

THE GOOD BOOK

THE ULTIMATE STEEL CATALOGUE



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www.midaliasteel.com

MIDALIA STEEL



The Good Mass Book

Foreword

This publication has been prepared by Midalia Steel which is an operating business of InfraBuild 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 Midalia Steel Branches.

Mass Calculations have been based on a mass for carbon steel of 7,850 kg/m³ rounded off and includes a 2.5 per cent rolling tolerance where applicable.

Range

- The product ranges shown in this book are an indicative range only.
- Some items may be subject to minimum order quantities.

Sources Of Information

- Liberty Steel - Product and Availability Guide - Hot Rolled Structural Steel
- InfraBuild Steel - Pricing and Availability Guide - Merchant Bar
- Austube Mills - Product and Availability Guide - Pipe and Tube Structural Products
- InfraBuild Reinforcing Product Guide
- BlueScope Steel Hot Rolled Price Schedule
- BlueScope Steel Xlerplate Price Schedule
- BlueScope Steel Xlerplate Lite Schedule
- BlueScope Steel - Aluminium Catalogue
- BlueScope Steel - Steel Guide

Trademarks

- Austube Mills Pty Ltd (ABN 21 123 666 679) - DuraGal, DuraGalClear, DuraPrimed, C450Plus
- OneSteel Manufacturing Pty Ltd - 300PLUS
- InfraBuild Trading Pty Limited (ABN 50 007 519 646) - DuraGal Flooring System
- InfraBuild Reinforcing Pty Limited (ABN 22 004 148 289) - HANDIMESH, ONEMESH, 500PLUS, UTEMESH
- BlueScope Steel Limited (ABN 16 000 011 058) - TruSpec, Xlerplate, Xlerplate Lite, Brightform, Blackform, Galvabond, Galvaskin, Zincaneal, Zincalume, Colorbond, LY-TEN, Lysaght, Longline 305, Multiclad, Easyclad, Quad 115 Hi Front, Trimline, Sheerline, Emline, Ranceline, Colonial, Novaline, Bondek, Bondek Plus, Klip-Lok, Trimdek, Spandek, Custom Orb, W-Dek, Neetascreen, Smartascreen, Miniscreen, Customscreen, Flatdek, Flatdek II, Firmlok, Headland, Manor Red, Jasper, Sandbank, Classic Cream, Surfmit, Paperbark, Dune, Shale Grey, Windspray, Woodland Grey, Bushland, Pale Eucalypt, Wilderness, Cottage Green, Plantation, Blue Ridge, Deep Ocean, Night Sky
- Bisalloy Steels Pty Ltd (ABN 27 001 641 292) - Bisalloy® Wear, Bisalloy® Structural
- Stramit Corporation Pty Ltd (ABN 57 005 010 195) - Speed Deck Ultra, Corrugated, Monoclad, Megaclad, Longspan, Capacity Plus, Minirib, Mini Corry, PrimeForm, Edge Forma
- Illinois Tool Works Inc (ABN 48 052 404 092) - Galmet, Buildex, Teks, Shed Teks, Ripple Teks, AutoTeks, SuperTEKS, RoofZips, Hi-Teks, BattenZips, PolyZips, Pryda

Terms & Conditions Of Sale

A full copy of Midalia Steel Terms & Conditions of Sale is located at: www.midaliasteel.com.

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



Our Purpose

We exist to build our customers' possibilities: to make their businesses stronger and more prosperous; to make their trucks and caravans safer; to assist their farms to be more productive; to contribute to more sustainable and secure futures. From large projects to small, those that build our nation and our communities, we partner with customers to build the businesses we work in and the homes we live in. We help our customers to fulfil their ambitions with peace of mind that comes from quality, compliant and traceable product supply and service solutions.

We Understand

Midalia Steel is part of InfraBuild Steel Centre which is Australia's largest vertically-integrated steel distribution business. With our extensive steel product knowledge and experience, our team helps our customers to find solutions to deliver the right outcomes for large or small projects, as well as ongoing steel supply requirements.

We Make It Easier

Midalia Steel is backed by a national and international supply network to ensure our customers receive the best level of service to support their needs. Our wide-ranging in-house processing capability reduces complexity for our customers to reliably deliver on one-off and repeatable requirements with accuracy to add value.

We Deliver

Midalia Steels' comprehensive branch and delivery network allows us to deliver to our customers how and when they want to receive product. Our integrated supply chain and network of industry partners means we can source a range of product to complement projects and deliver a complete supply solution.

Our Products

Our range includes structural and tubular steel, reinforcing and merchant bar, sheet and plate as well as pipes, valves and fittings, flooring systems, rollform products, aluminium and a huge range of 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 InfraBuild business, Midalia Steel can draw on significant expertise to provide engineering and design optimisation solutions for our customers. Optimising materials for construction can assist with minimising risk while reducing waste and cost, and can also contribute to the sustainability credentials required for awarding Green Star® credit points.

Our Processing Services

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

Compliance & Traceability

Midalia Steel supplies products that are compliant with relevant Australian Standards. The quality of our products are checked by NATA endorsed testing laboratories. At all of our manufacturing sites, Midalia Steel 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. Midalia Steel also supports the Build With Standards initiative undertaken by InfraBuild 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.midaliasteel.com.



Independent Third Party
Australian Standards
Certification & Verification of
Reinforcing, Pre-stressing &
Structural Steels
Compliance
www.acrs.net.au www.steelcertification.com

**Hot Rolled Structural | Tubular | Merchant Bar | Pipe & Fittings | Plate | Sheet
Reinforcing Mesh & Bar | Aluminium | Building Products | Fencing
Rural Products | Roofing & Rainwater | Accessories**

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Sustainable Products

MIDALIA STEEL

The Infrastructure Sustainability Council's (ISC) IS Rating Scheme.



ISC aims to improve the productivity and liveability of industry and communities through sustainability in infrastructure. ISC developed and administers the Infrastructure Sustainability (IS) Rating Scheme.

The IS scheme is Australia's only comprehensive rating system for evaluating sustainability across design, construction and operation of infrastructure.

The scheme evaluates the sustainability (including environmental, social, economic and governance aspects) of infrastructure projects and assets.

There are two versions of the IS materials calculator. Projects will be awarded an IS Rating based on an overall score:

ISv1.2

There are up to 7 points available under the materials category; 6 points for the materials calculator and 1 point for environmentally labelled products.

ISv1.2	
Points	Rating Level
25 – 49+	Commended
50 – 74+	Excellent
75+	Leading

Related ISv1.2 Credits
Mat-1, Mat-2, Pro-2, Pro-4, Was-1, Was-2, Was-3
Rating Phases: As Built, Design, Planning

ISv2.0

There are up to 6 points available under the materials category; 4.5 points for the materials calculator and 1.5 points for environmentally labelled products.

ISv2.0	
Points	Rating Level
25 – 39	Bronze
40 – 59	Silver
60 – 79	Gold
80 – 94	Platinum
95+	Diamond

Related ISv2.0 Credits
Ecn-1, Ecn-4, Inn-1, Lea-1, Lea-2, Lea-3, Rso-4, Rso-5, Rso-6, Rso-7, Spr-2, Spr-3, Wfs-4
As Built, Design, Operations

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Under Both Versions

Up to three points are available to reward design and practice that reduces life cycle impacts via reduced material use such as Prefabricated Reinforcing Elements, Engineered Reinforcing Bar Carpet (BAMTEC®) or Engineered Mat (BARMAT®).

Up to three points are available to reward environmentally labelled products and supply chains:

- **One point is available** via the use of products covered by our EPDs
- **Two additional points are available** if >9% of materials/products (by value) have an ISC-approved environmental label, such as InfraBuild's EPD.

Sustainability Outcomes

InfraBuild publishes Environmental Product Declarations (EPDs) that cover our hot-rolled steel, reinforcing bar and reinforcing mesh products. InfraBuild EPDs may help your project achieve credits with ISv2.0 and ISv1.2.

InfraBuild also publishes Corporate Sustainability reports.

InfraBuild has a range of policies and procedures that demonstrates strong social, economic, safety and environmental credentials, which may contribute to additional IS credits such as ISv2.0 Lea-1, Lea-2, Lea-3, Inn-1 Spr-2, Spr-3, Rso-4, Rso-6, Wfs-4 (L3.4), Ecn-1 and Ecn-4 and ISv1.2 Mat-1, Mat-2, Pro-2, Pro-4, Was-1, Was-2, Was-3.

Early collaboration with InfraBuild fosters opportunities for innovation, reduced environmental impacts, risk minimisation, knowledge sharing, offsite fabrication, design and logistics optimisation and waste minimisation, as well as broader supply chain engagement contributing to the above credits.

InfraBuild's products are all manufactured to the relevant Australian Standards. InfraBuild has ACRS Certification for our reinforcing products, which further underpins our strong compliance credentials.

Our product traceability and transparency through the supply chain provides confidence to the market that the material supplied meets the design, quality and sustainability specifications of the project.

Read more about the IS Rating Scheme at the ISC website (<https://www.iscouncil.org/>).



Steel Credit Points

The Green Building Council of Australia (GBCA) is a national authority on sustainable buildings, communities and cities.



- The GBCA administers the Green Star® environmental rating system for commercial, residential, industrial, healthcare and education buildings.
In Australia, Green Star® is a trusted mark of quality for the design, construction and operation of sustainable buildings, fit-outs and communities
- Green Star® ratings are utilised by the majority of CBD commercial multi-storey developments and government projects
- In 2017, the Green Building Council of Australia updated its Design and As Built Guidelines.
- The following lists the Steel Credit points that may be available through using InfraBuild's products under the current guidelines v1.3:

Points under D&AB Tool		
Points	Rating	Outcome
45 – 59	Four Star	Australian Best Practice
60 – 74	Five Star	Australian Excellence
75+	Six Star	World Leadership

Life Cycle Impacts – Steel Credit 19B.2B – Points available: 1

- **One point is available** where project teams can demonstrate a reduction in the mass of steel framing used in the building when compared to standard practice.

There are available pathways to achieving this Credit;

- A.19B.2A.A** – through the use of a minimum proportion of high strength steel
- B.19B.2A.B** – by demonstrating that the project results in a 5% or more reduction in mass of steel framing, when compared to a suitable reference case building.

Responsible Building Materials Credit 20.1A – Points available: 1

- **One point is available** where 95% of the building's steel (by mass) is sourced from a responsible steel maker and at least 60% (by mass) of the fabricated structural steelwork is supplied by a steel fabricator / steel contractor accredited to the Environmental Sustainability Charter of the Australian Steel Institute.
- InfraBuild meets the two requirements of being a "Responsible Steel Maker" by having
 - i) A currently valid and certified ISO 14001 Environmental Management System (EMS) in place
 - ii) Membership of the worldsteel Climate Action Program Certification to demonstrate the above is available from the InfraBuild website.

Sustainable Products – Credit 21

- **Up to three (3) points** are available when project teams can demonstrate that a specified percentage of eligible products meet one of the following initiatives:
 - A.** Reused Products, in accordance with 21A
 - B.** Recycled Content Products, in accordance with 21B
 - C.** Environmental Product Declarations, in accordance with 21C
 - D.** Third-Party Certification, in accordance with 21D, or
 - E.** Stewardship Programs, in accordance with 21E.

Points are awarded based on the percentage value of the products that meet one of the specified initiatives. This is demonstrated by calculating the Project Sustainability Value (PSV) and comparing it with the Project Contract Value (PCV) as a percentage.

Midalia Steel can help achieve the Green Star® steel credit requirements in the following ways:

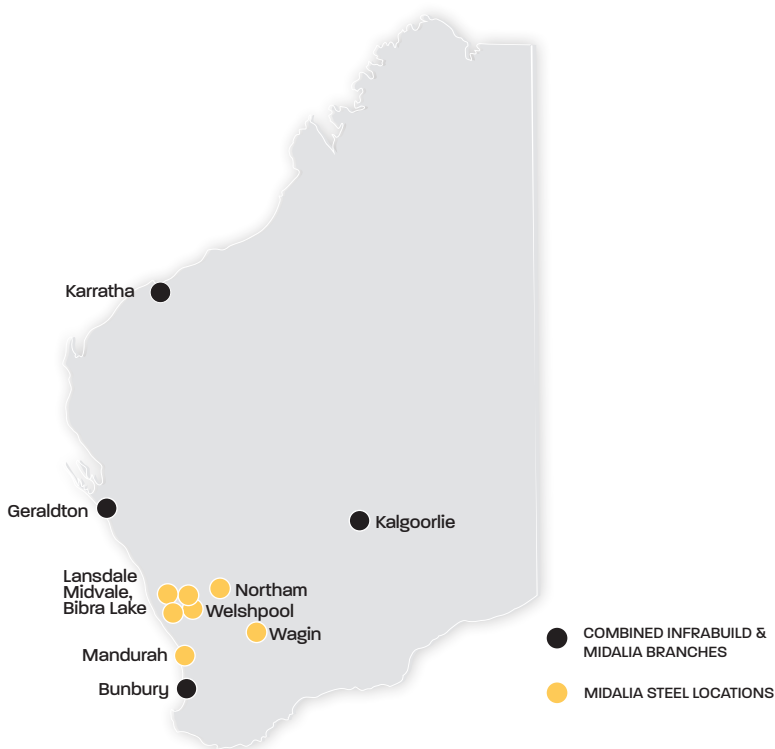
- Midalia Steel sources a range of products from mills with a valid ISO 14001 Environmental Management System
- Midalia Steel sources a range of products from mills with membership of the worldsteel Climate Action Programme
- Midalia Steel can assist in Credit 21 of the GBCA Green Star scheme

For more information on Green Star® related products visit the Green Star page of our website.



Branch Network

Midalia Steels' extensive branch network provides solutions for our customers, wherever they need them.



Safety at Our Sites

At Midalia Steel we have set ourselves a safety goal of < 2 TRIFR (Total Recordable Injury Frequency Rate) by 2025. We have a roadmap to get us there called – WRIB Safe. All of our safety actions and behaviours are underpinned by our 'Be GFG Safe' global strategy to ensure every employee returns home fit and well at the end of each workday. By working together as one team, with respect for one another, we build our safety culture. We take the time to do things safely, to intervene, and to speak up when we notice a risk or hazard. At Midalia Steel, we believe one injury is one too many.



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

**Hot rolled structural | tubular | merchant bar | pipe & fittings | plate | sheet
reinforcing mesh & bar | aluminium | building products | fencing
rural products | roofing & rainwater | accessories**

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DISCOVER THE STRENGTH AND PROTECTION OF DURAGAL.®

- ✓ Superior Quality Finish

- ✓ Exceptional Corrosion Resistance

- ✓ Strength You Can Rely On

- ✓ Cost-Saving Efficiency

DuraGal®
THE DIFFERENCE IS DURAGAL

Square Hollow Sections (SHS)



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



Surface Finishes:

- C** – DuraGal® Clear
- S** – DuraGal®
- Z** – DuraGal® ZB135/135
- P** – DuraPrimed®
- O** – Oiled

Typical Uses:

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

Features:

- Available in Grades C350LO and C450PLUS™
- All tube manufactured to meet AS/NZS 1163:2016
- Available in various coating types including DuraGal®, DuraGal® ZB135/135, DuraPrimed® and NOPC (No Oil or Paint Coating).
- DuraGal® hot-dip galvanized coating has a minimum average zinc mass of 100g/m².

Note: See pages 11-12 for Rectangular Hollow Sections.



Square Hollow Sections (SHS)

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

MIDALIA STEEL



Surface Finishes:

- C** – DuraGal® Clear
S – DuraGal®
Z – DuraGal® ZB135/135
P – DuraPrimed®
O – Oiled

Typical Uses:

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

Features:

- Available in Grades C350LO and C450PLUS™
- All tube manufactured to meet AS/NZS 1163:2016
- Available in various coating types including DuraGal®, DuraGal® ZB135/135, DuraPrimed® and NOPC (No Oil or Paint Coating).
- DuraGal® hot-dip galvanized coating has a minimum average zinc mass of 100g/m².

Note: See pages 11-12 for Rectangular Hollow Sections.



Rectangular Hollow Sections (RHS)

Size mm x mm x mm	Surface Finish	Mass kg/m	Metres per tonne	Length/Pack	
				Standard (m)	
				8.0	12
150 x 50 x 2.0	P,S,C,Z	6.07	165	21	21
150 x 50 x 2.5	P,S	7.53	133	24	18
150 x 50 x 3.0	P,S,C	8.96	112	21	15
150 x 50 x 4.0	P,S	11.6	86.0	15	15
150 x 50 x 5.0	P,S	14.2	70.2	15	9
150 x 50 x 6.0	P	16.7	59.7	15	9
150 x 100 x 4.0	P	14.8	67.7	12	9
150 x 100 x 5.0	P	18.2	55.0	12	8
150 x 100 x 6.0	P	21.4	46.6	9	6
150 x 100 x 8.0	O	27.7	36.1		4
150 x 100 x 9.0	O	30.6	32.7	6	4
152 x 76 x 5.0	O	16.4	60.7	8	8
152 x 76 x 6.0	O	19.4	51.5	8	8
200 x 100 x 4.0	P	17.9	55.8	8	6
200 x 100 x 5.0	P	22.1	45.3	8	6
200 x 100 x 6.0	P	26.2	38.2	8	4
200 x 100 x 8.0	O	33.9	29.5	6	4
200 x 100 x 9.0	O	37.7	26.6	6	4
250 x 150 x 5.0	O	29.9	33.4	6	4
250 x 150 x 6.0	O	35.6	28.1	4	4
250 x 150 x 8.0	O	46.5	21.5	4	2
250 x 150 x 9.0	O	51.8	19.3	4	2
250 x 150 x 10.0	O	57.0	17.6		2
250 x 150 x 12.5	O	69.4	14.4		1
250 x 150 x 16.0	O	85.5	11.7		1
300 x 200 x 6.0	O	45.0	22.2	2	1
300 x 200 x 8.0	O	59.1	16.9	2	1
300 x 200 x 9.0	O	65.9	15.2		2
300 x 200 x 10.0	O	72.7	13.8	1	1
300 x 200 x 12.5	O	89.0	11.2		1
300 x 200 x 16.0	O	111	9.04		1
350 x 250 x 8.0	O	71.6	14.0		2
350 x 250 x 10.0	O	88.4	11.3		1
350 x 250 x 12.5	O	109	9.21		1
350 x 250 x 16.0	O	136	7.36		1
400 x 200 x 8.0	O	71.6	14.0		2
400 x 200 x 10.0	O	88.4	11.3		1
400 x 200 x 12.5	O	109	9.21		1
400 x 200 x 16.0	O	136	7.36		1
400 x 300 x 8.0	O	84.2	11.9		1
400 x 300 x 10.0	O	104	9.61		1
400 x 300 x 12.5	O	128	7.80		1
400 x 300 x 16.0	O	161	6.21		1



Surface Finishes:

- C** – DuraGal® Clear
- S** – DuraGal®
- Z** – DuraGal® ZB135/135
- P** – DuraPrimed®
- O** – Oiled

Typical Uses:

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

Features:

- Available in Grades C350LO and C450PLUS™
- All tube manufactured to meet AS/NZS 1163:2016
- Available in various coating types including DuraGal®, DuraGal® ZB135/135, DuraPrimed® and NOPC (No Oil or Paint Coating).
- DuraGal® hot-dip galvanized coating has a minimum average zinc mass of 100g/m².

Information reflects standard lengths as well as lengths available ex-rolling.
Subject to MOQ.

Note: See pages 9-10 for Square Hollow Sections.



Rectangular Hollow Sections (RHS)

Size mm x mm x mm	Surface Finish	Mass kg/m	Metres per tonne	Length/Pack	
				Standard (m)	
				8.0	12
50 x 25 x 1.6	P,S	1.75	571	96	
50 x 25 x 2.0	P,S	2.15	465	96	
50 x 25 x 2.5	P,S	2.62	382	72	
50 x 25 x 3.0	P,S	3.07	326	60	
65 x 35 x 2.0	P,S	2.93	341	54	
65 x 35 x 2.5	P,S	3.60	278	54	
65 x 35 x 3.0	P,S	4.25	236	45	
65 x 35 x 4.0	P,S	5.35	187	45	
75 x 25 x 1.6	P,S	2.38	420	65	
75 x 25 x 2.0	P,S	2.93	341	65	
75 x 25 x 2.5	P,S	3.60	278	48	
75 x 50 x 1.6	P,S,C	3.01	332	54	54
75 x 50 x 2.0	P,S	3.72	269	42	42
75 x 50 x 2.5	P,S	4.58	218	42	24
75 x 50 x 3.0	P,S	5.42	184	35	24
75 x 50 x 4.0	P,S	6.92	145	28	24
75 x 50 x 5.0	P,S	8.35	120	24	20
75 x 50 x 6.0	P	9.67	103	20	16
100 x 50 x 1.6	P,S,C,Z	3.64	275	32	32
100 x 50 x 2.0	P,S,C,Z	4.50	222	32	32
100 x 50 x 2.5	P,S	5.56	180	32	24
100 x 50 x 3.0	P,S	6.60	152	32	24
100 x 50 x 3.5	P,S	7.53	133	24	18
100 x 50 x 4.0	P,S	8.49	118	24	18
100 x 50 x 5.0	P,S	10.3	96.9	18	15
100 x 50 x 6.0	P	12.0	83.1	15	12
102 x 76 x 3.5	P,S	9.07	110	12	
102 x 76 x 5.0	P,S	12.5	79.9	12	
102 x 76 x 6.0	P,S	14.7	68.2	12	
125 x 75 x 2.0	P	6.07	165	24	
125 x 75 x 2.5	P,S	7.53	133	20	20
125 x 75 x 3.0	P,S	8.96	112	20	15
125 x 75 x 4.0	P,S	11.6	86.0	15	15
125 x 75 x 5.0	P,S	14.2	70.2	15	12
125 x 75 x 6.0	P	16.7	59.7	12	6
127 x 51 x 3.5	P	9.07	110	12	
127 x 51 x 5.0	P	12.5	79.9	8	
127 x 51 x 6.0	P	14.7	68.2	8	



Surface Finishes:

C – DuraGal® Clear
S – DuraGal®
Z – DuraGal® ZB135/135
P – DuraPrimed®
O – Oiled

Typical Uses:

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

Features:

- Available in Grades C350LO and C450PLUS™
- All tube manufactured to meet AS/NZS 1163:2016
- Available in various coating types including DuraGal®, DuraGal® ZB135/135, DuraPrimed® and NOPC (No Oil or Paint Coating).
- DuraGal® hot-dip galvanized coating has a minimum average zinc mass of 100g/m².

Note: See pages 9-10 for Square Hollow Sections.



Circular Hollow Sections (CHS)

Stock Range Overview

Nominal Size (NB)	Section	Outside Diameter mm	Wall Thickness mm	Length m	Mass	
					kg/m	m/t
15	Black L	21.3	2.0	6.5	0.952	1050
15	Black M	21.3	2.6	6.5	1.21	830
15	Black H	21.3	3.2	6.5	1.44	696
15	Black XH	21.3	3.6	6.5	1.57	636
15	Gal. L	21.3	2.0	6.5	1.00	999
15	Gal. M	21.3	2.6	6.5	1.25	798
15	Gal. H	21.3	3.2	6.5	1.48	674
20	Black XL	26.9	2.0	6.5	1.23	814
20	Black L	26.9	2.3	6.5	1.40	717
20	Black M	26.9	2.6	6.5	1.56	642
20	Black H	26.9	3.2	6.5	1.87	535
20	Black XH	26.9	4.0	6.5	2.26	443
20	Gal. XL	26.9	2.0	6.5	1.29	774
20	Gal. L	26.9	2.3	6.5	1.46	686
20	Gal. M	26.9	2.6	6.5	1.62	617
20	Gal. H	26.9	3.2	6.5	1.93	518
25	Black XL	33.7	2.0	6.5	1.56	640
25	Black L	33.7	2.6	6.5	1.99	501
25	Black M	33.7	3.2	6.5	2.41	414
25	Black H	33.7	4.0	6.5	2.94	340
25	Black XH	33.7	4.5	6.5	3.24	309
25	Gal. XL	33.7	2.0	6.5	1.64	608
25	Gal. L	33.7	2.6	6.5	2.07	482
25	Gal. M	33.7	3.2	6.5	2.49	401
25	Gal. H	33.7	4.0	6.5	3.02	332
32	Black XL	42.4	2.0	6.5	1.99	502
32	Black L	42.4	2.6	6.5	2.55	392
32	Black M	42.4	3.2	6.5	3.10	322
32	Black H	42.4	4.0	6.5	3.80	263
32	Black XH	42.4	4.9	6.5	4.53	221
32	Gal. XL	42.4	2.0	6.5	2.10	477
32	Gal. L	42.4	2.6	6.5	2.65	377
32	Gal. M	42.4	3.2	6.5	3.20	312
32	Gal. H	42.4	4.0	6.5	3.92	257
40	Black XL	48.3	2.3	6.5	2.61	383
40	Black L	48.3	2.9	6.5	3.25	308
40	Black M	48.3	3.2	6.5	3.56	281
40	Black H	48.3	4.0	6.5	4.37	229
40	Black XH	48.3	5.4	6.5	5.71	175
40	Gal. XL	48.3	2.3	6.5	2.73	367
40	Gal. L	48.3	2.9	6.5	3.36	297
40	Gal. M	48.3	3.2	6.5	3.68	272
40	Gal. H	48.3	4.0	6.5	4.49	223
50	Black XL	60.3	2.3	6.5	3.29	304
50	Black L	60.3	2.9	6.5	4.11	244
50	Black M	60.3	3.6	6.5	5.03	199
50	Black H	60.3	4.5	6.5	6.19	161
50	Black XH	60.3	5.4	6.5	7.31	137
50	Gal. XL	60.3	2.3	6.5	3.44	291
50	Gal. L	60.3	2.9	6.5	4.25	235
50	Gal. M	60.3	3.6	6.5	5.18	193
50	Gal. H	60.3	4.5	6.5	6.33	158

Nominal Size (NB)	Section	Outside Diameter mm	Wall Thickness mm	Length m	Mass	
					kg/m	m/t
65	Black XL	76.1	2.3	6.5	4.19	239
65	Black L	76.1	3.2	6.5	5.75	174
65	Black M	76.1	3.6	6.5	6.43	156
65	Black H	76.1	4.5	6.5	7.93	126
65	Black XH	76.1	5.9	6.5	10.2	98
65	Gal. XL	76.1	2.3	6.5	4.37	229
65	Gal. L	76.1	3.2	6.5	5.94	168
65	Gal. M	76.1	3.6	6.5	6.61	151
65	Gal. H	76.1	4.5	6.5	8.12	123
80	Black XL	88.9	2.6	6.5	5.53	181
80	Black L	88.9	3.2	6.5	6.76	148
80	Black M	88.9	4.0	6.5	8.37	120
80	Black H	88.9	5.0	6.5	10.3	97
80	Black XH	88.9	5.9	6.5	12.1	83
80	Gal. XL	88.9	2.6	6.5	5.75	174
80	Gal. L	88.9	3.2	6.5	6.98	143
80	Gal. M	88.9	4.0	6.5	8.58	117
80	Gal. H	88.9	5.0	6.5	10.5	95
90	Black XL	101.6	2.6	6.5	6.35	158
90	Black L	101.6	3.2	6.5	7.77	129
90	Black M	101.6	4.0	6.5	9.63	104
90	Black H	101.6	5.0	6.5	11.9	84
90	Gal. XL	101.6	2.6	6.5	6.60	152
90	Gal. L	101.6	3.2	6.5	8.02	125
90	Gal. M	101.6	4.0	6.5	9.88	101
90	Gal. H	101.6	5.0	6.5	12.20	82
100	Black XL	114.3	3.2	6.5	8.77	114
100	Black L	114.3	3.6	6.5	9.93	102
100	Black M	114.3	4.5	6.5	12.2	82
100	Black H	114.3	5.4	6.5	14.5	69
100	Gal. XL	114.3	3.2	6.5	9.05	110
100	Gal. L	114.3	3.6	6.5	10.1	99
100	Gal. M	114.3	4.5	6.5	12.4	90
100	Gal. H	114.3	5.4	6.5	14.8	87
125	Black XL	139.7	3.0	6.5	10.1	99
125	Black L	139.7	3.5	6.5	11.8	85
125	Black M	139.7	5.0	6.5	16.6	60
125	Black H	139.7	5.4	6.5	17.9	56
125	Gal. XL	139.7	3.0	6.5	10.5	96
125	Gal. L	139.7	3.5	6.5	12.1	83
125	Gal. M	139.7	5.0	6.5	16.9	59
125	Gal. H	139.7	5.4	6.5	18.2	55
150	Black XL	165.1	3.0	6.5	12.0	84
150	Black L	165.1	3.5	6.5	13.9	72
150	Black M	165.1	5.0	6.5	19.7	51
150	Black H	165.1	5.4	6.5	21.3	47
150	Gal. XL	165.1	3.0	6.5	12.4	61
150	Gal. L	165.1	3.5	6.5	14.4	70
150	Gal. M	165.1	5.0	6.5	20.1	50
150	Gal. H	165.1	5.4	6.5	21.7	46

Note: Some sizes subject to rolling MOQs.



Circular Hollow Sections (CHS)

Black

Nominal Size (DN)	Section	Outside Diameter mm	Wall Thickness mm	Mass kg/m	Metres per tonne	Pack Size (Lns)
25	Extra Light	33.7	2.0	1.56	641	91
25	Light		2.6	1.99	503	91
25	Medium		3.2	2.41	415	91
25	Heavy		4.0	2.94	340	91
32	Extra Light	42.4	2.0	1.99	503	61
32	Light		2.6	2.55	392	61
32	Medium		3.2	3.10	323	61
32	Heavy		4.0	3.80	263	61
40	Extra Light	48.3	2.3	2.61	383	61
40	Light		2.9	3.25	308	61
40	Medium		3.2	3.57	280	61
40	Heavy		4.0	4.38	228	61
40	Extra Heavy		5.4	5.71	175	61
50	Extra Light	60.3	2.3	3.29	304	37
50	Light		2.9	4.11	243	37
50	Medium		3.6	5.03	199	37
50	Heavy		4.5	6.19	162	37
50	Extra Heavy		5.4	7.31	137	37
65	Extra Light	76.1	2.3	4.19	239	37
65	Light		3.2	5.75	174	37
65	Medium		3.6	6.43	156	37
65	Heavy		4.5	7.93	126	37
65	Extra Heavy		5.9	10.2	97	37
80	Extra Light	88.9	2.6	5.53	181	19
80	Light		3.2	6.76	148	19
80	Medium		4.0	8.37	119	19
80	Heavy		5.0	10.3	97	19
80	Extra Heavy		5.9	12.1	83	19
90	Extra Light	101.6	2.6	6.35	157	19
90	Light		3.2	7.77	129	19
90	Medium		4.0	9.63	104	19
90	Heavy		5.0	11.9	84	19
100	Extra Light	114.3	3.2	8.77	114	19
100	Light		3.6	9.83	102	19
100	Medium		4.5	12.2	82	19
100	Heavy		5.4	14.5	69	19
125	Extra Light	139.7	3.0	10.1	99	13
125	Light		3.5	11.8	85	13
125	Medium		5.0	16.6	60	13
125	Heavy		5.4	17.9	56	13
150	Extra Light	165.1	3.0	12.0	83	10
150	Light		3.5	13.9	72	10
150	Medium		5.0	19.7	51	10
150	Heavy		5.4	21.3	47	10



Typical Uses:

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

Features:

- Extra Light and Light sections meet AS/NZS 1163: 2016 C350L0
- Medium and Heavy sections meet AS 1074 & AS/NZS 1163 - C250

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



Circular Hollow Sections (CHS)

DuraGal®

Nominal Size (DN)	Section	Outside Diameter mm	Wall Thickness mm	Mass kg/m	Metres per tonne	Pack Size (Lns)
25	Extra Light	33.7	2.0	1.56	641	91
25	Light		2.6	1.99	503	91
25	Medium		3.2	2.41	415	91
32	Extra Light	42.4	2.0	1.99	503	61
32	Light		2.6	2.55	392	61
32	Medium		3.2	3.10	323	61
40	Extra Light	48.3	2.3	2.61	383	61
40	Light		2.9	3.25	308	61
40	Medium		3.2	3.57	280	61
50	Extra Light	60.3	2.3	3.29	304	37
50	Light		2.9	4.11	243	37
50	Medium		3.6	5.03	199	37
65	Extra Light	76.1	2.3	4.19	239	37
65	Light		3.2	5.75	174	37
65	Medium		3.6	6.43	156	37
80	Extra Light	88.9	2.6	5.53	181	19
80	Light		3.2	6.76	148	19
80	Medium		4.0	8.37	119	19
90	Light	101.6	3.2	7.77	129	19
90	Medium		4.0	9.63	104	19
100	Light	114.3	3.6	9.83	102	19
100	Medium		4.5	12.20	82	19

Available off mill rolling only. Minimum order quantity required.

Circular Hollow Sections (CHS)

DuraPrimed Red™

Nominal Size (DN)	Section	Outside Diameter mm	Wall Thickness mm	Mass kg/m	Metres per tonne	Pack Size (Lns)
25	Medium	33.7	3.2	2.41	414	91
32	Medium	42.4	3.2	3.10	322	61
40	Medium	48.3	3.2	3.57	280	61
50	Medium	60.3	3.6	5.03	199	37
65	Medium	76.1	3.6	6.43	156	37
80	Medium	88.9	4.0	8.37	120	19
100	Medium	114.3	4.5	12.2	82.2	19

Typical Uses:

- Fire System Tube

Features:

- Dual Specified AS 1074 and AS/NZS 1163 C250LO
- Available in plain ends, screwed one end and screwed both ends

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



Typical Uses:

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

Features:

- Medium Dual Specified AS 1074 / AS/NZS 1163 C250LO
- Extra Light and Light AS/NZS 1163: 2016 C350LO
- DuraGal coating AS/NZS 4792: 2006 ZB100/100

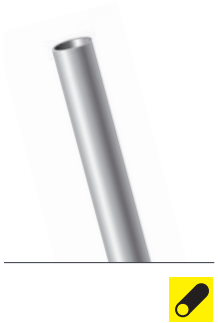




Circular Hollow Sections (CHS)

Hot-dip Galvanised

Nominal Size (DN)	Section	Outside Diameter mm	Wall Thickness mm	Mass kg/m	Metres per tonne	Pack Size (Lns)
32	Heavy	42.4	4.0	3.87	258	61
40	Heavy	48.3	4.0	4.46	224	61
50	Medium	60.3	3.6	5.14	195	37
50	Heavy	60.3	4.5	6.30	159	37
65	Medium	76.1	3.6	6.56	152	37
65	Heavy	76.1	4.5	8.07	124	37
80	Extra Light	88.9	2.6	5.75	174	19
80	Light	88.9	3.2	6.92	145	19
80	Medium	88.9	4.0	8.53	117	19
80	Heavy	88.9	5.0	10.50	95	19
90	Extra Light	101.6	2.6	6.64	151	19
90	Light	101.6	3.2	8.02	125	19
90	Medium	101.6	4.0	9.81	102	19
90	Heavy	101.6	5.0	12.10	83	19
100	Extra Light	114.3	3.2	9.05	110	19
100	Light	114.3	3.6	10.00	100	19
100	Medium	114.3	4.5	12.40	81	19
100	Heavy	114.3	5.4	14.70	68	19
125	Extra Light	139.7	3.0	10.50	95	10
125	Light	139.7	3.5	12.10	83	10
125	Medium	139.7	5.0	16.90	59	10
125	Heavy	139.7	5.4	18.10	55	10
150	Extra Light	165.1	3.0	12.40	81	10
150	Light		3.5	14.40	69	10
150	Medium		5.0	20.00	50	10
150	Heavy		5.4	21.60	46	10



Typical Uses:

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

Features:

- Medium and Heavy Dual Specified AS 1074 and AS/NZS 1163 C250LO
- Extra Light and Light AS/NZS 1163 C350LO
- Hot Dip Galvanized AS/NZS 4680: 2006 HDG 300



Tubular Processing

Midalia Steel can process Pipe and Tube using a variety of machinery including Band Saws, Power Hacksaws, Tube saws and Beamlines.

Applications include: Straight cuts, pack cuts, drilling and de-burring.

Call your local branch to discuss your requirements

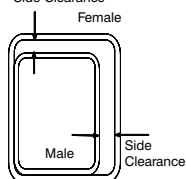
Note: Midalia Steel reserve the right to change specifications without notice. Not all products are available at all Midalia Steel branches. Midalia Steel also has access to a wide network of products not necessarily listed in this book. Please check with your local Midalia Steel branch for product availability.



Telescoping RHS

Rectangular 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	6.00	50	25
65	35	2.5	10.0	5.00	50	25
65	35	3.0	9.00	4.00	50	25
65	35	4.0	7.00	2.00	50	25
75	25	1.6	21.8	1.80	50	20
75	25	2.0	21.0	1.00	50	20
75	25	2.5	20.0	0.00	50	20
75	50	1.6	6.80	11.8	65	35
75	50	2.0	6.00	11.0	65	35
75	50	2.5	5.00	10.0	65	35
75	50	3.0	4.00	9.00	65	35
75	50	4.0	2.00	7.00	65	35
75	50	5.0	0.00	5.00	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
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



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.

How to use this chart
See page 19

Note: See page 13 for Circular Hollow Sections and 9 for Square Hollow Sections.

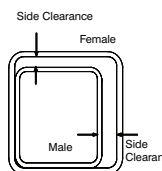


Telescoping SHS

Square Hollow Sections

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

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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 19

Note: See page 13 for Circular Hollow Sections and 11 for Rectangular Hollow Sections.



Telescoping SHS

Square Hollow Sections

Female (Outer)			Nominal Clearance		Male (Inner)	
d mm	b mm	t mm	Top mm	Side mm	d mm	b mm
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

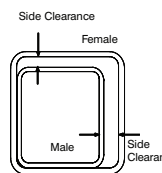
How to use this chart

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

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

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



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.

Note: See page 13 for Circular Hollow Sections and 11 for Rectangular Hollow Sections.



Telescoping CHS

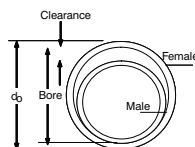
Circular Hollow Sections

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) 76.1 x 5.9
 - Clearance mm 2.6
 - Male Section (inner) 60.3
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.

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

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



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

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.

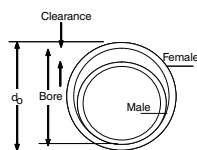
Female (Outer)			Male (Inner)		
DN	Quality	do t mm x mm	DN	di mm	Min. Clearance mm
20	Extra Light	26.9 x 2.0	15	21.3	0.4
25	Extra Light	33.7 x 2.0	20	26.9	1.6
25	Light	33.7 x 2.6	20	26.9	0.4
25	Medium	33.7 x 3.2	15	21.3	4.8
25	Heavy	33.7 x 4.0	15	21.3	3.2
32	Extra Light	42.4 x 2.0	25	33.7	3.5
32	Light	42.4 x 2.6	25	33.7	2.3
32	Medium	42.4 x 3.2	25	33.7	1.1
32	Heavy	42.4 x 4.0	20	26.9	6.3
40	Extra Light	48.3 x 2.3	32	42.4	0.1
40	Light	48.3 x 2.9	25	33.7	7.6
40	Medium	48.3 x 3.2	25	33.7	7.0
40	Heavy	48.3 x 4.0	25	33.7	5.4
40	Extra Heavy	48.3 x 5.4	25	33.7	2.6



Telescoping CHS

Circular Hollow Sections (CONTINUED)

Female (Outer)			Male (Inner)		
DN	Quality	do t mm x mm	DN	di mm	Min. Clearance mm
50	Extra Light	60.3 x 2.3	40	48.3	6.4
50	Light	60.3 x 2.9	40	48.3	5.2
50	Medium	60.3 x 3.6	40	48.3	3.8
50	Heavy	60.3 x 4.5	40	48.3	2.0
50	Extra Heavy	60.3 x 5.4	40	48.3	0.2
65	Extra Light	76.1 x 2.3	50	60.3	9.8
65	Galtube® Plus	76.1 x 2.6	50	60.3	9.2
65	Light	276.1 x 3.2	50	60.3	8.0
65	Medium	76.1 x 3.6	50	60.3	7.2
65	Heavy	76.1 x 4.5	50	60.3	5.4
65	Extra Heavy	76.1 x 5.4	50	60.3	2.6
80	Extra Light	88.9 x 2.6	65	76.1	6.0
80	Light	88.9 x 3.2	65	76.1	4.8
80	Medium	88.9 x 4.0	65	76.1	3.2
80	Heavy	88.9 x 5.0	65	76.1	1.2
80	Extra Heavy	88.9 x 5.9	50	60.3	15.3
90	Extra Light	101.6 x 2.6	80	88.9	5.6
90	Light	101.6 x 3.2	80	88.9	4.4
90	Medium	101.6 x 4.0	80	88.9	2.8
90	Heavy	101.6 x 5.0	80	88.9	0.8
100	Extra Light	114.3 x 3.2	90	101.6	4.1
100	Light	114.3 x 3.6	90	101.6	3.3
100	Medium	114.3 x 4.5	90	101.6	1.5
100	Heavy	114.3 x 5.4	80	88.9	12.6
125	Extra Light	139.7 x 3.0	100	114.3	16.9
125	Light	139.7 x 3.5	100	114.3	15.9
125	Medium	139.7 x 5.0	100	114.3	12.9
125	Heavy	139.7 x 5.4	100	114.3	12.1
150	Light	165.1 x 3.0	125	139.7	15.4
150	Medium	165.1 x 5.0	125	139.7	12.4
150	Heavy	165.1 x 5.4	125	139.7	11.6



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

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.

How to use this chart
See page 20



End Colour Codes

Square and Rectangular sections (RHS)

Colour	Wall Thickness
	mm
Violet	1.6
Chocolate Brown	1.8
Yellow	2.0
Silver	2.3
Pink	2.5
Gold	2.8
Dark Blue	3.0
Grey	3.5
Green	4.0
Orange	5.0
White	6.0
Pink	7.0
Red	8.0
Violet	9.0



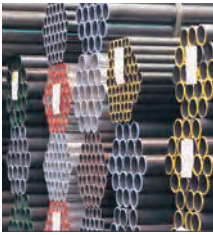
Note: Meets AS/ NZS 4496:1997 (Recommended practice for the colour coding of steel products).



End Colour Codes

Circular Sections (CHS)

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).



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Bar Sections

Equal Angles

Various Standard Lengths

Size mm x mm x mm	Mass kg/m	Metres per tonne
20 x 20 x 3	0.95	1053
25 x 25 x 3	1.12	893
25 x 25 x 5	1.65	606
25 x 25 x 6	2.08	481
30 x 30 x 3	1.35	741
30 x 30 x 5	2.01	498
30 x 30 x 6	2.56	391
40 x 40 x 3	1.83	546
40 x 40 x 5	2.73	366
40 x 40 x 6	3.50	286
50 x 50 x 3	2.31	433
50 x 50 x 5	3.48	287
50 x 50 x 6	4.46	224
50 x 50 x 8	5.68	176
55 x 55 x 5	3.84	260
55 x 55 x 6	4.93	203
65 x 65 x 5	4.56	219
65 x 65 x 6	5.87	170
65 x 65 x 8	7.51	133
65 x 65 x 10	9.02	111
75 x 75 x 5	5.27	190
75 x 75 x 6	6.81	147
75 x 75 x 8	8.73	115
75 x 75 x 10	10.5	95
90 x 90 x 6	8.22	122
90 x 90 x 8	10.6	94
90 x 90 x 10	12.7	79
100 x 100 x 6	9.16	109
100 x 100 x 8	11.8	85
100 x 100 x 10	14.2	70
100 x 100 x 12	17.7	56

Typical Uses:

- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:

- Meets AS/NZS 3679.1:2016
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

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Note: See page 36 for Structural Angles.



Unequal Angles

Various Standard Lengths

Size mm x mm x mm	Mass kg/m	Metres per tonne
65 x 50 x 5	4.02	249
65 x 50 x 6	5.16	194
65 x 50 x 8	6.59	152
75 x 50 x 5	4.40	227
75 x 50 x 6	5.66	177
75 x 50 x 8	7.23	138
100 x 75 x 6	7.98	125
100 x 75 x 8	10.3	97
100 x 75 x 10	12.4	81
125 x 75 x 6	9.16	109
125 x 75 x 8	11.8	85
125 x 75 x 10	14.2	70
125 x 75 x 12	17.7	57

Typical Uses:

- Engineering Construction
- Residential Construction
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- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:

- Meets AS/NZS 3679.1:2016
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding



Note: See page 36 for Structural Angles.



Flat Bars - Square Edge

Standard Length 6.0m

Size mm x mm x mm	Mass kg/m	Metres per tonne
20 x 3	0.48	2083
20 x 5	0.81	1235
20 x 6	0.96	1042
20 x 10	1.61	621
25 x 3	0.60	1667
25 x 5	1.00	1000
25 x 6	1.21	826
25 x 8	1.61	621
25 x 10	2.01	498
25 x 12	2.42	413
32 x 3	0.77	1299
32 x 5	1.29	775
32 x 6	1.55	645
32 x 8	2.06	485
32 x 10	2.57	389
32 x 12	3.09	324
40 x 3	0.96	1042
40 x 5	1.61	621
40 x 6	1.93	518
40 x 8	2.57	389
40 x 10	3.22	311
40 x 12	3.86	259
40 x 16	5.15	194
40 x 20	6.44	155
50 x 3	1.21	826
50 x 5	2.01	498
50 x 6	2.42	413
50 x 8	3.22	311
50 x 10	4.03	248
50 x 12	4.83	207
50 x 16	6.44	155
50 x 20	8.05	124
50 x 25	10.1	99
65 x 5	2.61	383
65 x 6	3.14	318
65 x 8	4.18	239
65 x 10	5.23	191
65 x 12	6.27	159
65 x 16	8.36	120
65 x 20	10.5	95
65 x 25	13.1	76



Typical Uses:

- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:

- Meets AS/NZS 3679.1:2016
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

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



Flat Bars - Square Edge

Standard Length 6.0m

Size mm x mm x mm	Mass kg/m	Metres per tonne
75 x 5	3.01	332
75 x 6	3.62	276
75 x 8	4.83	207
75 x 10	6.04	166
75 x 12	7.25	138
75 x 16	9.66	104
75 x 20	12.1	83
75 x 25	15.1	66
90 x 5	3.62	276
90 x 6	4.35	230
90 x 8	5.79	173
90 x 10	7.25	138
90 x 12	8.69	115
100 x 5	4.03	248
100 x 6	4.83	207
100 x 8	6.44	155
100 x 10	8.05	124
100 x 12	9.66	104
100 x 16	12.9	78
100 x 20	16.1	62
100 x 25	20.1	50
100 x 50	40.3	25
110 x 6	5.31	188
110 x 8	7.08	141
110 x 10	8.86	113
110 x 12	10.7	93
130 x 5	5.23	191
130 x 6	6.27	159
130 x 8	8.36	120
130 x 10	10.5	95
130 x 12	12.5	80
130 x 16	16.7	60
130 x 20	20.9	48
130 x 25	26.1	38
150 x 5	6.04	166
150 x 6	7.25	138
150 x 8	9.66	104
150 x 10	12.1	83
150 x 12	14.5	69
150 x 16	19.3	52
150 x 20	24.2	41
150 x 25	30.1	33
150 x 50	60.4	17



Typical Uses:

- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:

- Meets AS/NZS 3679.1:2016
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

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



Flat Bars - Square Edge

Standard Length 6.0m

Size mm x mm x mm	Mass kg/m	Metres per tonne
180 x 5	7.25	138
180 x 6	8.69	115
180 x 10	14.5	69
180 x 12	17.4	57
180 x 16	23.2	43
180 x 20	29.0	34
180 x 25	36.2	28
200 x 6	9.66	104
200 x 8	12.9	78
200 x 10	16.1	62
200 x 12	19.3	52
200 x 16	25.7	39
200 x 20	32.2	31
200 x 25	40.3	25
250 x 6	12.1	83
250 x 8	16.1	62
250 x 10	20.1	50
250 x 12	24.2	41
250 x 16	32.2	31
250 x 20	40.3	25
250 x 25	50.3	20
300 x 6	14.5	69
300 x 8	19.3	52
300 x 10	24.2	41
300 x 12	29.0	34
300 x 16	38.6	26
300 x 20	48.3	21
300 x 25	60.4	17

Typical Uses:

- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:

- Meets AS/NZS 3679.1:2016
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding



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



Round Bars

Standard Length 6.0m

Size mm x mm x mm	Mass kg/m	Metres per tonne
10	0.64	1563
12	0.91	1099
14	1.24	806
16	1.62	617
18	2.05	488
20	2.53	395
22	3.05	328
24	3.64	275
27	4.61	217
30	5.69	176
33	6.88	145
36	8.19	122
39	9.61	104
42	11.2	89
45	12.8	78
48	14.6	68
50	15.8	63
56	19.8	51
60	22.8	44
65	26.7	37
75	35.6	28
80	40.5	25
90	51.1	20
100	63.2	16
110	76.7	13
120	91.2	11
130	108	9
140	124	8
150	142	7
160	162	6
170	183	5
180	206	5
190	229	4
200	253	4

Typical Uses:

- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:

- Meets AS/NZS 3679.1:2016
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

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



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



Square Bars

Standard Length 6.0m

Size mm x mm x mm	Mass kg/m	Metres per tonne
10 x 10	0.81	1235
12 x 12	1.16	862
16 x 16	2.06	485
20 x 20	3.22	311
25 x 25	5.03	199
32 x 32	8.24	121
40 x 40	12.9	78

Typical Uses:

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

Features:

- Meets AS/NZS 3679.1:2016
- 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 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

Typical Uses:

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

Features:

- Meets AS/NZS 3679.1:2016
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding



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



Note: See page 40 for Structural Steel Channels.



MIDALIA STEEL

Billets

Standard Length 6.0m

Size mm x mm x mm	Mass kg/m	Metres per tonne
45 x 45	16.3	61
50 x 50	19.4	52
63 x 63	31.2	32
75 x 75	45.3	22



GalForce[®] Channels

Dim 1	Dim 2	Nominal Thickness mm	Length m	Mass kg/m	Metres per tonne	Length/Pack	
						Standard (m)	
						9.0	12.0
75	x 40	x 4	9.0	4.43	226	18	
100	x 50	x 4	9.0	5.58	179	18	
125	x 65	x 4	9.0	7.60	132	18	
150	x 75	x 5	12.0	11.2	89		12
180	x 75	x 5	12.0	12.4	81		12
200	x 75	x 5	12.0	13.2	76		12
200	x 75	x 6	12.0	15.7	64		12
230	x 75	x 6	12.0	17.2	58		12
250	x 90	x 6	12.0	19.6	51		8
300	x 90	x 6	12.0	22.0	45		6

GalForce[®]

Note: Some sizes may be subject to rolling MOQs.

Typical Uses:

- Residential Construction
- Non-Residential Construction
- Fabrication

Features:

- High strength roll-formed sections made from pre-coated strip of zinc, aluminium and magnesium
- Minimum coating of 250g/m² and self-healing properties Smooth quality finish
- Significantly lighter than traditional hot rolled sections
- Smooth surface allows easy powdercoating and painting



GalForce® Angles

Unequal Angles

Dim 1		Dim 2		Nominal Thickness mm	Length m	Mass kg/m	Metres per tonne
75	x	50	x	4	9.0	3.73	268
75	x	50	x	5	9.0	4.58	218
75	x	50	x	6	9.0	5.46	183
90	x	75	x	6	9.0	7.44	134
100	x	75	x	6	12.0	7.87	127
125	x	75	x	5	12.0	7.54	133
125	x	75	x	6	12.0	9.08	110
150	x	100	x	6	12.0	11.5	87

Typical Uses:

- Residential Construction
- Non-Residential Construction
- Fabrication

Features:

- High strength roll-formed sections made from pre-coated strip of zinc, aluminium and magnesium
- Minimum coating of 250g/m² and self-healing properties
- Smooth quality finish
- Significantly lighter than traditional hot rolled sections
- Smooth surface allows easy powdercoating and painting



Note: Some sizes may be subject to rolling MOQs.



Merchant Bar Processing

We can process Flats, Rounds and Angles using Beamlines, Band Saws, Croppers and Oxy Beveling Machines.

Applications include: Straight cuts, pack cuts, mitre cutting, drilling, notching, punching, shearing and cropping.

Call your local branch to discuss your requirements

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



GalForce[®] Angles

Equal Angles

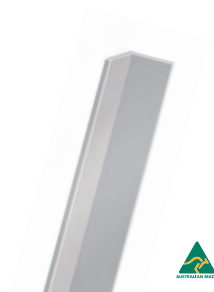
Dim 1	Dim 2	Nominal Thickness mm	Length m	Mass kg/m	Metres per tonne	Length/Pack		
						Standard		
						6.0	9.0	12.0
25	x 25	x 2.5	6.0	0.89	1119	80		
30	x 30	x 2.5	6.0	1.09	915	80		
40	x 40	x 2.5	6.0	1.49	671	60		
40	x 40	x 4.0	6.0	2.31	433	39		
45	x 45	x 2.5	6.0	1.69	592			
50	x 50	x 2.5	6.0	1.89	530	33	33	
50	x 50	x 4.0	6.0	2.94	340	27	27	
50	x 50	x 5.0	12.0	3.59	278	24	24	24
50	x 50	x 6.0	9.0	4.25	235		21	
65	x 65	x 4.0	9.0	3.89	257		22	
65	x 65	x 5.0	9.0	4.78	209		22	
65	x 65	x 6.0	9.0	5.70	176		18	
75	x 75	x 4.0	9.0	4.53	221		22	
75	x 75	x 5.0	6.0	5.57	180	22	22	
75	x 75	x 6.0	9.0	6.66	150		18	
90	x 90	x 5.0	9.0	6.75	148		22	
90	x 90	x 6.0	9.0	8.11	123			
100	x 100	x 6.0	12.0	9.08	110			
150	x 150	x 6.0	12.0	13.9	72			

Typical Uses:

- Residential Construction
- Non-Residential Construction
- Fabrication

Features:

- High Strength roll-formed sections made from pre-coated strip of zinc, aluminium and magnesium
- Minimum coating of 250g/m² and self-healing properties
- Smooth quality finish
- Significantly lighter than traditional hot rolled sections
- Smooth surface allows easy powdercoating and painting



GalForce[®]



Note: Some sizes may be subject to rolling MOQs.



GalForce® Flat Bars



Dim 1	Dim 2	Length m	Mass kg/m	Metres per tonne	Length/Pack	
					Standard (m)	
					6.0	
50	x 4	6.0	1.582	632	57	
50	x 5	6.0	1.975	506	45	
65	x 5	6.0	2.567	390	36	
75	x 4	6.0	2.373	421	38	
75	x 5	6.0	2.962	338	32	
90	x 6	6.0	4.346	230	26	
100	x 4	6.0	3.165	316	28	
100	x 5	6.0	3.950	253	28	
100	x 6	6.0	4.829	207	26	
130	x 5	6.0	5.134	195	28	
150	x 5	6.0	5.924	169	28	
150	x 6	6.0	7.243	138	24	
200	x 5	6.0	7.899	127	32	
250	x 5	6.0	9.874	101	23	
300	x 5	6.0	11.849	84	19	

Information reflects standard lengths as well as lengths available ex-rolling.
Subject to MOQ.

Typical Uses:

- Residential Construction
- Non-Residential Construction
- Fabrication

Features:

- High strength roll-formed sections made from pre-coated strip of zinc, aluminium and magnesium
- Minimum coating of 250g/m² and self-healing properties
- Smooth quality finish
- Significantly lighter than traditional hot rolled sections
- Smooth surface allows easy powdercoating and painting



GalForce®



Note: some sizes may be subject to rolling MOQs.

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



300PLUS® structural steel | C450PLUS™ structural tube



In April 2016, revisions to four Australian Standards and two Technical Specifications covering structural steels were released by Standards Australia.



These releases address increasing concerns in the construction industry about the non-compliance of building materials and the risk they pose to the industry and the community generally. Specifying and procuring compliant product reduces your professional risk and the safety risk to the community. Projects that specify these new Standards and Technical Specifications will be in a better position to manage the risk that would otherwise exist.

The following mandatory requirements in the Australian Standards provide you with confidence you are getting quality and compliant steel products:

Minimum specific information on Test Certificates:

- Testing to be performed by laboratories with third party accreditation from NATA
- Individual length identification markings

The four Standards are:

- AS/NZS 1163-2016 – Cold-formed structural steel hollow sections
- AS/NZS 3678-2016 Structural steel – Hot rolled plates, floorplates and slabs
- AS/NZS 3679.1-2016 – Structural steel – Part 1: Hot-rolled bars and sections
- AS/NZS 3679.2-2016 – Structural steel – Part 2: Welded I sections

The two Technical Specifications:

- SA TS 102-2016 – Structural steel – Limits on elements added
- SA TS 103-2016 – Welding to AS/NZS 1554 Parts 1, 5 and 7– Limits on boron in parent materials



Structural

Equal Angles

Various Standard Lengths

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

Typical Uses:

- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:

- Meets AS/NZS 3679.1:2016
- 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 x mm	Mass kg/m	Metres per tonne
150 x 90 x 8	14.3	70
150 x 90 x 10	17.3	58
150 x 90 x 12	21.6	46
150 x 90 x 16	27.9	36
150 x 100 x 10	18.0	56
150 x 100 x 12	22.5	44

Typical Uses:

- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:

- Meets AS/NZS 3679.1:2016
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding

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

MIDALIA STEEL


Note: See page 24 for Merchant Bar Equal Angles.



Note: See page 24 for Merchant Bar Unequal Angles.



Universal Beams

Various Standard Lengths

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



Typical Uses:

- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:

- Meets AS/NZS 3679.1:2016
- Up to 20% stronger for better strength to weight ratios
- Requires no special pre-heating for welding

Structural Processing

Midalia Steel offer processing for Structural Steel sections using a variety of machinery including Beamlines, Band Saws and Cambering Machines.

Applications include: Straight cuts, pack cuts, mitre cutting, drilling and cambering.

Call your local branch to discuss your requirements



Welded Beams

Various Standard Lengths

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

Note: Made to order. Lead times may apply.

Taper Flange Beams

Various Standard Lengths

Size mm x 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 AS/NZS 3679.1:2016

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

MIDALIA STEEL


Typical Uses:

- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:

- Meets AS/NZS 3679.2:2016
- Up to 20% stronger for improved strength to weight ratios
- Requires no special pre-heating for welding





Universal Columns

Various Standard Lengths

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

Typical Uses:

- Engineering Construction
- Residential Construction
- Non-Residential Construction
- Mining Infrastructure
- Transport and Storage
- Manufacturing

Features:

- Meets AS/NZS 3679.1:2016
- Up to 20% stronger for better strength to weight ratios
- Requires no special pre-heating for welding



Welded Columns

Various Standard Lengths

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



Features:

- Meets AS/NZS 3679.2:2016

Note: Made to order.
Lead times may apply.



Parallel Flange Channels

Various Standard Lengths

Size mm x mm x mm	Mass kg/m	Metres per tonne
150 x 75	17.7	56.5
180 x 75	20.9	47.8
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:

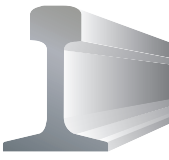
- Meets AS/NZS 3679.1:2016
- Up to 20% stronger for improved strength to weight ratios.
- Requires no special pre-heating for welding.

Rails

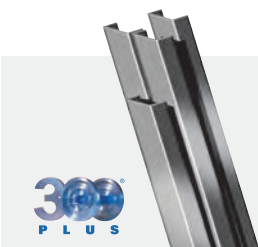
Section	Mass kg/m	Metres per tonne
10	10.1	99.0
15	15.2	65.8
22	22.3	44.8
30	30.1	33.2
41	40.8	24.5
50	50.7	19.8
53	53.0	18.9
60	60.7	16.5
68	67.5	14.8
73	73.6	13.9
86	85.5	11.7



Note: See page 30 for Small Channel Sections.



Note: Rails are not normally a stocked item, lead times may apply.



Rely on the strength of 300PLUS®

- Manufactured in Australia by Liberty Steel
- Available across the entire Merchant Bar and Structural Steel Ranges
- Up to 20% extra strength – improved strength to weight ratios mean your constructions can save weight, as well as money
- Can be readily welded without requiring special pre-heating

Call your local branch to discuss your requirements

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Flat Plate

Grade 250

Thickness mm	Mass kg/m	Width mm	Length m	kg/lineal metre of plate width
5	39.25	2400	6.0	94.2
5	39.25	2400	9.0	94.2
5	39.25	3000	9.0	117
6	47.10	2400	6.0	11
6	47.10	2400	9.0	11
6	47.10	3000	9.0	141
6	47.10	3200	12.0	151
8	62.80	1800	6.0	113
8	62.80	2400	6.0	151
8	62.80	2400	9.0	151
8	62.80	3000	9.0	188
8	62.80	3200	12.0	201
10	78.50	1800	6.0	141
10	78.50	2400	6.0	188
10	78.50	2400	9.0	188
10	78.50	3000	9.0	236
10	78.50	3200	12.0	251
12	94.20	1800	6.0	170
12	94.20	2400	6.0	226
12	94.20	2400	9.0	226
12	94.20	3000	6.0	283
12	94.20	3000	9.0	283
12	94.20	3200	12.0	301
16	125.60	1800	6.0	226
16	125.60	2400	6.0	301
16	125.60	2400	9.0	301
16	125.60	3000	6.0	377
16	125.60	3000	9.0	377
16	125.60	3200	12.0	402
20	157.00	1800	6.0	283
20	157.00	2400	6.0	377
20	157.00	2400	9.0	377
20	157.00	3000	9.0	471
20	157.00	3200	12.0	502
25	196.25	1800	6.0	353
25	196.25	2400	6.0	471
25	196.25	2400	9.0	471
25	196.25	3000	9.0	589
25	196.25	3200	12.0	628
28	219.80	2400	6.0	528
28	219.80	2400	9.0	528
32	251.20	1800	6.0	452
32	251.20	2400	6.0	603
32	251.20	2400	9.0	603
32	251.20	3000	9.0	754
36	282.60	2400	6.0	678
36	282.60	2400	9.0	678
40	314.00	1800	6.0	565
40	314.00	2400	6.0	754
40	314.00	2400	9.0	754

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Typical Uses:

- General fabrication
- Structural members
- High-rise buildings
- Bridges
- Storage tanks

Features:

- Meets AS/NZ 3678:2016. (Structural Steel, Hot Rolled Floor Plates & slabs).
- A medium strength structural steel plate product with nominal yield strength of 250 MPa



Flat Plate

Grade 250

Thickness mm	Mass kg/m	Width mm	Length m	kg/lineal metre of plate width
45	353	2400	6.0	848
45	353	2400	9.0	848
50	393	1800	6.0	707
50	393	2400	6.0	942
50	393	2400	9.0	942
55	432	2400	6.0	1036
55	432	2400	8.4	1036
60	471	1800	6.0	848
60	471	2400	6.0	1130
70	550	1800	6.0	989
70	550	2400	6.0	1319
80	628	1800	6.0	1130
80	628	2400	5.2	1507
90	707	1800	6.0	1696
100	785	1800	5.6	1413
100	785	2400	4.0	1884
110	864	1800	5.0	1554
110	864	2400	3.7	2072
120	942	1800	4.6	1696
120	942	2400	3.4	2261
130	1021	1800	4.2	1838
130	1021	2400	3.1	2450
140	1099	1800	3.85	1978
140	1099	2400	2.9	2638
150	1178	1800	3.6	2120
150	1178	2400	2.7	2826

MIDALIA STEEL



Typical Uses:

- General fabrication
- Structural members
- High-rise buildings
- Bridges
- Storage tanks

Features:

- Meets AS/NZ 3678:2016. (Structural Steel, Hot Rolled Floor Plates & slabs).
- A medium strength structural steel plate product with nominal yield strength of 250 MPa



XLERPLATE® Steel Plate

XLERPLATE® steel's consistent quality makes your manufacturing processes more efficient, helping you maintain your quality assurance and enhances your reputation as a supplier of high-calibre products.

Call your local branch to discuss your requirements



Flat Plate

Grade 350

Thickness mm	Mass kg/m	Width mm	Length m	kg/lineal metre of plate width
5	39.3	2400	6.0	94.2
5	39.3	2400	9.0	94.2
5	39.3	3000	9.0	118
6	47.1	2400	9.6	113
8	62.8	2400	9.6	151
10	78.5	2400	9.6	188
10	78.5	3100	9.6	243
12	94.2	2400	9.6	226
12	94.2	3100	9.6	292
16	126	2400	9.6	301
16	126	3100	9.6	389
20	157	2400	9.6	377
20	157	3100	9.6	487
25	196	2400	9.6	471
32	251	2400	9.6	603
40	314	2400	7.6	754
50	393	2400	7.6	942
60	471	2400	7.6	1130
70	550	2400	6.0	1319
80	628	2400	5.5	1507
90	707	2400	6.3	1696
90	707	2400	3.15	1696
100	785	2100	6.5	1649
100	785	2100	3.25	1649



Typical Uses:

- General fabrication
- Structural members
- High-rise buildings
- Bridges
- Storage tanks

Features:

- Meets AS/NZ 3678: 2016 (Structural Steel, Hot Rolled Floor Plates & slabs).
- A medium strength structural steel plate product with nominal yield strength of 350 MPa

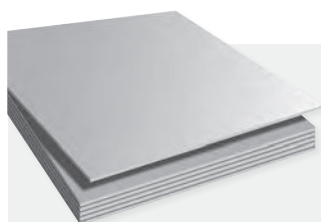


Plate Processing

Midalia Steel can offer various plate processing options including Oxy profiling and bevelling, Plasma cutting, Flame cutting and cropping. We can also cut shapes, letters and numbers.

Applications include: Stripping, bevel cutting, stitch cutting, notching, punching, shearing & cropping.

Call your local branch to discuss your requirements



Floor Plate

XLERPLATE® Grade 250 Steel

Thickness mm	Mass kg/m²	Width mm	Length m	Pack Mass tonnes	Non-Stock lengths	
					mm	kg/LM
6	48.60	1800	6.0	1.9	6	87.5
8	64.80	1800	6.0	1.4	8	117
10	80.50	1800	6.0	1.2	10	145
12	96.20	1800	6.0	1.0	12	173

Features:

- Meets AS/NZS 1594: 2002
Meets AS/NZS 1365: 1996 - HA250
(Flat rolled steel products)
- Hot rolled structural product with
minimum yield strength of 250MPa;
good ductility and good weldability



Coil Plate

TRU-SPECT™ HA250

Thickness mm	Mass kg/m²	Width mm	Length m	Pack Mass tonnes	Non-Stock lengths	
					mm	kg/ LM
3	23.550	1200	2.4	2	3	28.3
3	23.550	1200	6.0	2	3	28.3
3	23.550	1500	3.0	2	3	35.3
3	23.550	1500	6.0	2	3	35.3
4	31.400	1200	2.4	2	4	37.7
4	31.400	1500	3.0	2	4	47.1
4	31.400	1500	6.0	2	4	47.1
5	39.250	1200	2.4	2	5	47.1
5	39.250	1500	3.0	2	5	58.9
5	39.250	1500	6.0	2	5	58.9
6	47.100	1200	2.4	2	6	56.5
6	47.100	1500	3.0	2	6	70.7
6	47.100	1500	6.0	2	6	70.7
8	62.800	1200	2.4	2	8	75.4
8	62.800	1500	3.0	2	8	94.2
10	78.500	1200	2.4	2	10	94.2
10	78.500	1500	3.0	2	10	118
12	94.200	1200	2.4	2	12	113
12	94.200	1500	3.0	2	12	141



Typical Uses:

- Brake press forming
applications
- General fabrication
- Laser cutting

Features:

- Meets AS/NZS 1594: 2002
Meets AS/NZS 1365: 1996
- Hot rolled structural product
with minimum yield strength
of 250MPa; good ductility and
good weldability

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



Floor Plate

TRU-SPEC™ HA250

Thickness mm	Mass kg/m ²	Width mm	Length m	Pack Mass tonnes	Non-Stock lengths	
					mm	kg/ LM
3	25.550	1200	2.4	2	3	30.7
3	25.550	1200	6.0	2	3	30.7
5	41.250	1200	2.4	2	5	49.5
5	41.250	1200	6.0	2	5	49.5
5	41.250	1500	6.0	2	5	61.9
6	49.100	1200	6.0	2	6	58.9
6	49.100	1500	6.0	2	6	73.7
8	64.800	1500	6.0	2	8	97.2



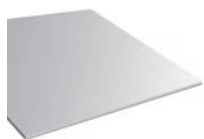
Typical Uses: Features:

- Floorplate
- Meets AS/NZS 1594:2002
Meets AS/NZS 1365:1996 -
HA250 (Flat rolled steel products)
- Hot rolled structural product
with minimum yield strength of
250MPa; good ductility and good
weldability

Coil Plate

TRU-SPEC™ HA350

Thickness mm	Mass kg/m ²	Width mm	Length m	Pack Mass tonnes	Non-Stock lengths	
					mm	kg/ LM
5	39.250	1500	8.0	2	5	58.9
6	47.100	1200	6.0	2	6	56.5
6	47.100	1500	6.0	2	6	70.6
8	62.800	1200	6.0	2	8	75.4



Features:

- Meets AS/NZS 1594:2002
Meets AS/NZS 1365:1996
- Hot rolled structural product
with minimum yield strength
of 350MPa; good ductility and
good weldability



Wear Plate

BISALLOY®

MIDALIA STEEL



Bisalloy
WEAR

Typical Uses:

- Demolition tools
- Ground engaging tools
- Earthmoving buckets
- Drag Line buckets
- Wear plates
- Chutes

Thickness mm	Mass kg/m ²	BISALLOY® Wear 320 steel	BISALLOY® Wear 400 steel	BISALLOY® Wear 450 steel
		Tensile strength: Typical - 1070 MPA	Tensile strength: Typical - 1320 MPA	Tensile strength: Typical - 1400 MPA
5	39.3	2400 x 8000	2400 x 8000	
6	47.1	1525 x 8000	1526 x 8000	2400 x 8000
6	47.1	2485 x 8000	2485 x 8000	2400 x 8000
8	62.8	2485 x 8000	2486 x 8000	2485 x 8000
10	78.5	2485 x 8000	2485 x 8000	2485 x 8000
10	78.5	3100 x 8000	3100 x 8000	3100 x 8000
12	94.2	2485 x 8000	2485 x 8000	2485 x 8000
12	94.2	3100 x 8000	3100 x 8000	3100 x 8000
16	125	2485 x 8000	2485 x 8000	2485 x 8000
16	125	3100 x 8000	3100 x 8000	3100 x 8000
20	157	2485 x 8000	2485 x 8000	2485 x 8000
20	157	3100 x 8000	3100 x 8000	3100 x 8000
25	196	2485 x 8000	2485 x 8000	2485 x 8000
25	196	3100 x 8000	3100 x 8000	3100 x 8800
32	251	2485 x 8000	2485 x 8000	2485 x 8500
40	314	2485 x 8000	2485 x 8000	2485 x 8000
50	393	2485 x 8000	2485 x 8000	2485 x 8000
60	471	2485 x 6000	2485 x 6000	2485 x 6000
70	549	1900 x 6000	1900 x 6000	1900 x 6000
75	589	1900 x 6000	1900 x 6000	1900 x 6000
80	628	1900 x 6000	1900 x 6000	1900 x 6000
90	706	1600 x 6000	1600 x 6000	1900 x 6000
100	785	1525 x 6000	1525 x 6000	1525 x 6000

Thickness mm	Mass kg/m ²	BISALLOY® Wear 500 steel	BISALLOY® Wear 600 steel
		Tensile strength: Typical - 1640 MPA	Tensile strength: Typical - 2050 MPA
8	62.8	2485 x 8000	
10	78.5	2485 x 8000	
10	78.5	2485 x 8000	
12	94.2	2485 x 8000	2400 x 8000
12	94.2	2485 x 8000	2400 x 8000
16	126	2485 x 8000	2400 x 8000
16	126	2485 x 8000	2400 x 8000
20	157	2485 x 8000	2400 x 8000
20	157	2485 x 8000	2400 x 8000
25	196	2485 x 8000	2400 x 8000
25	196	2485 x 8000	2400 x 8000
32	251	2485 x 8000	2400 x 8000
40	314	2485 x 8000	2400 x 8000
50	393	2485 x 8000	2400 x 6000
60	471	2485 x 6000	
70	549	1900 x 6000	
75	589	1900 x 6000	
80	628	1900 x 6000	
90	706	1525 x 6000	
100	785	1525 x 6000	

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Structural Plate

BISALLOY®

MIDALIA STEEL



THE GOOD BOOK



Bisalloy
STRUCTURAL

Thick- ness mm	Mass kg/m²	BISALLOY® Structural 60 steel	BISALLOY® Structural 70 steel	BISALLOY® Structural 80 steel	BISALLOY® Structural 100 steel	BISALLOY® Structural 110 steel
		Tensile strength: Typical - 640 MPA	Tensile strength: Typical - 760 MPA	Tensile strength: Typical - 830 MPA	Tensile strength: Typical - 1000 MPA	Tensile strength: Typical - 1100 MPA
5	39.3	1525 x 8000	1525 x 8000	1525 x 8000	1525 x 8000	
6	47.1	1525 x 8000	1525 x 8000	1525 x 8000	1525 x 8000	1525 x 8000
6	47.1	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000
8	62.8	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000
10	78.5	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000
10	78.5	3100 x 8000	3100 x 8000	3100 x 8000	3100 x 8000	3100 x 8000
12	94.2	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000
12	94.2	3100 x 8000	3100 x 8000	3100 x 8000	3100 x 8000	3100 x 8000
16	126	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000
16	126	3100 x 8000	3100 x 8000	3100 x 8000	3100 x 8000	3100 x 8000
20	157	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000
20	157	3100 x 8000	3100 x 8000	3100 x 8000	3100 x 8000	3100 x 8000
25	196	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	
25	196	3100 x 8000	3100 x 8000	3100 x 8000	3100 x 8000	
32	251	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	
40	314	2485 x 8000	2485 x 8000	2485 x 8000	2485 x 8000	
50	393	2485 x 8000	2485 x 8000	2485 x 8000		
60	471	2485 x 6000	2485 x 6000	2485 x 6000		
70	549	1900 x 6000	1900 x 6000	1900 x 6000		
75	589	1900 x 6000	1900 x 6000	1900 x 6000		
80	628	1900 x 6000	1900 x 6000	1900 x 6000		
90	706	1600 x 6000	1600 x 6000	1600 x 6000		
100	785	1525 x 6000	1525 x 6000	1525 x 6000		

Typical Uses:

- Transport Equipment such as Low Loaders
- Structural Components for Mining Dump Trucks and other Mobile Equipment
- Mining Equipment Roll Over Protection Systems (ROPS)
- Underground Longwall Mining Supports
- Storage Tanks for water, oil and gas
- Columns for Low and High Rise Buildings
- Transfer Beams for Low and High Rise Buildings
- Road and Rail Bridge Beams and Columns
- Excavator Buckets
- Mobile Lifting Equipment
- Overhead Cranes
- Container Handling Equipment

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Plate | Structural Plate

Midalia Steel

ALL YOUR STEEL IN ONE PLACE, MMMATE!



SCAN TO FIND YOUR NEAREST
MIDALIA STEEL LOCATION

Reinforcing Bar and Mesh

HANDIMESH®

Galvanized

Product Code	Std Unit	Longitudinal Wires*	Cross Wires*	Mass (kg)	Dimensions (m)
G112A	Sheet	97 x 2.5 @ 25	121 x 2.5 @ 25	22	3 x 2.4
G122A	Sheet	97 x 2.5 @ 25	61 x 2.5 @ 50	17	3 x 2.4
G113	Sheet	97 x 3.2 @ 25	121 x 3.2 @ 25	36	3 x 2.4
G123	Sheet	97 x 3.2 @ 25	61 x 3.2 @ 50	27	3 x 2.4
G234	Sheet	49 x 4 @ 50	41 x 4 @ 75	24	3 x 2.4
G235	Sheet	49 x 5 @ 50	41 x 5 @ 75	38	3 x 2.4
G224	Sheet	49 x 4 @ 50	61 x 4 @ 50	29	3 x 2.4
G225	Sheet	49 x 5 @ 50	61 x 5 @ 50	45	3 x 2.4
G445	Sheet	25 x 5 @ 100	31 x 5 @ 100	23	3 x 2.4
G445A	Sheet	25 x 5.6 @ 100	31 x 5.6 @ 100	29	3 x 2.4
G465A	Sheet	25 x 5.6 @ 100	21 x 5.6 @ 150	24	3 x 2.4

* Number of Wires x Diameter (mm) @ Spacing (mm)

Typical Uses:

- General Purpose Applications
- DIY & Home Improvement

Features:

- Also available in 'bright wire' on request.

ONEMESH®

Ribbed Square Mesh

Product Code	Std Unit	Longitudinal Wires*	Cross Wires*	Mass (kg)	Dimensions (m)
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 4.75 @ 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 5.35 @ 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
SL63 (WA ONLY)	Sheet	6 x 6 @ 300 +4 x 4.75 @ 100	20 x 6 @ 300	21	6 x 2.3

* Number of Wires x Diameter (mm) @ Spacing (mm)

Features: AS/NZS 4671 - Steel for the reinforcement of concrete

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MIDALIA STEEL

THE GOOD BOOK

Reinforcing Bar and Mesh | Mesh

Midalia Steel

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Trench Mesh



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
FTM16200	Sheet	3 x 16 @ 100	30.6	6 x 0.2
FTM16300	Sheet	4 x 16 @ 100	41.1	6 x 0.3

* Number of Wires x Diameter (mm) @ Spacing (mm)



Features: AS/NZS 4671 - Steel for the reinforcement of concrete

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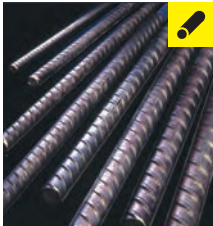


Deformed Reinforcing Bar

Class N

Product Code	Mass kg/m	Length (m/t)
N10S	0.64	1552
N12S	0.93	1077
N16S	1.65	605
N20S	2.58	387
N24S	3.71	269
N28S	5.05	198
N32S	6.59	151
N36S	8.35	119
N40S	10.3	97

Note: Calculated mass includes an allowance for rolling manufacturing variations as per our Terms and Conditions. N40S is available only on request – Lead time required. AS/NZS 4671 - Steel for the reinforcement of concrete.



Reinforcing Accessories

Danley Tape			
Product Code	Type	Width (mm)	Length (m)
STEGOST95	Seaming Tape	95	55
STEGOCT75	Claw Tape	75	55
STEGOTT51	Tack Tape	51	15



Plastic Mesh Chairs Clipfast		
Product Code	Height (mm)	No./Bag
PC20M	20	100
PC25M	25	
PC30M	30	
PC32M	32	
PC40M	40	
PC50M	50	
PC65M	65	
PC75M	75	



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Reinforcing Accessories

Plastic Bar Chairs		
Product Code	Height (mm)	No./Bag
COM2540	25 or 40	100
COM5065	50 or 65	
COM5065C	50 or 65	
COM7590	75 or 90	
COM7590C	75 or 90	
COM85100	85 or 100	
COM105110	105 or 110	
COM115120	115 or 120	
COM125130	125 or 130	
COM135140	135 or 140	
COM145150	145 or 150	
COM155160	155 or 160	
COM165170	165 or 170	

C = Clip on

Typical Uses:

- Slab on ground
- Polystyrene pod slab
- Swimming pools

Features:

- Sets concrete cover
- Dual heights
- Clip-on mechanism for stability
- Integrated base to minimise puncture of polythene film



Tie Wire Roll		
Product Code	Wire Diameter (mm)	Length (m) Approximate
TW	1.6	60
TW5	1.6	320
TW10	1.6	650
TW315	3.15	16

Tie Wire Belt Pack Black		
Product Code	Wire Diameter (mm)	Length (m) Approximate
BP1.4	1.4	100
BP1.5	1.5	93

Tie Wire Belt Pack Galvanised		
Product Code	Wire Diameter (mm)	Length (m) Approximate
BP1.5GAL	1.5	93



Note: Large range of reinforcing accessories available - contact your local Midalia Steel branch for assistance.

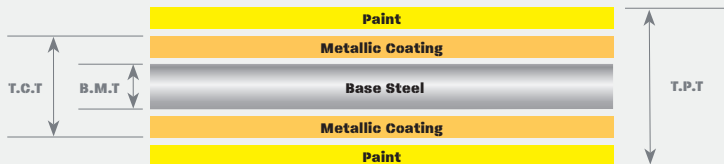
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Sheet and Coil

Sheet and Coil Thickness Terminology

B.M.T. vs. T.C.T. vs. T.P.T.



When ordering through different suppliers or importing sheet & coil products, it is important to understand the difference between B.M.T., T.C.T. & T.P.T.

B.M.T. = Base Metal Thickness. This excludes any coatings applied to the base metal sheet.

T.C.T. = Total Coated Thickness. This measures both the base sheet and the coating. For example: Zinalume, Galvanised, Zinanneal and Electro-Galv.

T.P.T. = Total Painted Thickness. This applies to painted sheets such as Colorbond and Signwhite.

This is only a factor in coated material and painted material. Manufactured painted products (ie. Colorbond) use a metallic-coated base metal.

Most suppliers quote base metal thickness, B.M.T. but it is important the user understands how different coatings will change the thickness.

CHOOSE FROM OUR WIDE RANGE OF STEEL SHEETS, MMMATE!



1800 MMMATE (1300 666 283) www.midaliasteel.com

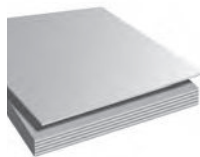
MIDALIA STEEL



Hot Rolled Sheet

Formable HA1S Steel

Base Metal Thickness mm	Width mm	kg/m ²
1.50	1200	11.8
1.50	1210	11.8
1.60	910	12.6
1.60	1195	12.6
1.60	1200	12.6
1.60	1210	12.6
1.95	900	15.3
1.95	1195	15.3
1.95	1200	15.3
1.95	1210	15.3
2.40	1200	18.8
2.50	1195	19.6
2.50	1210	19.6
2.50	1495	19.6
2.50	1510	19.6
2.90	1210	22.8
2.90	1500	22.8
2.95	1200	23.2
2.95	1500	23.2
2.95	1800	23.2
3.00	895	23.6
3.00	1195	23.6
3.00	1210	23.6
3.00	1495	23.6
3.00	1510	23.6
3.00	1800	23.6



Typical Uses:

- Shelving
- Light structural members
- Tanks

Features:

- Meets AS/NZS 1594: 2002 (Flat rolled steel products) 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.

TRU-SPEC® Steel Plate

TRU-SPEC® steel is available in a range of structural grades, widths and lengths. Typically used in light and standard structural members, brake press forming applications, light poles, trailer and automotive components, general fabrications and galvanising applications.

The benefits of selecting TRU-SPEC® steel include:

- Guaranteed minimum strength levels
- Various levels of weldability, formability and ductility (Good and Excellent)
- Excellent for galvanising applications
- Enhanced weather resistance

BlueScope's stretch levelling process provides a consistently flat and 'memory-free' product every time particularly suited to the industry's growing preference towards laser cutting.

TruSpec®



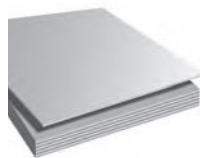
Call your local branch to discuss your requirements



GALVABOND® Sheet

G2 Z275

Base Metal Thickness mm	Width mm	kg/m ²
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	12.1
1.50	1220	12.1
1.50	1500	12.1
1.55	1200	12.5
1.55	1220	12.5
1.55	1500	12.5
1.60	1525	12.9
1.90	1220	15.2
1.95	1200	15.6
1.95	1220	15.6
2.40	1220	19.1
2.45	1200	19.5
2.90	1220	23.1



Typical Uses:

- Tube
- Air conditioning ducts,
- Air conditioning 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.

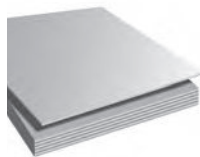


ZINCANNEAL® Sheet

G2S ZF100

MIDALIA STEEL

Base Metal Thickness mm	Width mm	kg/m ²
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	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	11.1
1.50	915	11.9
1.50	1200	11.9
1.50	1220	11.9
1.55	1200	12.3
1.60	1200	12.7
1.90	1220	15.1
1.95	1200	15.4



Note: 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.

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 manufacturing. Product is suitable for moderate drawing applications and is suitable for lockseaming up to 1.6mm thick.

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



MIDALIA STEEL

ZINCALUME® Sheet

G300 AZ150

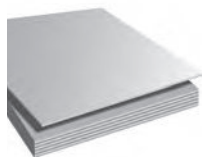
Base Metal Thickness mm	Width mm	kg/m ²
0.40	1200	3.31
0.55	1200	4.49
0.55	900	4.49
0.75	1200	6.06
1.00	900	8.02
1.00	1200	8.02
1.20	900	9.59
1.20	1200	9.59

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.



Zincalume®



COLORBOND® Sheet

Grade 300

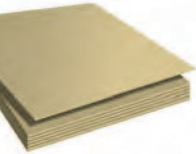
Size mm x mm x mm	Colours	Mass sheets/tonne
1200 x 2400 x 0.55	Manor Red® Jasper® Classic	76
1200 x 3050 x 0.55	Cream™ Surfmist®	60
1200 x 3660 x 0.55	Paperbark® Dune® Shale Grey™	51
1200 x 2400 x 0.80	Windspray® Woodland Grey®	63
1200 x 3000 x 0.80	Pale Eucalypt® Wilderness®	43
1200 x 2440 x 0.55	Cottage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

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.



Colorbond®

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

COLORBOND® Steel Standard Colour Range

						
Dover White™	Surfmist®	Southerly®	Shale Grey™	Bluegum®	Windspray®	Basalt®
<hr/>						
						
Classic Cream™	Paperbark®	Evening Haze®	Dune®	Gully™	Jasper®	Manor Red®
<hr/>						
						
Wallaby®	Woodland Grey®	Pale Eucalypt®	Cottage Green®	Ironstone®	Deep Ocean	Night Sky®

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.

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Aluminium

Aluminium Circular Tube

Size mm x mm	Die	Length m	Alloy / Temper	Weight Kg
12 x 1.6	EX5004	6.5	6060 T5	0.917
16 x 1.6	EX5006	6.5	6060 T5	1.268
19 x 1.2	E40149	6.5	6060 T5	1.177
20 x 1.6	EX5008	6.5	6060 T5	1.575
25 x 1.6	EX5010	6.5	6060 T5	1.908
25 x 3.0	EX5011	6.5	6060 T5	3.64
32 x 1.6	EX5013	6.5	6060 T5	2.685
32 x 3.0	EX5014	6.5	6060 T5	4.428
38.09 x 3.25	EX2078	6.0	6060 T5	5.76
38.1 x 3.25	E40016	6.5	6060 T5	6.247
40 x 3.0	EX5017	6.5	6060 T59I	6.123
44.45 x 3.25	EX2101	6.0	6060 T59I	6.816
46 x 3.5	E40700	6.0	6060 T59I	7.572
48.41 x 4.47	EX2202	6.0	6005A T5	9.996
50 x 1.6	EX5018	6.5	6060 T5	4.271
50 x 2.0	EX5019	6.5	6060 T59I	5.291
50 x 3.0	EX5041	6.5	6082 T5	7.176
50 x 4.0	EX5081	6.5	6082 T5	9.366
50 x 6.0	E40545	6.5	6060 T5	13.428
60 x 2.0	EX5021	6.5	6063 T6	1.968
60 x 3.0	EX5022	6.5	6060 T59I	9.425
60 x 5.0	EX5071	6.5	6060 T59I	15.165
63.5 x 3.95	E40098	6.0	6060 T4	6.384
76.19 x 4.75	EX2207	6.5	6060 T1	17.256
76.19 x 6.35	EX2153	6.5	6005 T5	24.453
76.2 x 3.2	EP13843	6.5	6060 T4	12.678
76.2 x 3.8	EP8552	6.5	6060 T5	15.171
80 x 3.0	EX5024	6.5	6060 T5	12.734
88.9 x 5.33	EX2161	6.5	6060 T5	22.668
100 x 3.0	EX5026	6.5	6060 T5	16.042



Note: * Sizes not available in all states



Aluminium Rectangular Tube

Size mm x mm	Die	Length m	Alloy / Temper	Weight Kg
38 x 25 x 1.5 RAD	E22174	6.5	6106 T6	3.06
40 x 20 x 2.0 RAD	E22169	6.5	6060 T5	3.89
40 x 25 x 2.5	EB1014	6.5	6060 T5	5.27
40 x 25 x 3.0 RAD	E22122	6.5	6060 T5	6.09
50 x 25 x 1.6	EQ3359	6.5	6060 T5	4.03
50 x 25 x 2.5	EU7751	6.5	6060 T5	6.14
50 x 25 x 3.0	EL8012	6.0	6082 T5	6.71
50 x 25 x 3.0 RAD	EW5373	6.5	6060 T5	7.13
50 x 40 x 3.0	EL8013	6.5	6082 T5	8.85
60 x 40 x 3.0	EL8015	6.5	6060 T5	9.90
65 x 16 x 1.2 RAD	EQ6823	6.5	6060 T5	3.22
65 x 16 x 1.4 RAD	EQ6948	6.5	6060 T5	3.74
75 x 50 x 3.0	EL8017	6.5	6060 T5	12.5
76.2 x 25.4 x 2.4	EL4238	6.5	6060 T5	8.16
76.2 x 50.8 x 1.6	EQ1915	6.0	6060 T5	6.42
80 x 25 x 3.0	EL8018	6.5	6060 T5	10.4
80 x 40 x 3.0	EL8019	6.5	6060 T5	12.0
80 x 50 x 3.0	EL8020	6.5	6060 T5	13.1
100 x 25 x 2.5	EL8021	6.5	6060 T5	10.5
100 x 25.2 x 1.60	EQ2698	6.5	6060 T5	6.85
100 x 40 x 3.0	EL8023	6.5	6060 T5	14.1
100 x 50 x 1.6	EL8024	6.5	6060 T5	8.24
100 x 50 x 1.6	EP8087	6.5	6106 T6	8.25
100 x 50 x 3.0	EL8025	6.5	6063 T5	6.48
100 x 50 x 3.0 RAD	E22177	6.0	6082 T5	14.0
100 x 50 x 6 RAD	EB1592	6.0	6082 T5	10.7
101.6 x 76.2 x 2.29 RAD	EG5074	8.0	6060 T5	16.8
125 x 40 x 3.0	EL8028	6.5	6060 T5	16.7
125 x 50 x 3.0	EL8030	6.5	6060 T5	17.8
150 x 50 x 3.0	EL8033	6.5	6060 T5	20.4
150 x 50 x 3.0 RAD	E22178	6.5	6063 T5	20.5
200 x 50 x 3.0	EL8035	6.5	6060 T5	7.91
250 x 50 x 3	E22173	6.5	6106 T6	21.4



Note: * Sizes not available in all states



Aluminium Square Tube

Size mm x mm	Die	Length m	Alloy / Temper	Weight Kg
19.05 x 1.2	EK1333	6.5	6060 T5	1.50
20 x 1.6	E22101	6.5	6060 T5	2.07
20 x 3.0	EL2299	6.5	6060 T5	3.58
20 x 3.0 RAD	E51872	6.5	6060 T591	3.44
25 x 1.5 RAD	EL8819	6.5	6060 T5	2.48
25 x 1.6	E22103	6.5	6060 T5	2.63
25 x 2.0 RAD	EN3238	6.5	6060 T5	3.23
25 x 3.0	EL8003	6.5	6060 T5	4.64
25 x 3.0 RAD	E22120	6.5	6060 T5	4.50
25 x 3.0 RAD	EQ4067	6.5	6060 T591	4.64
32 x 3.0	EL8005	6.5	6060 T5	6.11
40 x 1.6	EL7938	6.5	6060 T5	4.32
40 x 2 RAD	EQ6818	6.5	6060 T5	5.21
40 x 2.0	EQ4000	6.5	6060 T5	5.34
40 x 3.0	E22108	6.5	6060 T5	7.79
40 x 3.0 RAD	E73599	6.5	6060 T5	7.70
45 x 2.5	E22109	6.5	6060 T5	7.46
50 x 1.6	EQ2259	6.5	6060 T5	5.43
50 x 1.6 RAD	EQ6446	6.6	6060 T6	5.25
50 x 2.0	EB1003	6.5	6060 T5	6.74
50 x 2.5	EL8008	6.5	6060 T5	8.34
50 x 3.0	EB1004	6.5	6060 T5	9.90
50.8 x 3.18 RAD	EL6217	6.5	6060 T5	10.5
65 x 2.5	EQ6382	6.5	6060 T5	11.0
65 x 3.0 RAD	EU2011	6.5	6060 T5	13.1
75 x 3.0 RAD	EQ6032	6.5	6060 T5	14.8
76 x 6.35 RAD	EQ4171	6.0	6082 T6	26.4
76.2 x 6.35 RAD	E11077	6.5	6005A T5	28.7
80 x 6 RAD	E22129	6.0	6085 T5	28.8



Note: * Sizes not available in all states



Aluminium Angles

MIDALIA STEEL

A	B	T	Die	Alloy / Temper	Length m	Mass/LEN
20	20	1.6	EK9107	6060 T5	6.5	1.07
20	20	3.0	EK9108	6060 T5	6.5	1.95
25	12	1.6 RAD	EK9109	6060 T5	6.5	0.65
25	20	1.6	EK9111	6060 T5	6.5	1.22
25	25	1.6	EK9216	6060 T5	6.5	1.36
25	25	3.0	EK9217	6060 T5	6.5	2.48
32	20	1.6	EK9114	6060 T5	6.5	1.42
32	32	1.6	EB1126	6060 T5	6.5	1.75
32	32	3.0	EK9118	6060 T5	6.5	3.21
40	20	1.6	EL3257	6060 T5	6.5	1.64
40	20	3.0	EK9121	6060 T5	6.5	3.00
40	25	1.6	EL8124	6060 T5	6.5	1.78
40	25	3.0	EK9122	6060 T5	6.5	3.26
40	40	1.6	EK9123	6060 T5	6.5	2.20
40	40	3.0	EK9124	6060 T5	6.5	4.06
40	40	6.0	EK9126	6060 T5	6.5	7.79
50	25	1.6	EK9129	6060 T5	6.5	2.06
50	25	3.0	EK9130	6060 T5	6.5	3.79
50	40	3.0	EK9131	6060 T5	6.5	4.58
50	50	1.6	EL9417	6060 T5	6.5	2.76
50	50	3.0	EK9132	6060 T5	6.5	5.11
50	50	6.0	EK9134	6060 T5	6.5	9.90
50	50	6.0 RAD	EN5408	6060 T5	6.0	9.19
60	60	3.0	EK9135	6060 T5	6.5	6.61
60	60	6.0	EK9136	6060 T5	6.5	12.0
70	25	1.6	EN5714	6060 T5	6.5	2.61
70	40	1.6	EN7492	6060 T5	6.5	3.04
75	25	3.0	EL5923	6060 T5	6.5	5.12
76.2	50.8	6.35 RAD	EG6410	6060 T5	6.0	12.8
76.2	76.2	3.2	E06168	6060 T5	6.5	8.31
80	20	3.0	EK9137	6060 T5	6.5	5.10
80	50	2.5	E20559	6060 T5	6.5	5.60
80	80	6.0	EK9138	6060 T5	6.5	16.2
100	50	3.0	EPI2372	6060 T5	6.5	7.74
100	50	4.0	E20525	6060 T5	6.5	10.3
100	50	6.0 RAD	EQ1558	6060 T5	6.5	14.1
100	100	6.0	EPI2627	6060 T5	6.5	18.9
125	50	3.0	EK9139	6060 T5	6.5	9.06
125	50	6.0 RAD	E20700	6060 T5	6.5	16.5

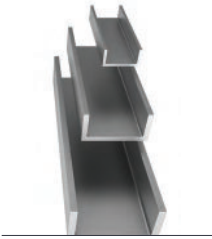

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Note: * Sizes not available in all states



Aluminium Channels

A	B	C	T1	T2	Die	Alloy / Temper	Length m	Mass/ LEN
10	10	10	1.6		EK9146	6060 T5	6.5	0.75
12	12	12	1.6		EK9149	6060 T5	6.5	0.92
12	20	20	2.5		EK9151	6060 T5	6.5	2.06
16	16	16	1.6		EK9152	6060 T5	6.5	1.26
20	20	20	1.6		EL1812	6060 T5	6.5	1.59
20	20	20	3		EK9155	6060 T5	6.5	2.84
22.32	20	20	1.2 RAD		EN4619	6060 T5	6.5	1.29
25	12	12	3		EK9156	6060 T5	6.5	2.26
25	25	25	1.6		EL5249	6060 T5	6.5	2.02
25	25	25	3		EK9158	6060 T5	6.5	3.63
25	40	40	3		EK9159	6060 T5	6.5	5.21
32	16	16	1.6		E20784	6060 T5	6.5	1.70
32	25	25	3		EK9160	6060 T5	6.5	4.00
40	20	20	2		EQ1556	6060 T5	6.5	2.67
40	20	20	3		EK9161	6060 T5	6.5	3.89
40	25	25	3		EK9162	6060 T5	6.5	4.42
40	40	40	3		E20790	6060 T5	6.5	6.00
44.45	25.4	25.4	3.18		EG1021	6060 T5	6.5	4.96
50	25	25	3		EK9215	6060 T5	6.5	4.95
50	50	50	3		EK9163	6060 T5	6.5	7.58
53	25	25	1.5		E20830	6060 T5	6.5	2.43
54.2	20	20	1.6		E20821	6060 T5	6.5	2.56
60	32	32	3		EK9164	6060 T5	6.5	6.21
76.2	38.1	38.1	RAD		EG6435	6060 T5	6.5	16.4
80	25	25	3		EK9165	6060 T5	6.5	6.53
80	40	40	4		EK9166	6060 T5	6.5	10.7
80	40	40	4 RAD		E20921	6060 T5	6.5	9.88
80	40	40	6 RAD		E20922	6060 T5	6.5	14.5
100	25	25	3		EK9168	6060 T5	6.5	7.58
100	50	50	3		EB1208	6060 T5	6.5	10.2
100	50	50	5 RAD		EN3527	6060 T5	6.5	19.5
100	50	50	6 RAD	9	EN3528	6060 T5	6.5	26.6
100	50	50	7.56 RAD		EPI3664	6060 T5	6.5	#N/A
101.6	50.8	50.8	7.9 RAD	6.3	EG6434	6060 T5	6.5	22.5



Note: * Sizes not available in all states



Aluminium Tees

Size mm x mm	Die	Length m	Alloy / Temper	Mass/LEN
20 x 20 x 1.6	EK9140	4.0	6060 T5	0.66
25 x 25 x 1.6	EK9142	6.5	6060 T5	1.36
25 x 25 x 3.0	EK9143	6.5	6060 T5	2.48
35 x 50 x 3.0 RAD	EU9284	6.0	6082 T6	4.05
40 x 40 x 1.6	EL5287	6.5	6060 T5	2.20
40 x 40 x 3.0	EK9144	6.5	6060 T5	4.06
40 x 40 x 4.0 RAD	EU9187	6.0	6082 T6	5.02
45 x 100 RAD	EU7074	9.65	6082 T6	21.5
50 x 156 x 6.0 RAD	EU8408	9.65	6082 T6	31.3
50 x 25 x 1.6	E20212	6.5	6060 T5	2.06
50 x 50 x 4.0 RAD	E20219	6.0	6082 T6	6.32
50 x 50 x 6.0 RAD	E20205	6.0	6082 T6	9.31
50 x 60 RAD	EU6368	6.0	6082 T6	8.47
50 x 70 RAD	EN5331	9.65	6082 T6	17.1
80 x 139 RAD	EU7545	6.0	6082 T6	21.7
80 x 163 RAD	EN5218	6.0	6082 T6	23.6



Note: * Sizes not available in all states

Aluminium Round Bar

Diameter	Die	Length m	Alloy / Temper	Mass/LEN
10	EX6000	4.0	6060 T5	0.85
12	EX6001	4.0	6060 T5	1.22
16	EX6002	4.0	6060 T5	2.17
20	EX6003	4.0	6060 T5	3.39
25.4	EX3000	4.0	6060 T5	5.48
33	EX6005	4.0	6061 T6	9.24
39	EX6006	4.0	6061 T6	12.9



Note: * Sizes not available in all states



Aluminium Flat Bars

Size mm x mm	Die	Length m	Alloy / Temper	Mass/LEN
20 x 3	EX4004	4.0	6060 T5	0.65
20 x 6	EX4020	4.0	6060 T5	1.30
25 x 3	EX4005	4.0	6060 T5	0.81
25 x 6	EX4021	4.0	6060 T5	1.62
32 x 3	EX4006	4.0	6060 T5	1.04
32 x 6	EX4022	4.0	6060 T5	2.07
32 x 10	EX4030	4.0	6060 T5	3.46
40 x 3	EX4007	4.0	6060 T5	1.30
40 x 6	EX4023	4.0	6060 T5	2.59
40 x 10	EX4031	4.0	6060 T5	4.32
50 x 3	EX4008	4.0	6060 T5	1.62
50 x 6	EAL4035	4.0	6060 T5	3.24
50 x 6 RAD	EX4024	4.0	6060 T5	3.23
50 x 10	EX4032	4.0	6060 T5	5.40
50 x 12	EX4039	4.0	6060 T5	6.48
60 x 3	EX4009	4.0	6060 T5	1.94
60 x 6	EX4069	4.0	6060 T5	3.89
60 x 10	EX4070	4.0	6060 T5	6.48
60 x 12	EX4040	4.0	6060 T5	7.78
80 x 3	EX4010	4.0	6060 T5	2.59
80 x 6	EX4025	4.0	6060 T5	5.18
80 x 10	EX4033	4.0	6060 T5	8.64
80 x 12	EX4041	4.0	6060 T5	10.4
80 x 16	EX4044	4.0	6060 T5	13.8
100 x 1.5 RAD	E34113	3.75	6060 T5	1.52
100 x 3	EX4011	4.0	6060 T5	3.24
100 x 6	EX4026	4.0	6060 T5	6.48
100 x 10	EX4034	4.0	6060 T5	10.8
100 x 12	EX4042	4.0	6060 T5	13.0
160 x 6	EX4027	4.0	6060 T5	10.4
160 x 10	EX4035	4.0	6060 T5	17.3

Aluminium Square Bars

Size mm x mm	Die	Length m	Alloy / Temper	Mass/LEN
6 x 6	EX6500	4.0	6060 T5	0.39
10 x 10	EX6501	4.0	6059 T5	1.08
12 x 12	EX6502	4.0	6060 T5	1.56
16 x 16	EX6503	4.0	6060 T5	2.77
20 x 20	EX6504	4.0	6060 T5	4.32
25 x 25	EX6505	4.0	6060 T5	6.75
40 x 40	EX6506	4.0	6106 T6	17.0

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Note: * Sizes not available in all states



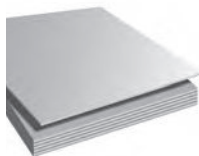
Note: * Sizes not available in all states



Aluminium Sheet and Plate

Sheet 5005 H34

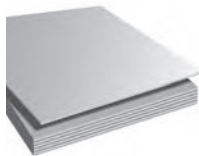
Thickness mm	Width mm	Length m	kg/sheet
0.60	1200	2.4	4.66
0.80	1200	2.4	6.22
1.00	1200	2.4	7.78
1.20	1200	2.4	9.33
1.60	1200	2.4	12.4
2.00	1200	2.4	15.5
2.00	1200	3.0	19.4
2.00	1500	3.6	29.2
2.50	1200	2.4	19.4
3.00	1200	2.4	23.3
3.00	1200	3.0	29.2
3.00	1500	3.0	36.3
3.00	1500	3.6	43.7
4.00	1200	2.4	31.1
5.00	1200	2.4	38.9
6.00	1200	2.4	46.6



Aluminium Sheet and Plate

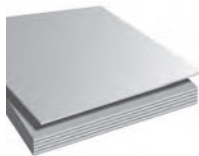
PVC Coated 5005 H34

Thickness mm	Width mm	Length m	kg/sheet
1.20	1200	2.4	9.33
1.60	1200	2.4	12.4
2.00	1200	2.4	15.5
2.50	1200	2.4	19.4
3.00	1200	2.4	23.3



Aluminium Sheet and Plate

Grade	Thickness mm	Width mm	Length m	kg/sheet
5052 H32	1.60	1200	2.4	12.4
	2.00	1200	2.4	15.4
	2.50	1200	2.4	19.4
	3.00	1200	2.4	23.3
5251 H34	2.50	1500	3.0	30.2



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Aluminium Tread Plate

3003 H22 - Propellor Bright

Thickness mm	Width mm	Length m	kg/sheet
1.60	1219	2.438	12.9
2.00	1219	2.438	17.1
3.00	1219	2.438	27.2
4.76	1219	2.438	45.0



Aluminium Tread Plate

5052 H114 - 5BAR

Thickness mm	Width mm	Length m	kg/sheet
1.60	1200	2.4	13.2
2.00	1200	2.4	17.0
2.00	1500	3.0	26.5
2.50	1200	2.4	21.3
2.50	1500	3.0	33.3
3.00	1200	2.4	25.3
3.00	1200	6.0	63.4
3.00	1500	3.0	39.6
3.00	1500	6.0	80.3
4.00	1200	2.4	33.1
4.00	1200	6.0	82.4
4.00	1500	6.0	103
5.00	1200	2.4	39.7
5.00	1200	3.66	62.0
5.00	1200	6.0	102
5.00	1500	6.0	127
6.00	1200	2.4	47.8
6.00	1500	3.0	74.7



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WHAT YOU NEED



Stainless Steel

Stainless Steel Angles

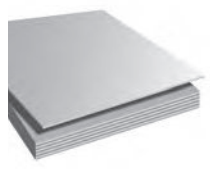
Grades 304, 316

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



Stainless Steel Sheet and Coil

Austenitic		
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



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

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



Stainless Steel Flat Bars

Grades 304, 316

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



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



Stainless Steel Round Bars

Grades 304, 316 & 430

Size mm x 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	12.2
50.8	15.9
54.0	17.9
57.2	20.1
63.5	24.9
66.7	27.4
69.9	30.1
76.2	35.8
82.6	42.0
88.9	48.7
101.6	63.6
127	99.4





Walkway Systems

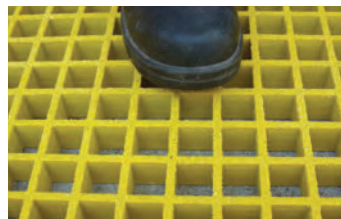
MIDALIA STEEL


Midalia Steel 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.

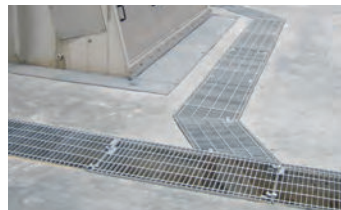


Drainage Grates

Midalia Steel offers a range of standard (stock) and custom made mild steel drainage and trench grates that comply with AS3996.

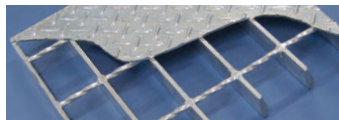
Grates are rated to:

- 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



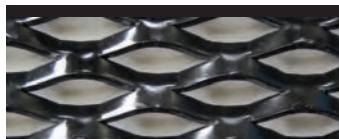
Composite Flooring

Composite flooring comprises of floorplate welded to the top of grating (shown right), 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.



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Stair Stringers

Weldlok® stair stringers are available configured for 2 to 17 treads. Treads and mounting brackets can be purchased separately. Advantages of pre-assembled stringers

- Convenient and easy to install
- Hot-dip galvanised to AS/NZS 4680
- Standard with 175mm rise and 250mm going at an angle of 35 degrees
- Designed to take a maximum tread width of 1000mm

How to calculate the number of treads required

1. Measure the vertical height from the ground to the finished floor level of the landing.
2. Divide the height by the rise (175mm)
3. Round the result to the nearest whole number, then reduce by 1 for the top landing.

i.e. Height = 1000 divided by 175 = 5.71 rounded to 6 and reduced by 1 = 5 step stringers required.

Weldlok® Product Code	Number of Steps	Vertical Height (mm)	RHS Thickness (mm)	Weight per Pair (kg)
G1TS	1	350	3.0	10
G2TS	2	525	3.0	15
G3TS	3	700	3.0	19
G4TS	4	875	3.0	25
G5TS	5	1050	3.0	30
G6TS	6	1225	4.0	35
G7TS	7	1400	4.0	41
G8TS	8	1575	4.0	46
G9TS	9	1750	4.0	52
G10TS	10	1925	4.0	58
G11TS	11	2100	4.0	61
G12TS	12	2275	4.0	66
G13TS	13	2450	5.0	107
G14TS	14	2625	5.0	116
G15TS	15	2800	5.0	124
G16TS	16	2975	5.0	132
G17TS	17	3150	5.0	140



- Notes:**
- * Treads must be >50mm thick
 - * Treads must not be greater than 1000mm wide
 - * When installing the stringers, in order to comply with the Building Code of Australia, the "rise" of each tread must be consistent, including the first step and the last step up to the landing platform. This may require the ground level to be built up.

NEPEAN
Building & Infrastructure

Weldlok®

Mastermesh®

Galintel®

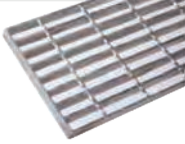
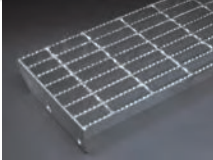
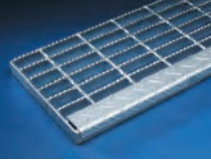
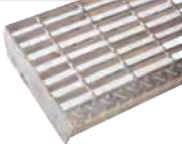

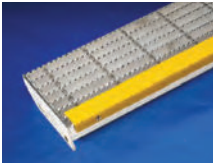
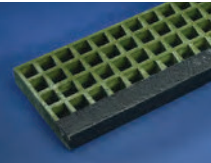
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Stair Treads

Stair treads are made from mild steel, aluminium, stainless steel, or FRP with options of non slip nosing. Suitable for either bolt-on or weld-on attachment. Weldok® stair treads can be supplied in Series 30, 40 & 60 forgebar grating. Treads may be selected using the Recommended Width and Recommended Max. Length tables. Non-standard treads can also be supplied on request. Please consult our sales department.

Type T1	Type T2	Type T3	Type T4
Welded fixing, no nosing	Mild steel bolted fixing	Mild steel with floor plate nosing, welded fixing	Bolted fixing, floor plate nosing
			
Type T5	Type T6	FRP	
Aluminium with abrasive nosing, welded fixing	Bolted fixing, Holed End Plates, abrasive Nosing	FRP tread with abrasive nosing, bolted fixing	
			

Ordering Stair Treads

1. Select from the tread types shown (T1 to T6).
2. Refer to Recommended Max. Lengths table. Select a Load Bar Size and Series with a maximum length equal to or greater than the required tread length. For example, if the required tread length is 1100mm, the Series 40 grating with 32 x 5 load bars (A40-325) would be appropriate.
3. From the Recommended Widths table, choose a width that corresponds to the tread type and Series selected. For example, based on the Series 40 grating and a T1 tread, the tread width would be either 125, 165, 205, 245, 285 or 325mm. Example would be: Tread Type T1 ~ 1100 x 285 from A40 – 325

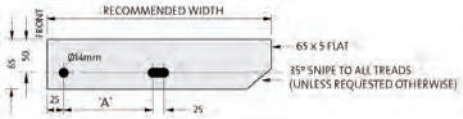
Recommended Maximum Lengths (mm)			
Load Bar Size	25 x 5	32 x 5	40 x 5
Series 30	900	1300	1600
Series 40	750	1200	1500
Series 60	500	800	1300

Recommended Widths (mm)							
Tread Types T1 to T6							
Series 30	125	155	185	215	245	275	305
Series 40	125	165		205	245	285	325
Series 60	125		185		245		305

Bolted Connections							
End Plate Hole Centres (mm)							
'A'	45	75	75	100	100	100	100

Standard Stocked Treads (serrated):
600 x 285mm
750 x 285mm
900 x 245mm
900 x 275mm

Standard End Plates for Bolted Threads



Note: Special End Plate Hole Centres available on request.

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Non-Weld Handrail Systems



Top Rail



101 - Short Tee



104 - Long Tee



128 - Corner (Top Rail)



125 - 90 degree elbow

Suit Pipe	Product code	Suit Pipe	Product code	Suit Pipe	Product code	Suit Pipe	Product code
32NB	101-C42	32NB	104-C42	32NB	128-C42	32NB	125-C42
40NB	101-D48	40NB	104-D48	40NB	128-D48	40NB	125-D48
48NB/32NB	101-D48/C42	40NB	104-D48	40NB	128-D48	48NB/32NB	125-D48/C42

Middle Rail



116 - Corner (Middle Rail)



119 - Cross (Middle Rail)



150 - Internal Expanding Joint

Suit Pipe	Product code	Suit Pipe	Product code	Suit Pipe	Product code
32NB	116-C42	32NB	119-C42	32NB	150-C42
40NB	116-D48	40NB	119-D48	40NB	150-D48

Elbows & Knuckles



124 - Variable Elbow 15 - 60 degrees



166 - Adjustable knuckle



173 - Single Swivel Combination

Suit Pipe	Product code	Suit Pipe	Product code	Suit Pipe	Product code
32NB	124-C42	32NB	166-C42	32NB	173-C42
40NB	124-D48	40NB	166-D48	40NB	173-D48



Non-Weld Handrail Systems



Bases



**232 - Heavy Duty
Railing Base Flange**



**242 - Base Flange with
Toe Board Fixing**



246 - Heavy Duty Side Palm

Suit Pipe	Product code	Suit Pipe	Product code	Suit Pipe	Product code
32NB	232-C42	32NB	242-C42	32NB	246-C42
40NB	232-D48	40NB	242-D48	40NB	246-D48

Access Systems



**745 - DDA Assist Expanding
Wall Bracket**



**746 - DDA Assist Saddle
Wall Bracket**



766 - Adjustable elbow

Suit Pipe	Product code	Suit Pipe	Product code	Suit Pipe	Product code
32NB	745-C42	32NB	746-C42	32NB	766-C42
*Will also fit 40NB		*Will also fit 40NB		*Will also fit 40NB	

Note: In order to meet the requirements of accessibility standards, the range forms flush joints with size 32NB tube.



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DuraGal Flooring System®

Easy to Install

DuraGal Flooring System[®] uses high strength C450L0 grade galvanized DuraGal[®] ZBI35/135 Hollow Sections. The sections are strong and lightweight making them easy to handle on site. DuraGal[®] ZBI35/135 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.

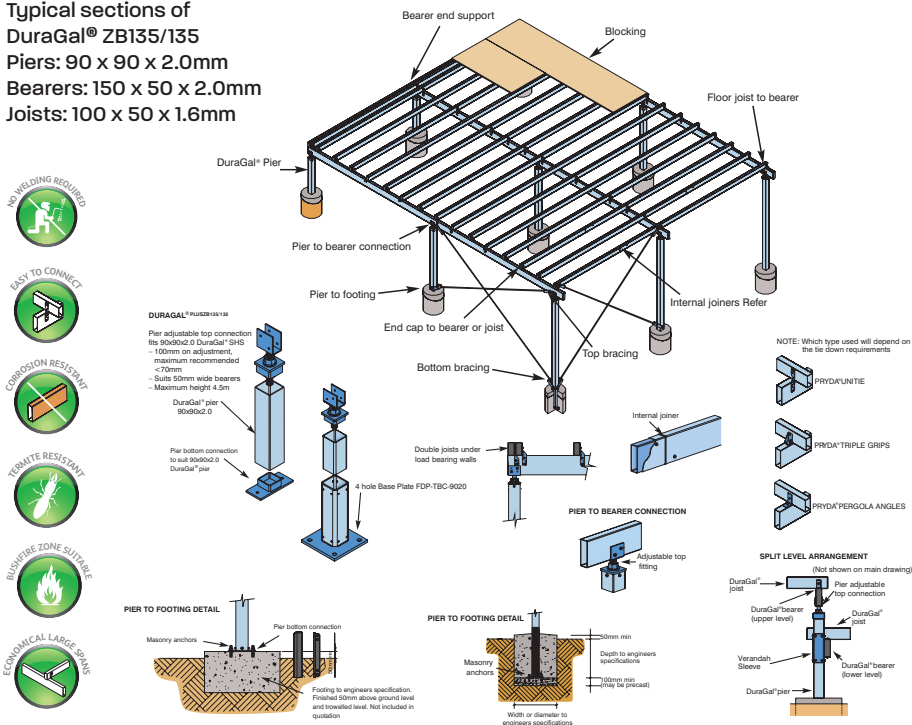
Sheet flooring can still be attached in the traditional way using building adhesive and gun-nailing. Most reputable nail tool suppliers have hardened tipped nails to suit common nail guns to attach sheet flooring to steel joists up to and including 2mm thick.

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

Typical sections of
DuraGal® ZBI35/135
Piers: 90 x 90 x 2.0mm
Bearers: 150 x 50 x 2.0mm
Joists: 100 x 50 x 1.6mm



DuraGal[®]
THE DIFFERENCE IS DURAGAL

DuraGal

Flooring System



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Mezzanine Flooring System

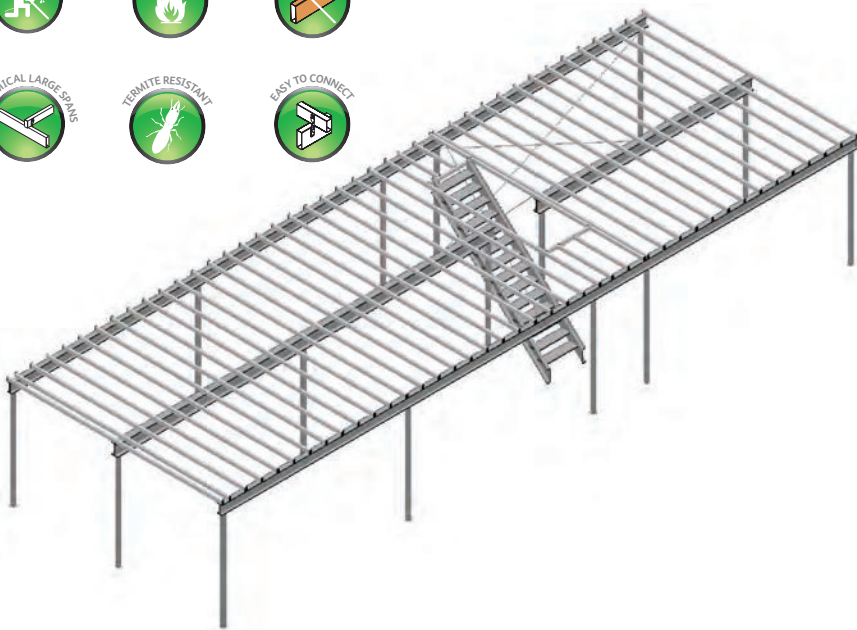
DuraGal® Mezzanine Flooring System

- 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

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.

DuraGal® Mezzanine Flooring System uses high strength C450L0 grade galvanised DuraGal® 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.





Building Products



Lintels - Traditional

Quick Selection and Safe Load Tables

Category				
A	B	C	D	E
Description				
Non-load bearing brick veneer with separate structural timber frame	Cavity wall equally supported on both skins. (Supported roof span <8m)	Lightweight sheet roof and ceiling supported on single skin. (Supported roof span <8m)	Lightweight timber truss, tiled roof and sheet ceiling supported on single skin. (Supported roof span <8m)	Load-bearing internal brickwork under upper storeys. (Supported floor span <8m)

Traditional Angle 100 x 75 x 10 - 13kg/m	Category	Clear Span Length (mm)							
		* Follow the colour code from the loading categories above. Add end bearing of 100-150mm to both ends of span							
	A								
	B								
	C								
	D								
	E								

Traditional Angle 150 x 100 x 10 - 19kg/m	Category	Clear Span Length (mm)						
		* Follow the colour code from the loading categories above. Add end bearing of 100-150mm to both ends of span						
	A							
	B							
	C							
	D							
	E							

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Lintels - Traditional

Quick Selection and Safe Load Tables

<div>Traditional Angle</div> <div>100 x 75 x 10 - 13kg/m</div> <div></div>	Category	Clear Span Length (mm)						
		All tables are intended as a guide. Qualified expert advice should be sought in deciding the suitability of any structural product for a construction application. UDL = Uniform Distributed Load						
	Span (mm)	900	1200	1500	1800	2100	2400	2700
	Bar Length (mm)	1200	1500	1800	2100	2400	2700	3000
	Total Load (kg)	1345	1005	805	670	575	500	415
	UDL (kg/m)	1494	840	538	373	274	210	154
	Point Load (kg)	670	500	400	335	285	250	220

<div>Traditional Angle</div> <div>150 x 100 x 10 - 19kg/m</div> <div></div>	Category	Clear Span Length (mm)						
		All tables are intended as a guide. Qualified expert advice should be sought in deciding the suitability of any structural product for a construction application. UDL = Uniform Distributed Load						
	Span (mm)	1800	2100	2400	2700	3000	3300	3600
	Bar Length (mm)	2100	2400	2700	3000	3300	3600	4000
	Total Load (kg)	3205	2355	1800	1425	1150	950	800
	UDL (kg/m)	1781	1121	751	527	384	289	222
	Point Load (kg)	1690	1325	1010	800	645	535	450

• Loads limited by short term deflection of 1/600 span

Note: *Loads given are total (allowable) loads including lintel and brickwork.



C-Purlins

Designation	Size mm x mm x mm	Mass kg/m
C 10010	102 x 51 x 1.0	1.78
C 10012	102 x 51 x 1.2	2.10
C 10015	102 x 51 x 1.5	2.62
C 10019	102 x 51 x 1.9	3.29
C 15012	152 x 64 x 1.2	2.89
C 15015	152 x 64 x 1.5	3.59
C 15019	152 x 64 x 1.9	4.51
C 15024	152 x 76 x 2.4	5.70
C 20015	203 x 76 x 1.5	4.49
C 20019	203 x 76 x 1.9	5.74
C 20024	203 x 76 x 2.4	7.24
C 25019	254 x 76 x 1.9	6.50
C 25024	254 x 76 x 2.4	8.16
C 30024	300 x 96 x 2.4	10.1
C 30030	300 x 96 x 3.0	12.6
C 35030	350 x 125 x 3.0	15.1

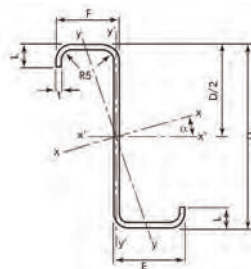
MIDALIA STEEL

C

Note: Purlins are made from high tensile steel to be fastened rather than welded. Purlins can be ordered pre-cut to length and with pre-punched holes or slots.

Z-Purlins

Designation	Web D (mm)	Thickness t (mm)	Flange E (mm)	Flange F (mm)	Flange L (mm)	Mass kg/m
Z 10010	102	1.0	53	49	12.5	1.78
Z 10012	102	1.2	53	49	12.5	2.10
Z 10015	102	1.5	53	49	13.5	2.62
Z 10019	102	1.9	53	49	14.5	3.29
Z 15012	152	1.2	66	61	15.5	2.89
Z 15015	152	1.5	66	61	16.5	3.59
Z 15019	152	1.9	66	61	17.5	4.51
Z 15024	152	2.4	70	60	19.5	5.70
Z 20015	203	1.5	77	74	15.0	4.49
Z 20019	203	1.9	80	74	18.5	5.74
Z 20024	203	2.4	82	73	21.5	7.24
Z 25019	254	2.4	79	74	18.0	6.50
Z 25024	254	2.4	79	73	21.0	8.16
Z 30024	300	2.4	105	93	27.0	10.1
Z 30030	300	3.0	107	93	31.0	12.6
Z 35030	350	3.0	134	121	30.0	15.1


Z


Note: Purlins are made from high tensile steel to be fastened rather than welded. Purlins can be ordered pre-cut to length and with pre-punched holes or slots.

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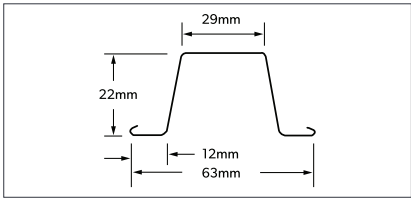


Battens, Roofing and Walling

LYSAGHT TOPSPAN®

LYSAGHT TOPSPAN® has been used in the building and construction industry for many decades in commercial and residential applications. Applications include sheds, garages, carports, and as ceiling and roof battens as well as for handyman projects

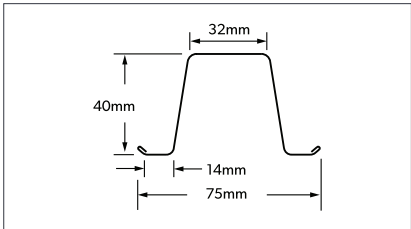
TOPSPAN® 22



BMT mm	MASS kg/m	Yield Strength Mpa	Coating Mass g/m ²
0.42	0.35	550	150
Description			

22mm deep batten ideal for use as a ceiling batten for internal fixing of ceiling or wall liner. MPa minimum yield stress, 150g/m² minimum coating mass).

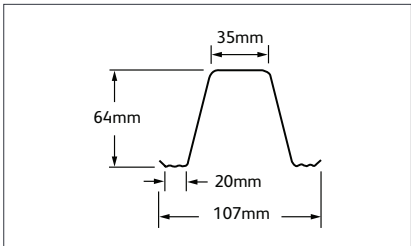
TOPSPAN® 40



BMT mm	MASS kg/m	Yield Strength Mpa	Coating Mass g/m ²
0.55	0.67	550	150
0.75	0.91	550	150
Description			

Ideal for use as a roofing batten for residential steel or tiled roof, TOPSPAN® 40 is a 40mm deep batten offering a high strength yet light weight solution that won't shrink, warp or twist.

TOPSPAN® 64



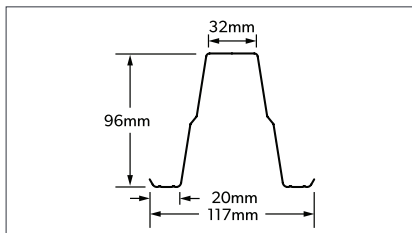
BMT mm	MASS kg/m	Yield Strength Mpa	Coating Mass g/m ²
0.75	1.20	550	125
1.00	1.60	550	125
Description			

TOPSPAN® 64 is a 64mm deep batten ideal for small framed shed and awning applications with a convenient size between that of a small purlin and large batten.



Battens, Roofing and Walling

TOPSPAN® 96

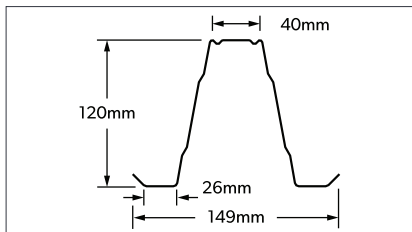


BMT mm	MASS kg/m	Yield Strength Mpa	Coating Mass g/m ²
0.75	1.68	550	125
1.00	2.22	550	125
1.20	2.66	500	125

Description

A 96mm deep 96mm deep roof purlin or wall girt ideal for sheds, garages, carports and awnings. TOPSPAN® 96 is high strength, lightweight and won't shrink, warp or twist. Can be mounted directly onto rafters or against columns without the use of cleats or bolts.

TOPSPAN® 120



BMT mm	MASS kg/m	Yield Strength Mpa	Coating Mass g/m ²
0.70	2.07	550	125
0.90	2.64	550	125
1.00	2.93	550	125

Description

A 120mm deep roof purlin or wall girt, TOPSPAN® 120 is commonly used in rural, residential and small commercial applications for sheds, garages and awnings where longer spans or strength is required.



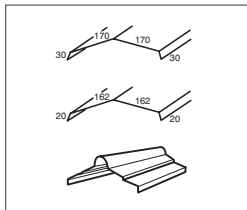
At Midalia Steel our complete one-stop-shop saves you time and reduces complexity and risk on your next building project. We take your plans and provide a full-service solution: take offs, estimation, technical support, scheduling and delivery for all steel requirements. Our quality manufactured products give you confidence, because they meet relevant Australian Standards and Building Codes. Enquire with us today about how we can help you deliver your next building project on time and on budget.

Call your local branch to discuss your requirements



Flashings

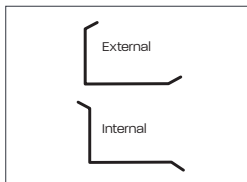
Ridge Cap



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

Note: Stock lengths and custom cut. Available in Zincalume® and Colorbond®. For fasteners refer to page 100.

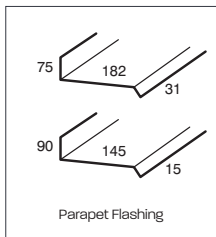
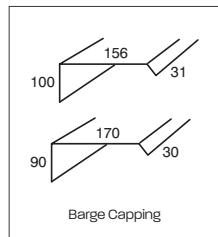
Barge Mould/Corner Mould



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 100.

Barge Capping/Parapet



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 100.



COLORBOND® Steel Colour Range

Standard Colour Range

Colorbond®



Basalt®

Classic
Cream™

Cottage
Green®

Cove™

Deep Ocean®

Dune®

Evening
Haze®



Gully™

Ironstone®

Jasper®

Mangrove®

Manor Red®

Monument®

Night Sky®



Pale
Eucalypt®

Paperbark®

Shale Grey™

Surfmist®

Terrain®

Wallaby®

Windspray®

Woodland
Grey®

Matt Colour Range



Basalt®

Dune®

Monument®

Shale Grey™

Surfmist®

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.



Rainwater Products

Product Image	Description	Dimensions mm
	Stramit® Quad Gutter	Various sizes
	Stramit® Half Round Gutter	Various sizes
	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	Various sizes

Note: For fasteners refer to page 100.

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COLORBOND® and ™ are trade marks of BlueScope Steel Limited.



Structural Products



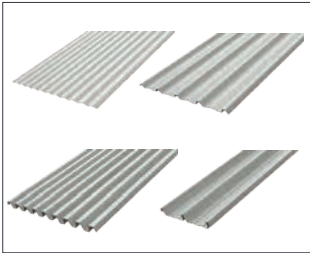
Product Image	Description	Dimensions mm
	Stramit Condeck HP®	0.75 & 1.00 BMT, 300mm Cover 55mm Rib Height
	Stramit® Edgeforma	Various sizes
	Stramit® C & Z Purlins	Various sizes
	Stramit® Top Hats	64 x 34 x 20 x 6, 96 x 34 x 20 x 6, 120 x 42 x 27 x 10 (A x B x C x D)
	Stramit® Flooring	Various sizes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

® Registered trademark of Stramit Corporation Pty Limited trading as Stramit Building Products ABN 57 005 010 195. A Member of the Fletcher Building Group.
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Roofing and Walling



Description	BMT Base Metal Thickness mm	Width of Coverage mm
CUSTOM ORB®	0.42	762
TRIMDEK®	0.42	762
SPANDEK®	0.42	700
KLIP-LOK®	0.42	700

Note: For fasteners refer to page 100.

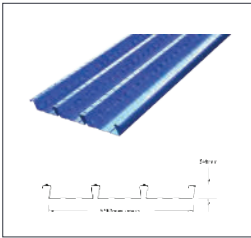
Gutters and Fascia



Product	Dimensions (mm)		
	A	B	C
SHEERLINE®	81	141	124
HALF ROUND		150	
RANCELINE®	70	90	98
COLONIAL®	63	90	90
NOVALINE® Fascia	18	185	35

Note: For fasteners refer to page 100.

Structural Decking

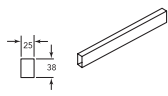
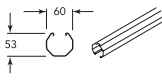
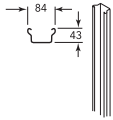
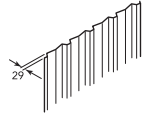


Description	BMT Base Metal Thickness mm	Mass kg/m²	Width of Coverage mm
BONDEK PLUS®	0.6	8.52	600
BONDEK PLUS®	0.75	10.5	600
BONDEK PLUS®	1	13.79	600

Note: For fasteners refer to page 100.



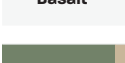
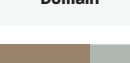
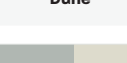
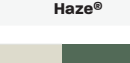




Fencing



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

Standard Fencing Colour Range

							
Basalt®	Bluegum®	Domain®	Dune®	Evening Haze®	Ironstone®	Monument®	
							
Pale Eucalypt®	Paperbark®	Riversand®	Shale Grey™	Surfmist®	Wilderness®	Wollemi®	Woodland Grey®

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Steel Pipes to American Standards

Nominal Size		Outside Diameter	Nominal Wall Thicknesses & Weights for Welded & Seamless Steel Pipe ASME B36.10										KEY: Dimensions - mm (Black) Weight - kg/m (Yellow)			
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	15.09 81.55	18.26 96.01	21.44 114.75	24.56 133.06	28.32 155.15	33.32 172.33	
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	24.56 186.97	28.32 208.14	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	18.26 158.10	21.44 194.96	24.56 224.65	28.32 253.56	33.32 281.70	
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	24.56 245.56	28.32 286.64	33.32 333.19	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	26.19 311.7	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	9.53 248.26	12.7 330.19	—	—	—	—	—	—	—	—	—	—	—	

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

$m = (D - t) \times 0.02466$ 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

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Stainless Steel Pipes to American Standards

Nominal Size (DN)	Outside Diameter mm	Nominal Wall Thickness & Inside Diameter (mm) for Stainless Steel Pipe ASME B36.19							
		Schedule 5S		Schedule 10S		Schedule 40S		Schedule 80S	
		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	—	—	—	—

Innovative Mechanical Pipe Joining Solutions



Victaulic® manufactures a range of innovative pipe joining and flow control solutions with benefits including:

- Safer and faster installation
- Lower total installed cost
- Significantly reduced downtime
- Reduced operational costs
- Versatility of design
- Reusable parts help to expedite maintenance

Speak to the team at InfraBuild Midalia Steel about a Victaulic® solution to suit your application.



Call your local branch to discuss your requirements

Carbon Steel Butt Weld Fittings

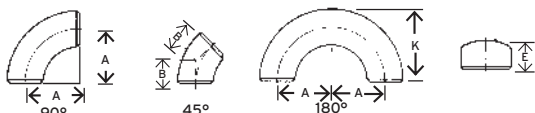
MIDALIA STEEL



Nom. Size DN	Pipe OD mm	Wall Thickness (mm) for Butt Weld Fittings to ASME B16.19, B16.28 and BS.1640												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	—	—	—	—	11.3	15.24	114	51	159	76	121	50.8	80	
90	101.6	—	—	—	5.74	—	—	8.08	—	—	—	—	16.15	13.3	57	184	89	140	63.5	90		
100	114.3	—	—	—	6.02	—	—	8.56	—	—	11.3	—	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	15.09	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	11.3	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	11.3	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	

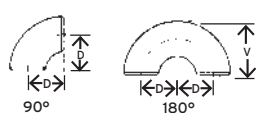
B16.9

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)



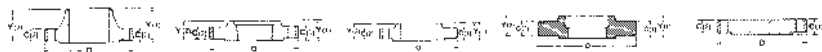
Nominal Size DN		C	M	H	Nominal Size DN		C	M	H	Nominal Size DN		C	M	H
Large End	Small End				Large End	Small End				Large End	Small End			
20	20	28.6	—	—	100	100	105	—	—	400	400	305	—	—
	15	28.6	28.6	38.1	90	105	102	102	—	350	305	305	356	—
25	25	38.1	—	—	80	105	98.4	102	—	300	305	295	356	—
	20	38.1	38.1	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	124	—	—	—	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	300	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	60.3	76.2	90	143	127	140	—	350	381	356	508	—
	32	63.5	57.2	76.2	80	143	124	140	—	300	381	346	508	—
	25	63.5	50.8	76.2	65	143	121	140	—	250	381	333	508	—
	20	63.5	44.5	76.2	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	432	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	279	—	—	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	—					

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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 1)

Nom. Size Dn	Dia of Fig. 0	Thick-ness of Fig. Min. C(1)*	PN20 (Class 150)				No. of Bolts
			Length Thru Hub Thrd. Slip-On Soc/Weld Y(1)*	Weld Neck Y(1)*	Dia of Bolt Circle	Dia of Bolt Holes	
15	90	11.5	16	48	60.5	16	4
20	100	13	16	52	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	60.3	95	136.5	1086	41	32

Nom. Size DN	Dia of Fig. 0	Thick-ness of Fig. Min. C(2)*	PN50 (Class 300)				No. of Bolts
			Length Thru Hub Thrd. Slip-On Soc/Weld Y(2)*	Weld Neck Y(2)*	Dia of Bolt Circle	Dia of Bolt Holes	
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	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	146	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	813	42	24
750	1090	92	210	210	997	48	28
900	1270	105	241	241	1168	54	32

Nom. Size Dn	Dia of Fig. 0	Thick-ness of Fig. Min. C(1)*	PN100 (Class 600)				No. of Bolts
			Length Thru Hub Thrd. Slip-On Soc/Weld Y(1)*	Weld Neck Y(1)*	Dia of Bolt Circle	Dia of Bolt Holes	
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	114	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

Nom. Size Dn	Dia of Fig. 0	Thick-ness of Fig. Min. C(2)†	PN150 (Class 900)				No. of Bolts
			Length Thru Hub Thrd. Slip-On Soc/Weld Y(2)†	Weld Neck Y(2)*	Dia of Bolt Circle	Dia of Bolt Holes	
15							
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

Use PN250 Dimensions in these Sizes

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



Flanges to American Standards

Nom. Size Dn	Dia of Fig. 0	Thick- ness of Fig. Min. C(2)†	PN250 (Class 1500)					No. of Bolts
			Length Thru Hub		Dia of Bolt Circle	Dia of Bolt Holes		
			Thrd. Slip-On Soc/ Weld Y(2)†	Weld Neck Y(2)†				
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. 0	Thick-ness of Fig. Min. C(2)†	Length Thru Hub		Dia of Bolt Circle	Dia of Bolt Holes	No. of Bolts
			Thrd. Slip-On Soc/ Weld Y(2)†	Weld Neck Y(2)†			
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							

Raised Face Diam.	Nom. Size DN	O.D. of Pipe Mm	Approximate Welding Neck Flange Bores – mm														
All Press Ratings 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

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.

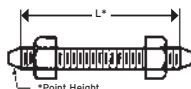
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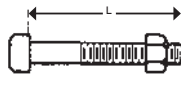
Bolting for ANSI Flanges

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.	Stud Bolts mm	Mach Bolts mm	No. Bolts	Dia. Bolts ins.	Stud Bolts mm	Mach Bolts mm	No. Bolts	Dia. Bolts ins.	Stud Bolts mm	Mach Bolts mm	No. Bolts	Dia. Bolts ins.	Stud Bolts mm	Mach Bolts mm	No. Bolts	Dia. Bolts ins.	Stud Bolts mm	Mach Bolts mm	No. Bolts	Dia. Bolts ins.	Stud Bolts mm	Mach 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						Use PN250 Dimensions in these sizes	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 3/4	290	250	28	2	355												750		
900	32	1 1/2	215	180	32	2	325	280	28	2 1/2	400						PN150, 250 & 420 – Not Listed in BS 3293							900	

PN150, 250 & 420 – Not Listed in BS 3293

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 and Flanges to ASME Standards

ASME B36.10 Steel Pipe Dimensions					Approximate Mass of Popular Sizes												
					Pipe	Buttweld Fittings			A.S.M.E Flanges								
Nom. Pipe Size DN	Out- side Diam. mm	Identification			Steel Pipe	90° L/R Elbows	Tees Equal	Con. & Ecc. Red	PN20 (150)			PN50 (300)			PN100 (600)	PN150 (900)	
									SOW/ SW Thredd kg/ea	W/N kg/ea	Blind kg/ea	SOW/ SW Thredd 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	

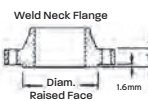
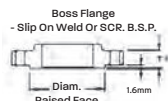
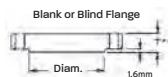
Note: Midalia Steel reserve the right to change specifications without notice. Not all products are available at all Midalia Steel branches. Midalia Steel also has access to a wide network of products not necessarily listed in this book. Please check with your local Midalia Steel branch for product availability.



Flanges to Australian Standards

Nom. Size DN	Table D						Table E						Table F						Nom. Size DN		
	Flange			Drilling			Flange			Drilling			Flange			Drilling					
	OD mm	Thickness T3 mm	** T6 mm	Bolt Circle Dia. mm	No. of Bolts	Dia. of Bolts mm	OD mm	T10 mm	T11 mm	** T6 mm	Bolt Circle Dia. mm	No. of Bolts	Dia. of Bolts mm	OD mm	T10 mm	T11 mm	** T6 mm	Bolt Circle Dia. mm		No. of Bolts	Dia. of Bolts mm
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	10	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	148	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				
	OD mm	Thickness			↑ Dia. R/F mm	Bolt Circle Dia. mm	No. of Bolts	Dia. of Bolts mm	OD mm	Thick- ness *T16 mm	Dia. R/F mm	Bolt Circle Dia. mm	No. of Bolts	Dia. of Bolts mm	OD mm	Thick- ness *T16 mm	Dia. R/F mm	Bolt Circle Dia. mm	No. of Bolts	Dia. of Bolts mm					
		T10 mm	T11 mm	T6 mm																					
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				



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.

Copper Alloy

T.30 — Plate or Boss
T.11 — Blank

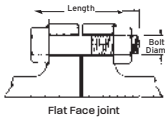
Forged or Plate Steel

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



I.S.O. Metric Hexagon Steel Bolts

(For use with AS.2129 Flanges)



Steel hexagon Bolts and Nuts (XOX) are recommended for use within a temperature range of -50°C to $+300^{\circ}\text{C}$. 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.

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

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*	16	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 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 $+300^{\circ}\text{C}$		
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 Gr.8.8	AS 1112 Gr.8



Fasteners



Shed Tek[®]

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.



AutoTek[®]

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.



RippleTek[®]

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 to 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 saddles, 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 25 – Fixing wall cladding, stitching & general fastening into both timber & steel up to 1.5mm.



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.



WingTek[®]

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.



Fiberglass Tek[®]

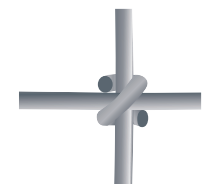
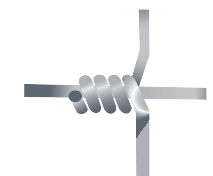
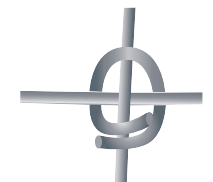
M6.5 x 65, M6.5 x 85 – 32mm weatherlok fixing fibreglass sheet to steel up to 3mm, drills the expansion hole during installation.



Fencing and Fittings

Fabricated Fencing

Description	Size (cm)	Finish	Length (m)	Weight (kg/roll)	Pack Size (rolls)
Ringlock® Heavy Galvanised Strongline (2.8mm Wire Top & Bottom)	6-70-30	Heavy Galvanised	200	78.0	9
	6-90-30		200	83.0	9
	7-90-30		200	93.0	9
Ringlock® Standard Galvanised	5-70-30	Galvanised	200	61.0	9
	5-70-90		500	114.0	5
	6-70-30		200	71.0	9
	6-90-30		200	73.0	9
	7-90-30		200	86.0	9
	7-90-60		200	69.0	9
	8-90-15		100	65.0	9
Hinge Joint Standard Galvanised (2.5mm Wire)	8-90-30	Galvanised	200	95.0	9
	6-70-30		200	71.0	9
	6-90-30		200	73.0	9
	7-90-30		200	86.0	9
	8-80-15		100	60.0	9
Zedlock® Heavy Galvanised Strongline (2.8mm Wire Top & Bottom)	8-90-30	Heavy Galvanised	200	95.0	9
	8-90-15		100	65.0	9
	6-70-30		200	76.0	9
	6-90-30		200	78.4	9
	7-90-30		200	88.0	9
	7-90-30		500	218.0	4
	7-90-45		500	193.5	MTO
	8-90-30		200	97.5	9
Zedlock® Heavy Galvanised	13-90-15	Heavy Galvanised	100	86.7	MTO
	15-150-15		100	111.2	MTO
	6-70-30		200	71.5	9
	6-70-45		200	65.0	9
	7-90-30		200	84.0	9
	7-90-30		500	218.0	4
	7-90-45		200	75.0	MTO
	8-90-15		100	63.0	9
Zedlock® Economy Standard Galvanised (2.0mm Wire)	8-90-30	Galvanised	200	93.6	9
	8-115-15		100	67.0	9
	8-90-15		50	20.5	16
	8-90-15		100	41.0	9
	8-115-15		50	22.5	16
Zedlock® Dog Fence - Standard Galvanised (2.0mm Wire)	8-115-15	Galvanised	100	45.0	9
	12-120-15		50	29.0	MTO
	12-120-15		100	57.0	MTO





Fence Wire

Description	Size (cm)	Finish	Length (m)	Weight (kg/roll)	Pack Size (rolls)
Plain Wire Heavy Galvanised	2.50	Heavy Galvanised - Supa-Ten High Tensile	1500	58	10
	2.50	Heavy Galvanised - Flexi-Ten Medium Tensile	1500	58	10
Plain Wire Standard Galvanised	2.80	Galvanised - Supa-Ten High Tensile	1000	48	10
	2.50	Galvanised - Supa-Ten High Tensile	1500	58	10
	2.50	Galvanised - Flexi-Ten Medium Tensile	1500	58	10
	4.00	Galvanised - Soft-Ten Soft Tensile	500	49	10
	3.15	Galvanised - Soft-Ten Soft Tensile	750	46	10
Plain Wire Handy Pack Standard Galvanised	2.50	Galvanised - Flexi-Ten Medium Tensile	250	10	10
	3.15	Galvanised - Soft-Ten Soft Tensile	250	16	10
Plain Wire Standard Galvanised Red Tag	2.50	Galvanised - High Tensile Red Tag	1500	58	MTO
	2.50	Galvanised - Medium Tensile Red Tag	1500	58	MTO
Tie Wire Heavy Galvanised Soft	1.60		3200	50	MTO
	2.00	Galvanised - Soft	2000	50	MTO
	2.50		1300	50	10



Trellis Wire

Description	Size (cm)	Finish	Length (m)	Weight (kg/roll)	Pack Size (rolls)
Trellis Wire Heavy Galvanised	2.00	High Tensile	2000	50	10
	2.65		1000	43	10
	2.85		1000	50	10
	3.15		1000	61	10



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Tie Wire

Item Category	Diameter (mm)	Finish	Length (m)	Weight (kg/roll)	Pack Size (rolls)
Tie Wire	0.7	Standard Galvanised	75	0.5	20
	0.90		75	0.5	20
	1.25		50	0.5	20
	1.57		30	0.5	20
	2.00	Standard Galvanised (1kg)	20	0.5	20
	1.25		100	1	12
	1.57		67	1	12
	2.00		40	1	12
	1.25	Standard Galvanised (3kg)	300	3	6
	1.57		200	3	6
	2.00		120	3	6
	2.50		80	3	6

Cyclone



Barbed Wire

Description	Size (cm)	Finish	Length (m)	Weight (kg/roll)	Pack Size (rolls)
IOWA Barbed Wire - Low Tensile	2.50 mm	Galvanised	400	41.0	18
Barbed Wire - High Tensile	1.57 mm	Heavy Galvanised	500	22.0	36
	1.80 mm	Heavy Galvanised	500	27.0	36
Barbed Wire - High Tensile - Handy Pack	1.57 mm	Galvanised	30	1.9	3
			100	7.0	3



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Netting

Animal

Description	Height (cm)	Aperture (cm)	Wire Diameter (mm)	Finish	Length (m)	Pack Size (rolls)	Weight (kg/roll)
Aviary Netting	90	1.27	2.5 x 1.24	Standard Galvanised	30	5	28
	120	1.27	2.5 x 1.24		30	5	37
Cage Mesh	90		2.5 x 1.24	Standard Galvanised	30	5	18
Dog & Boundary Netting	120	graduated	2.0	Standard Galvanised	30	5	15
Bird and Vermin Netting	90	1.3	0.56	Standard Galvanised	50	5	13.7
	120	1.3	0.56		50	5	20.0
	180	1.3	0.56		50	5	29.0
Animal Netting	90	3	0.90	Standard Galvanised	50	5	20.5
	120	3	0.90		50	5	27.0
	180	3	0.90		50	5	40.0
Chicken Netting	90	5	1.00	Standard Galvanised	50	5	12.6
	120	5	1.00		50	5	17.5
	180	5	1.00		50	5	26.0

MIDALIA STEEL

Cyclone



Hexagonal

Description	Height (cm)	Aperture (cm)	Wire Diameter (mm)	Finish	Length (m)	Pack Size (rolls)	Weight (kg/roll)
Hexagonal Netting - Heavy Galvanised	180	4	1.4	Heavy Galvanised	50	7	73.0
	120	4	1.4		50	7	49.0
	105	4	1.4		50	16	44.0
	105	4	1.4		100	9	87.0
	90	4	1.4		50	16	38.0
	90	4	1.4		100	9	75.0
	60	4	1.4		50	7	26.0
	30	4	1.4		100	18	28.0



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Posts

Item Category	Finish	Length (cm)	Weight (kg)
Steely Posts	Hot-Dipped Galvanised	150	2.85
	Hot-Dipped Galvanised	165	3.2
	Hot-Dipped Galvanised	210	4.1
	Hot-Dipped Galvanised	240	4.7
Steely Posts Black Bituminous Coating	Black Bituminous	135	2.6
	Black Bituminous	150	2.8
	Black Bituminous	165	3.1
	Black Bituminous	180	3.4
	Black Bituminous	210	4
	Black Bituminous	240	4.6
"XL" Steely Posts	Black Bituminous	180	5.2
Steely Posts –Black Bituminous coating Loose Utility Pack	Black Bituminous	165	2.9
	Black Bituminous	180	3.2
Economy Fence Post (Rail) Black Bituminous Coating	Black Bituminous	45	0.7
	Black Bituminous	60	0.9
	Black Bituminous	90	1.4
	Black Bituminous	135	2.1
	Black Bituminous	150	2.3
	Black Bituminous	165	2.6
	Black Bituminous	180	2.8
	Black Bituminous	240	3.8
Economy Fence Post	Hot-Dipped Galvanised	135	2.24
	Hot-Dipped Galvanised	165	2.74
	Hot-Dipped Galvanised	180	2.99
	Hot-Dipped Galvanised	240	3.98

Safety Yellow Post Caps

- Can be used with Cyclone economy posts, Cyclone traditional posts and Cyclone Livestock posts
- Fits most Y posts
- Bright yellow for visibility and safety



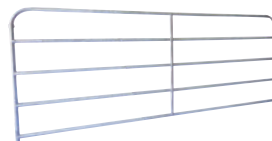
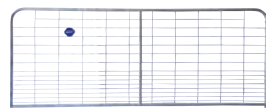
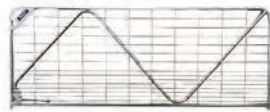
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Gates

MIDALIA STEEL
Cyclone®

Description	Finish	Height (mm)	Width	Pack Size (gates)	Weight (kg)
N-SURE Gate	Hot-Dipped Galvanised	1170	2370 mm (8 FT)	7	25
	Hot-Dipped Galvanised	1170	2670 mm (9 FT)	7	27
	Hot-Dipped Galvanised	1170	2970 mm (10 FT)	7	30
	Hot-Dipped Galvanised	1170	3270 mm (11 FT)	7	32
	Hot-Dipped Galvanised	1170	3570 mm (12 FT)	7	34
	Hot-Dipped Galvanised	1170	3870 mm (13 FT)	7	37
	Hot-Dipped Galvanised	1170	4170 mm (14 FT)	7	39
	Hot-Dipped Galvanised	1170	4470 mm (15 FT)	7	42
	Hot-Dipped Galvanised	1170	4770 mm (16 FT)	7	43
	Hot-Dipped Galvanised	1170	5370 mm (18 FT)	7	48
	Hot-Dipped Galvanised	1170	6070 mm (20 FT)	7	54
	Hot-Dipped Galvanised	1500	3750 mm (12 FT)	7	38
	Hot-Dipped Galvanised	1500	4170 mm (14 FT)	7	43
	Hot-Dipped Galvanised	1800	3570 mm (12 FT)	7	44
	Hot-Dipped Galvanised	1800	4170 mm (14 FT)	7	49
Access Gate	Hot-Dipped Galvanised	1170	1000 mm (3 FT)	7	9
Vertical Brace Gate	Hot-Dipped Galvanised	1170	1170 mm (4 FT)	7	12
	Hot-Dipped Galvanised	1170	1470 mm (5 FT)	7	15
	Hot-Dipped Galvanised	1170	1770 mm (6 FT)	7	17
	Hot-Dipped Galvanised	1170	2370 mm (8 FT)	7	21
	Hot-Dipped Galvanised	1170	2970 mm (10 FT)	7	25
	Hot-Dipped Galvanised	1170	3570 mm (12 FT)	7	29
	Hot-Dipped Galvanised	1170	4170 mm (14 FT)	7	34
	Hot-Dipped Galvanised	1170	4770 mm (16 FT)	7	39
Galvanised 5 Bar Gate	Hot-Dipped Galvanised	1170	2370 mm (8 FT)	7	25
	Hot-Dipped Galvanised	1170	2970 mm (10 FT)	7	30
	Hot-Dipped Galvanised	1170	3570 mm (12 FT)	7	34
	Hot-Dipped Galvanised	1170	4170 mm (14 FT)	7	41
	Hot-Dipped Galvanised	1170	4770 mm (16 FT) Mesh Infill	7	46





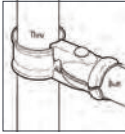
Universal Fence Fitting System



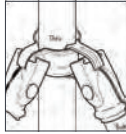
Downee®



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.

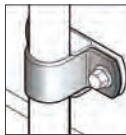
Hinges & Gudgeons



Downee®

Long Plate
Gudgeons

Two Part Hinges

Pipe Hinge
Strap

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

Temporary Fence Clamps



Downee®



Fit Pipe Size mm

32 x 32, 40 x 40, 50 x 50

Hinges & Gudgeons



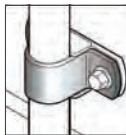
Downee®



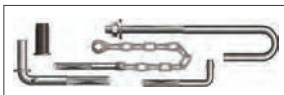
FGP3



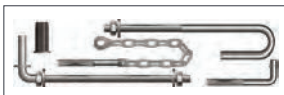
FGP15



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

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General Information



Geometry and Mensuration

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

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

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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 klms/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

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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	645.16	mm ²
	Square feet	0.929	m ²
	Square yards	0.836	m ²
	Acre	4047	m ²
	Hectare (ha)	10 000	m ²
DENSITY: Symbol kg/m ³ The SI unit of DENSITY is the kilogram per cubic metre.	lb/in ³	2768	t/m ³
	lb/ft ³	16.02	kg/m ³
	lb/yd ³	0.5933	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)	1.055	kJ
	Btu/gal	0.2321	kJ/L ¹¹
	Btu/ft ³	37.26	kJ/M ³
	3.MECHANICAL ENERGY foot poundal		
	ft.pdl	.04214	J
	inch pound-force		
	in.lbf	0.1130	J
	foot pound-force		
	ft.lbf	1.356	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.	foot ton force		
	ft.tonf	3.037	kJ
	Metre kilogram force		
	m.kgf	9.807	J
	Poundal (pdl)	0.1383	N
	Pound-force (lbf)	4.448	N
	ton-force (tonf)	9.964	kN
	*kilogram-force (kgf)	9.807	N
	*also known as kilopond (kp)		

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

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Remarks	A Multiply	B By	C To obtain
FORCE PER UNIT LENGTH: The SI unit is NEWTON PER METRE: Symbol N/m	pounds-force per inch (lb/f/in)	175.1	N/m
	pounds-force per foot (lb/f/ft)	14.59	N/m
	ton-force per foot (ton/f/ft)	32.69	kN/m
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)
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
POWER: Symbol W The SI unit of POWER is the WATT.	pounds per yard (lb/yd)	0.4961	kg/m
	Btu per hour (Btu/hr)	0.2931	W
	horsepower (hp)	0.7457	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 = 1 Pa = 0.000145 lb/f/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.	ton of refrigeration	3.517	kW
	lb/f/in ²	6.895	kPa
	kip/in ² (1000 psi)	6.895	MPa
	lb/f/ft ² 47.88 Pa	47.88	Pa
	kgf/cm ²	98.07	kPa
	bar	100	kPa
	Vertical column (head) of water.		
	(H ₂ O 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
TORQUE: Symbol N.m (Moment of force) The SI unit of TORQUE is the NEWTON METRE. The newton metre is 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 N.m = 1 J	microns	0.133	Pa
	Poundal-foot		
	pdl.ft	.04214	N.m
	pound-force inch		
	lbf.inch	0.1130	N.m
	lbf.inch	1.152	kgf.cm
	pound-force feet		
	lbf.ft	1.356	N.m
	lbf.ft	13.83	kgf.cm
	ton-force feet		
VELOCITY: Symbol m/s The SI unit of VELOCITY is the METRE PER SECOND.	tonf.ft	3.037	kN.m
	kilogram-force		
	kgf.m	9.807	N.m
	kgf.cm	0.09807	N.m
	ft. per second (ft/s)	0.3048	m/s
	ft. per minute (ft/min)	0.00508	m/s
	miles per hour	0.4470	m/s
	miles per hour	1.609	km/h

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Useful Conversion Factors

Imperial to Metric (approximate)



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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
VOLUME: CAPACITY: Symbol m ³ The SI unit of VOLUME is the CUBIC METRE.	DRY:		
	cubic inch (in ³)	16387	mm ³
	cubic foot (ft ³)	0.02832	m ³
	cubic yard (yd ³)	0.7646	m ³
	litre (L) ¹¹	1000 000	mm ³
	litre (L) ¹¹	0.001	m ³
NOTE: ¹¹ Capital "L" is now the legal preferred symbol for litre in Australia.	gallons (Imp.)	0.004546	m ³
	IMPERIAL LIQUID		
	fluid ounce	28.41	millilitre (ml)
	pint (20 fl. oz)	568.3	millilitre (ml)
	quart (2 pints)	1.137	litre (L) ¹¹
	gallon (Imp.)	4.546	litre (L) ¹¹
VOLUME: RATE OF FLOW Symbol m ³ /s The SI unit of VOLUME RATE OF FLOW is the CUBIC METRE PER SECOND.	gallon (US)	3.785	litre (L) ¹¹
	litre (water 4°C)	1.000	kilogram (kg)
	Imp. gallons (water 20°C)	4.536	kilogram (kg)
	Imp. gal. per minute (gal/min)	.0000758	m ³ /s
	Imp. gal. per minute	0.272765	m ³ /hr
	Imp. gal. per minute	.0758	litre per second (L/s)
SUNDRY ITEMS:	cubic ft. per minute	.000472	m ³ /s
	cubic ft. per minute	0.472	litre per second (L/s) 1m ³ = 1kl
	miles per gallon	0.3540	km per litre
	gallons per mile	2.825	litres per km

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

Handy Tips

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.

To calculate the mass of steel plate sections

Mass = t x 7.850 x (L x W) where:

Mass = mass/metre²

t = thickness of plate

L = length of plate

W = width of plate

To calculate the mass for Floor plate, add 2 kg/m²

kg/m

mm

m

m

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

Circular sections

Mass = (OD - wt) x wt x 0.0246615.

where: Mass = mass/metre

OD = outside diameter

wt = section thickness

kg/m

mm

mm

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Handy Tips

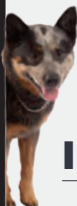
Property of Steel	Symbol	Value
Young's Modulus of Elasticity	E	200 x 10 ³ MPa
Shear Modulus of Elasticity	G	80 x 10 ³ MPa
Density	p	7850 kg/m ³
Poisson's Ratio	v	0.25
Coefficient of Thermal Expansion	a _t	11.7 x 10 ⁻⁶ per °C

To 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

Relevant Australian Standards

AS 1074-1989	Steel tubes and tubulars for ordinary service
AS 1085.1:2002 Supp 2017	Railway track material - Steel rails - History (Supplement 1 to AS 1085.1-2002)
AS 1085.17:2003 (R2013)	Railway track material Steel sleepers
AS/NZS 1163:2016	Cold-formed structural steel hollow sections
AS/NZS 1365:1996 (R2016)	Tolerances for flat-rolled steel products
AS 1397:2011/Amdt 1-2012	Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium
AS 1442:2007 (R2017)	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 (R2017)	Wrought alloy steels - Standard, hardenability (H) series and hardened and tempered to designated mechanical properties
AS 1445:2013	Hot-dipped zinc-coated, aluminium/zinc-coated or aluminium/zinc/magnesium-coated steel sheet — 76 mm pitch corrugated
AS 1447:2007 (R2017)	Hot-rolled spring steels
AS 1448:2007/Amdt 1-2008	Carbon and carbon-manganese steels - Forgings (ruling section 300 mm maximum)
AS 1450:2007 (R2017)	Steel tubes for mechanical purposes
AS/NZS 1594:2002 (R2016)	Hot-rolled steel flat products
AS/NZS 1595:1998 (R2016)/Amdt 1:2014	Cold-rolled, unalloyed, steel sheet and strip
AS 2551:1982 (R2016)	Steel sheet and strip - Cold-rolled, electrolytic zinc-coated
AS 3597-2008	Structural and pressure vessel steel - Quenched and tempered plate
AS/NZS 3678:2016	Structural steel — Hot-rolled plates, floorplates and slabs
AS/NZS 3679.2-2010	Structural steel Part 1: Hot-rolled bars and sections
AS/NZS 3679.2:2016	Structural steel Part 2: Welded I sections
AS/NZS 4496:1997 (R2016)	Recommended practice for the colour coding of steel products
AS/NZS 4600:2018	Cold-formed steel structures
AS/NZS 4671:2001	Steel reinforcing materials
SA TS 102:2016	Structural steel — (Technical Specification) Limits on elements added
SA TS 103:2016	Structural steel — (Technical Specification) Limits on boron in parent materials.

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Important Details

Your Local Outlet

My Local Midalia Steel outlet details

Phone:

Fax:

Email:

My Local Midalia Steel Account Representatives

Sales:

Phone:

Fax:

Email:

Phone:

Fax:

Email:

Credit:

Phone:

Fax:

Email:

Phone:

Fax:

Email:

My Local Midalia Steel Account Number

A/C N:

My Industry Memberships

A/C N:

This image shows a single page of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

OUR STEEL BRANCHES ARE ALL OVER WA, MMMATE!



SCAN TO FIND
YOUR NEAREST
MIDALIA STEEL
LOCATION



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