78
1.60	1220	12.56
2.00	1220	15.70
2.50	1220	19.63
3.00	1220	23.55

Typical uses:
- Unexposed drawn parts for automotive and appliance end uses.

Features:
- Meets AS/NZS 1595: 1998 (Cold-rolled, unalloyed, steel sheet and strip)
- Cold rolled, skin-passed deep drawing steel guaranteed non-ageing and free from stretcher stain with a general purpose surface.

Sheet - Galvabond® G2 Z275

Typical uses:
- Tube
- Airconditioning ducts,
- Airconditioning panels,
- Meter boxes
- Trailers
- Partitioning systems
- Cable trays
- Scaffolding planks
- Rendering mesh
- Feeder troughs

Features:
- Meets AS/NZS 1365: 1996 (Tolerances for flat rolled steel products) and AS 1397: 2011 (Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium)
- Galvabond G2 steel is a hot-dipped zinc-coated commercial forming steel with a spangled surface, suitable for general manufacturing. Product is suitable for moderate drawing applications and is suitable for lockseaming up to 1.6mm thick.

Base Metal Thickness mm	Width mm	kg/m²
0.40	915	3.43
0.40	1220	3.43
0.45	915	3.82
0.50	1220	4.22
0.55	915	4.61
0.55	1200	4.61
0.55	1220	4.61
0.55	1500	4.61
0.60	1525	5.00
0.70	1220	5.79
0.75	915	6.18
0.75	1200	6.18
0.75	1220	6.18
0.75	1500	6.18
0.80	1525	6.57
0.90	915	7.36
0.90	1220	7.36
0.95	1200	7.75
0.95	1220	7.75
0.95	1500	7.75
1.00	1220	8.14
1.00	1525	8.14
1.10	915	8.92
1.10	1220	8.92
1.15	915	9.32
1.15	1200	9.32
1.15	1220	9.32
1.15	1500	9.32
1.20	1525	9.71
1.50	915	12.07
1.50	1220	12.07
1.50	1500	12.07
1.55	1200	12.46
1.55	1220	12.46
1.55	1500	12.46
1.60	1525	12.85
1.90	1220	15.21
1.95	1200	15.59
1.95	1220	15.59
2.40	1220	19.13
2.45	1200	19.52
2.90	1220	23.06

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Sheet – Galvaskin® G2 Z200

BLUESCOPE STEEL

Typical uses:
- Internal sections
- Shelving

Features:
- Meets AS/NZS 1365: 1996 (Tolerances for flat rolled steel products) and AS 1397: 2011 (Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium)
- Galvaskin G2 Steel is a hot-dipped, zinc coated commercial forming steel with a spangled surface, suitable for general purpose forming, and because of its light coating mass is suggested for internal applications only. Guaranteed for lock-forming up to a base thickness of 1.60mm

Base Metal Thickness mm	Width mm	kg/m²
0.40	915	3.36
0.40	1220	3.36
0.45	915	3.75
0.50	1220	4.15
0.55	915	4.54
0.55	1200	4.54
0.55	1220	4.54
0.55	1500	4.54
0.60	1525	4.93
0.70	1220	5.72
0.75	915	6.11
0.75	1200	6.11
0.75	1220	6.11
0.75	1500	6.11
0.80	1525	6.50
0.90	915	7.29
0.90	1220	7.29
0.95	1200	7.68
0.95	1220	7.68
0.95	1500	7.68
1.00	1220	8.07
1.00	1525	8.07

Sheet – Zincanneal® G2S ZF100

BLUESCOPE STEEL

Typical uses:
- Exposed painted panels
- Non-exposed automotive panels
- Washing machines
- Acoustic ceiling tiles
- Door frames
- Switchboards
- Commercial fridges & freezers

Features:
- Meets AS/NZS 1365: 1996 (Tolerances for flat rolled steel products) and AS 1397: 2011 (Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium)
- Zincanneal G2S is a matte hot-dipped zinc/iron alloy-coated commercial forming steel with a skin-passed smooth surface suitable for direct-on painting. Some powdering of the coating may occur with severe deformation.

Base Metal Thickness mm	Width mm	kg/m²
0.50	1220	4.06
0.55	1220	4.45
0.70	1220	5.63
0.75	1220	6.02
0.80	1200	6.41
0.90	915	7.19
0.90	1220	7.19
0.95	1200	7.59
0.95	1220	7.59
1.00	1200	7.98
1.10	1050	8.77
1.10	1200	8.77
1.10	1220	8.77
1.15	1200	9.16
1.15	1220	9.16
1.20	1200	9.55
1.40	1220	11.12
1.50	915	11.91
1.50	1200	11.91
1.50	1220	11.91
1.55	1200	12.29
1.60	1200	12.69
1.90	1220	15.05
1.95	1200	15.44

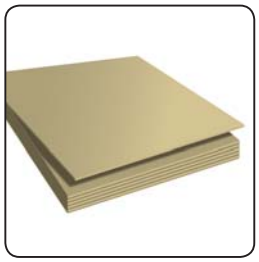
Sheet – Zincalume® G300 ZF100

Base Metal Thickness mm	Width mm	kg/m²
0.40	1200	3.31
0.55	1200	4.49
0.55	900	4.49
0.75	1200	6.06
1.00	900	8.02
1.00	1200	8.02
1.20	900	9.59
1.20	1200	9.59

Typical uses:
- Rainwater goods
- Gutters
- Garden sheds

Features:
- Meets AS/NZS 1365: 1996 (Tolerances for flat rolled steel products) and AS 1397: 2011 (Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium)
- Zincalume G300 steel is a hot-dipped zinc/aluminium alloy-coated structural steel with a regular spangle surface and a guaranteed minimum yield strength of 300MPa with good ductility. Suitable for roll forming to a minimum internal diameter of 1t.

Sheet – Colorbond® CG300 AZF150



Typical uses:
- Roofing & accessories
- Wall cladding
- Rainwater goods.

Features:
Colorbond prepainted steel is specifically designed by BlueScope Steel to provide a high durability, premier cladding and roofing material for general use.

Size mm x mm x mm	Colours	Mass sheets/tonne
1200 x 2400 x 0.55	Headland®	76
	Manor Red®	
	Jasper®	
	Sandbank®	
	Classic Cream™	
	Surfmist®	
	Paperbark ®	
	Dune®	
	Shale Grey™	
	Windspray®	
	Woodland Grey®	
	Bushland®	
	Pale Eucalypt®	
	Wilderness®	
	Cottage Green®	
	Monument™	
	Deep Ocean®	
	Ironstone®	
	Evening Haze®	
	Loft®	
1200 x 2400 x 0.55	Surfmist®	76
x 3050 x 0.55		60
x 3660 x 0.55		51
x 2440 x 0.55	Appliance	76
x 1800 x 0.55	Sign White	100
x 2400 x 0.55		75
x 2400 x 0.80		63
x 3000 x 0.80		43

All colours listed above are trademarks or registered trademarks of BlueScope Steel Ltd.

Aluminium Angles - Architectural Alloy (6060/6063)

A	B	T	R1	R2	Alloy/ Temper	Length mm	kg/ length
20	20	1.6				6500	1.105
20	20	3				6500	2.002
25	25	1.6				6500	1.391
25	25	3				6500	2.477
32	25	3				6500	2.906
32	32	3				6500	3.289
40	25	3				6500	3.348
40	40	3				6500	4.160
40	40	4				6500	5.473
40	40	6				6500	7.989
50	25	3				6500	3.887
50	50	3				6500	5.109
50	50	4				6500	6.910
50	50	6				6500	10.140
75	25	3				6500	5.259

Aluminium Channels - Architectural Alloy (6060/6063)

A	B	C	T1/T2	R1	R2	Length mm	kg/ length
25	25	25	3			6500	3.725
40	20	20	3			6500	4.011
40	25	25	3			6500	4.531
41.5	22.5	22.5	3		3	6500	4.355
50	25	25	3			6500	5.070
60	32	32	3			6500	6.390
80	25	25	3			6500	6.689

Aluminium Flat Bar – Architectural Alloy (6060/6063)

W	T	R	Length mm	kg/ length
20	3		4000	0.664
25	3		4000	0.832
25	6		4000	1.664
25	10		4000	2.776
32	3		4000	1.064
32	6		4000	2.124
32	10		4000	3.552
40	3		4000	1.332
40	4		4000	1.776
40	6		4000	2.664
40	10		4000	4.444
50	3		4000	1.664
50	4		4000	2.220
50	6		4000	3.332
50	10		4000	5.536
50	12		4000	6.664
60	6		4000	4.000
60	10		4000	6.664
60	12		4000	8.000
80	3		4000	2.656
80	6		4000	5.312
80	10		4000	8.888
100	3		4000	3.332
100	6		4000	6.664
100	10		4000	11.108
100	12		4000	13.332
160	6		4000	10.664
160	10		4000	17.776

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Aluminium Flat Bar – Architectural Alloy (6060 T5)

Size mm	Length mm	Mass/In
12 x 3	4000	0.396
20 x 3	4000	0.664
25 x 3	4000	0.832
25 x 4	4000	1.112
25 x 6	4000	1.660
25 x 10	4000	2.776
32 x 3	4000	1.068
32 x 6	4000	2.124
32 x 10	4000	3.544
40 x 3	4000	1.328
40 x 4	4000	1.772
40 x 6	4000	2.656
40 x 10	4000	4.428
50 x 3	4000	1.660
50 x 4	4000	2.220
50 x 5	4000	2.768
50 x 6	4000	3.332
50 x 8	4000	5.000
50 x 10	4000	5.556
50 x 12	4000	6.664
60 x 6	4000	3.984
60 x 10	4000	6.640
60 x 12	4000	7.972
76.2 x 6.4	4000	5.380
80 x 3	4000	2.664
80 x 6	4000	5.312
80 x 10	4000	8.888
100 x 3	4000	3.332
100 x 6	4000	6.644
100 x 10	4000	11.072
100 x 12	4000	13.328
160 x 6	4000	10.628
160 x 10	4000	17.772

Aluminium Round Bar – Architectural Alloy (6060/6063)

Diameter	Length mm	kg/sheet
12	6000	1.884
16	6000	3.348
25.4	6000	5.628
33	6000	14.25

Aluminium Angles - Structural Alloy (6082/6061/6005A)

A	B	T	R1	R2	Alloy/ Temper	Length mm	kg/ length
50	50	4				6500	6.929
50	50	6				6500	10.205
60	60	6		4		6500	12.363
80	50	6		4		6500	13.442
80	80	6		4		6500	16.679
80	80	10		6		6500	27.118
100	50	6		4		6500	15.600
100	80	10				6500	31.031
150	80	10				6500	30.560

Aluminium Channels - Structural Alloy (6082/6061/6005A)

A	B	C	T1/T2	R1	R2	Length mm	kg/ length
80	40	40	6		4	6500	16.094
100	50	50	6.0/9.0		6	6500	25.311
152.4	63.5	63.5	6.3/7.9		10.67	7000	37.240
160	60	60	9		6	6500	35.035
180	80	80	11		6	6500	48.984
200	90	90	10	10	10	6100	54.089
381	152.4	152.4	12.7	15.9		2500	50.210

Aluminium Flat Bar - Structural Alloy (6082/6061/6005A)

W	T	R	Length mm	kg/length
50	6		6000	4.998
80	6		6000	7.998
80	8		6000	10.662
100	6		6000	9.996

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Aluminium Flat Bar – Structural Alloy (6061 T6)

Size mm	Length mm	kg/length
40 x 6	6000	3.984
50 x 6	6000	4.998

Aluminium Round Bar – Structural Alloy (6082/6061/6005A)

Diameter	Length mm	kg/length
20	6500	5.668

Aluminium Hollow & Tubes – Square Edge Hollow Sections (6060 T5)

Squares		
Size mm	Length mm	Mass/In
12.5 x 12.5 x 1.59	6500	1.222
25 x 25 x 2.0	6500	3.309
25 x 25 x 3.0	6500	4.752
32 x 32 x 2.0	6500	4.316
32 x 32 x 3.0	6500	6.266
40 x 40 x 1.6	6500	4.427
40 x 40 x 2.0	6500	5.467
40 x 40 x 3.0	6500	7.989
50 x 50 x 2.5	6500	8.541
50.8 x 50.8 x 3.2	6500	10.894
63.5 x 63.5 x 3.2	6500	13.689

Aluminium Hollow & Tubes – Square Edge Hollow Sections (6060 T5)

Rectangular		
Size mm	Length mm	Mass/In
40 x 25 x 2.5	6500	5.395
50 x 25 x 3.0	6500	7.449
50 x 40 x 3.0	6500	9.068
50.8 x 25.4 x 2.35	6500	6.084
60 x 40 x 3.0	6500	10.147
60 x 50 x 3.0	6500	11.226
76.2 x 25.4 x 2.36	6500	8.281
80 x 40 x 3.0	6500	12.305
80 x 50 x 3.0	6500	13.384
100 x 50 x 3.0	6500	15.542
150 x 50 x 3.0	6500	20.937
200 x 50 x 3.0	6500	26.338

Aluminium Hollow & Tubes – Radius Edge Hollow Sections (6060 T5)

Squares		
Size mm	Length mm	Mass/In
19 x 19 x 1.6	6500	1.937
20 x 20 x 3.0	6500	3.523
25 x 25 x 3.0	6500	4.609
25.4 x 25.4 x 1.2	6150	1.882
50 x 50 x 1.7	5410	4.690
50.8 x 50.8 x 2.03	6500	6.799
50.8 x 50.8 x 3.2	6500	10.576
76.2 x 76.2 x 6.35	12000	54.204
100 x 100 x 3.0	6500	20.294

Aluminium Hollow & Tubes – Radius Edge Hollow Sections (6060 T5)

Rectangular		
Size mm	Length mm	Mass/In
38.1 x 25.4 x 1.5	4810	2.328
38.1 x 25.4 x 1.5	5000	2.420
38.1 x 25.4 x 1.5	6000	2.904
101.6 x 76.2 x 2.35	12000	25.152
152 x 76 x 6	6000	45.420
152 x 76 x 6	12000	90.840

Aluminium Hollow & Tubes – Round Tubes (6060)

Size mm	Length mm	Mass/In
12 x 1.6	6000	0.870
16 x 1.2	6000	0.924
16 x 1.6	6000	1.200
19 x 1.2	6000	1.116
20 x 1.2	5900	1.158
20 x 1.6	6500	1.664
22 x 1.5	6500	1.742
25 x 1.6	6500	2.119
25 x 3.0	6500	3.731
25.4 x 1.22	6500	1.677
32 x 1.6	6500	2.750
32 x 3.0	6500	4.914
40 x 1.6	6500	3.471
40 x 3.0	6500	6.279
50 x 6.0	4750	10.901
63.5 x 6.35	4720	14.892
80 x 2.0	6500	8.814
100 x 2.0	6500	11.500
100 x 3.0	6500	16.445

Aluminium Hollow & Tubes – Round Tubes (6060 T591)

Size mm	Length mm	Mass/In
38.1 x 3.2	6500	6.481
44.5 x 3.2	6500	8.060
48.4 x 4.7	6500	11.115
50 x 2.0	6500	5.421
50 x 3.0	6500	7.969
50 x 4.0	6500	10.400
60 x 2.0	6500	6.559
60 x 3.0	6500	9.659
60 x 5.0	6500	15.600
63.5 x 3.2	4800	8.011
76.2 x 4.7	6000	17.526
80 x 3.0	6500	13.052

Aluminium Hollow & Tubes – Round Tubes (6061 T6 / 6082 T6)

Size mm	Length mm	Mass/In
38.1 x 3.2	6000	5.982
48.4 x 4.47	6100	10.431
63.5 x 6.3	6000	18.930
75 x 7.0	6500	26.897
88.9 x 6.35	6500	29.621
101.6 x 6.35	6500	34.177
114.3 x 6.35	6500	39.039
180 x 6.0	6500	59.001

Aluminium Sheet & Plate - Sheet (5005 H34)

Thickness mm	Width mm	Length mm	kg/sheet
0.60	1200	2400	4.683
0.80	1200	2400	6.244
1.00	1200	1800	5.854
1.00	1200	2400	7.805
1.20	1200	1800	7.024
1.20	1200	2400	9.366
1.20	1200	3000	11.707
1.60	1200	2400	12.488
1.60	1200	3000	15.610
1.60	1200	3600	18.732
2.00	1200	1800	11.707
2.00	1200	2400	15.610
2.00	1200	3000	19.512
2.00	1200	3600	23.414
2.00	1500	3600	29.268
2.50	1200	2400	19.512
3.00	1200	2400	23.414
3.00	1200	3000	29.268
3.00	1200	3500	35.122
4.00	1200	2400	31.219
5.00	1200	2400	39.024
6.00	1200	2400	46.829

Aluminium Sheet & Plate - Sheet (5005 H34 - PVC Coated)

Thickness mm	Width mm	Length mm	kg/sheet
1.20	1200	1800	7.024
1.20	1200	2400	9.366
1.60	1200	2400	12.488
2.00	1200	1800	11.707
2.00	1200	2400	15.610
2.50	1200	2400	19.512
3.00	1200	2400	23.414

Aluminium Sheet & Plate - Sheet (5052 H32)

Thickness mm	Width mm	Length mm	kg/sheet
1.60	1200	2400	12.488
2.00	1200	2400	15.610
2.00	1200	6000	39.024
2.50	1200	2400	19.512
2.50	1200	6000	48.780
2.50	1500	2400	24.390
2.50	1500	6000	60.975
3.00	1200	2400	23.414
3.00	1200	6000	58.536
4.00	1525	6100	100.839

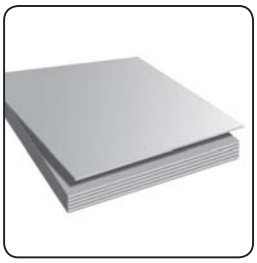
Aluminium Sheet & Plate - Sheet (5251 H38)

Thickness mm	Width mm	Length mm	kg/sheet
1.60	750	3000	9.756
1.60	900	1800	7.024
1.60	900	2400	9.366
1.60	1200	2400	12.488

Aluminium Sheet & Plate - Sheet (Cargo Van - 3003 H14 - PVC Coated)

Description	Thickness mm	Width mm	Length mm	kg/sheet
Flat	0.80	1200	2400	6.244
Ribbed	0.80	1200	2400	6.244

Aluminium Sheet & Plate - Sheet (Stucco Embossed MF5005 H34)



Thickness mm	Width mm	Length mm	kg/sheet
0.70	1200	2400	5.463

Aluminium Sheet & Plate - Treadplate (3003 H22 - Propellor Bright)

Thickness mm	Width mm	Length mm	kg/sheet
1.60	1219	2438	14.104
3.00	1219	2438	26.806

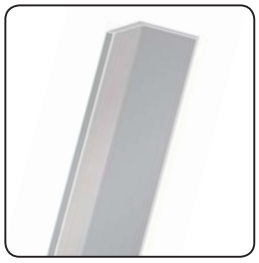
Aluminium Sheet & Plate - Treadplate (5052 0 - 5BAR)

Thickness mm	Width mm	Length mm	kg/sheet
1.60	1200	2400	13.577
2.00	1200	2400	17.122
2.50	1200	2400	21.845
3.00	1200	2400	25.978
3.00	1200	3600	38.963
3.00	1525	3658	50.312
5.00	1200	2400	40.738
5.00	1200	3600	61.103
6.00	1200	2400	49.001
6.00	1200	3600	73.505

Aluminium Sheet & Plate - Plate (5083 H321/116 DNV)

Thickness mm	Width mm	Length mm	kg/sheet
3.00	1200	2400	23.414
3.00	1200	6100	59.512
3.00	1525	6100	75.629
3.00	2200	9000	160.970
4.00	1200	2400	31.219
4.00	1200	6100	79.349
4.00	1525	6100	100.840
4.00	1830	6100	121.010
4.00	2200	9000	214.620
4.00	2200	10000	238.480
5.00	1200	2400	39.024
5.00	1200	6100	99.186
5.00	1525	6100	126.050
5.00	1830	6100	151.260
5.00	1830	11000	272.760
5.00	2200	9000	268.290
6.00	1200	2400	46.829
6.00	1200	6100	119.020
6.00	1525	6100	151.260
6.00	1830	6100	181.510
6.00	2200	9000	321.950
8.00	1200	2400	62.438
8.00	1830	6100	242.010
8.00	2200	9000	429.260
10.00	1200	2400	78.048
10.00	1200	6000	195.120
10.00	1830	6100	302.520
12.00	1200	2400	93.658
12.00	1200	6000	234.140
16.00	1200	2400	124.880
16.00	1200	6000	312.192
20.00	1200	2400	156.100
20.00	1200	6100	396.740
25.00	1200	2400	195.120

Stainless Steel – Angle (Grades 304, 316)



Size mm x mm	Mass kg/m
25 x 25 x 3	1.13
x 5	1.77
x 6	2.06
30 x 30 x 3	1.36
x 5	2.17
x 6	2.53
x 5	1.02
x 6	1.21
40 x 40 x 3	1.85
x 5	2.98
x 6	3.49
50 x 50 x 3	2.36
x 5	3.79
x 6	4.46

Stainless Steel – Flat Bar (Grades 304, 316)

Note: Range of Stainless Steel includes: Grades: 304, 304L, 316, 316L

Size mm x mm	Mass kg/m
12 x 3	0.29
x 6	0.58
20 x 3	0.49
x 5	0.81
x 6	0.98
25 x 3	0.61
x 5	1.02
x 6	1.21
x 10	2.04
x 12	2.45
32 x 3	0.77
32 x 5	1.30
x 6	1.57
x 10	2.62
40 x 3	0.98
x 5	1.61
x 6	1.96
x 10	3.27
x 12	3.92
50 x 3	1.21
x 5	2.04
x 6	2.45
x 10	4.08
50 x 12	4.90
65 x 5	2.61
x 6	3.18
65 x 10	5.31
75 x 5	3.06
x 6	3.68
x 10	6.04
x 12	7.25
100 x 6	4.91
x 10	8.18

Stainless Steel – Round Bar (Grades 304, 316 & 430)

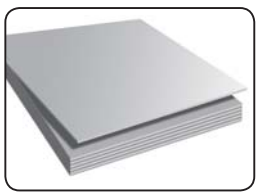
Diameter mm	Mass kg/m
3.18	0.06
4.76	0.14
6.35	0.25
7.94	0.39
9.00	0.50
10.0	0.62
12.0	0.89
12.7	0.99
15.9	1.55
16.0	1.58
19.1	2.24
20.0	2.47
22.2	3.04
24.0	3.55
25.4	3.98
30.0	5.55
31.8	6.21
32.0	6.31
35.0	7.55
38.1	8.94
40.0	9.86
44.5	12.18
50.8	15.90
54.0	17.95
57.2	20.13
63.5	24.85
66.7	27.39
69.9	30.07
76.2	35.76
82.6	42.00
88.9	48.69
101.6	63.62
127	99.40

Stainless Steel – Austenitic Sheet & Coil

Grade	Thickness Range mm	Width mm
316	0.55 to 6.00	914, 1219, 1500, 1525
304	0.55 to 6.00	914, 1219, 1500, 1525

Note: Range of Stainless Steel includes:
Grades: 304, 316, 430
Finishes: 2B, No. 4 Polished, bright annealed

Stainless Steel – Ferritic Sheet & Coil



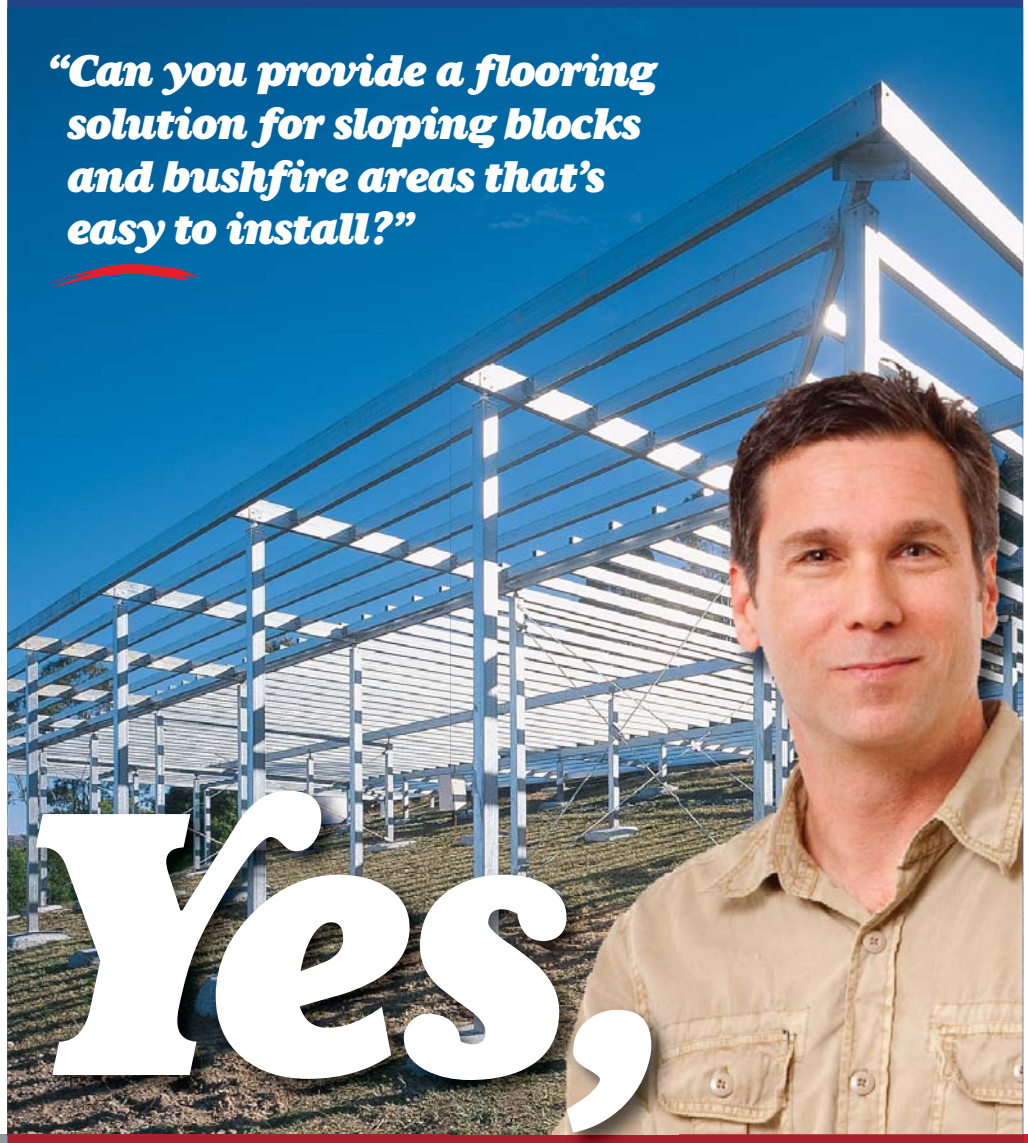
Grade	Thickness Range mm	Width mm
430	0.55 to 0.9	914, 1219

Note: Range of Stainless Steel includes:
Grades: 304, 316, 430
Finishes: 2B, No. 4 Polished, bright annealed

sloping blocks | bush fire zones | termite areas | flood zones | reactive soils

DURAGAL FLOORING SYSTEM®

"Can you provide a flooring solution for sloping blocks and bushfire areas that's easy to install?"



Yes,

TERMITE RESISTANT

BUSH FIRE ZONE SUITABLE

CORROSION RESISTANT

ECONOMICAL LARGE SPANS

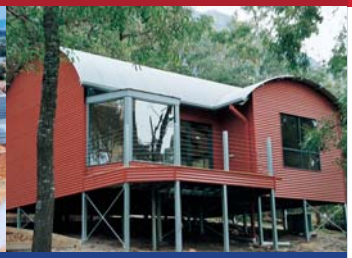
NO WELDING REQUIRED

EASY TO CONNECT

Build a better floor with a DuraGal® Flooring System.

The DuraGal Flooring System® is assembled on site and requires no welding. Simple screwed connections make construction fast and easy. The DuraGal Flooring System® meets the industry durability guideline by including fully galvanised Australian Made tubular sections, which are corrosion resistant, won't rot, warp or twist. Plus the strength of steel allows for greater spans and reduces the impact of site works and sediment control issues.

we can.



decks | sub-floors | mezzanine floors | home additions | re-piering solution

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DuraGal Flooring System®

DuraGal Plus ZB135/135

DuraGal Flooring System®

Fully engineered system

The DuraGal Flooring System® is a fully engineered steel flooring system* developed to provide a fire and termite resistant, economical and easy-to-install alternative to conventional timber bearers and joists.

Easy to install

The DuraGal Flooring System® uses high strength C450L0 grade galvanized DuraGal Plus ZB135/135 Hollow Sections. The sections are strong and lightweight making them easy to handle on site. DuraGal Plus ZB135/135 is easy to cut and drill, and best of all the system has been designed so that it simply screws together on site using a screw gun fitted with a hex head bit. The DuraGal Flooring System® features a range of speciality galvanized fittings designed to allow you to get on with the job easily and quickly. Fast and accurate levelling of the floor using the adjustable piers during and after construction is a great feature.

Sheet flooring can still be attached in the traditional way using building adhesive and gun-nailing. Most reputable nail tool suppliers have hardened tipped nails to suit common nail guns to attach sheet flooring to steel joists up to and including 2mm thick.

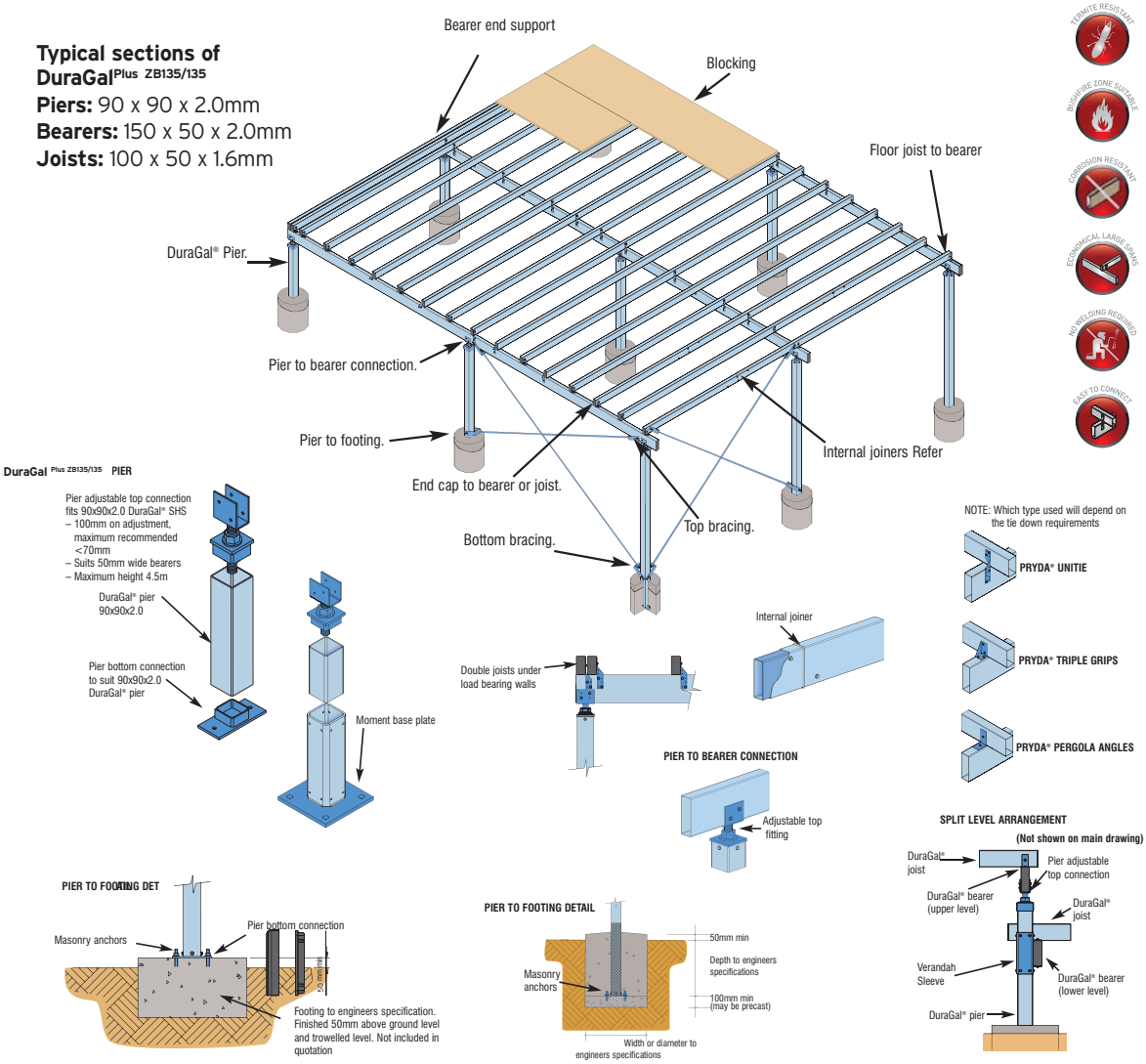
Spans

Joists are typically 100 x 50 x 1.6mm with continuous spans of 2800mm and bearers are typically 150 x 50 x 2.0mm with continuous spans of 3000mm. Other sizes may be specified with differing spans subject to the floor layout and site conditions. Your DuraGal Flooring System® distributor will be able to nominate the most economical sizes and layout upon receipt of the house plans.

Note: The DuraGal Flooring System® requires independent engineering certification to determine compliance of site specific conditions with statutory requirements.

Typical sections of DuraGal Plus ZB135/135

Piers: 90 x 90 x 2.0mm
Bearers: 150 x 50 x 2.0mm
Joists: 100 x 50 x 1.6mm



Note: For fasteners refer to page 83.

DuraGal® Mezzanine Flooring System

DuraGal Plus ZB 135/135

DuraGal Flooring System®

The DuraGal® Mezzanine Flooring System offers:

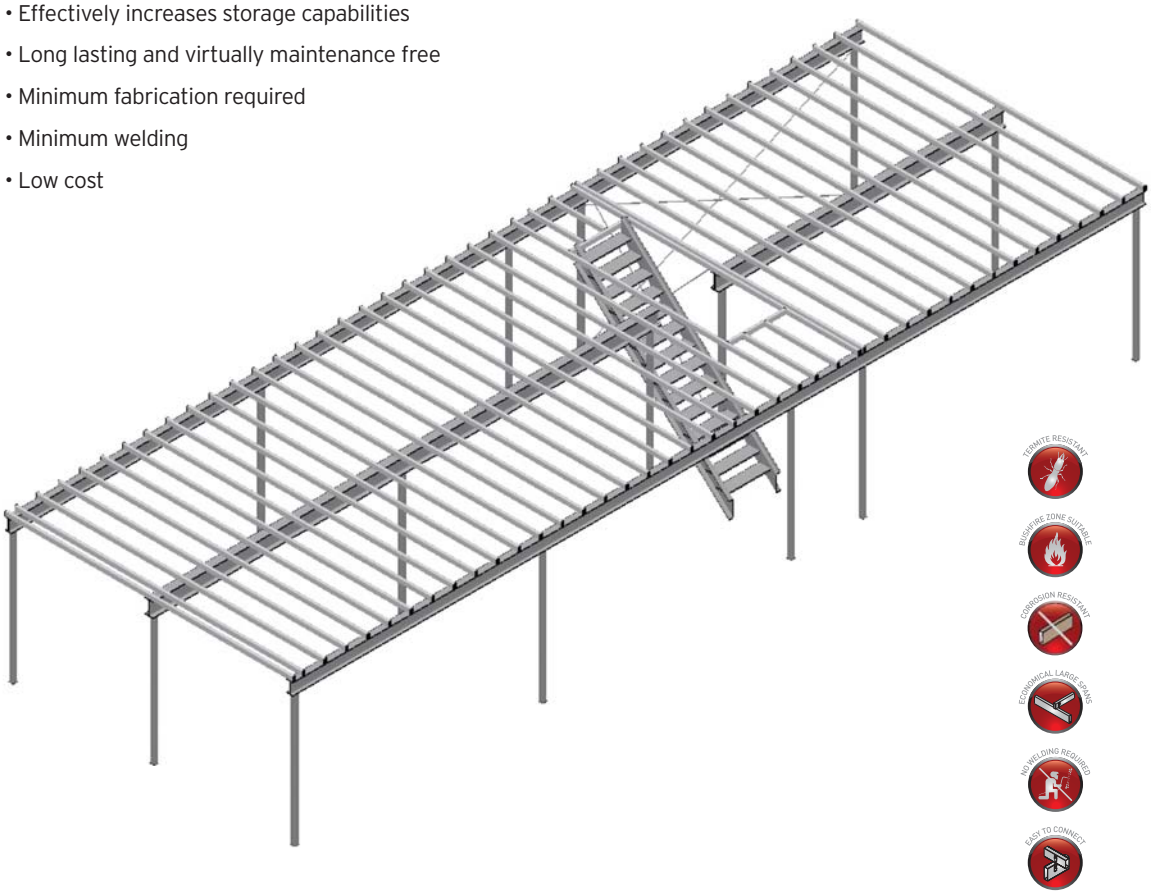
- A high strength, lightweight steel flooring system which can be used to increase the floor area of existing or new buildings.
- The system can also allow for the height of the columns to be adjusted, therefore compensating for any variations in the slab, with adjustment being available before or after installation.
- Columns, bearers and joists are all galvanised to be practically maintenance free.

The DuraGal® Mezzanine Flooring System uses high strength C450L0 grade galvanised DuraGal$^{Plus\ ZB135/135}$. The sections are strong and lightweight making them easy and safe to handle on site. The DuraGal® Mezzanine Flooring System® is designed using a range of speciality fittings to allow safe and easy construction.

"Turn your unused space into storage, offices or work areas."

The DuraGal® Mezzanine Flooring System

- A user friendly system that can save you time in construction, reducing the disruption to your business.
- On-site assembly without welding, only normal tools such as cut-off saws and Tek screw guns are required.
- High tensile strength and light weight sections allowing for a wider spacing of the bearers and, with the larger span distances between columns, under-floor areas are still usable with large open areas for uses such as workshops, office accommodation and storage areas etc.
- All connections are either screwed or nailed.
- Effectively increases storage capabilities
- Long lasting and virtually maintenance free
- Minimum fabrication required
- Minimum welding
- Low cost



Note: For fasteners refer to page 83.

Sliding Track & Joiners

Code	Description	Capacity kg	Gauge BMT	Length mm
EG2	Graduate	120	1.0	Custom*
ED2	Director	200	1.2	Custom*
EM1	Matador	450	1.5	Custom*
EH1	Hercules	650	1.6	Custom*
EDJB	Director	200	1.6	100
EHJB	Hercules	450-650	1.6	100

* All sliding door tracks are custom rolled to customer length requirement

Door Carriages

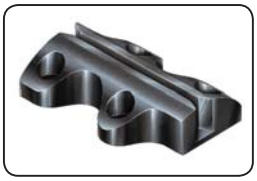
Code	Capacity kg	Wheels	Bearing
EG12	120	steel	needle
ED7LP	200	nylon	ball
ED12LP	200	steel	needle
ED14LP	200	nylon	ball
EH12LP	450	steel	needle
EH12ST	450	steel	needle
EH13LP	450	nylon	ball
EH14LP	450	nylon	ball
EH15ST	500	steel	needle
EH16ST	650	steel	ball

Support Brackets

[1] suits 35mm cladding profile
[2] used with EG19, ED19 or EH19
[3] when used with ED19, EH 19

Code	Capacity kg	Type
EG19	120	Bolt-on Overhead
ED19	200	Bolt-on Overhead
EH19	650	Bolt-on Overhead
ED20C	200	Offset Sidefix[1]
EH20C	650	Offset Sidefix[1]
EG23	120	Adjust Sidefix[2]
ED23	200	Adjust Sidefix[2]
EH23	650	Adjust Sidefix[2]
ED120	200	Flush Sidefix[3]
EH120	650	Flush Sidefix[3]

Door Guides



Code	Suits	Type	Material
EC FGP	All	Bolt-on	nylon

Purlins – C Sections

Purlins are made from high tensile steel to be fastened rather than welded.

Note: Purlins can be ordered pre-cut to length and with pre-punched holes or slots.

Designation	Size mm x mm x mm	Mass kg/m
C 10010	102 x 51 x 1.0	1.77
C 10012	102 x 51 x 1.2	2.10
C 10015	102 x 51 x 1.5	2.61
C 10019	102 x 51 x 1.9	3.29
C 15012	152 x 61 x 1.2	2.89
C 15015	152 x 61 x 1.5	3.58
C 15019	152 x 61 x 1.9	4.51
C 15024	152 x 63 x 2.4	5.67
C 20015	203 x 71 x 1.5	4.49
C 20019	203 x 73 x 1.9	5.73
C 20024	203 x 75 x 2.4	7.20
C 25024	254 x 73 x 1.9	6.50
C 25024	254 x 74 x 2.4	8.16
C 30024	300 x 101 x 3.0	10.1
C 30030	300 x 101 x 3.0	12.6
C 35030	350 x 126 x 3.0	15.1

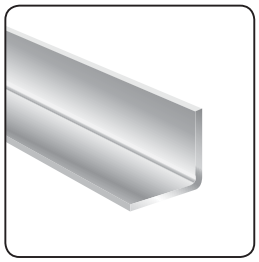
Purlins – Z Sections

Purlins are made from high tensile steel to be fastened rather than welded.

Note: Purlins can be ordered pre-cut to length and with pre-punched holes or slots.

Designation	Size mm x mm x mm	Mass kg/m
Z 10010	102 x 53 x 1.0	1.77
Z 10012	102 x 53 x 1.2	2.10
Z 10015	102 x 53 x 1.5	2.61
Z 10019	102 x 53 x 1.9	3.29
Z 15012	152 x 66 x 1.2	2.89
Z 15015	152 x 66 x 1.5	3.58
Z 15019	152 x 66 x 1.9	4.51
Z 15024	152 x 70 x 2.4	5.67
Z 20015	203 x 77 x 1.5	4.49
Z 20019	203 x 80 x 1.9	5.73
Z 20024	203 x 82 x 2.4	7.20
Z 25019	254 x 79 x 2.4	6.50
Z 25024	254 x 79 x 2.4	8.16
Z 30024	300 x 105 x 2.4	10.1
Z 30030	300 x 107 x 3.0	12.6
Z 35030	350 x 134 x 3.0	15.1

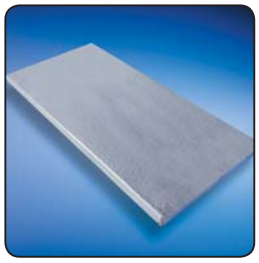
Lintel – 12m

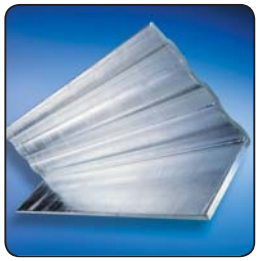


Size mm x mm x mm	Nominal Thickness mm	Mass kg/m	Pack Size (Lns)
100 x 100	6.0	8.92	16
	8.0	11.7	14
150 x 100	6.0	11.3	16
	8.0	14.9	12

Note: Achieves R3 Rating within AS3700 - Masonry Structures

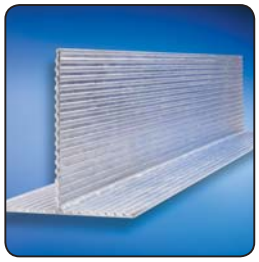
Lintels - Flat / Angle





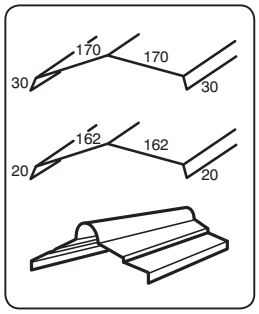
Max Clear Opening mm	Flat	Angle				
	85 x 8 Multi Rib	100 x 10 x 6 Multi Rib	100 x 100 x 6 Multi Rib	100 x 75 x 10 Traditional	150 x 90 x 10 Traditional	150 x 100 x 10 Traditional
up to 600mm	800					
600-700	900	900		900		
700-800	1000	1200				
800-900	1100	1200		1200		
900-1000	1200	1200		1200		
1000-1100		1500		1500		
1100-1200		1500		1500		
1200-1500		1800	1800	1800	1800	
1500-1800		2100	2100	2100	2100	2100
1800-2100		2400	2400	2400	2400	2400
2100-2400		2700	2700	2700	2700	2700
2400-2700			3000	3000	3000	3000
2700-3000			3300		3300	3300
3000-3300			3600		3600	3600
3300-3600			4000		4000	4000
4000-4200					4500	4500
4200-4500					5000	5000
4800-5100					5500	5500
5400-5700					6000	6000

Lintels - Rendabar / T-Bar



Max Clear Opening mm	Rendabar		T-Bar				
	100 x 100 x 8 Rendabar	100 x 10 x 6 Rendabar	200 x 200 x 7 Multi Rib	200 x 200 x 9 Multi Rib	200 x 200 x 10 Traditional	250/10 x 200/10 Traditional	250/12 x 200/10 Traditional
up to 600	800						
600-700	900		900				
700-800	1000		1200				
800-900	1100		1200				
900-1000	1200		1200				
1000-1100	1200		1500				
1100-1200	1500		1500				
1200-1500	1500	1800	1800				
1500-1800	1800	2100	2100				
1800-2100	2100	2400	2400				
2100-2400	2400	2700	2700		2700	2800	
2400-2700		3000	3000		3000		
2700-3000		3300	3300		3300		
3000-3300		3600	3600	3600			
3300-3600		4000	3900	3900			
3600-4000				4200			
4000-4200				4500			
4200-4500				4800			
4500-4800				5100		5200	5200
4800-5100				5400		5400	5400
5100-5400				5700		5600	
5400-5700				6000		6000	6000
5700-6000				6300		6300	

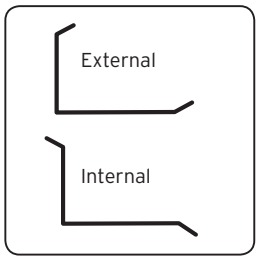
Flashings - Ridgecap



Description	Stock lengths mm
Ridge Capping RC1	1800
	2400
Ridge Capping RC2	1800
	2400
Ridge Roll Top RC3	1800
	2400

Note: Stock lengths and custom cut. Available in Zincalume® and Colorbond®. For fasteners refer to page 88.

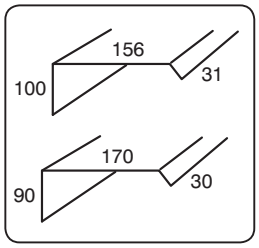
Flashings - Barge Mould/Corner Mould



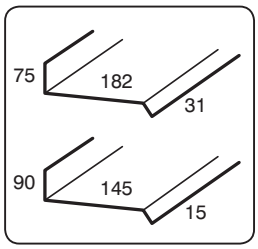
Size mm	Stock lengths mm
External - 75 x 75	1800 & 2400
External - 100 x 100	1800 & 2400
Internal - 150 x 100	1800 & 2400
Internal - 150 x 150	1800 & 2400

Note: Stock lengths and custom cut. Available in Zincalume® and Colorbond®. For fasteners refer to page 88.

Flashings - Barge Capping/Parapet



Barge Capping

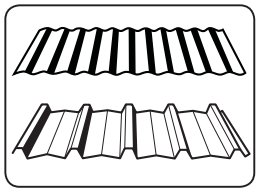


Parapet Flashing

Description	Profile	Stock lengths mm
Barge Capping	Spandek Hi-Ten	1800 & 2400
	Custom Orb	1800 & 2400
	Trimdek Hi-Ten	1800 & 2400
Parapet Flashing	Spandek Hi-Ten	1800 & 2400
	Custom Orb	1800 & 2400
	Trimdek Hi-Ten	1800 & 2400

Note: Stock lengths and custom cut. Available in Zincalume® and Colorbond®. For fasteners refer to page 88.

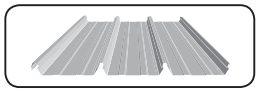
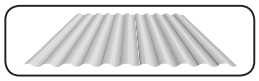
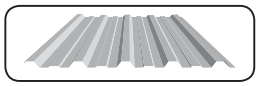
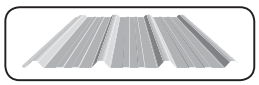
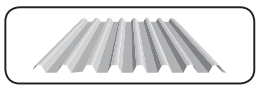
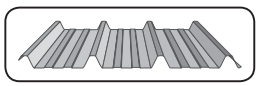
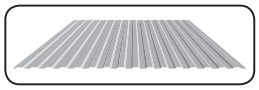
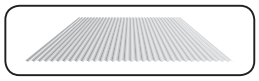
Translucent Sheeting



Description
Custom Orb Profile
Trimdek Profile

Note: Available in Fibreglass and Solasafe Polycarbonate. For fasteners refer to page 88.

Roofing & Walling Products

Description	State Availability	BMT mm	Width of coverage mm	Roof Spans Internal/end mm	Wall Spans Internal/end mm
Stramit Speed Deck Ultra®	Vic,Tas,Qld, SA,WA,NSW	0.42	700	2100/1750	3000/2500
	Vic,Tas,Qld, SA,WA,NSW	0.48	700	2700/2250	3000/2500
Stramit® Corrugated	National	0.42	762	1200/1000	2650/2200
	National	0.48	762	1600/1300	2850/2350
Stramit® Corrugated Curving (Bullnose)	National	0.60	762	1200/1000	3000/2500
Stramit Monoclad®	National	0.35	762	-	2350/1900
	National	0.42	762	1700/1400	3000/2500
	National	0.48	762	2300/1900	3000/2500
Stramit Megaclad®	NSW,Vic,Tas	0.42	800	1500/1250	2400/2000
	NSW,Vic,Tas	0.48	800	1800/1500	2600/2150
Stramit Longspan®	National	0.42	700	2100/1750	3000/2500
	National	0.48	700	2700/2250	3000/2500
Stramit Capacity Plus®	Qld	0.42	815	1800/1500	2250/1850
	Qld	0.48	815	2100/1750	2900/2400
Stramit Minirib®	Vic,Tas,Qld, SA,WA,NSW	0.42	900	-	1200/1000
Stramit Mini Corry®	Vic,Tas,Qld, SA,WA,NSW	0.42	825	-	1200/1000
	Vic,Tas,Qld, SA,WA,NSW	0.48	825	-	1300/1050

Note: Roof and Wall spans are for region A (sheltered suburban areas). For fasteners refer to page 83.

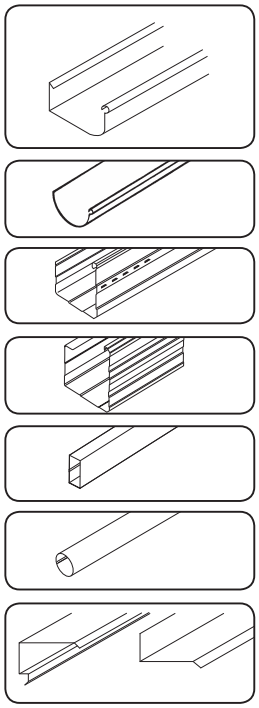
Colorbond® Steel colour range

The printed steel colours shown here have been reproduced to represent actual colours as accurately as possible. However we recommend checking your chosen colour against an actual product sample before purchasing as varying light conditions and print limitations affect colour tones.

Note: OneSteel Metalcentre reserve the right to change specifications without notice. Not all products are available at all OneSteel Metalcentre Branches. OneSteel Metalcentre also has access to a wide network of products not necessarily listed in this book. Please check with your local OneSteel Metalcentre Branch for product availability.

Rainwater Products

Stramit Building Products

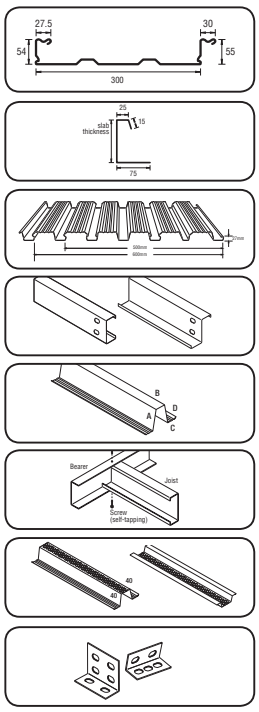


Description	Dimensions mm
Stramit® Quad Gutter	Various sizes
Stramit® Half Round Gutter	Various sizes
Stramit® M Pattern Gutter	85 x 123 x 140 front (QLD, NSW only)
Stramit® Fascia Gutter	25 x 90 x 127, 140 front (VIC, TAS only)
Stramit® Downpipe Rectangular	100 x 50, 100 x 75, 100 x 100, 100 x 150
Stramit® Downpipe Round	Diameter: 50, 65, 75, 90, 100
Stramit® Flashings	

Note: For fasteners refer to page 83.

Structural Products

Stramit Building Products



Description	Dimensions
Stramit Condeck HP®	0.75 & 1.00 BMT, 300mm Cover 55mm Rib Height
Stramit® Edgeforma	
Stramit PrimeForm™	0.60 & 0.75 BMT (VIC only)
Stramit® C & Z Purlins	
Stramit® Top Hats	64 x 34 x 20 x 6, 96 x 34 x 20 x 6, 120 x 42 x 27 x 10 (A x B x C x D)
Stramit® Flooring	
Stramit® Roof Batten Stramit® Ceiling Batten	40 x 40 x 15 x 6.0m & 7.5m Length 6.1m
Brackets & Angle Connectors	

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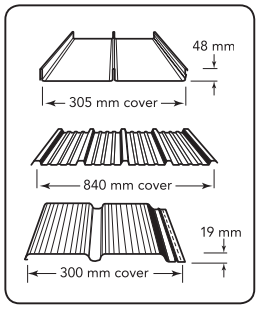
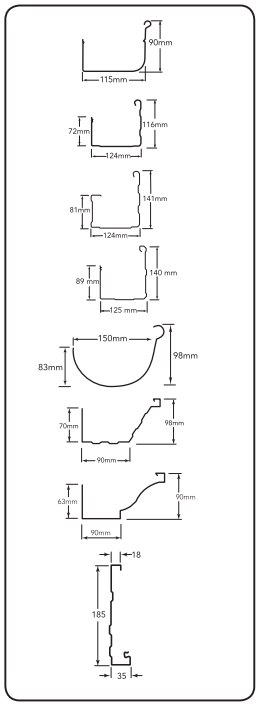
Roofing & Walling



Description	Application	BMT Base Metal Thickness mm	Width of coverage mm
Longline 305	Roofing	0.7	305
Multiclad	Walling	0.42	840
Easyclad	Walling	0.42	300

Note: For fasteners refer to page 83.

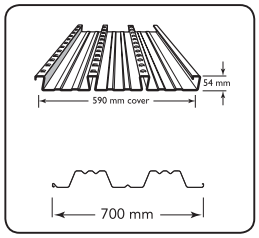
Gutters and Fascia



Product	Availability	Dimensions (mm)		
		A	B	C
Quad 115 Hi Front	QLD, SA, NSW, VIC, TAS	62	90	115
Trimline	QLD, Nth NSW, VIC, TAS	72	116	124
Sheerline	except QLD	81	141	124
Emline	QLD	89	125	140
Half Round	except NT		150	
Ranceline	WA	70	90	98
Colonial	WA	63	90	90
Novaline	QLD, SA, NSW, VIC, TAS, WA	18	185	35

Note: For fasteners refer to page 83.

Structural Decking

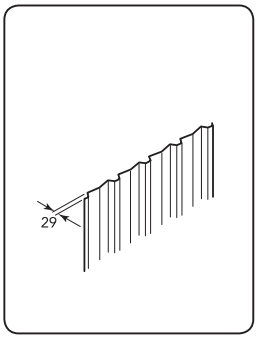


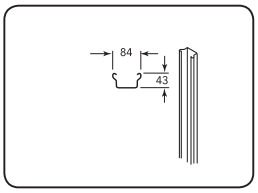
Note: Fasteners, see page 83.

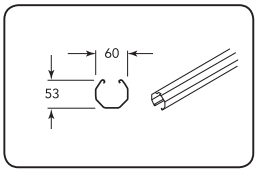
Description	BMT Base Metal Thickness mm	Mass kg/m²	Width of coverage mm
Bondek	0.6	8.52	590
	0.7	10.5	590
	1	13.79	590
W-Dek	0.75	8.85	700
	1	11.63	700
	1.2	13.85	700

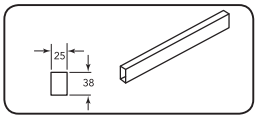
Fencing

LYSAGHT







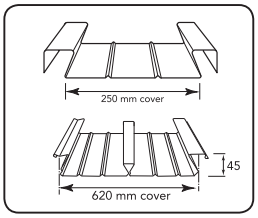


Neetascreen		Smartascreen		Miniscreen		Customscreen	
Dimension	**Qty**	**Dimension**	**Qty**	**Dimension**	**Qty**	**Dimension**	**Qty**
Infill Sheet							
Height mm	3	**Height mm**	3	**Height mm**	3	**Height mm**	3
1190 (non std)		1190 (non std)		1190 (non std)		1190 (non std)	
1490		1490		1490		1490	
1790		1790		1790		1790	
2090		2090		2090		2090	
Non-standard		Non-standard		Non-standard		Non-standard	
Post							
Height mm	2	**Height mm**	2	**Height mm**	2	**Height mm**	2
2100		2100		2100		2100	
2400		2400		2400		2400	
2700		2700		2700		2700	
3000		3000		3000		3000	
Rails							
Universal Rail	2	**Universal Rail**	2	**Miniscreen Rail**	2	**Customscreen Rail**	2
Length mm		**Length mm**		**Length mm**		**Length mm**	
2350		2350		2350		2370	
3100 (raked panels only)		3100 (raked panels only)		3100 (raked panels only)		3100 (raked panels only)	
Miniscreen Centre Rail							
				Length mm			
				2350			
				3100 (raked panels only)			
Fasteners							
Metal Teks Hex Head 10-16 x 16 (no neo)	17	Metal Teks Hex Head 10-16 x 16 (no neo)	17	Metal Teks Hex Head 10-16 x 16 (no neo)	17	Metal Teks Hex Head 10-16 x 16 (no neo)	17
				Ripple Teks 10 x 16-20	7		
Post Cap							
	1		1		1		1

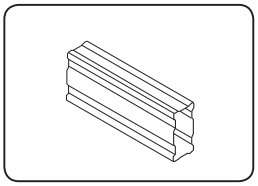
Note: Miniscreen not available in SA. Customscreen available in QLD and SA only. For fasteners refer to page

Home Improvements

LYSAGHT



Description	BMT Base Metal Thickness mm	Total Coated Thickness mm	Width of coverage mm
Flatdek	0.42	0.47	250
Flatdek II (Qld only)	0.42	0.47	620

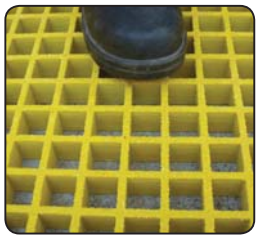


Description	Size	Dimensions (h x w)	Total Coasted Thickness mm	Width of coverage mm
Firmlok beams	100 x 1.1	100 x 47	0.55	4000, 5000, 6100 & 9000*
	150 x 1.5	150 x 47	0.75	4000, 5000, 6100 & 9000*
	200 x 2.0	200 x 47		4000, 5000, 6100 & 9000*

Note: *Custom Cut Lengths Available - Max. length 9000mm, Min. length 1200mm. For fasteners refer to page 83.

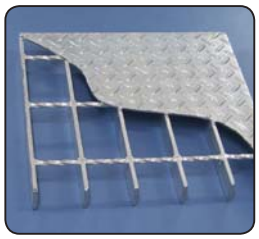
Walkway Systems

OneSteel Metalcentre have partnered with leading suppliers Webforge and Nepean Building & Infrastructure to supply walkway systems as either fully prefabricated custom panels or as standard components. Grating, handrail and components are available in mild steel, aluminium, stainless steel, or corrosion/chemical resistant fibreglass reinforced plastic (FRP). Stanchion and handrail products are available in a range of mounting configurations to suit mounting for: platform, stairway, side mount, side offset, conveyor, cored, weld-on, or bolt-on style.



FRP Grating

FRP grating is composed of 65% resin and 35% continuous glass fibres, available in stock panels 3660 x 1220 with 6 mm load bar configurations in a range of depths and sizes in green or yellow and a grey "Mini-mesh". The high resin content makes FRP resistant to a wide range of corrosive chemicals, gases and fumes. Other properties that make FRP a valuable choice in dangerous work areas are its fire retardant, non-sparking, and non-conductive properties. FRP is simple to cut and assemble on site with standard tools. Ancillary items recommended for site assembly are stainless steel mounting brackets, and sealing kits to seal cut edges.



Composite Flooring

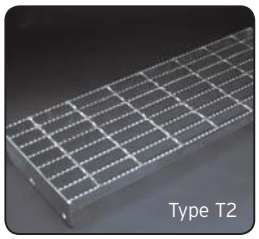
Composite flooring comprises of floorplate welded to the top of grating (shown left), and is available in mild steel or aluminium. Another option is a composite comprised of grating with a light gauge mesh welded to the underside to prevent tools or small objects from falling through the grating.

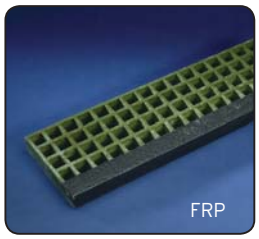
Expanded Walkway Mesh

Made from 5mm mild steel, walkway mesh is a strong, cost effective solution for high impact and load applications. 3000mm long panels are available in stock widths of 1200/900/750/600mm. 45mm SWM x 135mm LWM and 30mm SWM x 75mm LWM configurations available.

Balustrading

Our range of balustrading provides a functional, low maintenance cost effective fencing solution for commercial and industrial applications

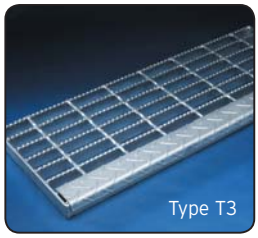


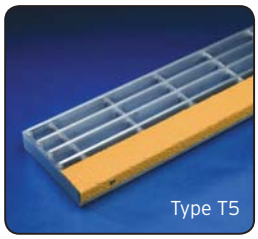


Stair Treads

Stair treads are made to measure from mild steel, aluminium, stainless steel, or FRP with options of non slip nosing. Suitable for either bolt-on or weld-on attachment.

Type T2: Mild steel bolted fixing
Type T3: Mild steel with floor plate nosing, welded fixing
Type T5: Aluminium with abrasive nosing, welded fixing
FRP: FRP tread with abrasive nosing, bolted fixing





Drainage Grates

OneSteel Metalcentre offers a range of standard (stock) and custom made mild steel drainage and trench grates that comply with AS3996.
Grates are rated to:
Class A: Extra light duty – suit pedestrian/cyclists
Class B: Light duty – suit light vehicles/tractors, livestock
Class C: Medium duty – suit malls and pedestrian areas open to slow moving commercial vehicles
Class D: Heavy Duty – suit roads and areas open to commercial vehicles

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Steel pipes to American standard (ASME B36.10)

Nominal Size		Outside Diameter	Nominal Wall Thicknesses & Weights for Welded & Seamless Steel Pipe ASME B36.10											Dimensions (mm) Weight (kg/m)	
Dn	Nps	Mm	Std	Extra Strong	XX Strong	Sched. 10	Sched. 20	Sched. 30	Sched. 40	Sched. 60	Sched. 80	Sched. 100	Sched. 120	Sched. 140	Sched. 160
6	1/8	10.3	1.73 0.37	2.41 0.47	-	-	-	-	1/3 0.37	-	2.41 0.47	-	-	-	-
8	1/4	13.7	2.24 0.63	3.02 0.80	-	-	-	-	2.24 0.63	-	3.02 0.80	-	-	-	-
10	3/8	17.1	2.31 0.84	3.2 1.10	-	-	-	-	2.31 0.84	-	3.2 1.10	-	-	-	-
15	1/2	21.3	2.77 1.27	3.73 1.62	7.47 2.55	-	-	-	2.77 1.27	-	3.73 1.62	-	-	-	4.78 1.95
20	3/4	26.7	2.87 1.69	3.91 2.20	7.82 3.64	-	-	-	2.87 1.69	-	3.91 2.20	-	-	-	5.56 2.90
25	1	33.4	3.38 2.50	4.55 3.24	9.09 5.45	-	-	-	3.38 2.50	-	4.55 3.24	-	-	-	6.35 4.24
32	1-1/4	42.2	3.56 3.39	4.85 4.47	9.7 7.77	-	-	-	3.56 3.39	-	4.85 4.47	-	-	-	6.35 5.61
40	1-1/2	48.3	3.68 4.05	5.08 5.41	10.15 9.56	-	-	-	3.68 4.05	-	5.08 5.41	-	-	-	7.14 7.25
50	2	60.3	3.91 5.44	5.54 7.48	11.07 13.44	-	-	-	3.91 5.44	-	5.54 7.48	-	-	-	8.74 11.11
65	2 - 1/2	73.0	5.16 8.63	7.01 11.41	14.02 20.39	-	-	-	5.16 8.63	-	7.01 11.41	-	-	-	9.53 14.92
80	3	88.9	5.49 11.29	7.62 15.27	15.24 27.67	-	-	-	5.49 11.29	-	7.62 15.27	-	-	-	11.13 21.35
90	3 - 1/2	101.6	5.74 13.57	8.08 18.63	-	-	-	-	5.74 13.57	-	8.08 18.63	-	-	-	-
100	4	114.3	6.02 16.07	8.56 22.32	17.12 41.03	-	-	-	6.02 16.07	-	8.56 22.32	-	11.13 28.32	-	13.49 33.54
125	5	141.3	6.55 21.77	9.53 30.91	19.05 57.43	-	-	-	6.55 21.77	-	9.53 30.97	-	12.7 40.28	-	15.88 49.11
150	6	168.3	7.11 28.26	10.97 42.56	21.95 79.22	-	-	-	7.11 28.26	-	10.97 42.56	-	14.27 54.20	-	18.26 67.56
200	8	219.1	8.18 45.55	12.7 64.64	22.23 107.92	-	6.35 33.31	7.04 36.81	8.18 42.55	10.31 53.08	12.7 64.65	15.09 75.92	18.26 90.44	20.62 100.92	23.01 111.27
250	10	273.1	9.27 60.31	12.7 81.55	25.4 155.15	-	6.35 41.77	7.8 51.03	9.27 60.31	XS 81.55	15.09 96.01	18.26 114.75	21.44 133.06	XXS 155.15	28.58 172.33
300	12	323.9	9.53 73.88	12.7 186.97	25.4 186.97	-	6.35 49.73	8.38 65.20	10.31 79.73	14.27 108.96	17.48 132.08	21.44 159.91	XXS 186.97	28.58 208.14	33.32 238.76
350	14	355.6	9.53 93.27	12.7 107.10	-	6.35 54.99	7.92 67.90	Std. W.T. 81.33	11.13 94.55	15.09 126.70	19.05 158.10	23.83 194.96	27.79 224.65	31.75 253.56	35.71 281.70
400	16	406.4	9.53 93.27	12.7 123.30	-	6.35 62.64	7.92 77.83	Std. W.T. 93.27	XS 123.50	16.66 160.12	21.44 203.53	26.19 245.56	30.96 286.64	36.53 333.19	40.49 365.35
450	18	457	9.53 105.16	12.7 139.15	-	6.35 70.57	7.92 87.71	11.13 122.38	14.27 155.80	19.05 205.74	23.83 254.55	29.36 309.62	34.93 363.56	39.67 408.26	45.24 365.35
500	20	508	9.53 117.15	12.7 155.12	-	6.35 78.55	Std. W.T. 117.15	XS 155.12	15.09 183.42	20.62 247.83	26.19 311.17	32.54 381.53	38.1 441.49	44.45 508.11	50.01 564.81
550	22	559	9.53 129.13	12.7 171.09	-	6.35 86.54	Std. W.T. 129.13	SX 171.09	-	22.23 294.25	28.58 373.83	34.93 451.42	41.28 527.05	47.63 600.63	53.98 672.26
600	24	610	9.53 141.12	12.7 187.06	-	6.35 94.53	Std W.T. 141.12	14.27 209.64	17.48 255.41	24.61 355.26	30.96 442.08	38.89 547.71	46.02 640.03	52.37 720.15	59.54 808.22
650	26	660	9.53 152.87	12.7 202.72	-	7.92 127.36	XS 202.72	-	-	-	-	-	-	-	-
700	28	711	9.53 164.85	12.7 218.69	-	7.92 137.31	XS 218.69	15.88 271.21	-	-	-	-	-	-	-
750	30	762	9.53 176.84	12.7 234.67	-	7.92 147.28	XS 234.67	15.88 292.18	-	-	-	-	-	-	-
800	32	813	9.53 188.82	12.7 250.64	-	7.92 157.24	XS 250.64	15.88 312.15	17.48 342.91	-	-	-	-	-	-
850	34	864	9.53 200.31	12.7 266.61	-	7.92 167.20	XS 266.61	15.88 332.12	17.48 364.90	-	-	-	-	-	-
900	36	914	9.53 212.56	12.7 282.27	-	7.92 176.96	XS 282.27	15.88 351.7	19.05 420.42	-	-	-	-	-	-
1050	42	1067	9.53 248.52	12.7 330.19	-	-	-	-	-	-	-	-	-	-	-

Formula to attain approximate mass in kilograms per metre (kg/m) for Steel Round Pipe and Tubing

m = (D - t) t x 0.02466

Where: m = mass to the nearest 0.01 kg/m
D = Outside Diameter in millimetres
(to nearest 0.1mm for OD up to 406.4mm)
(to nearest 1.0mm for OD 457mm and above)
= Wall thickness to nearest 0.01mm

Example

nominal Size
Dn300 nPS12
OD = 323.9mm
W.t. = 9.53mm

Step 1. 323.9 - 9.53 = 314.37
Step 2. 314.37 x 9.53 = 2995.9461
Step 3. 2995.9461 x 0.024 66
= 73.88kg/m

Stainless steel pipes to American standard (ASME B36.19)

Nominal Size (DN)	Outside Diameter mm	Nominal Wall Thickness & Inside Diameter (mm)							
		Schedule 55		Schedule 105		Schedule 405		Schedule 805	
		Wall Thickness	Inside Diameter	Wall Thickness	Inside Diameter	Wall Thickness	Inside Diameter	Wall Thickness	Inside Diameter
6	10.29	-	-	1.24	7.81	1.73	6.83	2.41	5.47
8	13.72	-	-	1.65	10.42	2.24	9.24	3.02	7.68
10	17.15	-	-	1.65	13.85	2.31	12.53	3.2	10.75
15	21.34	1.65	18.04	2.11	17.12	2.77	15.8	3.73	13.88
20	26.67	1.65	23.37	2.11	22.45	2.87	20.93	3.91	18.85
25	33.4	1.65	30.1	2.77	27.86	3.38	26.64	4.55	24.3
32	42.16	1.65	38.86	2.77	36.62	3.56	35.04	4.85	32.46
40	48.26	1.65	44.96	2.77	42.72	3.68	40.9	5.08	38.1
50	60.33	1.65	57.03	2.77	54.79	3.91	52.51	5.54	49.25
65	73.03	2.11	68.81	3.05	66.93	5.16	62.71	7.01	59.01
80	88.9	2.11	84.68	3.05	82.8	5.49	77.92	7.62	73.66
100	114.3	2.11	110.08	3.05	108.2	6.02	102.26	8.56	97.18
125	141.3	2.77	135.76	3.4	134.5	6.55	128.19	9.52	122.25
150	168.28	2.77	162.74	3.4	161.47	7.11	154.05	10.97	146.33
200	219.08	2.77	213.54	3.76	211.56	8.18	202.72	12.7	193.68
250	273.05	3.4	266.24	4.19	264.67	9.27	254.51	12.70*	247.65
300	323.85	3.96	315.93	4.57	314.71	9.52	304.08	12.70*	298.45
350	355.6	3.96	347.68	4.78	346.05	-	-	-	-
400	406.4	4.19	398.02	4.78	396.85	-	-	-	-
450	457.2	4.19	448.82	4.78	447.65	-	-	-	-
500	508	4.78	498.45	5.54	496.93	-	-	-	-
600	609.6	5.54	598.53	6.35	596.9	-	-	-	-
750	762	6.35	749.3	7.92	746.16	-	-	-	-

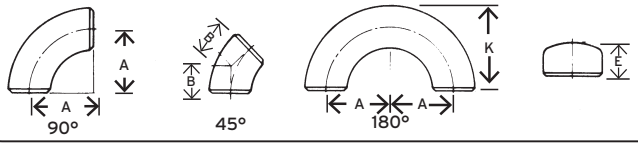
Note: OneSteel Metalcentre reserve the right to change specifications without notice. Not all products are available at all OneSteel Metalcentre Branches. OneSteel Metalcentre also has access to a wide network of products not necessarily listed in this book. Please check with your local OneSteel Metalcentre Branch for product availability.

Carbon steel buttwelding fittings to (ASME B16.9, B16.28 & BS.1640)

Nom. Size Dn	Pipe OD mm	Wall Thickness (mm)													A	B	K	D	V	E. Std. Wt. & Ex Stg	Nom. Size DN
		Sch. 10	Sch. 20	Sch. 30	Std. Wt.	Sch. 40	Sch. 60	X Stg	Sch. 80	Sch. 100	Sch. 120	Sch. 140	Sch. 160	X.X. Stg							
15	21.3	-	-	-	2.77		-	3.73		-	-	-	4.78	7.47	38	16	47.5	-	-	25.4	15
20	26.7	-	-	-	2.87		-	3.91		-	-	-	5.56	7.82	38	19	43	19	33	25.4	20
25	33.4	-	-	-	3.38		-	4.55		-	-	-	6.35	9.09	38	22	55.5	25.4	41	38.1	25
32	42.2	-	-	-	3.56		-	4.85		-	-	-	6.35	9.7	47.5	25.4	70	32	52	38.1	32
40	48.3	-	-	-	3.68		-	5.08		-	-	-	7.14	10.15	57	29	82.5	38	62	38.1	40
50	60.3	-	-	-	3.91		-	5.54		-	-	-	8.74	11.07	76	35	106	51	81	38.1	50
65	73	-	-	-	5.16		-	7.01		-	-	-	9.53	14.02	95	44.5	132	63.5	100	38.1	65
80	88.9	-	-	-	5.49		-	7.62		-	-	-	11.13	15.24	114	51	159	76	121	50.8	80
90	101.6	-	-	-	5.74		-	8.08		-	-	-		16.15	133	57	184	89	140	63.5	90
100	114.3	-	-	-	6.02		-	8.56		-	11.13	-	13.49	17.12	152	63.5	210	102	159	63.5	100
125	141.3	-	-	-	6.55		-	9.53		-	12.7	-	15.88	19.05	190	79	262	127	197	76.2	125
150	168.3	-	-	-	7.11		-	10.97		-	14.27	-	18.26	21.95	229	95	313	152	237	88.9	150
200	219.1	-	6.35	7.04	8.18		10.31	12.7		15.09	18.26	20.62	23.01	22.23	305	127	414	203	313	102	200
250	273.1	-	6.35	7.8	9.27		12.7	12.7	5.09	18.26	21.44	25.4	28.58	25.4	381	159	517	254	390	127	250
300	323.9	-	6.35	8.38	9.53	10.31	14.27	12.7	17.48	21.44	25.4	28.58	33.32	25.4	457	190	619	305	467	152	300
350	355.6	6.35	7.92	9.53	9.53	11.13	15.09	12.7	19.05	23.83	27.79	31.75	35.71	-	533	222	711	356	533	165	350
400	406.4	6.35	7.92	9.53	9.53	12.7	16.66	12.7	21.44	26.19	30.96	36.53	40.49	-	610	254	813	406	610	178	400
450	457	6.35	7.92	11.13	9.53	14.27	19.05	12.7	23.83	29.36	34.93	39.67	45.24	-	686	286	914	457	686	203	450
500	508	6.35	9.53	12.7	9.53	15.09	20.62	12.7	26.19	32.54	38.1	44.45	50.01	-	762	318	1016	508	762	229	500
600	610	6.35	9.53	14.27	9.53	17.48	24.61	12.7	30.96	38.89	46.02	52.37	59.54		914	381	1219	610	914	267	600
750	762	7.92	12.7	15.88	9.53	-	-	12.7	-	-	-	-		-	1143	470	1524	762	1143	267	750
900	914	7.92	12.7	15.88	9.53	19.05	-	12.7	-	-	-	-		-	1372	565	-	914	1372	267	900

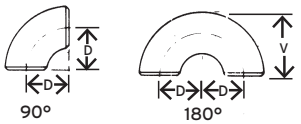
B16.9

LONG RADIUS WELDING ELBOWS, RETURN BENDS & CAPS

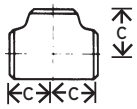


B16.28

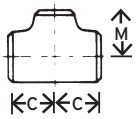
RADIUS WELDING ELBOWS & RETURN BENDS



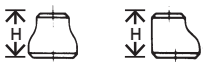
STRAIGHT TEES (B16.9)



REDUCING TEES (B16.9)



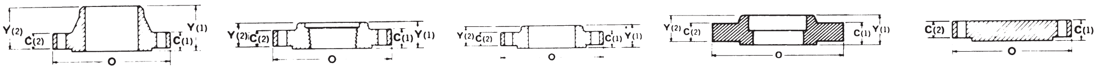
CONCENTRIC & ECCENTRIC REDUCERS (B16.9)



Nominal Size DN		C	M	H	Nominal Size DN		C	M	H	Nominal Size DN		C	M	N
Large End	Small End				Large End	Small End				Large End	Small End			
20	20	28.6	-	-	100	100	105	-	-	400	400	305	-	-
	15	28.6	28.6	38.1		90	105	102	102		350	305	305	356
25	25	38.1	-	-		80	105	98.4	102		300	305	295	356
	20	38.1	38.1	50.8		65	105	95.3	102		250	305	283	356
	15	38.1	38.1	50.8		50	105	88.9	102		200	305	273	356
32	32	47.6	-	-		40	105	85.7	102		150	305	264	356
	25	47.6	47.6	50.8	125	125	124	-	-	450	450	343	-	-
	20	47.6	47.6	50.8		100	124	117	127		400	343	330	381
	15	47.6	47.6	50.8		90	124	114	127		350	343	330	381
40	40	57.2	-	-		80	124	111	127		300	343	321	381
	32	57.2	57.2	63.5		65	124	108	127		250	343	308	381
	25	57.2	57.2	63.5		50	124	105	127		200	343	298	381
	20	57.2	57.2	63.5	150	150	143	-	-	500	500	381	-	-
	15	57.2	57.2	63.5		125	143	137	140		450	381	368	508
50	50	63.5	-	-		100	143	130	140		400	381	356	508
	40	63.5	69.9	88.9		90	143	127	140		350	381	356	508
	32	63.5	66.7	88.9		80	143	124	140		300	381	346	508
	25	63.5	63.5	88.9		65	143	121	140		250	381	333	508
	20	63.5	57.2	88.9	200	200	178	-	-		200	381	324	508
65	65	76.2	-	-		150	178	168	152	600	600	432	-	-
	50	76.2	69.9	88.9		125	178	162	152		500	432	432	508
	40	76.2	66.7	88.9		100	178	155	152		450	432	419	508
	32	76.2	63.5	88.9		80	178	152	152		400	432	406	508
	25	76.2	57.2	88.9	250	250	216	-	-		350	432	406	508
80	80	85.7	-	-		200	216	203	178		300	432	397	508
	65	85.7	82.6	88.9		150	216	194	178		250	559	384	508
	50	85.7	76.2	88.9		125	216	191	178	750	750	559	-	-
	40	85.7	73.0	88.9		100	216	184	178		600	559	533	610
	32	85.7	69.9	88.9	300	300	254	-	-		500	559	508	610
	25	85.7	69.9	88.9		250	254	241	203		450	559	495	610
90	90	95.3	-	-		200	254	229	203		400	559	483	610
	80	95.3	92.1	102		150	254	219	203	900	900	673	-	-
	65	95.3	88.9	102		100	254	210	203		750	673	635	610
	50	95.3	82.6	102	350	350	254	-	-		600	673	610	610
	40	95.3	79.4	102		300	279	270	330		500	673	584	610
						250	279	257	330		450	673	572	610
						200	279	248	330					
						150	279	238	330					

Flanges to American Standards

DN 15 to 600 are to ASME B16.5 (BS1560). DN 750 & 900 are to BS 3293 for Slip-On & Weldneck only.



Welding Neck Flange | Threaded Flange | Slip-On Flange | Socket Welding (DN)15 - 80 | Blind Flanges up to DN600 (Above DN600 see notes below†)

PN20 (Class 150)

Nom. Size Dn	Dia of Fig. O	Thickness of Fig. Min. C(1)*	Length Thru Hub: Thrd. Slip-On Soc/Weld Y(1)*	Length Thru Hub: Weld Neck Y(1)*	Dia of Bolt Circle	Dia of Bolt Holes	No. of Bolts
15	90	11.5	16	48	60.5	16	4
20	100	13	16	42	70	16	4
25	110	14.5	17	56	79.5	16	4
32	120	16	21	57	89	16	4
40	130	17.5	22	62	98.5	16	4
50	150	19.5	25	64	120.5	20	4
65	180	22.5	29	70	139.5	20	4
80	190	24	30	70	152.5	20	4
90	215	24	32	71	178	20	8
100	230	24	33	76	190.5	20	8
125	255	24	36	89	216	22	8
150	280	25.5	40	89	241.5	22	8
200	345	29	44	102	298.5	22	8
250	405	30.5	49	102	362	26	12
300	485	32	56	114	432	26	12
350	535	35	57	127	476	30	12
400	600	37	64	127	540	30	16
450	635	40	68	140	578	33	16
500	700	43	73	145	635	33	20
600	815	48	83	152	749.5	36	20
750	985	54	89	130.2	914	35	28
900	1170	60.6	95	165.5	1086	41	32

PN20 (Class 150)

Nom. Size DN	Dia of Fig. O	Thickness of Fig. Min. C(1)*	Length Thru Hub: Thrd. Slip-On Soc/Weld Y(1)*	Length Thru Hub: Weld Neck Y(1)*	Dia of Bolt Circle	Dia of Bolt Holes	No. of Bolts
15	95	14.5	22	52	66.5	16	4
20	120	16	25	57	82.5	20	4
25	125	11.7	27	62	89	20	4
32	135	19.5	27	65	98.5	20	4
40	155	21	30	68	114.5	22	4
50	165	22.5	33	70	127	20	8
65	190	25.5	38	76	149	22	8
80	210	29	43	79	168.5	22	8
90	230	30.5	44	81	184	22	8
100	255	32	48	86	200	22	8
125	280	35	51	98	235	22	8
150	320	37	52	98	270	22	12
200	380	41.5	62	111	330	26	12
250	445	48	67	117	387.5	30	16
300	520	51	73	130	451	33	16
350	585	54	76	143	514.5	33	20
400	650	57.5	83	1456	571.5	36	20
450	710	60.5	89	159	628.5	36	24
500	775	63.5	95	162	686	36	24
600	915	70	106	168	913	42	24
750	1090	92	210	210	997	48	28
900	1270	105	241	241	1168	54	32

PN20 (Class 150)

Nom. Size DN	Dia of Fig. O	Thickness of Fig. Min. C(1)*	Length Thru Hub: Thrd. Slip-On Soc/Weld Y(1)*	Length Thru Hub: Weld Neck Y(1)*	Dia of Bolt Circle	Dia of Bolt Holes	No. of Bolts
15	95	14.5	22	52	66.5	16	4
20	120	16	25	57	82.5	20	4
25	125	17.5	27	62	89	20	4
32	135	21	29	67	98.5	20	4
40	155	22.5	32	70	114.5	22	4
50	165	26.5	37	73	127	20	8
65	190	29	41	79	149	22	8
80	210	32	46	83	168.5	22	8
90	230	35	49	86	184	26	8
100	275	38.5	54	102	216	26	8
125	330	44.5	60	117	267	30	8
150	355	48	67	117	292	30	12
200	420	55.5	76	133	349	33	12
250	510	63.5	86	152	432	36	16
300	560	66.5	92	156	489	36	20
350	605	70	94	165	527	39	20
400	685	76.5	106	178	603	42	20
450	745	83	117	184	654	45	20
500	815	89	127	190	724	45	24
600	940	102	140	203	838	52	24
750	1130	114	248	248	1022	54	28
900	1315	124	283	283	1194	67	28

PN50 (Class 900)

Nom. Size Dn	Dia of Fig. O	Thickness of Fig. Min. C(2)†	Length Thru Hub: Thrd. Slip-On Soc/Weld Y(2)†	Length Thru Hub: Weld Neck Y(1)*	Dia of Bolt Circle	Dia of Bolt Holes	No. of Bolts
15	Use PN250 Dimensions in these Sizes						
20							
25							
32							
40							
50							
65							
80	240	38.5	54	102	190.50	26	8
100	295	44.5	70	114	235.00	32	8
125	350	51	79	127	279.50	35	8
150	380	56	86	140	317.50	32	12
200	470	63.5	102	162	393.5	39	12
250	545	70	108	184	470	39	16
300	610	79.5	117	200	533.5	39	20
350	640	86	130	213	559	42	20
400	705	89	133	216	616	45	20
450	785	102	152	229	686	52	20
500	855	108	159	248	749.5	54	20
600	1040	140	203	292	901.5	68	20

PN250 (Class 1500)

Nom. Size DN	Dia of Fig. O	Thickness of Fig. Min. C(2)†	Length Thru Hub: Thrd. Slip-On Soc/Weld Y(2)†	Length Thru Hub: Weld Neck Y(2)†	Dia of Bolt Circle	Dia of Bolt Holes	No. of Bolts
15	120	22.5	32	60	82.5	22	4
20	130	25.5	35	70	89	22	4
25	150	29	41	73	101.5	26	4
32	160	29	41	73	111	26	4
40	180	32	44	83	124	30	4
50	215	38.5	57	102	165	26	8
65	245	41.5	64	105	190.5	30	8
80	270	48	73	118	203	33	8
100	310	54	90	124	241.5	36	8
125	375	73.5	105	155	292	42	8
150	395	83	119	171	317.5	39	12
200	485	92	143	213	393.5	45	12
250	585	108	159	254	482.5	52	12
300	675	124	181	283	571.5	56	16
350	750	133.5		298	635	60	16
400	825	146.5		311	705	68	16
450	915	162		327	774.5	76	16
500	985	178		356	832	80	16
600	1170	203.5		406	990.5	94	16

PN420 (Class 2500)

Nom. Size DN	Dia of Fig. O	Thickness of Fig. Min. C(2)†	Length Thru Hub: Thrd. Slip-On Soc/Weld Y(2)†	Length Thru Hub: Weld Neck Y(2)†	Dia of Bolt Circle	Dia of Bolt Holes	No. of Bolts
15	135	30.5	40	73	89	22	4
20	140	32	43	79	95	22	4
25	160	35	48	89	108	26	4
32	185	38.5	52	95	130	30	4
40	205	44.5	60	111	146	33	4
50	235	51	70	127	171.5	30	8
65	270	57.5	79	143	197	33	8
80	305	67	92	168	228.5	36	8
100	355	76.5	108	190	273	42	8
125	420	92.5	130	229	324	48	8
150	485	108	152	273	368.5	56	8
200	550	127	178	318	438	56	12
250	675	165.5	229	419	539.5	68	12
300	760	184.5	254	464	619	76	12
350							
400							
450							
500							
600							

Notes:

* 1. The 2mm Raised Face is included in thickness C(1) and length through hub Y(1). This applies to PN20 and PN50 Pressure Ratings

† 2. The 7mm Raised Face is not included in thickness C(2) and length through hub Y(2). PN100, 150, 250 and 420 Pressure Ratings are regularly furnished with 7mm . Raised Face which is additional to the flange thickness C(2) and Y(2).

3. Always specify bore when ordering weldneck flanges. Bore dimensions shown opposite also provide inside pipe diameters.

Large Diameter Flanges Above DN 600

- For Blind Flanges refer to MSS SP44.
- BS 3293 covers Slip-On and Weldneck but excludes Blind Flanges.
- MSS SP44 covers Blind and Weldneck but excludes Slip-On Flanges.
- BS 3293 Weldneck PN20 flange thickness, C(1), is less than MSS SP44 equivalents.
- API - 605 Dimensions for Large Diameter Flanges vary considerably from both BS.
- 3293 and MSS SP44 – Details on request.

Approximate Welding Neck Flange Bores - mm

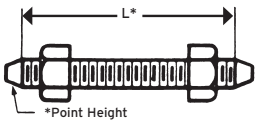
Raised Face Diam. All Press Ratings mm	Nom. Size DN	O.D. of Pipe Mm	Sch. 10	Sch. 20	Sch. 30	Std. Wt.	Sch. 40	Sch. 60	Ext. Stg.	Sch. 80	Sch. 100	Sch. 120	Sch. 140	Sch. 160	X.X Stg.
35	15	21.3				15.8	Same as STD. WT.		13.9	Same as EXT. STG.				11.8	6.4
43	20	26.7				20.9			18.9					15.5	11
51	25	33.4				26.6			24.3					20.7	15.2
65	32	42.2				35.1			32.5					29.5	22.8
73	40	48.3				40.9			38.1					34	27.9
92	50	60.3				52.5			49.2					42.9	38.2
105	65	73				62.7			59					54	45
127	80	88.9				77.9			73.7					66.7	58.4
140	90	101.6				90.1			85.4					-	-
157	100	114.3				102.3			97.2			92.1		87.3	80.1
186	125	141.3				128.2			122.3			115.9		109.6	103.2
216	150	168.3				154.1			146.3			139.7		131.8	124.4
270	200	219.1		206.4	205	202.7		198.5	193.7		188.9	182.6	177.8	173.1	174.6
324	250	273.1		260.3	257.5	254.5		247.7	247.7	242.9	236.5	230.2	222.3	215.9	222.3
381	300	323.9		311.1	307.1	304.8	303.2	295.3	298.5	288.9	281	273.1	266.7	257.2	273.1
413	350	355.6	342.9	339.8	336.6	336.6	333.3	325.4	330.2	317.5	307.9	300	292.1	284.2	
470	400	406.4	393.7	390.6	387.4	387.4	381	373.1	381	363.5	354	344.5	333.3	325.4	
533	450	457	444.5	441.4	434.9	438.2	428.7	419.1	431.8	409.5	398.5	387.4	377.9	366.7	
584	500	508	495.3	489	482.6	489	477.8	466.8	482.6	455.6	442.9	431.8	419.1	408	
692	600	610	596.9	590.6	581.1	590.6	574.6	560.4	584.2	547.7	531.8	517.6	504.9	490.5	
857	750	762	746.2	736.6	730.2	743			736.6						
1022	900	914	898.6	889	882.6	895.4	876.3		889						

All dimensions are shown in millimetres – mm

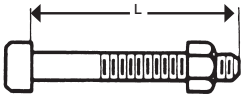
Note: OneSteel Metalcentre reserve the right to change specifications without notice. Not all products are available at all OneSteel Metalcentre Branches. OneSteel Metalcentre also has access to a wide network of products not necessarily listed in this book. Please check with your local OneSteel Metalcentre Branch for product availability.

Bolting for ANSI Flanges

Bolting
To suit R.F. Flange sizes DN 15 to 600 to ASME – B16.5 (BS. 1560) and DN 750 & 900 to BS. 3293



STUD BOLT WITH NUTS



MACHINE BOLT WITH NUT

Nom. Flge Size Dn	PN 20 (Class 150)				PN 50 (Class 300)				PN 100 (Class 600)			PN 150 (Class 900)			PN 250 (Class 1500)			PN 420 (Class 2500)			Nom. Flge Size Dn
	No. Bolts	Dia. Bolts ins.	L Stud Bolts mm	L Mach Bolts mm	No. Bolts	Dia. Bolts ins.	L Stud Bolts mm	L Mach Bolts mm	No. Bolts	Dia. Bolts ins.	L Stud Bolts mm	No. Bolts	Dia. Bolts ins.	L Stud Bolts mm	No. Bolts	Dia. Bolts ins.	L Stud Bolts mm	No. Bolts	Dia. Bolts ins.	L Stud Bolts mm	
15	4	1/2	60	45	4	1/2	65	55	4	1/2	80				4	3/4	105	4	3/4	125	15
20	4	1/2	65	50	4	5/8	75	60	4	5/8	90				4	3/4	115	4	3/4	125	20
25	4	1/2	65	55	4	5/8	80	65	4	5/8	90				4	7/8	125	4	7/8	140	25
32	4	1/2	70	55	4	5/8	80	65	4	5/8	100				4	7/8	125	4	1	150	32
40	4	1/2	70	60	4	3/4	90	75	4	3/4	105				4	1	140	4	1 1/8	170	40
50	4	5/8	80	65	8	5/8	90	75	8	5/8	105				8	7/8	145	8	1	175	50
65	4	5/8	90	75	8	3/4	100	85	8	3/4	120				8	1	160	8	1 1/8	195	65
80	4	5/8	90	75	8	3/4	110	90	8	3/4	125	8	7/8	145	8	1 1/8	180	8	1 1/4	220	80
90	8	5/8	90	75	8	3/4	110	95	8	7/8	140	-	-	-	-	-	-	-	-	-	90
100	8	5/8	90	75	8	3/4	110	95	8	7/8	145	8	1 1/8	170	8	1 1/4	195	8	1 1/2	255	100
125	8	3/4	90	80	8	3/4	120	100	8	1	165	8	1 1/4	190	8	1 1/2	250	8	1 3/4	300	125
150	8	3/4	100	85	12	3/4	125	105	12	1	170	12	1 1/8	195	12	1 3/8	260	8	2	345	150
200	8	3/4	110	90	12	7/8	140	110	12	1 1/8	195	12	1 3/8	220	12	1 5/8	290	12	2	380	200
250	12	7/8	115	95	16	1	155	130	16	1 1/4	215	16	1 3/8	235	12	1 7/8	335	12	2 1/2	485	250
300	12	7/8	120	100	16	1 1/8	170	145	20	1 1/4	220	20	1 3/8	255	16	2	375	12	2 3/4	540	300
350	12	1	130	110	20	1 1/8	175	150	20	1 3/8	235	20	1 1/2	275	16	2 1/4	405				350
400	16	1	135	115	20	1 1/4	190	160	20	1 1/2	255	20	1 5/8	285	16	2 1/2	445				400
450	16	1 1/8	150	125	24	1 1/4	195	170	20	1 5/8	275	20	1 7/8	325	16	2 3/4	495				450
500	20	1 1/8	160	135	24	1 1/4	205	180	24	1 5/8	290	20	2	345	16	3	540				500
600	20	1 1/4	175	145	24	1 1/2	230	195	24	1 7/8	330	20	2 1/2	435	16	3 1/2	615				600
750	28	1 1/4	190	160	28	1 1/3	290	250	28	2	355	PN150, 250 & 420 - Mot Listed in BS 3293									750
900	32	1 1/2	215	180	32	2	325	280	28	2 1/2	400										900

Use PN250 Dimensions in these sizes

Raised Face height of 2 mm for PN20 & 50 and 7 mm for PN100, 150, 250 & 420 is included in dimension L (Bolt Length)

Material Specifications

ASTM A193 Grade B7	Standard specification for alloy steel and stainless steel bolting materials for high temperature service.
ASTM A194 Grade 2h	Standard specification for carbon and alloy steel nuts for bolts for high pressure and high temperature service.
ASTM A320	Standard specification for alloy steel bolting materials for low temperature service. Grade L7 covers alloy steel stud bolts. Grade L4 covers alloy steel nuts to suit Grade L7 stud bolts.

Inch / Metric Bolting interchangeable for ASME B16.5 flanges as below	
For	Use
1/2	M14
5/8	M16
3/4	M20
7/8	M24
1	M27
1 1/8	M30
1 1/4	M33
1 3/8	M36
1 1/2	M39
1 5/8	M42
1 3/4	M45
1 7/8	M48
2	M52
2 1/4	M56
2 1/2	M64
2 3/4	M72

Buttweld Fittings & Flanges to ASME Standards

ASME B36.10 Steel Pipe Dimensions					Approximate Mass of Popular Sizes											
					Pipe	Butweld Fittings			A.S.M.E Flanges							
Nom. Pipe Size DN	Outside Diam. mm	Inside Diam. mm	Identification		Steel Pipe	90° L/R Elbows	Tees Equal	Con. & Ecc. Red	PN20 (150)			PN50 (300)			PN100 (600)	PN150 (900)
			Std. X.S	Sch. No.	kg/m	kg/ea	kg/ea	kg/ea	SOW/SW Thrded kg/ea	W/N kg/ea	Blind kg/ea	SOW/SW Thrded kg/ea	W/N kg/ea	Blind kg/ea	W/N kg/ea	W/N kg/ea
15	21.3	15.8 13.9	Std. XS	40 80	1.27 1.62	0.08 1.62	0.16 0.21	- -	0.45	0.79	0.57	0.73	0.91	0.79	0.91	2
20	26.7	20.9 18.9	Std. XS	40 80	1.69 2.20	0.08 0.11	0.21 0.27	0.07 0.10	0.68	0.86	0.91	1.25	1.41	1.13	1.59	2.72
25	33.4	26.6 24.3	Std. XS	40 80	2.50 3.24	0.17 0.21	0.34 0.43	0.14 0.18	0.95	1.09	1.09	1.36	1.81	1.77	1.86	3.86
32	42.2	35.1 32.5	Std. XS	40 80	3.39 4.47	0.28 0.39	0.64 0.75	0.18 0.23	1.13	1.41	1.25	2.04	2.27	2.68	2.72	4.54
40	48.3	40.9 38.1	Std. XS	40 80	4.05 5.41	0.39 0.50	0.95 1.13	0.27 0.32	1.36	1.81	1.7	2.81	3.06	2.83	3.74	6.35
50	60.3	52.5 49.2	Std. XS	40 80	5.44 7.48	0.68 1.00	1.45 1.72	0.41 0.54	2.22	2.83	2.77	3.13	3.74	3.52	4.65	10.89
65	73	62.7 59.0	Std. XS	40 80	8.63 11.41	1.39 1.82	2.45 2.95	0.68 0.91	3.82	4.42	4.04	4.54	5.56	5.44	6.44	16.33
80	88.9	77.9 73.7	Std. XS	40 80	11.29 15.27	2.18 2.86	3.45 4.30	0.91 1.27	4.08	5.22	5.44	6.12	7.37	7.26	8.5	14.51
90	101.6	90.1 85.4	Std. XS	40 80	13.57 18.63	3.05 4.1	4.5 5.9	1.36 1.81	4.99	5.44	6.35	7.71	9.53	9.98	12.25	-
100	114.3	102.3 97.2	Std. XS	40 80	16.07 22.32	4.2 5.7	5.7 7.3	1.59 2.18	5.94	7.48	7.37	9.53	11.79	11.79	17.24	23.23
125	141.3	128.2 122.3	Std. XS	40 80	21.77 30.97	6.8 10.0	9.1 11.8	2.7 3.8	6.12	9.53	9.07	12.7	15.42	15.88	30.84	39.01
150	168.3	154.1 146.3	Std. XS	40 80	28.26 42.56	10.9 16.3	13.6 19.0	3.9 5.4	8.16	11.34	12.7	16.3	19.96	20.87	34.02	49.9
200	219.1	202.7 193.7	Std. XS	40 80	42.55 64.64	21.8 33.1	25 33.5	5.9 8.6	12.7	19.05	21.77	25.4	32.21	38.1	52.16	84.82
250	273.1	254.5 247.7	Std. XS	40 60	60.31 81.55	38.6 52	41 54	10 14	17.24	25.4	31.75	35.38	44	53.34	90.36	121.56
300	323.9	304.8 298.5	Std. XS	- -	73.88 97.46	57 75	57 77	15 20	27.22	38.1	45.36	50.8	64.41	86.18	101.6	168.74
350	355.6	336.6 330.2	Std. XS	30 -	81.33 107.39	73 97	73 93	28 37	35.38	51.26	58.97	74.39	84.37	107.05	157.4	254.92
400	406.4	387.4 381.0	Std. XS	30 40	93.27 123.30	98 130	91 120	35 46	42.48	63.5	77.11	101.6	111.58	145.15	209.11	310.71
450	457	438.2 431.8	Std. XS	- -	105.16 139.15	120 165	135 190	40 53	52.62	68.04	102.51	126.1	138.35	181.89	217.27	419.12
500	508	489.0 482.6	Std. XS	20 30	117.15 155.12	150 200	168 245	61 82	65.32	81.65	123.38	149.69	174.63	231.33	312.98	527.98
600	610	590.6 584.2	Std. XS	20 -	141.12 187.26	220 280	240 350	77 95	91.63	118.84	203.21	222.23	247.21	342.92	443.16	680.39

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Flanges to Australian Standards

Nom. Size DN	Table D						Table E							Table F							Nom. Size DN
	Flange			Drilling			Flange				Drilling			Flange				Drilling			
	ODmm	Thickness		Bolt Cirice Dia.mm	No. of Bolts	Dia. of Bolts mm	ODmm	Thickness			Bolt Cirice Dia.mm	No. of Bolts	Dia. of Bolts mm	ODmm	Thickness			Bolt Cirice Dia.mm	No. of Bolts	Dia. of Bolts mm	
		T3mm	**T6mm					T10mm	T11mm	**T6mm					T10mm	T11mm	**T6mm				
15	95	6	5	67	4	M12	95	6	6	6	67	4	M12	95	8	8	10	67	4	M12	15
20	100	6	5	76	4	M12	100	6	6	6	73	4	M12	100	8	8	10	73	4	M12	20
25	115	8	5	86	4	M12	115	8	8	7	83	4	M12	120	10	10	10	87	4	M16	25
32	120	8	6	87	4	M12	120	8	8	8	87	4	M12	135	10	10	13	98	4	M16	32
40	135	10	6	98	4	M12	135	10	10	9	98	4	M12	140	11	11	13	105	4	M16	40
50	150	10	8	114	4	M16	150	10	10	10	114	4	M16	165	11	12	16	127	4	M16	50
65	165	11	8	127	4	M16	165	11	11	10	127	4	M16	185	13	13	16	146	8	M16	65
80	185	13	10	146	4	M16	185	13	13	11	146	4	M16	205	14	15	16	165	8	M16	80
100	215	16	10	178	4	M16	215	16	16	13	178	8	M16	230	17	17	19	191	8	M16	100
125	255	17	13	210	8	M16	255	17	17	14	210	8	M16	280	19	20	22	235	8	M20	125
150	280	17	13	235	8	M16	280	17	17	17	235	8	M20	305	22	23	22	260	12	M20	150
200	335	19	13	292	8	M16	335	19	20	19	292	8	M20	370	25	28	25	324	12	M20	200
250	405	19	16	356	8	M20	405	22	25	22	356	12	M20	430	25	32	29	381	12	M24	250
300	455	22	19	406	12	M20	455	25	28	25	406	12	M24	490	29	37	32	438	16	M24	300
350	525	25	22	470	12	M24	525	25	32	29	470	12	M24	550	32	42	35	495	16	M27	350
400	580	25	22	521	12	M24	580	25	36	32	521	12	M24	610	32	47	41	552	20	M27	400
450	640	29	25	584	12	M24	640	29	41	35	584	16	M24	675	35	52	44	610	20	M30	450
500	705	32	29	641	16	M24	705	32	46	38	641	16	M24	735	38	57	51	673	24	M30	500
600	825	35	32	756	16	M27	825	38	-	48	756	16	M30	850	41	68	57	781	24	M33	600
700	910	-	35	845	20	M27	910	-	-	51	845	20	M30	935	-	-	60	857	24	M33	700
750	995	-	41	927	20	M30	995	-	-	54	927	20	M33	1015	-	-	67	940	28	M33	750
800	1060	-	41	984	20	M33	1060	-	-	54	984	20	M33	1060	-	-	68	984	28	M33	800
900	1175	-	48	1092	24	M33	1175	-	-	64	1092	24	M33	1185	-	-	76	1105	32	M36	900
1000	1255	-	51	1175	24	M33	1255	-	-	67	1175	24	M36	1275	-	-	83	1195	36	M36	1000
1200	1490	-	60	140	32	M33	1490	-	-	79	1410	32	M36	1530	-	-	95	1441	40	M39	1200

Nom. Size DN	Table H								Table J						Table R							Nom. Size DN
	Flange					Drilling			Flange			Drilling			Flange			Drilling				
	ODmm	Thickness			† Dia. R/F mm	Bolt Cirice Dia.mm	No. of Bolts	Dia. of Bolts mm	ODmm	Thick-ness	Dia. R/F mm	Bolt Cirice Dia.mm	No. of Bolts	Dia. of Bolts mm	ODmm	Thick-ness	Dia. R/F mm	Bolt Cirice Dia.mm	No. of Bolts	Dia. of Bolts mm		
		T10mm	T11mm	*T6mm						*T16mm						*T18mm						
15	115	10	11	13	57	83	4	M16	115	16	57	83	4	M16	115	19	64	83	4	M16	15
20	115	10	11	13	57	83	4	M16	115	16	57	83	4	M16	115	19	64	83	4	M16	20
25	120	11	12	14	64	87	4	M16	120	19	64	87	4	M16	125	22	76	95	4	M16	25
32	135	11	13	17	76	98	4	M16	135	19	76	98	4	M16	135	22	76	98	4	M16	32
40	140	13	14	17	83	105	4	M16	140	22	83	105	4	M16	150	25	89	114	4	M20	40
50	165	13	16	19	102	127	4	M16	165	25	102	127	4	M20	165	25	102	127	8	M16	50
65	185	14	17	19	114	146	8	M16	185	25	114	146	8	M20	185	29	114	146	8	M20	65
80	205	16	19	22	127	165	8	M16	205	32	127	165	8	M20	205	32	127	165	8	M20	80
100	230	19	23	25	152	191	8	M16	230	35	152	191	8	M20	240	35	152	197	8	M24	100
125	280	22	27	29	178	235	8	M20	280	38	178	235	8	M24	280	41	178	235	12	M24	125
150	305	25	30	29	210	260	12	M20	305	38	210	260	12	M24	305	44	210	260	12	M24	150
200	370	32	39	32	260	324	12	M20	370	41	260	324	12	M24	370	51	260	324	12	M27	200
250	430	35	45	35	311	381	12	M24	430	48	311	381	12	M27	430	60	311	387	16	M27	250
300	490	38	52	41	362	438	16	M24	490	51	362	438	16	M27	510	70	362	457	16	M30	300
350	550	41	58	48	419	495	16	M27	550	57	419	495	16	M30	585	79	419	527	16	M33	350
400	610	44	64	54	483	552	20	M27	610	64	483	552	20	M30	640	89	483	584	20	M33	400
450	675	48	71	60	533	610	20	M30	675	70	533	610	20	M33	735	98	572	673	20	M36	450
500	735	51	78	67	597	673	24	M30	735	79	597	673	24	M33	805	105	672	730	20	M39	500
600	850	57	92	76	699	781	24	M33	750	92	699	781	24	M36	-	-	-	-	-	-	600

BLANK OR BLIND FLANGE

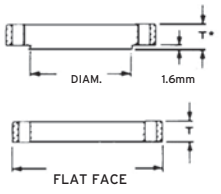
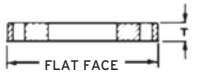
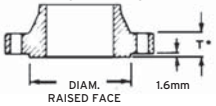


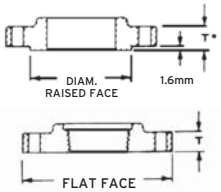
PLATE FLANGE SLIP ON WELD



WELD NECK FLANGE



BOSS FLANGE –
SLIP ON WELD OR SCR. B.S.P.



Copper Alloy

T.30 – Plate or Boss
T.11 – Blank

Forged or Plate Steel

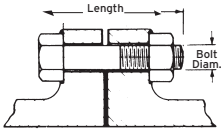
T.6 – Plate or Boss or Blank, or Weldneck (except for valves)
T.18 – Plate or Blank or Weldneck (except for valves)

Notes:

(1) All dimensions are in millimetres (mm).
(2) Only metric preferred sizes listed, except for DN 750 which is a Non-preferred size.
** (3) It is impractical to use flange thickness less than 12mm for Steel Plate Flanges.
* (4) Thickness includes 1.6mm height for the Raised Face.
† (5) The Raised Face is non-preferred for Table "H".
(6) It is normal practice to supply Steel Flanges to Tables A, D, C, E, F and H. – Flat Faced.
(7) All copper alloy flanges shall be Flat Faced.
(8) All flanges shall be drilled to Standard Tables unless otherwise specified. (For Bolt dimensions see separate page).

Important: For DN 150 and DN 200 Flanges, the O.D. of pipe being used must be specified. Dimensions for Flange Tables A, C, K, S and T on application.

I.S.O. Metric Hexagon Steel Bolts (for use with AS.2129 Flanges)



Flat faced joint illustrated

Steel hexagon Bolts and Nuts (XOX) are recommended for use within a temperature range of -50˚C to +300˚C. Outside of this temperature range, Stud Bolts should be used as recommended in AS.2528.

A quick reference chart for sizing bolts and nuts for a range of regularly used standard flanges is given below:

APPLICABLE TO PLATE & FORGED STEEL LOOSE FLANGES ONLY

Integral valve flanges quite often differ in thickness to equivalent loose flanges. When integral flanges are involved due allowance should be made to bolt lengths.

Nominal Flange Size DN	Table D		Table E		Table F		Table H	
	No. Bolts Per Flange	XOX Bolt & Nut Dia. x lgth	No. Bolts Per Flange	XOX Bolt & Nut Dia. x lgth	No. Bolts Per Flange	XOX Bolt & Nut Dia. x lgth	No. Bolts Per Flange	XOX Bolt & Nut Dia. x lgth
15	4	M12 x 40mm*	4	M12 x 40mm*	4	M12 x 40mm*	4	M16 x 45mm*
20	4	M12 x 40mm*	4	M12 x 40mm*	4	M12 x 40mm*	4	M16 x 45mm*
25	4	M12 x 40mm*	4	M12 x 40mm*	4	M12 x 40mm*	4	M16 x 50mm*
32	4	M12 x 40mm*	4	M12 x 40mm*	4	M16 x 45mm*	4	M16 x 55mm*
40	4	M12 x 40mm*	4	M12 x 40mm*	4	M16 x 45mm*	4	M16 x 55mm*
50	4	M16 x 45mm*	4	M16 x 45mm*	4	M16 x 50mm*	4	M16 x 60mm*
65	4	M16 x 45mm*	4	M16 x 45mm*	8	M16 x 50mm*	8	M16 x 60mm*
80	4	M16 x 45mm*	4	M16 x 45mm*	8	M16 x 50mm*	8	M16 x 65mm*
100	4	M16 x 45mm*	8	M16 x 45mm*	8	M16 x 60mm*	8	M16 x 70mm*
125	8	M16 x 45mm*	8	M16 x 50mm*	8	M20 x 70mm*	8	M20 x 80mm*
150	8	M16 x 45mm*	8	M20 x 60mm*	12	M20 x 70mm*	12	M20 x 80mm*
200	8	M16 x 45mm*	8	M20 x 60mm*	12	M20 x 75mm*	12	M20 x 90mm*
250	8	M20 x 55mm*	12	M20 x 70mm*	12	M24 x 85mm*	12	M24 x 100mm*
300	12	M20 x 60mm*	12	M24 x 80mm*	16	M24 x 100mm*	16	M24 x 110mm*
350	12	M24 x 75mm*	12	M24 x 85mm*	16	M27 x 100mm*	16	M27 x 130mm*
400	12	M24 x 75mm*	12	M24 x 100mm*	20	M27 x 120mm*	20	M27 x 140mm*
450	12	M24 x 80mm*	161	M24 x 100mm*	20	M30 x 130mm*	20	M30 x 160mm*
500	16	M24 x 85mm*	16	M24 x 110mm*	24	M30 x 140mm*	24	M30 x 170mm*
600	16	M27 x 100mm*	16	M30 x 130mm*	24	M33 x 150mm*	24	M30 x 190mm*
700	20	M27 x 100mm*	20	M30 x 140mm*	24	M33 x 160mm*		
750	20	M30 x 120mm*	20	M33 x 150mm*	28	M33 x 170mm*		
800	20	M33 x 120mm*	20	M33 x 150mm*	28	M33 x 180mm*		
900	24	M33 x 140mm*	24	M33 x 170mm*	32	M36 x 200mm*		
1000	24	M33 x 140mm*	24	M36 x 180mm*	36	M36 x 220mm*		
1200	32	M33 x 160mm*	32	M36 x 200mm*	40	M39 x 240mm*		

Notes:

- All dimensions are in millimetres (mm).
- High strength structural bolts to AS 1252 may be substituted for property class 8.8 bolts if agreed to by the purchaser.
- Bolts to AS 1252 are heavy hexagon series and the selection of such bolts would be subject to space being available on the relevant flange.

Bolt lengths listed apply to flat-faced or 1.6mm raised face flanges with allowance for 1.6mm gasket thickness.

*For approximate Stud Bolt Lengths take the XOX Bolt Length and add the metric diameter in mm rounded to the nearest 5mm increment up

Note: (This does not include length of point)

This chart shows bolt diameters as recommended in AS.2129. Some of these are Non-preferred sizes e.g. (M27), (M33) and (M39) which are not readily available in Australia.

Stud Bolts should be used as alternatives to bolts where the size is greater than M24 and it is therefore suggested that Stud Bolts as specified in AS.2528 or BS.4882 should be used.

Inch series bolts interchangeable as follows:

For ↓	Use ↓	For ↓	Use ↓
1/4"	M6	7/8"	M24
5/16"	M8	1"	(M27)
3/8"	M10	1 1/8"	M30
1/2"	M12	1 1/4"	(M33)
5/8"	M16	1 3/8"	M36
3'4"	M20	1 1/2"	(M39)

Bolt Hole Diameters

For bolts to M24, clearance hole 2mm larger.
Above M24, clearance hole 3mm larger.

Xox Bolts & Nuts

XOX is the trade term used for H.R.H. commercial steel bolts and nuts.
H.R.H. denotes Hexagon Head x Round Shank x Hexagon Nut.

XOX Bolting		
Temp. Range: -50˚C to +300˚C		
Flange Specifications		
Table	Bolts	Nuts
D, E, F	AS 1110 Gr.4.6 or AS 1111 Gr.4.6	AS 1112 Gr.5
H	AS 1110 Gr8.8	AS 1112 Gr.8

Fencing Fabricated

Description	Finish	Size cm	Length m
Netting - Heavy	Galvanized	30x4x1.4	100
	Galvanized	90x4x1.4	50
	Galvanized	90x4x1.4	100
	Galvanized	105x4x1.4	50
	Galvanized	105x4x1.4	100
Netting - Light	Galvanized	90x5x1.0	50
	Galvanized	180x5x1.0	50
Hinged Joint - 2.5mm	Galvanized	6/70/30	200
	Galvanized	6/90/30	200
	Galvanized	7/90/30	200
	Galvanized	8/90/30	200
	Galvanized	8/115/30	200
	Galvanized	8/80/15	100
	Galvanized	8/90/15	100
	Galvanized	8/115/15	100
	Galvanized	11/142/15	100
Stiff Stay - 2.5mm	Galvanized	5/70/30	200
	Galvanized	5/70/90	500
Note: Meets and exceed the Australian Standard AS2423.	Galvanized	6/70/30	200
	Galvanized	7/90/30	200
	Galvanized	9/90/30	200

Wire - Fence Wire

Description	Finish	Size mm	Length m
Fencing Wire - MT	Standard Galvanized	2.50	1500
- HT	Standard Galvanized	2.50	1500
- Soft	Standard Galvanized	3.15	750
- Soft	Standard Galvanized	4.00	500
Handyfence - MT	Standard Galvanized	2.50	300
- Soft	Standard Galvanized	3.00	250

Wire - Barbed Wire

Description	Finish	Size mm	Length m
Barbed Wire - HT	Heavy Galvanized	1.80	500
- HT	Heavy Galvanized	1.57	500
- IOWA	Standard Galvanized	2.5	400

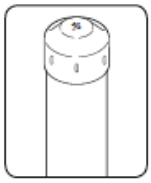
Wire - Tie Wire

Description	Finish	Length m
1.25	Galvanized	95
1.57	Galvanized	60
1.57	Galvanized	180
2.00	Galvanized	40
2.00	Galvanized	120
2.50	Galvanized	24
3.15	Galvanized	48

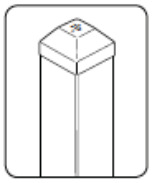
Posts

Description	Finish	Size m
Stock Post	Black	135, 150, 165, 180, 210, 240
	Hot Dipped Galvanized	135, 150, 165, 180, 240
Ultra Post	Black	45, 60, 90, 135, 150, 165, 180, 240
	Hot Dipped Galvanized	135, 150, 165, 180, 240

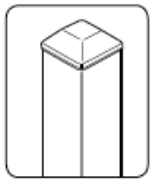
Post Caps



Round Post Caps



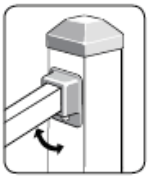
Square Post Caps



Square Post Caps - Poly

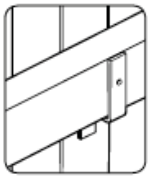
Description	Finish	Fit Pipe Size mm
Round Post Caps	Galvabond®	25, 32, 40, 50, 80, 100, 125, 150
Square Tube Caps	Galvabond®	50, 65, 75, 90, 100
Square Tube Caps	Polyproylene	50, 65

Brackets, Clip & Flanges



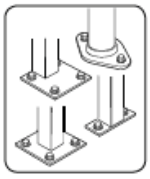
Rail - Single Lug

Rail- Double Lug

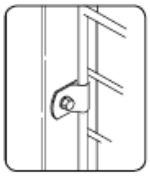


Rail Holder Bracket

Fence Brackets



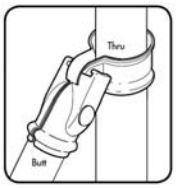
Brackets & Flanges



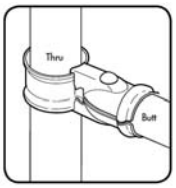
Fence Panel "U" Clip

Description	Finish	Fit Pipe Size mm
Rail - Single Lug	Zinc Plated	38 x25
Rail- Double Lug	Zinc Plated	40 x 40
Rail Holder Bracket	Galvanized	Suit 75 x 53 Timber Rail
Fence Brackets	Aluminium	38 x 25
Post Brackets Square Base	Galvanized	50 x 50 x 1.6
Oval Flanges	Galvanized	Suit pipes 32NB, 50NB
Fence Panel "U" Clip	Galvanized	25

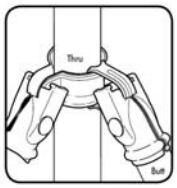
Universal Fence Fitting System



Rail Clamp



Post Clamp



Multi Purpose Connector

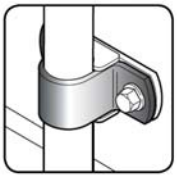
Description	Finish	Size mm
Rail Clamps	Galvanized	25, 32, 40, 50
Post Clamps	Galvanized	25, 32, 40, 50, 65, 80, 100
Multi Purpose Connector	Galvanized	

Note: All rail and post clamps are interchangeable with each other.

Hinges & Gudgeons

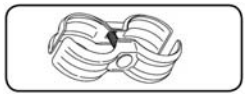

Long Plate Gidgeons

Two Part Hinges


Pipe Hinge Strap

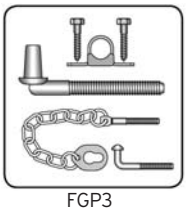
Description	Finish	Size mm
Long Plate Gidgeons	Galvanized	20NB, 25NB
Two Part Hinges	Galvanized	Post - 50NB, 80NB Gate - 25NB
Pipe Hinge Strap	Galvanized	25NV

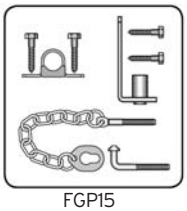
Temporary Fence Clamps

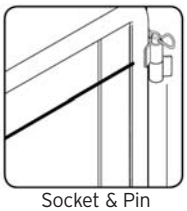


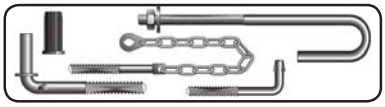
Fit Pipe Size mm
32 x 32, 40 x 40, 50 x 50

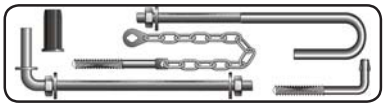
Hinges & Gudgeons


FGP3


FGP15

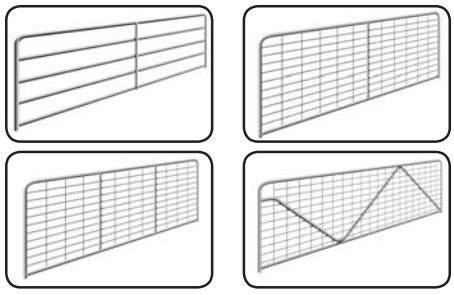

Socket & Pin


FGP1


FGP4

Description
FGP1 – Ring Chain Catches, Screw In with gudgeons and clamps (Galvanized)
FGP3 – Ring Chain Catches, Screw In with gudgeons and clamps (Galvanized)
FGP4 – Ring Chain Catches, Screw In with gudgeons and clamps (Galvanized)
FGP15 – Ring Chain Catches, Screw In with gudgeons and clamps (Galvanized)
Socket & Pin

Gates



Description	Finish	Height mm	Sizes mm
Five-Bar Gates	Galvanized	1150	1000, 1200, 1500, 1800, 2400 (8'), 3000 (10'), 3600 (12'), 4200 (14'), 4800
Mesh "I" Stay Gates	Galvanized	1150	830, 1000, 1200, 1500, 1800, 2400 (8'), 3000 (10'), 3600 (12')
Mesh "II" Stay Gates	Galvanized	1150	2400, 4800
Mesh "N" Stay Gates	Galvanized	1150	2400 (8'), 3000 (10'), 3600 (12'), 4200 (14'), 4800

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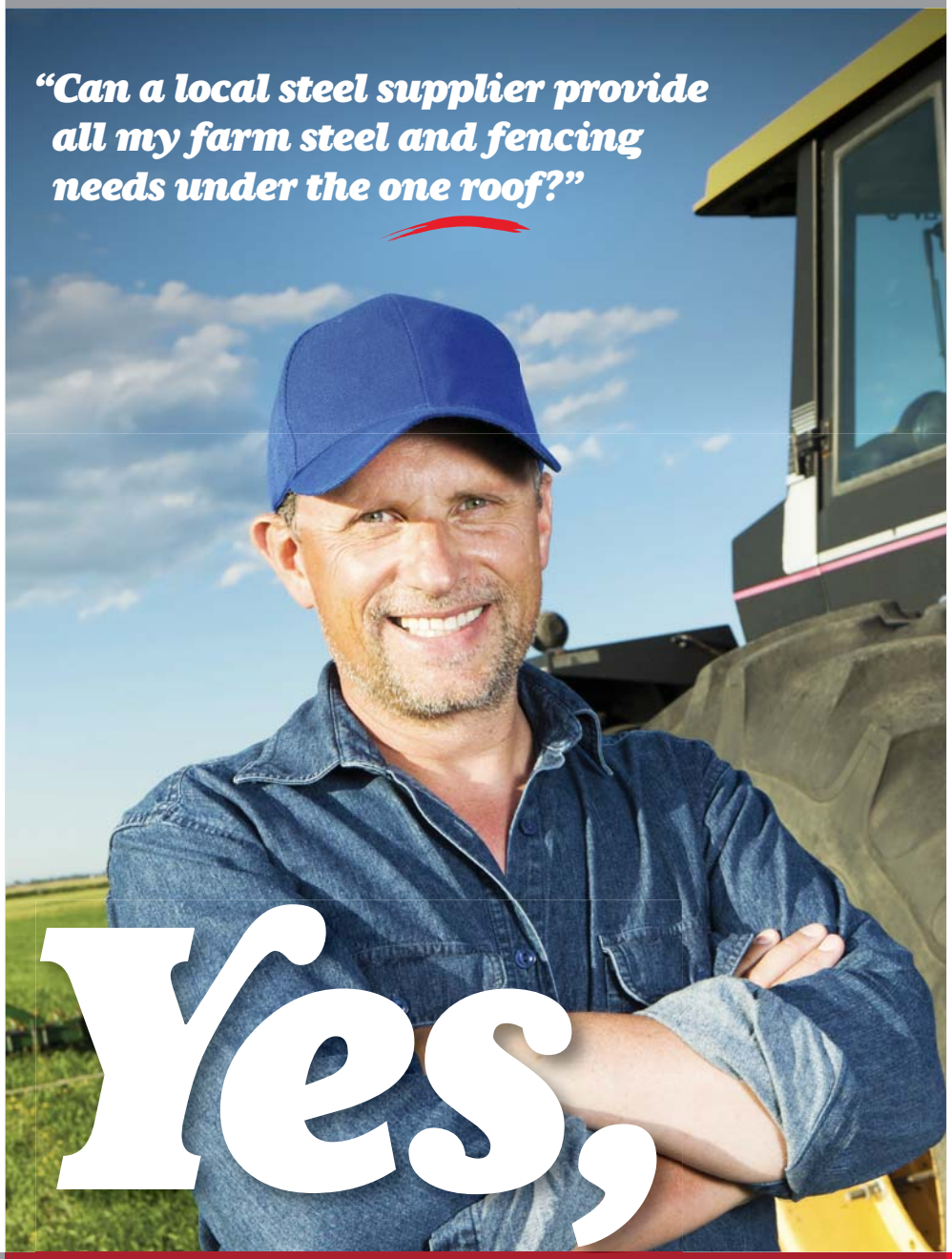

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Paints & Primers

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An organic zinc-rich coating that provides long term protection to steel against rust and corrosion.

Sizes available: 400g aerosol, 250ml, 500ml,1 litre and 4 litre.

Galmet DuraGal® Silver Paint

An anti-corrosive silver protection paint and touch-up coating for DuraGal®l welds and other iron and steel products giving the appearance of a new DuraGal® coated surface.

Sizes available: 350g aerosol, 1 litre, 4 litre and 20 litre.

Galmet Fence, Gutter & Fascia Touchup Paint

Fence, Gutter and Fascia touch up paint is flexible, extremely durable exterior acrylic designed for touching up spot repairs on metal surfaces.
Sizes available: 350g aerosol

Galmet Ironize

Ironize is a fast reacting rust converter and sealer which can be applied directly to rusty surfaces.

Sizes available: 125ml, 250ml, 500ml, 1 litre and 4 litre.

Galmet Keytite Etch Primer

Keytite Etch Primer is a single pack, epoxy etch primer designed to etch and passivate ferrous and nonferrous metals.

Sizes available: 350g aerosol, 500ml, 1 litre & 4 litre.

Galmet Keytite Steel Primer

Keytite Steel Primer is a slow drying, single pack alkyd primer designed to penetrate lightly rusted surfaces.

Sizes available: Grey: 350g aerosol, 500ml, 1 litre & 4 litre. Red: 350g aerosol only.

Galmet Rustpaint

Rustpaint is a single pack, high gloss epoxy modified enamel specifically formulated to protect and beautify both new and old surfaces.

Sizes available: 350g aerosol, 500ml, 1 litre & 4 litre.

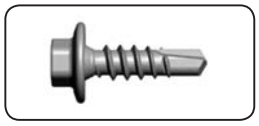
Galmet Spraypaint

Galmet Spraypaint is a fast-dry, high gloss steel and structural enamel used as a general purpose industrial finishing coat.

Sizes available: 350g aerosol

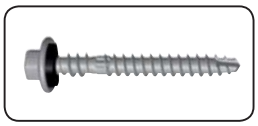
Fasteners

Buildex



Shed Teks®

14 x 22 - Fine thread. 14g screws with 5/16" head size to eliminate driver changes, generally used in shed construction with plates and cleats.
14 x 25 - Coarse thread. 14g screws with 5/16" head size to eliminate driver changes, generally used in shed construction with plates and cleats.

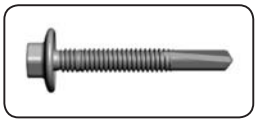


AutoTeks®

M5.5 x 39 - Fixing corrugated roof sheet to steel purlins 1.9mm to 3.5mm.
M5.5 x 50 - Fixing square rib roof sheet to steel purlins 1.9mm to 3.5mm.

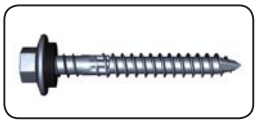
Rippleteks

10 x 20 - Fixing mini corrugated and corrugated sheets to steel.
10 x 30 - Fixing mini corrugated and corrugated sheets to timber.



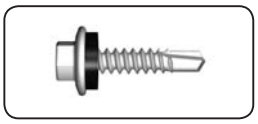
Series 500 SuperTEKS®

12 x 32 - Wafer head for flush fit needs such as walkways. Drills 3mm-12.5mm hot rolled steel.
12 x 32, 12 x 50, 12 x 65 - Hex head with or without seal. Drills 3mm to 12.5mm hot rolled steel for roof and wall cladding, pipe and cable staddles, metal deck clips, brackets, signage and plumbing applications.



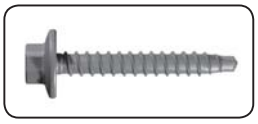
RoofZips

M6 x 25 - Fixing wall cladding, stitching & general fastening into both timber & steel up to 1.5mm.
M6 x 50 - Fixing corrugated roof sheet to timber, metal batten & steel purlin up to 1.5mm.
Also suits square profile sheet fixed to metal battens & steel purlins up to 1.5mm.
M6 x 65 - Fixing square profile roof sheet to timber battens.



Hi-Teks® - General Purpose Fasteners

10 x 16 - Used in fencing, steel house frames, DuraGal®
flooring systems, shed and wall cladding with seal.
12 x 20 - Used in fencing, steel house frames, sheds and wall cladding with seal.
14 x 22 - Used in DuraGal® flooring systems, sheds and heavier assembly.

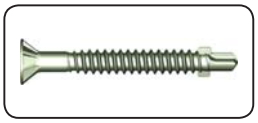


BattenZips®

M5.5 x 40 - Fixing metal roof battens to either timber or steel rafters.

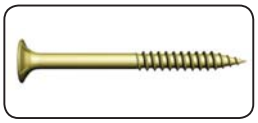
PolyZips®

M6.5 x 50 - Fixing corrugated polycarbonate sheet to timber, metal batten and steel purlin up to 1.5mm, also suits square profile fixed to metal battens and steel purlins up to 1.5mm.
M6.5 x 65 - Fixing square profile polycarbonate sheet to timber battens.



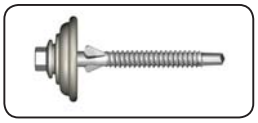
Wingteks®

6 x 50, 8 x 32, 10 x 40, 10 x 45, 10 x 55, 10 x 75, 14 x 65 - Countersunk ribbed head for applications where timber is fastened to steel, gates, fences, decking but not recommended for treated timber decks to steel.



Bugle Batten

14 x 50, 14 x 75, 14 x 100 - Countersunk head for fixing timber battens to rafters, fastening heavy timbers, fencing, boardwalks, pergolas, plates and hinges to timber.



Fibreglass Teks®

M6.5 x 65, M6.5 x 85 - 32mm weatherlok fixing fibreglass sheet to steel up to 3mm, drills the expansion hole during installation.

Geometry & Mensuration

Shape	Area or Volume	Formulae	Results - Area or Volume
Rectangles	Area	Multiply length by width	A (m) x B (m) = Square metres
Squares	Area	Multiply length by width	A (m) x B (m) = Square metres
Cubes	Volume	Length x Width x Height	A (m) x B (m) x H (m) = Cubic metres
Circles	Circumference	Multiply diameter by Pi (or 3.142858)	D (m) x Pi = metres
Circles	Area	Pi x Radius x Radius [or R^2]	(R^2) x Pi = Square metres
Sector of a circle	Area	Length of Arc x Half Radius	A (m) x R/2 = Square metres
Triangles	Area	Base/2 x Height	B/2 (m) x H = Square metres
Ellipse	Area	Long axis x Short axis x 0.7854	D1 (m) x D2 (m) x 0.7854 = Square metres
Ellipse	Volume	Long axis x Short axis x 0.7854 x Length	D1 (m) x D2 (m) x 0.7854 = Square metres
Cylinder	Area	Circumference of base x Height	D (m) x Pi x H (m) = Square metres
Cylinder	Volume	Area of base x Height	(R^2) x Pi x H (m) = Cubic metres
Sphere	Area	Diameter x Diameter x Pi	D (m) x D (m) x Pi = Cubic metres
Sphere	Volume	Diameter x Diameter x Diameter x 0.5236	D (m) x D (m) x D (m) x 0.5236 = Cubic metres
Pyramid	Area	Perimeter of base x Slant Height/3	[A (m) + B (m) x 2 x Slant height]/3 = Square metres
Pyramid	Volume	Area of base x Vertical Height/3	[A (m) + B (m) x H (m)]/3 = Cubic metres

Gauge Conversions - Conversion Factors

mm	Gauge	Imperial	
		Decimal	Inch
0.40	26		
0.60	24		
0.80	22	0.032	1/32
1.00	20		
1.20	18	0.047	3/64
1.40	17	0.055	
1.60	16	0.063	1/16
1.80	15	0.071	
2.00	14	0.080	5/64
2.30	13	0.092	3/32
2.50	12	0.098	
2.80	11	0.110	
3.00	10	1.125	1/8
3.50	9	0.138	
4.00	8	0.160	5/32
5.00	6	0.197	3/16
6.00	4	0.236	
6.30	3	0.250	1/4
8.00	2	0.315	5/16
9.00	1	0.354	
10.00	0	0.394	3/8
12.70		0.500	1/2
16.00		0.625	5/8
19.00		0.750	3/4
22.00		0.875	7/8
25.40		1.000	1

Conversion Tables

Mass Conversions kilos/pounds			
Kilogram kg	Pound lb	Pound lb	Kilogram kg
1	2.205	1	0.4536
2	4.409	2	0.9072
3	6.614	3	1.361
4	8.818	4	1.814
5	11.02	5	2.268
6	13.23	6	2.722
7	15.43	7	3.175
8	17.64	8	3.629
9	19.84	9	4.082
10	22.05	10	4.536
50	110.2	50	22.68
100	220.5	10	45.36

Mass Conversions tonnes/tons			
Tonnes	Tons	Tons	Tonnes
1	0.9842	1	1.016
2	1.968	2	2.032
3	2.953	3	3.048
4	3.937	4	4.064
5	4.921	5	5.080
6	5.905	6	6.096
7	6.889	7	7.112
8	7.874	8	8.128
9	8.858	9	9.144
10	9.842	10	10.16
50	49.21	50	50.80
100	98.42	10	101.60

Length Conversions cms/inches			
centimetres (cm)	inches (in)	inches (in)	centimetres (cm)
1	0.3937	1	2.54
2	0.7874	2	5.08
3	1.1810	3	7.62
4	1.5750	4	10.16
5	1.9690	5	12.70
6	2.3620	6	15.24
7	2.7559	7	17.78
8	3.1500	8	20.32
9	3.5430	9	22.86
10	3.9370	10	25.40
50	19.690	50	127.0
100	39.370	10	254.0

Length Conversions kims/miles			
Kilometre (km)	Miles	Miles	Kilometre (km)
1	0.6214	1	1.609
2	1.243	2	3.219
3	1.864	3	4.828
4	2.485	4	6.437
5	3.107	5	8.047
6	3.728	6	9.656
7	4.350	7	11.27
8	4.971	8	12.87
9	5.592	9	14.48
10	6.214	10	16.09
50	31.07	50	80.47
100	62.14	10	160.90

Pressure Conversion psi/MPa			
psi	MPa	MPa	psi
1	0.006895	0.1	14.5
50	0.3447	0.2	29.01
100	0.6895	0.3	43.51
200	1.379	0.4	58.02
300	2.068	0.5	72.52
400	2.758	0.6	87.02
500	3.447	1.0	145.0
600	4.137	1.5	217.6
700	4.826	2.0	290.1
800	5.516	2.5	362.6
900	6.205	3.0	435.1
1000	6.895	3.5	507.6
1100	7.584	4.0	580.2
1200	8.274	4.5	652.7
1300	8.963	5.0	725.2
1400	9.653	5.5	797.7

Pressure Conversion psi/MPa			
psi	MPa	MPa	psi
1500	10.34	6.0	870.2
1600	11.03	6.5	942.7
1700	11.72	7.0	1015
1800	12.41	8.0	1160
1900	13.10	9.0	1305
2000	13.79	10.0	1450
2100	14.48	11.0	1595
2200	15.17	12.0	1740
2300	15.86	13.0	1885
2400	16.55	14.0	2031
2500	17.24	15.0	2176
2600	17.93	16.0	2321
2700	18.62	17.0	2466
2800	19.31	18.0	2611
2900	19.99	19.0	2756
3000	20.68	20.0	2901

Useful conversion factors Imperial to Metric (Approximate)

"SI" denotes the INTERNATIONAL SYSTEM of Metric Units adopted in Australia

This table may be used in two ways:
Multiply column "A" by column "B" to obtain column "C"
Alternatively
Divide column "C" by column "B" to obtain column "A"

Remarks	A Multiply	B By	C To obtain
AREA: Symbol m^2 The SI unit of AREA is the SQUARE METRE.	Square inches Square feet Square yards Acre Hectare (ha)	645.16 0.929 0.836 4047 10 000	mm2 m2 m2 m2 m2
DENSITY: Symbol kg/m^3 The SI unit of DENSITY is the kilogram per cubic metre.	lb/in^3 lb/ft^3 lb/yd^3	27.68 16.02 0.5933	t/m^3 kg/m^3 kg/m^3
ENERGY: Symbol J The SI unit of ENERGY is the JOULE. 1 J = 1 N.m A joule is the energy expended or the work done when a force of one newton moves the point of application a distance of one metre in the direction of that force.	**1.ELECTRICAL ENERGY** kilowatt hour (kW.h)	3.6	MJ
	2.HEAT ENERGY British thermal unit (Btu) Btu/gal Btu/ft^3	 1.055 0.2321 37.26	 kJ kJ/L †† kJ/M^3
	3.MECHANICAL ENERGY foot poundal ft.pdl inch pound-force in.lbf foot pound-force ft.lbf foot ton force ft.tonf Metre kilogram force m.kgf	 .04214 0.1130 1.356 3.037 9.807	 J J J kJ J
FORCE: Symbol N (NEWTON) The SI unit of FORCE ($kg.m/s^2$) has been given the special name – NEWTON. The newton is the force which when applied to a body having a mass of one kilogram, causes an acceleration of one metre per second in the direction of application of the force.	Poundal (pdl) Pound-force (lbf) ton-force (tonf) *kilogram-force (kgf) *also known as kilopond (kp)	0.1383 4.448 9.964 9.807	N N kN N
FORCE PER UNIT LENGTH: The SI unit is NEWTON PER METRE: Symbol N/m	pounds-force per inch (lbf/in) pounds-force per foot (lbf/ft) ton-force per foot (ton/ft)	175.1 14.59 32.69	N/m N/m kN/m

TEMPERATURE

The SI unit of TEMPERATURE is the KELVIN - Symbol K. For most practical purposes of temperature measurement and most calculations involving temperatures, degrees Celsius, symbol °C will be used.

DEGREES FAHRENHEIT TO CELSIUS
(°F - 32) x 5/9 = °C

DEGREES CELSIUS TO FAHRENHEIT
(°C x 9/5) +32 = °F

Useful conversion factors Imperial to Metric (Approximate) - Continued

"SI" denotes the INTERNATIONAL SYSTEM of Metric Units adopted in Australia

This table may be used in two ways:
Multiply column "A" by column "B" to obtain column "C"
Alternatively
Divide column "C" by column "B" to obtain column "A"

Remarks	A Multiply	B By	C To obtain
LENGTH: Symbol m The SI unit of LENGTH is the METRE.	inches	25.4	millimetres (mm)
	feet	0.3048	metres (m)
	yards	0.9144	metres (m)
	chain	20.12	metres (m)
	mile	1609	metres (m)
	mile	1.609	kilometres (km)
MASS: Symbol kg The SI unit of MASS is the KILOGRAM.	ounce	28.35	grams (g)
	pound	0.4536	kilograms (kg)
	slug	14.59	kg
	ton (2240 lb)	1016.05	kg
	short ton (2000 lb)	907.2	kg
	ton (2240 lb)	1.016	tonne (t)
	pounds per foot (lb/ft)	1.488	kg/m
	pounds per yard (lb/yd)	0.4961	kg/m
POWER: Symbol W The SI unit of POWER is the WATT.	Btu per hour (Btu/hr)	0.2931	W
	horsepower (hp)	0.7457	kW
	ton of refrigeration	3.517	kW
PRESSURE: Symbol Pa The SI unit of PRESSURE or stress is the NEWTON PER SQUARE METRE which has been given the name PASCAL. 1 N/m^2 = 1Pa = 0.000145lbf/in^2 A pascal is the pressure or stress which arises when a force of one newton is applied uniformly over an area of one square metre.	lbf/in2	6.895	kPa
	kip/in2 (1000 psi)	6.895	MPa
	lbf/ft2 47.88 Pa	47.88	Pa
	kgf/cm2	98.07	kPa
	bar	100	kPa
	Vertical column (head) of water.		
	(H20 at 20°C)	9.79	kPa
	metres of water	2.984	kPa
	feet of water	0.1333	kPa
	torr (vacuum)	0.1333	kPa
	1mm Hg. (mercury) 1in. Hg.	3.386	kPa
	(mercury) atmosphere (atm)	101.325	kPa
	microns	0.133	Pa

TEMPERATURE

The SI unit of TEMPERATURE is the KELVIN - Symbol K. For most practical purposes of temperature measurement and most calculations involving temperatures, degrees Celsius, symbol °C will be used.

DEGREES FAHRENHEIT TO CELSIUS
(°F - 32) x 5/9 = °C

DEGREES CELSIUS TO FAHRENHEIT
(°C x 9/5) +32 = °F

Relevant Australian Standards

AS 1074-1989	Steel tubes and tubulars for ordinary service
AS 1085.1-2002	Railway track material - Steel rails
AS 1085.17-2003	Railway track material - Steel sleepers
AS/NZS 1163:2009	Cold-formed structural steel hollow sections
AS/NZS 1365:1996	Tolerances for flat-rolled steel products
AS 1397-2001	Steel sheet and strip - Hot-dipped zinc-coated or aluminium/zinc-coated
AS 1442-2007	Carbon steels and carbon-manganese steels - Hot rolled bars and semi-finished products
AS 1443-2004	Carbon and carbon-manganese steel - Cold-finished bars
AS 1444-2007	Wrought alloy steels - Standard, hardenability (H) series and hardened and tempered to designated mechanical properties
AS 1445-1986	Hot-dipped zinc-coated or aluminium/zinc-coated steel sheet - 76 mm pitch corrugated
AS 1447-2007	Hot-rolled spring steels
AS 1448-2007	Carbon steel and carbon-manganese steels - Forgings (ruling section 300 mm maximum)
AS 1450-2007	Steel tubes for mechanical purposes
AS/NZS 1594:2002	Hot-rolled steel flat products
AS/NZS 1595:1998	Cold-rolled, unalloyed, steel sheet and strip
AS 2551-1982	Steel sheet and strip - Cold-rolled, electrolytic zinc-coated
AS 3597-2008	Structural and pressure vessel steel - Quenched and tempered plate
AS/NZS 3678:2011	Structural steel - Hot-rolled plates, floorplates and slabs
Meets AS/NZS 3679.1:2010	Structural steel - Hot-rolled bars and sections
AS/NZS 3679.2:2010	Structural steel - Welded I sections
AS/NZS 4496:1997	Recommended practice for the colour coding of steel products
AS/NZS 4600:2005	Cold-formed steel structures
AS/NZS 4671:2001	Steel reinforcing materials

Handy Tips

To calculate the mass of steel circular hollow sections (CHS) (as used in Australian Standards AS/NZD 1163)

Circular sections	
Mass = (OD - wt) x wt x 0.0246615.	
where: Mass = mass/metre	kg/m
OD = outside diameter	mm
wt = section thickness	mm

To calculate the mass of flats, squares and rounds.

Flats: Width (mm) x Thickness (mm) x 0.00785 = kg/m
Squares: Size (mm2) x 0.00785 = kg/m
Rounds: Diameter (mm2) x 0.006165 = kg/m
Some Mass Calculations as indicated on pages 13-15 include a 2.5 per cent rolling tolerance.

Property of Steel	Symbol	Value
Young's Modulus of Elasticity	E	200 x 10^3 MPa
Shear Modulus of Elasticity	G	80 x 10^3 MPa
Density	p	7850 kg/m^3
Poisson's Ratio	v	0.25
Coefficient of Thermal Expansion	a_T	11.7 x 10^{-6} per °C

To calculate the mass of steel plate sections

Mass = t x 7.850 x (L x W) where:	
Mass = mass/$metre^2$	
t = thickness of plate	kg/m
L = length of plate	mm
W = width of plate	m
To calculate the mass for Floor plate, add 2 kg/m2	m

To determine the length of conveyor belting

Measure in inches from the outside of the roll to the opposite side of the centre opening S. Count the number of layers or turns of belt N.
C is constant = 0.2618
L = S x N x C = Length in feet/3.28 = metres
eg. 26" x 61 x 0.2618 = 415.22' divide by 3.28 = 126.6m

Important Details

My local OneSteel Metalcentre outlet details

Ph:_____ Fax:_____ Email:_____

My local OneSteel Metalcentre Account representatives

Sales

Ph:_____ Fax:_____ Email:_____

Ph:_____ Fax:_____ Email:_____

Credit

Ph:_____ Fax:_____ Email:_____

My OneSteel Metalcentre Account Number

A/c N:_____

My Industry Memberships

A/c N:_____

_____

Note: OneSteel Metalcentre reserve the right to change specifications without notice. Not all products are available at all OneSteel Metalcentre Branches. OneSteel Metalcentre also has access to a wide network of products not necessarily listed in this book. Please check with your local OneSteel Metalcentre Branch for product availability.

Notes

onesteel
metalcentre

Notes

OneSteel Metalcentre Branch Network

onesteel metalcentre

New South Wales			
Albury	242 Kiewa Street,	Albury NSW 2640	02 6021 6011
Coffs Harbour	Cnr Isles Drive & Elswick Street,	Coffs Harbour NSW 2450	02 6652 3744
Dubbo	30 Cobborah Road,	Dubbo NSW 2830	02 6882 6655
Inverell	235 Byron Street,	Inverell NSW 2360	02 6722 5382
Lake Macquarie	Unit 1, 88 Munibung Road,	Lake Macquarie NSW 2285	02 4954 0455
Leeton	Canal Street & Market Road,	Leeton NSW 2705	02 6953 2833
Lismore	39-41 Habib Drive,	Lismore NSW 2480	02 6621 8722
Moree	41-45 Greenbah Road,	Moree NSW 2400	02 6752 2627
Nepean	50-58 Jack Williams Drive,	Penrith NSW 2750	02 4729 1797
Orange	Stephen Place,	Orange NSW 2800	02 6362 4211
Parkes	1a East Street,	Parkes NSW 2870	02 6862 3011
Silverwater	62-70 Silverwater Road,	Silverwater NSW 2128	02 9748 2487
Tamworth	26-30 Goonan Street,	Tamworth NSW 2340	02 6765 4044
Taree	8 Elizabeth Avenue,	Taree NSW 2430	02 6552 4899
Wagga Wagga	11 Saxon Street,	Wagga Wagga NSW 2650	02 6925 1109
Newcastle	Industrial Drive,	Mayfield NSW 2304	02 4967 0900
Wetherill Park	374 Victoria Street,	Wetherill Park NSW 2164	02 9203 2222
Wollongong	187-189 Five Islands Road,	Unanderra NSW 2526	02 4271 1788
Australian Capital Territory			
Canberra	John's Place,	Hume NSW 2620	02 6260 1249
Victoria			
Bendigo	22 Craig Street,	Long Gully VIC 3550	03 5442 2288
Horsham	68 Hamilton Road,	Horsham VIC 3400	03 5382 4411
Mildura	436-444 Benetook Avenue,	Mildura VIC 3502	03 5023 5944
Shepparton	74-80 Florence Street,	Shepparton VIC 3630	03 5821 7300
Geelong	Cnr Broderick & Heales Roads,	Corio VIC 3215	03 5274 1414
Melbourne	1257-1259 Ferntree Gully Road,	Scoresby VIC 3179	03 9212 7837
Tasmania			
Burnie	12 Fairlands Drive & Bass Highway,	Somerset TAS 7322	03 6435 1500
Launceston	345 Hobart Road,	Launceston TAS 7249	03 6344 5311
Derwent Park	61 Sunderland Street,	Moonah TAS 7009	03 6272 2877
South Australia			
Mount Gambier	Jubilee Highway West,	Mt Gambier SA 5290	08 8725 7500
Whyalla	172 Lacey Street,	Whyalla SA 5600	08 8645 0633
Port Adelaide	13 Webb Street,	Port Adelaide SA 5015	08 8300 3333
Queensland			
Brendale	40 Kremzow Road,	Brendale QLD 4500	07 3889 7575
Bundaberg	79 Princess Street,	Bundaberg QLD 4670	07 4132 8888
Cairns	Cnr Buchan & Kenny Streets,	Cairns QLD 4870	07 4035 4677
Dalby	Warrego Highway,	Dalby QLD 4405	07 4669 8133
Emerald	10 Hicks Street,	Emerald QLD 4720	07 4982 2488
Gladstone	Bensted Street, Clinton Industrial Estate,	Gladstone QLD 4680	07 4972 8033
Gold Coast	2 Distribution Avenue,	Molendinar QLD 4214	07 5597 6822
Mount Isa	45 Commercial Road,	Mount Isa QLD 4825	07 4743 4089
Rockhampton	1-17 Knight Street,	Rockhampton QLD 4701	07 4936 9555
Toowoomba	Cnr Anzac Avenue & Canning Streets,	Toowoomba QLD 4350	07 4637 7222
Yatala	5 Business Street,	Yatala QLD 4207	07 3382 7111
Brisbane	692 Boundary Road,	Coopers Plains QLD 4108	07 3275 8400
Sunshine Coast	62 Enterprise Street,	Kunda Park QLD 4556	07 5476 5366
Townsville	387-399 Bayswater Road,	Townsville QLD 4814	07 4775 6111
North Mackay	Cnr Harbour Road & Spiller Avenue,	North Mackay QLD 4740	07 4955 1555
Mackay (Paget)	52 Central Park Drive,	Mackay QLD 4740	07 4952 4642
Western Australia			
Bunbury	7 Richter Road,	Bunbury WA 6230	08 9725 4199
Kalgoorlie	Cnr Great Eastern Highway & Atbara Street,	Kalgoorlie WA 6430	08 9021 4488
Geraldton	89 Flores Road,	Geraldton WA 6530	08 9921 4533
Karratha	Cnr Cowle & Coolawanyah Roads,	Karratha WA 6714	08 9144 0111
Port Hedland	Lot 5271 Munda Way,	Port Hedland WA 6721	08 9140 2822
Perth	Lot 302 Spearwood Avenue,	Bibra Lake WA 6163	08 9418 9877
Midalia Steel Albany	115 Chester Pass Road,	Albany WA 6330	08 9841 1799
Midalia Steel Bibra Lake	20 Port Kembla,	Bibra Lake WA 6163	08 9494 2866
Midalia Steel Broome	3 Archer Street, Heavy Industrial Area,	Broome WA 6725	08 9192 5888
Midalia Steel Bunbury	5 Zaknic Place,	Bunbury WA 6230	08 9791 3944
Midalia Steel Esperance	5 Scanlon Street,	Esperance WA 6450	08 9071 5326
Midalia Steel Karratha	Lot 982 Woodbrook Road LIA,	Karratha WA 6714	08 9144 1944
Midalia Steel Landsdale	10 Rogers Way,	Landsdale WA 6065	08 9409 7788
Midalia Steel Maddington	9 Malcolm Road,	Maddington WA 6109	08 9459 9466
Midalia Steel Mandurah	30-32 Panton Road,	Mandurah WA 6210	08 9581 9811
Midalia Steel Merredin	Barrack Street East,	Merredin WA 6415	08 9041 3300
Midalia Steel Midvale	34 Farrall Road,	Midvale WA 6056	08 9250 2005
Midalia Steel Northam	Cnr Great Eastern Highway & Old York Road,	Northam WA 6401	08 9622 2211
Midalia Steel Wagin	Lot 430, Tudhoe Street,	Wagin WA 6315	08 9861 1317
Midalia Steel Welshpool	49 Pilbara Street,	Welshpool WA 6106	08 9333 4444
Northern Territory			
Alice Springs	40 Smith Street,	Alice Springs NT 0870	08 8952 3222
Darwin	889 Stuart Highway,	Berrimah NT 0828	08 8935 0350

Yes,

we can.

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