

# PRODUCT GUIDE

October 2020



**BLUESCOPE**

we are BlueScope businesses



we'll see it through

**METALCORP**

*Everything in Steel*



Orrcon Steel is a leading Australian distributor and manufacturer of Steel, Tube and Pipe.

We have distribution centres in six Australian states and a number of Orrcon Steel / Metalcorp branches, stockists and resellers nation-wide.

As a business of BlueScope, Orrcon Steel adheres to principles of quality, innovation, flexibility and dedication. These principles are achieved by going the extra mile in everything we do and working in partnership with our customers and suppliers.

**At Orrcon Steel - we'll see it through.**

## OUR STEEL RANGE

### Structural Tubular Steel

Orrcon Steel offers a wide range of Electric Resistance Welding (ERW) Carbon Steel Structural Tubulars.

Our Structural Tubular Products are a significant part of our production and are used across a wide range of structural applications from building structures to major sporting arenas, major mining and industry infrastructure, and for aesthetic structural use such as airports and shipping terminals.

## METALCORP

### *Everything in Steel*

Metalcorp is an Australian steel distribution business that is into everything in steel.

Our extensive product range includes livestock handling equipment, building materials, structural and tubular steel, fencing, roofing, aluminium and more.

We pride ourselves on delivering the highest levels of customer service and quality products. We have huge stock holdings and our products can be cut to length and delivered to your site.

Our commitment is to supply competitively priced products, to operate in a safe environment and to deliver outstanding customer service. The successful outcomes of this commitment have enabled Metalcorp to become a leading metals distribution business.

Metalcorp operates across Australia with branches and stockists in New South Wales, Queensland, Victoria, South Australia and Western Australia.

At Metalcorp, we're your rural brand for the land.

### Precision Tube

Orrcon Steel manufactures precision tube at its precision tubing mill in Adelaide. This mill produces square, rectangular, round and oval tube and can also manufacture special shapes subject to enquiry. Orrcon Steel precision tube products are used across a variety of applications including fencing, furniture, automotive, heat exchange and agriculture.

### Hot Rolled Structural Steel

Orrcon Steel offers a range of hot rolled structural products, including beams, columns, channels, angles and merchant bar (including flats, angles & rounds) as well as a broad range of plate from 3mm up to 200mm.

### Additional Products

- Fencing Products – fence pickets, post caps, wire (barbed, chain and hinged) and punched rail.
- Building Products – roofing, purlins, guttering and welding etc.
- Reinforcing Products – mesh and deformed bar.
- Hot Dip Galvanized Pipe – plain, threaded, shouldered and grooved ends.
- Sprinkler & Hydrant Fire Pipe – ActivFire® scheme approved.
- Galvanized Profiles - angles and channels.

For further information, visit [orrconsteel.com.au](http://orrconsteel.com.au)

## OUR PRODUCT RANGE

Livestock Handling Equipment – Metalcorp has a wide range of cattle, horse and sheep handling equipment and is rapidly moving to be the No. 1 provider of quality livestock handling equipment in Australia.

RHS Steel, Pipe & Tube – Our tubular products are sourced direct from Orrcon Steel – A leading manufacturer of Australian made steel, tube and pipe.

Merchant Bar – Metalcorp provides a comprehensive range of merchant bar products, including angle, flat, square and round bar.

Steel Plate, Sheet, Coil & Structural Steel – Metalcorp offers applications ranging from light gauge material fabrication through to heavy plate and feed coil applications.

Building Materials – Construction is one of the most important steel-using sectors and we have access to a wide range of building materials –either in stock or we can facilitate a made-to-order solution delivered to site.

Rural & Residential Fencing – We provide quality fencing for rural and residential needs that are economical and easy to install.

Contact one of our customer service advisors on 1300 306 204 for friendly, personal advice on your steel needs.

For latest version please refer to the website [www.orrconsteel.com.au](http://www.orrconsteel.com.au)



**BLUESCOPE**  
we are BlueScope businesses



we'll see it through

**METALCORP**  
*Everything in Steel*

## SECTION ONE - Tube & Pipe

4

<b>1.1 Structural Tube and Pipe</b>	<b>4</b>	<b>1.5 Precision Tube</b>	<b>19</b>
1.1.1 Square Hollow Sections (SHS)	5	1.5.1 Square	20
1.1.2 Rectangular Hollow Sections (RHS)	8	1.5.2 Rectangular	22
1.1.3 Rectangular Hollow Sections (RHS) - Non Standard	10	1.5.3 Round	24
1.1.4 Circular Hollow Sections (CHS)	11	1.5.4 Oval Tube	26
1.1.5 Structural Standards & Tolerances	12	1.5.5 Special Shapes	26
1.1.6 Structural Processing & Services	13	1.5.6 MECSPEC-GAL® Tube & Pipe Information	27
1.1.7 Broadspec® - Pipe (CHS)	14	1.5.7 MECSPEC-GAL® Tube	28
<b>1.2 Sprinkler &amp; Hydrant Pipe - ORRFIRE®</b>	<b>16</b>	1.5.8 MECSPEC-GAL® Pipe	29
<b>1.3 Yard Rail</b>	<b>18</b>	1.5.9 Precision Standards & Tolerances	30
<b>1.4 Silo Sections</b>	<b>18</b>	1.5.10 Precision Surface Finish & Services	31
		<b>1.6 Hot Dip Galvanized Pipe</b>	<b>33</b>
		<b>1.7 Tube &amp; Pipe Information</b>	<b>35</b>

## SECTION TWO - Hot Rolled Structural, Plate & Merchant Bar

36

<b>2.1 Product Standards / Grades</b>	<b>37</b>	<b>2.7 Merchant Bar</b>	<b>44</b>
<b>2.2 Section Translation Guide (STG)</b>	<b>37</b>	2.7.1 Rounds	44
<b>2.3 Universal Beams</b>	<b>38</b>	2.7.2 Squares	44
<b>2.4 Universal Columns</b>	<b>39</b>	2.7.3 Flats	45
<b>2.5 Parallel Flange Channels</b>	<b>40</b>	<b>2.8 Plate</b>	<b>48</b>
<b>2.6 Angles</b>	<b>41</b>	2.8.1 Plain Plate	48
2.6.1 Equal Angles	41	2.8.2 Floor (Checker) Plate	49
2.6.2 Unequal Angles	43		

## SECTION THREE - Building Products

50

<b>3.1 Roofing, Cladding, Purlins, Accessories</b>	<b>51</b>	<b>3.3 Steel Sheet - Coated &amp; Uncoated</b>	<b>58</b>
3.1.1 Roofing Profiles	51	<b>3.4 Gal Profiles</b>	<b>58</b>
3.1.2 Light Steel Section	53	3.4.1 Gal Flats	58
3.1.3 Purlin Product Range	54	3.4.2 Gal Angles	59
3.1.4 Purlin Accessories	55	3.4.3 Gal Channels	59
3.1.5 Rainwater Products	56	<b>3.5 Reinforcing Products</b>	<b>60</b>
3.1.6 Accessories	56	<b>3.6 Building Consumable Products</b>	<b>62</b>
<b>3.2 Fencing &amp; Wire Mesh Products</b>	<b>57</b>	<b>3.7 Building Accessories &amp; Tools</b>	<b>63</b>
3.2.1 COLORBOND®	57		

## SECTION FOUR - Rural Products

64

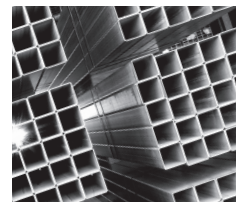
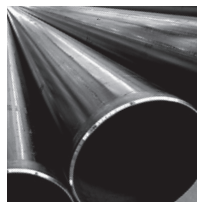
<b>4.1 Rural Products &amp; Accessories</b>	<b>65</b>	4.1.3 Gate In Frames & Manway Panels	67
4.1.1 Crushes, Crush Accessories & Yards	65	4.1.4 Manway Gates, Slide Gates & Race Bows	68
4.1.2 Ramps & Panels	66	4.1.5 Feeders, Hay Racks, Gates and Star Pickets	69

## SECTION FIVE - General Information

70

<b>5.1 Test Certificates and LOC's</b>	<b>71</b>	<b>5.5 End Coding Charts</b>	<b>77</b>
<b>5.2 Packaging, Handling &amp; Storage</b>	<b>72</b>	5.5.1 End Coding Chart - Hot Rolled Structural	77
<b>5.3 Material Safety Data Information</b>	<b>72</b>	5.5.2 End Coding Chart - Tube & Pipe	79
<b>5.4 Glossary of Terms</b>	<b>73</b>	<b>Orrcon Steel Brands</b>	<b>83</b>



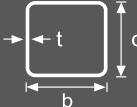


## Structural Tube & Pipe





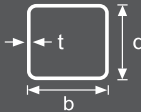
1.1.1 SQUARE HOLLOW SECTIONS (SHS)



**Section:** Square (SHS)  
**Standard:** AS/NZS 1163  
**Grade:** C350L0  
**Surface Finish:** PTD / ALLGAL® / ULTRA-SPEC GAL® / OILED / NOPC\*

Size dxb (mm)	Nom. Thick (mm)	Surface Finish			Nom. Linear Mass (Kg/m)	Nom Mtre Tonne	Lengths / Pack 6500mm	Lengths / Pack 8000mm	Lengths / Pack 12000mm
		PTD	ALLGAL	ULTRA-SPEC GAL					
6500mm Lengths Standard									
20 x 20	1.6	✓	✓	✓	0.87	1146	100	-	-
25 x 25	1.6	✓	✓	✓	1.12	890	100	-	-
	2.0	✓	✓	✓	1.36	733	100	-	-
	2.5	✓	✓	✓	1.64	610	100	-	-
	3.0	✓	✓	✓	1.89	529	100	-	-
8000mm Lengths Standard									
30 x 30	1.6	✓	✓	✓	1.38	727	-	100	-
	2.0	✓	✓	✓	1.68	596	-	100	-
	2.5	✓	✓	✓	2.03	492	-	100	-
	3.0	✓	✓	✓	2.36	423	-	64	-
31.8 x 31.8	1.6	✓	✓	✓	1.465	683	-	81	-
	2.0	✓	✓	✓	1.791	558	-	81	-
	2.5	✓	✓	✓	2.174	460	-	64	-
	3.0	✓	✓	✓	2.531	395	-	64	-
35 x 35	1.6	✓	✓	✓	1.63	615	-	100	-
	2.0	✓	✓	✓	1.99	502	-	100	-
	2.5	✓	✓	✓	2.42	412	-	64	-
	3.0	✓	✓	✓	2.83	353	-	64	-
40 x 40	1.6	✓	✓	✓	1.88	533	-	81	-
	2.0	✓	✓	✓	2.31	434	-	81	-
	2.5	✓	✓	✓	2.82	355	-	64	-
	3.0	✓	✓	✓	3.30	303	-	64	-
	4.0	✓	✓	—	4.09	244	-	49	-
50 x 50	1.6	✓	✓	✓	2.38	420	-	64	-
	2.0	✓	✓	✓	2.93	341	-	64	-
	2.5	✓	✓	✓	3.60	278	-	49	-
	3.0	✓	✓	✓	4.25	236	-	49	-
	4.0	✓	✓	—	5.35	187	-	36	-
	5.0	✓	✓	—	6.39	156	-	30	-
51 x 51	6.0	✓	✓	—	7.32	137	-	25	-
	4.0	✓	✓	—	5.47	183	-	36	-
	5.0	✓	✓	—	6.55	153	-	30	-
8000mm & 12000mm Lengths Standard									
65 x 65	1.6	✓	✓	✓	3.13	319	-	49	49
	2.0	✓	✓	✓	3.88	258	-	42	42
	2.5	✓	✓	✓	4.78	209	-	42	42
	3.0	✓	✓	✓	5.66	177	-	36	36
	4.0	✓	✓	—	7.23	138	-	30	30
	5.0	✓	✓	—	8.75	114	-	25	25
	6.0	✓	✓	—	10.15	99	-	20	20

1.1.1 SQUARE HOLLOW SECTIONS (SHS) CONT...



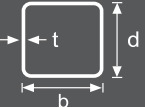
**Section:** Square (SHS)  
**Standard:** AS/NZS 1163  
**Grade:** C350L0  
**Surface Finish:** PTD / ALLGAL® / ULTRA-SPEC GAL® / OILED / NOPC\*

Size dxb (mm)	Nom. Thick (mm)	Surface Finish			Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne	Lengths / Pack 8000mm	Lengths / Pack 12000mm
		PTD	ALLGAL	ULTRA-SPEC GAL				
8000mm & 12000mm Lengths Standard								
75 x 75	1.6	✓	✓	✓	3.64	275	30	30
	2.0	✓	✓	✓	4.50	222	30	30
	2.5	✓	✓	✓	5.56	180	30	30
	3.0	✓	✓	✓	6.60	152	30	30
	3.5	✓	✓	—	7.53	133	25	25
	4.0	✓	✓	—	8.49	118	25	25
	5.0	✓	✓	—	10.32	97	20	20
	6.0	✓	✓	—	12.03	83	16	16
89 x 89	2.0	✓	✓	✓	5.38	186	25	25
	2.5	✓	✓	✓	6.66	150	20	20
	3.5	✓	✓	—	9.07	110	20	20
	5.0	✓	✓	—	12.51	80	16	16
	6.0	✓	✓	—	14.67	68	12	12
100 x 100	2.0	✓	✓	✓	6.07	165	20	12
	2.5	✓	✓	✓	7.53	133	20	12
	3.0	✓	✓	✓	8.96	112	20	20
	4.0	✓	✓	—	11.63	86	16	16
	5.0	✓	✓	—	14.24	70	12	12
	6.0	✓	✓	—	16.74	60	12	12
	9.0	#	—	—	23.50	43	9	9
125 x 125	4.0	✓	✓	—	14.80	68	12	12
	5.0	✓	✓	—	18.17	55	12	12
	6.0	✓	✓	—	21.45	47	9	9
	9.0	#	—	—	30.60	33	8	4
150 x 150	5.0	#	—	—	22.10	45	9	6
	6.0	#	—	—	26.20	38	6	6
	9.0	#	—	—	37.70	27	6	4

Table continues over page

## 1.1.1 SQUARE HOLLOW SECTIONS (SHS) CONT...

1

<div>  <div> <b>Section:</b> Square (SHS)  <b>Standard:</b> AS/NZS 1163  <b>Grade:</b> C350L0  <b>Surface Finish:</b> PTD / ALLGAL® / ULTRA-SPEC GAL® / OILED / NOPC* </div> </div>								
Size dxb (mm)	Nom. Thick (mm)	Surface Finish			Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne	Lengths / Pack 8000mm	Lengths / Pack 12000mm
		PTD	ALLGAL	ULTRA-SPEC GAL				
200 x 200	5.0	#	—	—	29.90	33	6	4
200 x 200	6.0	#	—	—	35.60	28	4	4
	9.0	#	—	—	51.80	19	4	2
	12.5	#	—	—	69.40	14	2	2
	16.0	#	—	—	85.50	12	1	1
250 x 250	6.0	#	—	—	45.00	22	4	2
	9.0	#	—	—	65.90	15	2	2
	12.5	#	—	—	89.00	11	1	1
	16.0	#	—	—	111.00	9	1	1
300 x 300	6.0	#	—	—	54.42	18	1	1
	9.0	#	—	—	80.05	12	1	1
	12.5	#	—	—	109.00	9	1	1
	16.0	#	—	—	136.00	7	1	1
350 x 350	9.0	#	—	—	94.18	11	1	1
	12.5	#	—	—	128.00	8	1	1
	16.0	#	—	—	161.00	6	1	1
400 x 400	9.0	#	—	—	108.31	9	1	1
	12.5	#	—	—	148.00	7	1	1
	16.0	#	—	—	186.00	5	1	1

### NOTE:

- » Non standard sizes, surface finishes and lengths available subject to enquiry. Minimum order quantities (MOQ's) apply.
- » C450L0 grade available for some sizes, subject to enquiry. Minimum Order Quantities (MOQ's) apply.
- » NOPC & OILED available subject to enquiry.

\* Refer to Glossary of Terms

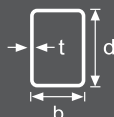
# Not in manufactured range, ring local branch to check availability

1.1.1 Square Hollow Sections (SHS) cont...



## 1.1.2 RECTANGULAR HOLLOW SECTIONS (RHS)

1



**Section:** Rectangular (RHS)

Standard: AS/NZS 1163

Grade: C350L0

Surface Finish: PTD / ALLGAL® / ULTRA-SPEC GAL® / OILED / NOPC\*

Size dxb (mm)	Nom. Thick (mm)	Surface Finish			Nom. Linear Mass [Kg/m]	Nom. Mtre/ Tonne	8000mm Lengths / Pack
		PTD	ALLGAL	ULTRA-SPEC GAL			
8000mm Lengths Standard							
50 x 25	1.6	✓	✓	✓	1.75	571	96
	2.0	✓	✓	✓	2.15	465	96
	2.5	✓	✓	✓	2.62	382	72
	3.0	✓	✓	✓	3.07	326	60
65 x 35	1.6	✓	✓	✓	2.38	420	54
	2.0	✓	✓	✓	2.93	341	54
	2.5	✓	✓	✓	3.60	278	54
	3.0	✓	✓	✓	4.25	236	45
75 x 25	1.6	✓	✓	✓	2.38	420	65
	2.0	✓	✓	✓	2.93	341	65
	2.5	✓	✓	✓	3.60	278	48
75 x 50	1.6	✓	✓	✓	3.01	332	42
	2.0	✓	✓	✓	3.72	269	42
	2.5	✓	✓	✓	4.58	218	42
	3.0	✓	✓	✓	5.42	184	35
	4.0	✓	✓	—	6.92	145	28
	5.0	✓	✓	—	8.35	120	24
	6.0	✓	✓	—	9.67	103	20
100 x 50	1.6	✓	✓	✓	3.64	275	32
	2.0	✓	✓	✓	4.504	222	32
	2.5	✓	✓	✓	5.56	180	32
	3.0	✓	✓	✓	6.60	152	32
	3.5	✓	✓	—	7.53	133	24
	4.0	✓	✓	—	8.49	118	24
	5.0	✓	✓	—	10.32	97	18
	6.0	✓	✓	—	12.03	83	15

**NOTE:**

Table continues over page

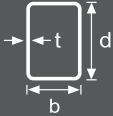
- » Some 5.0mm ALLGAL® sections available ex-rolling. Minimum order quantities (MOQ's) apply.
- » Non standard sizes, surface finishes and lengths available subject to enquiry. Minimum order quantities (MOQ's) apply.
- » C450L0 grade available for some sizes, subject to enquiry. Minimum order quantities (MOQ's) apply.
- » NOPC & OILED available subject to enquiry.

\* Refer to Glossary of Terms



# 1.1.2 RECTANGULAR HOLLOW SECTIONS (RHS) CONT...

1

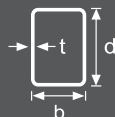


**Section:** Rectangular (RHS)  
**Standard:** AS/NZS 1163  
**Grade:** C350L0  
**Surface Finish:** PTD / ALLGAL® / ULTRA-SPEC GAL® / OILED / NOPC\*

Size dxb (mm)	Nom. Thick (mm)	Surface Finish			Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne	Lengths / Pack 8000mm	Lengths / Pack 12000mm
		PTD	ALLGAL	ULTRA-SPEC GAL				
8000mm & 12000mm Lengths Standard								
125 x 75	2.5	✓	✓	✓	7.53	133	20	20
	3.0	✓	✓	✓	8.96	112	20	20
	4.0	✓	✓	—	11.63	86	15	15
	5.0	✓	✓	—	14.24	70	15	15
	6.0	✓	✓	—	16.74	60	12	12
150 x 50	2.0	✓	✓	✓	6.07	165	21	21
	2.5	✓	✓	✓	7.53	133	21	21
	3.0	✓	✓	✓	8.96	112	21	21
	4.0	✓	✓	—	11.63	86	15	15
	5.0	✓	✓	—	14.24	70	15	15
	6.0	✓	✓	—	16.74	60	15	15
150 x 100	4.0	✓	✓	—	14.77	68	12	12
	5.0	✓	✓	—	18.17	55	12	12
	6.0	✓	✓	—	21.45	47	9	9
	9.0	✓	—	—	30.60	33	6	4
200 x 100	4.0	✓	—	—	17.90	56	8	6
	5.0	✓	—	—	22.10	45	8	6
	6.0	✓	—	—	26.20	38	8	4
	9.0	✓	—	—	37.70	27	6	4
250 x 150	5.0	✓	—	—	29.94	33	6	4
	6.0	✓	—	—	35.58	28	4	4
	9.0	✓	—	—	51.79	19	4	2
	12.5	✓	—	—	69.40	14	2	2
	16.0	✓	—	—	85.50	12	1	1
300 x 200	6.0	✓	—	—	45.00	22	—	2
	9.0	✓	—	—	65.92	15	—	2
	12.5	✓	—	—	89.00	11	—	1
	16.0	✓	—	—	111.00	9	—	1
350 x 250	12.5	✓	—	—	109.00	9	—	1
	16.0	✓	—	—	136.00	7	—	1
400 x 200	6.0	✓	—	—	54.42	18	1	—
	9.0	✓	—	—	80.05	12	1	—
	12.5	✓	—	—	109.00	9	—	1
400 x 300	9.0	✓	—	—	94.18	11	—	1
	12.5	✓	—	—	128.00	8	—	1
	16.0	✓	—	—	161.00	6	—	1

Refer to notes on page 6

## 1.1.3 RECTANGULAR HOLLOW SECTIONS (RHS) - NON STANDARD



**Section:** Rectangular (RHS)

**Standard:** AS/NZS 1163

**Grade:** C350L0

**Surface Finish:** PTD / ALLGAL® / ULTRA-SPEC GAL® / OILED / NOPC\*

Size dxb (mm)	Nom. Thick (mm)	Surface Finish			Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne	Lengths / Pack
		PTD	ALLGAL	ULTRA-SPEC GAL			
8000mm Lengths Standard							
38 x 25	1.6	✓	✓	✓	1.45	689	72
	2.0	✓	✓	✓	1.77	564	72
	2.5	✓	✓	✓	2.15	465	72
	3.0	✓	✓	✓	2.50	400	72
50 x 20	1.6	✓	✓	✓	1.63	615	96
	2.0	✓	✓	✓	1.99	502	96
	2.5	✓	✓	✓	2.42	412	72
	3.0	✓	✓	✓	2.83	353	72
50 x 30	2.0	✓	✓	✓	2.31	434	96
50 x 40	1.6	✓	✓	✓	2.13	470	63
	2.0	✓	✓	✓	2.62	382	63
	2.5	✓	✓	✓	3.21	312	54
76 x 38	1.6	✓	✓	✓	2.73	366	50
	2.0	✓	✓	✓	3.37	296	56
	2.5	✓	✓	✓	4.15	241	45
	3.0	✓	✓	✓	4.90	204	40
	4.0	✓	✓	—	6.23	161	32
80 x 40	1.6	✓	✓	✓	2.88	347	50
	2.5	✓	✓	✓	4.39	228	36
102 x 76	3.5	✓	✓	—	9.07	110	20
	5.0	✓	✓	—	12.51	80	15
	6.0	✓	✓	—	14.67	68	12
127 x 51	3.0	✓	✓	✓	7.92	126	18
	4.0	✓	✓	—	10.24	98	12
	5.0	✓	✓	—	12.51	80	12
	6.0	✓	✓	—	14.67	68	12
152 x 76	5.0	✓	✓	—	16.44	61	12
	6.0	✓	✓	—	19.38	52	9
185 x 65*	3.0	✓	✓	✓	11.31	88	10
	4.0	✓	✓	—	14.77	68	10
	5.0	✓	✓	—	18.17	55	10
	6.0	✓	✓	—	21.45	47	10

### NOTE:

- » Minimum order quantities (MOQ's) apply.
- » C450L0 grade available for some sizes subject to enquiry. Minimum order quantities (MOQ's) apply.
- » NOPC & OILED available subject to enquiry.

+ Please contact your local Orrcon Steel / Metalcop branch

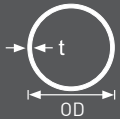
\* Refer to Glossary of Terms

# Not in manufactured range, ring local branch to check availability



## 1.1.4 CIRCULAR HOLLOW SECTIONS (CHS)

1



**Section:** Pipe (CHS)

**Standard:** AS/NZS 1163 & AS 1074


**Grade:** C250L0, C350L0

**Surface Finish:** PTD / ULTRA-SPEC GAL® / ALLGAL® / OILED / NOPC\*

NB (mm)	OD (mm)	Nom. Thick (mm)	Class AS1074	Grade		Surface Finish			Nom. Linear Mass (Kg/m)	Nom. Mtre / Tonne	Lengths / Pack
				C250L0	C350L0	PTD	ALLGAL	ULTRA- SPEC GAL			
6500mm Lengths Standard											
—	25.4	2.0	XL	—	❖	—	✓	✓	1.15	866	91
20	26.9	2.6	M	✓	—	✓	✓	✓	1.56	642	127
25	33.7	2.0	XL	✓	❖	✓	✓	✓	1.56	640	91
		2.6	L	✓	❖	✓	✓	✓	1.99	501	91
		3.2	M	✓	—	✓	✓	—	2.41	415	91
		4.0	H	✓	—	✓	✓	—	2.93	341	91
32	42.4	2.0	XL	✓	❖	✓	✓	✓	1.99	502	61
		2.6	L	✓	❖	—	✓	✓	2.55	392	61
		3.2	M	✓	—	✓	✓	—	3.09	323	61
		4.0	H	✓	—	—	✓	—	3.79	264	61
40	48.3	2.3	XL	—	❖	✓	✓	✓	2.61	383	61
		2.9	L	✓	❖	✓	✓	✓	3.25	308	61
		3.2	M	✓	—	✓	✓	—	3.56	281	61
		3.5	M	✓	—	✓	✓	—	3.87	258	—
		4.0	H	✓	❖	✓	✓	—	4.37	229	61
—	51	2.0	XL	✓	—	✓	✓	✓	2.42	413	—
		4.0	H	✓	—	✓	✓	—	4.64	216	—
50	60.3	2.3	XL	✓	❖	✓	✓	✓	3.29	304	37
		2.9	L	✓	❖	✓	✓	✓	4.11	244	37
		3.5	M	✓	❖	✓	✓	—	4.9	204	—
		3.6	M	✓	❖	✓	✓	—	5.03	199	37
		4.5	H	✓	❖	✓	✓	—	6.19	161	37
65	76.1	2.3	XL	✓	❖	✓	✓	✓	4.19	239	37
		3.2	L	✓	❖	✓	✓	—	5.75	174	37
		3.6	M	✓	❖	✓	✓	—	6.44	155	37
		4.5	H	✓	❖	✓	—	—	7.95	126	37
80	88.9	2.6	XL	—	❖	✓	—	✓	5.53	181	19
		3.2	L	✓	❖	✓	✓	—	6.76	148	19
		4.0	M	✓	❖	✓	✓	—	8.38	119	19
		5.0	H	✓	❖	✓	✓	—	10.35	97	19
90	101.6	2.6	XL	—	❖	✓	✓	✓	6.35	158	19
		3.2	L	—	❖	✓	✓	—	7.77	129	19
		4.0	M	✓	❖	✓	—	—	9.63	104	19
		5.0	H	✓	❖	✓	—	—	11.91	84	19
100	114.3	3.2	XL	—	❖	✓	✓	—	8.77	114	19
		3.6	L	✓	❖	✓	✓	—	9.83	102	19
		4.5	M	✓	❖	✓	✓	—	12.19	82	19
		5.4	H	✓	❖	✓	—	—	14.50	69	19

Table continues over page

1.1.4 CIRCULAR HOLLOW SECTIONS (CHS) CONT...



**Section:** Pipe (CHS)  
**Standard:** AS/NZS 1163 & AS 1074  
**Grade:** C250L0, C350L0  
**Surface Finish:** PTD / ULTRA-SPEC GAL® / ALLGAL® / OILED / NOPC\*

NB (mm)	OD (mm)	Nom. Thick (mm)	Class AS1074	Grade		Surface Finish			Nom. Linear Mass (Kg/m)	Nom. Mtre / Tonne	Lengths / Pack
				C250L0	C350L0	PTD	ALLGAL	ULTRA-SPEC GAL			
6500mm Lengths Standard											
125	139.7	3.0	XL	✓	❖	✓	—	✓	10.11	99	13
		3.5	L	—	❖	✓	✓	—	11.76	85	13
		5.0	M	✓	❖	✓	✓	—	16.61	60	13
		5.4	H	✓	❖	✓	—	—	17.89	56	13
150	165.1	3.0	XL	—	❖	✓	✓	✓	11.99	83	10
		3.5	L	—	❖	✓	✓	—	13.95	72	10
		5.0	M	✓	❖	✓	✓	—	19.74	51	10
		5.4	H	✓	—	✓	—	—	21.27	47	10

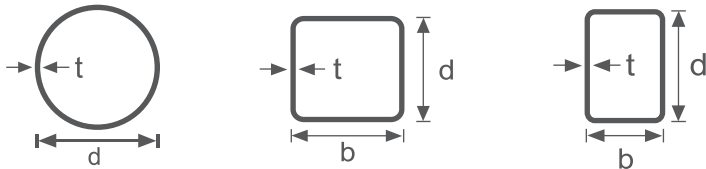
**NOTE:**

- » ❖ Denotes tensile strength exceeds AS 1074 specification.
- » Non standard sizes, surface finishes and lengths available subject to enquiry. Minimum order quantities (MOQ's) apply.
- » NOPC & OILED available subject to enquiry.

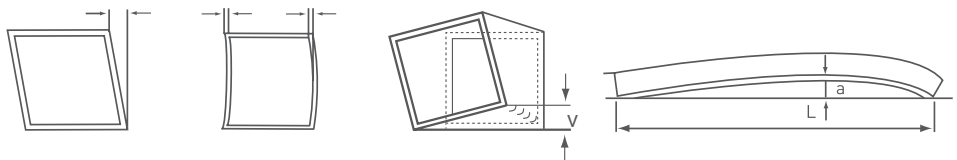
**\* Refer to Glossary of Terms**

1.1.5 STRUCTURAL STANDARDS & TOLERANCES

Standard Tolerances - Structural Tube & Pipe



AS1163		Dimensional Tolerances	
Characteristic		Pipe (CHS)	Rectangular & Square (RHS / SHS)
External dimensions (d, b, d <sub>0</sub> )		±1% with minimum of ±0.5mm & maximum ±10mm	±1% with minimum of ±0.5mm
Thickness (t)	d≤406.4mm	±10%	±10%
	d>406.4mm	±10% with max of ±2mm	
All Sections			
Mass		Not less than 96% of specified nominal mass	



1.1.5 STRUCTURAL STANDARDS & TOLERANCES CONT...

AS1163		Shape Tolerances
Characteristic		All Sections
Corner Radius	≤ 50 x 50mm equivalent perimeter	1.5t to 3t
	> 50 x 50mm equivalent perimeter	1.8t to 3t
Twist (v)		≤2mm ±0.5mm /m Lengths
Concavity / Convexity		Max 0.8% or 0.5mm, whichever is greater
Squareness		90 ± 1°
		Pipe (CHS)      Rectangle & Square (RHS/SHS)
Straightness		0.20% of total Lengths      0.15% of total Lengths

1.1.6 STRUCTURAL PROCESSING & SERVICES

PROCESSING

Please note Orrcon Steel offers processing options including laser tube cutting, pack cutting, pipe threading, shouldering and roll grooving. Not all processing is available at all locations. Please contact Orrcon Steel for further information.

JET ROLLING

Rolling of product outside the normal schedule. Minimum order quantities (MOQ's) apply.

Special Requirements

If you cannot find what you are looking for in our standard product range, our flexible mill options mean that we may still be able to meet your requirements.

We can offer the following, depending on your requirements:

- » Variations to standard mill Lengths
- » Other section sizes
- » Variable grades, chemical compositions & mechanical properties
- » Exact cut Lengths
- » Restricted tolerances
- » Other surface finishes & thicknesses

After assessing the shape/section and tooling cost we can provide you with a quotation for the special product. Minimum order quantities (MOQ's) may apply.



## 1.1.7 BROADSPEC® - STRUCTURAL & PRESSURE PIPE

1

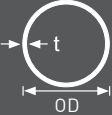


**Section:** Pipe (CHS)  
**Standard:** AS/NZS1163 / API 5L  
**Grade:** C350L0, X42 PSL1

NB (mm)	OD (mm)	Nom. Thick (mm)	MDMT* °C	Pressure Rating Ambient MPa	Nom. Linear Mass(Kg/m)	Nom. Mtre/ Tonne
<b>12000mm Lengths Standard</b>						
80	88.9	5.5	-40	20.9	11.31	88
		7.6	-30	29.3	15.24	66
100	114.3	4.8	-50	13.8	12.96	77
		6.0	-40	17.5	16.02	62
125	141.3	8.6	-30	25.6	22.42	45
		4.8	-50	11.1	16.16	62
		6.6	-40	15.4	21.92	46
150	168.3	9.5	-20	22.7	30.88	32
		4.8	-50	9.3	19.35	52
		6.4	-40	12.5	25.55	39
200	219.1	7.1	-30	13.9	28.22	35
		11.0	-20	22.0	42.67	23
		4.8	-50	7.1	25.37	39
		6.4	-40	9.5	33.57	30
250	273.1	8.2	-30	12.3	42.65	23
		12.7	-20	19.4	64.64	15
		4.8	-50	5.7	31.76	31
		6.4	-40	7.6	42.09	24
300	323.9	9.3	-20	11.1	60.50	17
		12.7	-20	15.4	81.55	12
		4.8	-50	4.8	37.77	26
		6.4	-40	6.4	50.11	20
350	355.6	9.5	-20	9.5	73.65	14
		12.7	-20	12.9	97.41	10
		4.8	-50	4.3	41.50	24
		6.4	-40	5.8	55.11	18
400	406.4	9.5	-20	8.7	81.08	12
		12.7	-20	11.7	107.39	9
		4.8	-50	3.8	47.50	21
		6.4	-40	5.1	63.13	16
		9.5	-20	7.6	92.98	11
		12.7	-20	10.2	123.30	8

Notes over page





**Section:** Pipe (CHS)  
**Standard:** AS/NZS1163 / API 5L  
**Grade:** C350L0, X42 PSL1

NB (mm)	OD (mm)	Nom. Thick (mm)	MDMT* °C	Pressure Rating Ambient MPa	Nom. Linear Mass(Kg/m)	Nom. Mtre/ Tonne
450	457	4.8	-50	3.4	53.53	19
		6.4	-40	4.5	71.12	14
		9.5	-20	6.7	104.84	10
		12.7	-20	9.0	139.15	7
500	508	6.4	-40	4.0	79.16	13
		9.5	-20	6.0	116.78	9
		12.7	-20	8.1	155.12	6
600	610	6.4	-40	3.4	95.26	10
		9.5	-20	5.0	140.68	7
		12.7	-20	6.7	186.06	5

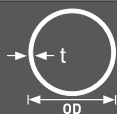
- NOTE:**
- » Stock lengths are 12 metres. Non standard stock lengths are available from 6 metres.
  - » A cut to length service is available on request.
  - » API bevel ends are standard for stock lengths only.
  - » Non standard sizes, surface finishes and lengths available subject to enquiry. Minimum order quantities (MOQ's) apply.
  - » The values and calculations in the table above are based on AS4041.
  - » Project supply subject to enquiry.
  - » Surface finish is NOPC or Mill Varnish.
  - » Product specification level subject to enquiry.
  - » Contact your Orrcon Steel / Metalcorp Representative for the correct quantity of lengths per pack.

\* Refer to Glossary of Terms

1.1.7 Broadspec® - Structural & Pressure Pipe cont...

## 1.2 SPRINKLER & HYDRANT PIPE - ORRFIRE® PIPE RANGE

1



**Section:** ORRFIRE® Pipe - Sprinkler and Hydrant Pipe  
**Standard:** AS4118.2.1 / AS2419  
**Surface Finish:** SMARTCOTE® / ALLGAL® / Hot Dipped Galvanized

OD (mm)	NB (mm)	Nominal Thickness (mm)	Designation	Surface Finish		Nom. Linear Mass [Kg/m]	Nom. Mtre/ Tonne	Lengths / Pack
				SMARTCOTE	ALLGAL			
6500mm Lengths Standard								
26.7	20	2.0	XLight	✓	✓	1.23	814	127
		2.3	Light	✓	✓	1.40	717	127
		2.6	Medium	✓	✓	1.56	642	127
33.4	25	2.0	XLight	✓	✓	1.56	639	91
		2.6	Light	✓	✓	1.99	501	91
		3.2	Medium	✓	✓	2.41	415	91
42.2	32	2.0	XLight	✓	✓	1.99	501	61
		2.6	Light	✓	✓	2.55	392	61
		3.2	Medium	✓	✓	3.09	323	61
48.3	40	2.3	XLight	✓	✓	2.61	383	61
		2.9	Light	✓	✓	3.25	308	61
		3.2	Medium	✓	✓	3.56	280	61
60.3	50	2.3	XLight	✓	✓	3.29	304	37
		2.9	Light	✓	✓	4.11	244	37
		3.6	Medium	✓	✓	5.03	199	37
76.1	65	2.3	XLight	✓	✓	4.19	239	37
		3.2	Light	✓	✓	5.75	174	37
		3.6	Medium	✓	✓	6.44	155	37
88.9	80	2.6	XLight	✓	✓	5.53	181	—
		3.2	Light	✓	✓	6.76	148	—
		4.0	Medium	✓	✓	8.38	119	—
114.3	100	2.5	—	✓	✓	6.89	145	—
		3.2	XLight	✓	✓	8.76	114	—
		3.6	Light	✓	✓	9.83	102	—
		4.5	Medium	✓	✓	12.20	82	—
139.7	125	3.0	XLight	✓	✓	10.11	99	—
		3.5	Light	✓	✓	11.08	85	—
		5.0	Medium	✓	✓	16.60	60	—
165.1	150	3.0	XLight	✓	✓	11.99	83	—
		3.5	Light	✓	✓	13.90	72	—
		5.0	Medium	✓	✓	19.70	51	—
		5.4	Heavy	✓	✓	21.30	47	—
12000mm Lengths Standard								
168.3	—	4.8	—	—	—	19.35	52	—
	—	6.4	—	—	—	25.55	39	—
219.1	200	4.8	—	—	—	25.37	39	—
		6.4	—	—	—	33.57	30	—
273.1	250	4.8	—	—	—	31.76	31	—
		6.4	—	—	—	42.09	24	—
323.9	300	4.8	—	—	—	37.77	26	—

### NOTE:

- » Recommended maximum test pressure is 5000 kPa / 725 Psi.
- » The pipe must be supported to avoid all external loads and free to accommodate thermal expansion.
- » For light and extra light pipe in all sizes the minimum yield strength is 300 MPa and 200 MPa for medium wall.
- » Pipes 200NB and above have minimum yield strength of 300 MPa.
- » These tables are applicable for services where pipe contents temperature does not exceed 250°C.
- » Pipe 20NB up to 150NB is painted red primer.
- » Pipe 200NB and above is painted black primer.
- » Non standard sizes, surface finish and lengths available, subject to enquiry.
- » Minimum order quantities (MOQ's) apply.
- » Pipes >300NB available subject to enquiry.
- » Contact your Orrcon Steel representative for the correct quantity of lengths per pack.





## 1.2 SPRINKLER & HYDRANT PIPE - ORRFIRE® PIPE SPECIFICATIONS DIAMETER TOLERANCE – ORRFIRE® PIPE

Maximum variation from nominal outside diameter in all wall thicknesses															
NB	(mm)	20	25	32	40	50	65	80	100	125	150	—	200	250	300
Outside Diameter	(mm)	26.9	33.7	42.4	48.3	60.3	76.1	88.9	114.3	139.7	165.1	168.3	219.1	273.1	323.9
Min OD	(mm)	26.6	33.4	42.0	47.8	59.7	75.3	88.0	113.2	138.3	163.4	166.6	217.0	270.4	320.7
Max OD	(mm)	27.2	34.0	42.8	48.8	61.0	76.9	89.8	115.4	141.1	166.7	170.0	221.3	275.8	327.1

## MECHANICAL PROPERTIES – ORRFIRE® PIPE

Pipe Dimensions	Minimum Yield Strength	Minimum Tensile Strength	Minimum Elongation as a proportion of gauge Lengths
Light Wall Pipe 20 TO 150 NB (3/4 TO 6 INCH)	300 MPa	400 MPa	20%
Medium Wall Pipe 20 TO 150 NB (3/4 TO 6 INCH)	200 MPa	300 MPa	22%
Schedule 200 TO 300 NB (8 TO 12 INCH)	300 MPa	420 MPa	20%



The current ActivFire® approvals are listed below. Current copies of ActivFire® certificates are available from [www.orrconsteel.com.au](http://www.orrconsteel.com.au)

ActivFire® Approval Listing Number	Product	Designation
afp 1641	ORRFIRE® SMARTCOTE® Red Painted	Extra Light pipe
afp 1510	ORRFIRE® SMARTCOTE® Red Painted	Light pipe
afp 1511	ORRFIRE® SMARTCOTE® Red Painted	Medium pipe
afp 2481	ORRFIRE® SMARTCOTE® Red Painted	Sprinkler & Hydrant pipe Extra Light and Light
afp 1640	ORRFIRE® ALLGAL® Electro Galvanized	Extra Light pipe
afp 1528	ORRFIRE® ALLGAL® Electro Galvanized	Extra Light pipe 100NB and above
afp 1508	ORRFIRE® ALLGAL® Electro Galvanized	Light pipe
afp 1509	ORRFIRE® ALLGAL® Electro Galvanized	Medium pipe
afp 1529	ORRFIRE® Hot Dipped Galvanized	Sprinkler & Hydrant pipe Extra Light and Light
afp 1530	ORRFIRE® Hot Dipped Galvanized	Sprinkler and Hydrant Medium pipe

## THREADING SPECIFICATIONS - ORRFIRE® PIPE

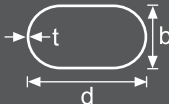
End Treatment	Min Size (mm)	Max Size (mm)	Min Thickness (mm)	Max Thickness (mm)
Threading	25NB	50NB	3.2	4.5

## ROLL GROOVING SPECIFICATIONS – ORRFIRE® PIPE

End Treatment	Pipe Size (mm)	Min Thickness (mm)	Max Thickness (mm)
Roll Grooving	50NB	2.3	3.6
	65NB	2.3	3.6
	80NB	2.6	4.0
	100NB	2.5	4.5
	125NB	3.0	◆
	150NB	3.0	◆
	200NB	4.8	◆
	250NB	4.8	◆

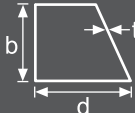
**NOTE:** » Contact your Orrcon Steel representative for minimum thicknesses outside the listed range.  
◆ Contact your Orrcon Steel representative for maximum thicknesses which are not listed for the specified diameter pipe.

1.3 YARD RAIL

		Section: Yard Rail Standard: AS/NZS 1163 Grade: C350L0 Surface Finish: PTD / ULTRA-SPEC GAL® / ALLGAL®					
Size dxb (mm)	Nom. Thick (mm)	Surface Finish			Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne	Lengths / Pack
		PTD	ULTRA-SPEC GAL	ALLGAL			
Flat Sided Oval (Rail) 6100mm Lengths Standard							
52 x 25	1.6	✓	✓	✓	1.61	621	48
	2.0	✓	✓	✓	1.99	503	48
53 x 35	1.6	✓	✓	✓	1.84	543	48
58 x 31	1.6	✓	✓	✓	1.847	541	48
59 x 30	1.6	✓	✓	✓	1.84	543	48
	2.0	✓	✓	✓	2.28	439	48
62 x 50	2.0	✓	✓	✓	2.876	348	25
	2.5	✓	✓	✓	3.564	281	25
	3.0	✓	✓	✓	4.239	236	25
	4.0	✓	✓	✓	5.554	180	25
66 x 44	1.6	✓	✓	✓	2.32	431	25
	2.0	✓	✓	✓	3.22	311	25
75 x 40	1.6	✓	✓	✓	2.46	407	20
	2.0	✓	✓	✓	2.99	334	20
	2.5	✓	✓	✓	3.60	278	32
85 x 48	1.6	✓	✓	✓	2.742	365	28
97 x 40	2.0	✓	✓	✓	3.65	274	21
97 x 42	2.0	✓	✓	✓	3.65	274	21
	2.5	✓	✓	✓	4.53	221	21
108 x 38	2.0	✓	✓	✓	3.85	260	21
115 x 42	2.0	✓	✓	✓	4.27	234	21
	2.3	✓	✓	✓	4.912	204	21
	2.5	✓	✓	✓	5.33	188	21
Flat Sided Round (Post) 6100mm Lengths Standard							
62 x 50	2.0	✓	✓	✓	2.88	348	25
80 x 61	2.0	✓	✓	✓	3.65	274	25

NOTE: » Non standard sizes, surface finishes and lengths available, subject to enquiry.  
» Minimum order quantities (MOQ's) apply.

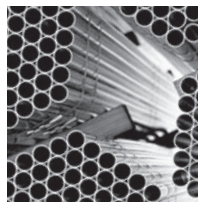
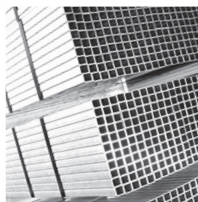
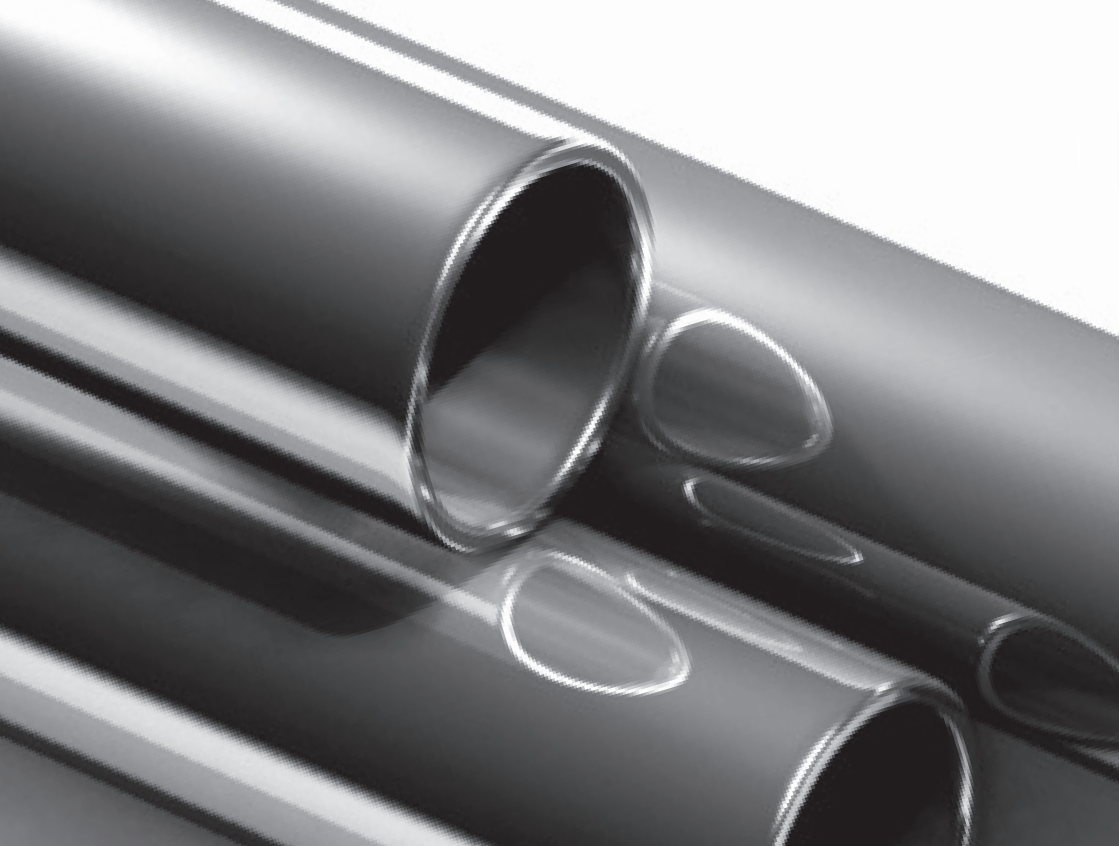
1.4 SILO SECTIONS



Section: Silo Sections  
Standard: AS/NZS 1163  
Grade: C350L0  
Surface Finish: ALLGAL®

Size dxb (mm)	Nom. Thick (mm)	Surface Finish	Nom. Linear Mass (Kg/m)	Nom. Mtre/Tonne	Lengths / Pack
		ALLGAL			
12000mm Lengths Standard					
75 x 64	2.5	✓	4.58	218	24
	3.0	✓	5.46	183	24

NOTE: » Non standard surface finishes and lengths available, subject to enquiry.  
» Minimum order quantities (MOQ's) apply.



## Precision Tube



**BLUESCOPE**

we are BlueScope businesses



we'll see it through

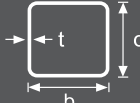
**METALCORP**

*Everything in Steel*

19

E&OE

# 1.5.1 PRECISION SQUARE TUBE



**Section:** Square Tube

**Standard:** AS 1450\*

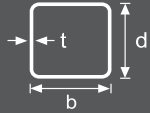
**Surface Finish:** SEMB / MSGB / MSBL\*\*

Size dxb (mm)	Gauge (mm)	Surface Finish			Nom. Linear Mass (Kg/m)	Lengths Per Pack
		SEMB	MSGB	MSBL		
<b>6100mm, 6500mm, 7320mm &amp; 8000mm Lengths Standard</b>						
12.7 x 12.7	1.2	*	✓	—	0.404	400
	1.6	✓	—	—	0.506	400
16 x 16	0.9	—	✓	—	0.410	256
	1.0	—	✓	—	0.451	256
	1.2	—	✓	—	0.529	256
	1.6	✓	—	—	0.672	256
19 x 19	0.9	—	✓	—	0.495	169
	1.2	✓	*	—	0.642	169
	1.4	✓	—	—	0.734	169
	1.6	✓	✓	✓	0.822	169
	2.0	✓	*	—	0.987	169
	2.5	—	*	✓	1.169	169
20 x 20	1.2	*	✓	—	0.679	144
	1.6	✓	✓	—	0.873	144
22.2 x 22.2	0.9	✓	✓	—	0.586	121
	1.2	✓	✓	—	0.762	121
	1.4	✓	—	—	0.875	121
	1.6	✓	✓	—	0.983	121
25.4 x 25.4	1.2	✓	✓	—	0.883	100
	1.4	✓	—	—	1.015	100
	1.5	—	✓	—	1.080	100
	1.6	*	✓	✓	1.144	100
	2.0	*	*	✓	1.389	100
	2.5	—	—	✓	1.671	100
25 x 25	1.2	✓	*	—	0.868	100
	1.4	✓	—	—	0.998	100
	1.6	✓	✓	*	1.124	100
30 x 30	1.2	✓	✓	—	1.056	64
	1.5	—	✓	—	1.297	64
	1.6	*	✓	*	1.375	64
31.8 x 31.8	1.2	✓	✓	—	1.124	64
	1.6	*	✓	✓	1.465	64
	2.0	*	*	✓	1.791	64
	2.5	—	*	✓	2.174	64

Table continues over page

## 1.5.1 PRECISION SQUARE TUBE CONT...

1



**Section:** Square Tube  
**Standard:** AS 1450\*  
**Surface Finish:** SEMB / MSGB / MSBL\*\*

Size dxb (mm)	Gauge (mm)	Surface Finish			Nom. Linear Mass (Kg/m)	Lengths Per Pack
		SEMB	MSGB	MSBL		
6100mm, 6500mm, 7320mm & 8000mm Lengths Standard						
35 x 35	1.2	✓	✓	—	1.244	49
	1.5	—	✓	—	1.532	49
	1.6	*	*	✓	1.626	49
	2.0	*	*	✓	1.992	49
38 x 38	1.6	✓	✓	✓	1.777	49
	2.0	*	*	✓	2.180	49
	2.5	—	*	✓	2.660	49
40 x 40	1.2	—	✓	—	1.433	32
	1.5	—	✓	—	1.768	32
	1.6	—	✓	✓	1.877	32
	2.0	—	✓	*	2.306	32
	2.5	—	*	✓	2.817	32
45 x 45	1.6	*	✓	✓	2.129	36
	2.5	—	*	✓	3.210	36
50 x 50	1.2	*	✓	—	1.810	25
	1.5	—	✓	—	2.239	25
	1.6	✓	✓	*	2.380	25
	2.0	*	✓	✓	2.934	25
	2.5	—	*	✓	3.602	25
	3.0	—	—	✓	4.245	25
60 x 60	1.6	✓	✓	—	2.882	12
65 x 65	1.5	—	✓	—	2.945	16
	1.6	*	✓	*	3.133	16
	2.0	*	*	✓	3.876	16
	2.5	—	✓	*	4.780	16

### NOTE:

- » Non standard lengths available subject to enquiry.
- » Other coatings available include - HTGB, HRSB, HRGB, HRPO, GALVANIZED\*\*. These sections may not be available in these coatings. Please contact Orrcon Steel for availability.
- » The products listed are indicative of the range however you need to check with your local Orrcon Steel / Metalcop representative for availability & minimum order quantities (MOQ's).

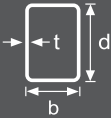
\* Mechanical Properties - refer to section 1.5.9 - Standards - Precision Tube.

\*\* Refer to Glossary of Terms

\* Capable but not currently made.

# 1.5.2 PRECISION RECTANGULAR TUBE

1

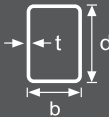


**Section:** Rectangular Tube  
**Standard:** AS 1450\*  
**Surface Finish:** SEMB / MSGB / MSBL\*\*

Size dxb (mm)	Gauge (mm)	Surface Finish			Nom. Linear Mass (Kg/m)	Lengths Per Pack
		SEMB	MSGB	MSBL		
6100mm, 6500mm, 7320mm & 8000mm Lengths Standard						
12 x 9	1.2	✓	*	—	0.395	560
25.4 x 12.7	0.9	—	✓	—	0.497	200
	1.0	—	✓	—	0.547	200
	1.2	✓	*	—	0.643	200
	1.6	*	✓	*	0.825	200
30 x 15	0.9	—	✓	—	0.594	128
31.8 x 12.7	1.6	✓	*	*	0.986	160
35 x 19	1.0	—	✓	✓	0.796	96
	1.2	✓	*	—	0.943	96
	1.6	✓	✓	✓	1.224	96
	2.0	*	*	✓	1.489	96
38 x 25.4	1.2	*	✓	—	1.120	70
	1.5	—	✓	—	1.377	70
	1.6	*	✓	✓	1.460	70
50 x 10	0.9	—	✓	—	0.806	85
	1.2	✓	*	—	1.056	85
	1.6	✓	*	*	1.375	85
50 x 20	1.6	✓	*	*	1.626	60
	2.0	*	*	✓	1.992	60
50 x 25	0.9	—	✓	—	1.018	50
	1.2	*	✓	—	1.339	50
	1.6	✓	✓	*	1.752	50
	2.0	*	*	✓	2.149	50
	2.5	—	*	✓	2.621	50
50 x 40	1.6	✓	*	*	2.129	30
51 x 31.8	1.6	✓	*	*	1.948	40
	2.0	✓	*	*	2.393	40
57 x 35	1.6	*	✓	✓	2.179	28
	2.0	*	*	✓	2.682	28
	2.5	—	*	✓	3.288	28
60 x 30	2.5	—	*	✓	3.210	32
60 x 40	1.6	✓	*	*	2.380	24
	3.0	—	—	✓	4.245	24
63.5 x 38	1.6	*	✓	*	2.418	28
	2.0	*	*	✓	2.981	28

Table continues over page

1.5.2 PRECISION RECTANGULAR TUBE CONT...



**Section:** Rectangular Tube  
**Standard:** AS 1450\*  
**Surface Finish:** SEMB / MSGB / MSBL\*\*

Size dxb (mm)	Gauge (mm)	Surface Finish			Nom. Linear Mass (Kg/m)	Lengths Per Pack
		SEMB	MSGB	MSBL		
6100mm, 6500mm, 7320mm & 8000mm Lengths Standard						
67 x 29	2.0	✓	*	—	2.808	36
70 x 34	2.3	✓	—	—	3.482	28
70 x 50	1.2	*	✓	—	2.186	20
75 x 25	2.0	*	*	✓	2.934	30
76 x 38	1.2	*	✓	—	2.073	18
	1.6	*	✓	*	2.732	18
	2.0	*	✓	*	3.373	18
80 x 40	1.6	*	✓	✓	2.882	18
	2.5	—	*	✓	4.387	18
90 x 40	2.5	—	*	✓	4.780	18

NOTE:

- » Non standard lengths available subject to enquiry.
- » Other coatings available include - HTGB, HRSB, HRGB, HRPO, GALVANIZED\*\*. These sections may not be available in these coatings. Please contact Orrcon Steel for availability.
- » The products listed are indicative of the range however you need to check with your local Orrcon Steel / Metalcorp representative for availability & minimum order quantities (MOQ's).

\*Mechanical properties - refer to section 1.5.9 - Standards - Precision Tube.

\*\* Refer to Glossary of Terms

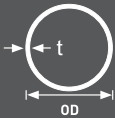
\* Capable but not currently made.

1.5.2 Precision Rectangular Tube cont...



# 1.5.3 PRECISION ROUND TUBE

1



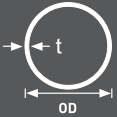
**Section:** Round Tube  
**Standard:** AS 1450\*  
**Surface Finish:** SEMB / MSGB / MSBR / MSBL / ACMS\*\*

Size OD	Gauge (mm)	Surface Finish					Nom. Linear Mass (Kg/m)	Lengths Per Pack
		SEMB	MSGB	MSBR	MSBL	ACMS		
6100mm, 6500mm, 7320mm & 8000mm Lengths Standard								
12.7	0.9	—	✓	✓	—	—	0.262	270
	1.2	✓	*	—	—	—	0.340	270
	1.6	✓	*	—	*	—	0.438	270
16.0	0.9	—	—	✓	—	—	0.335	217
	1.2	✓	✓	—	—	—	0.438	217
	1.6	✓	✓	—	*	—	0.568	217
	2.0	✓	*	—	—	—	0.691	217
19.0	0.9	—	✓	✓	—	—	0.402	169
	1.2	✓	✓	—	—	✓	0.527	169
	1.4	✓	—	—	—	—	0.608	169
	1.6	✓	✓	—	✓	—	0.687	169
	2.0	✓	*	—	✓	—	0.838	169
	2.5	—	✓	—	*	—	1.017	169
22.2	0.9	✓	✓	—	—	—	0.473	127
	1.2	✓	*	—	—	—	0.621	127
	1.4	✓	—	—	—	—	0.718	127
	1.6	✓	*	—	*	—	0.813	127
25.4	0.9	—	✓	—	—	—	0.544	91
	1.0	—	✓	—	—	—	0.601	91
	1.2	✓	*	✓	—	—	0.716	91
	1.4	✓	—	—	—	—	0.829	91
	1.6	✓	✓	—	✓	—	0.939	91
	2.0	✓	✓	—	✓	—	1.154	91
28.6	1.2	✓	✓	—	—	—	0.811	61
	1.6	✓	✓	—	*	—	1.065	61
31.8	1.2	✓	*	—	—	—	0.906	61
	1.6	✓	✓	—	✓	✓	1.192	61
	2.0	✓	*	—	✓	—	1.470	61
35.0	1.2	✓	✓	—	—	✓	1.000	61
	1.6	✓	*	—	—	—	1.318	61
38.0	1.2	*	✓	—	*	✓	1.089	61
	1.6	✓	✓	—	✓	—	1.436	37
	2.0	✓	*	—	✓	—	1.776	37
	2.5	—	*	—	✓	—	2.189	37
	3.0	—	—	—	✓	—	2.589	37
41.3	1.2	✓	✓	—	—	—	1.187	37
	1.6	✓	✓	—	*	✓	1.566	37

Table continues over page

## 1.5.3 PRECISION ROUND TUBE CONT...

1



**Section:** Round Tube  
**Standard:** AS 1450\*  
**Surface Finish:** SEMB / MSGB / MSBR / MSBL / ACMS\*\*

Size OD	Gauge (mm)	Surface Finish					Nom. Linear Mass (Kg/m)	Lengths Per Pack
		SEMB	MSGB	MSBR	MSBL	ACMS		
6100mm, 6500mm, 7320mm & 8000mm Lengths Standard								
44.5	1.2	✓	✓	—	—	✓	1.281	68
	1.6	✓	✓	—	*	✓	1.693	68
	2.0	*	*	—	✓	—	2.097	37
	2.5	—	*	—	✓	—	2.589	37
47.6	1.2	✓	*	—	—	—	1.373	37
	1.6	✓	*	—	*	—	1.815	19
	2.0	✓	*	—	*	—	2.249	19
51.0	1.2	✓	✓	—	—	*	1.474	19
	1.4	✓	—	—	—	—	1.712	53
	1.6	✓	✓	—	✓	*	1.949	19
	2.0	✓	✓	—	*	—	2.417	19
	2.5	—	✓	—	✓	—	2.990	19
54.0	1.2	*	✓	—	—	—	1.562	19
	1.6	✓	*	—	*	—	2.068	19
57.0	1.2	✓	✓	—	—	*	1.651	19
	1.6	✓	✓	—	*	*	2.186	19
	2.0	✓	*	—	✓	—	2.713	19
60.3	1.6	*	✓	—	*	—	2.316	19
63.5	1.6	✓	*	—	*	*	2.442	19
	2.0	✓	*	—	✓	—	3.033	19
70.0	1.6	✓	*	—	*	—	2.698	19
	2.0	✓	*	—	*	—	3.354	7
76.2	1.6	✓	*	—	*	—	2.944	19
	2.0	—	*	—	*	—	3.660	19
85.0	1.6	*	*	—	*	—	3.290	7
90.0	1.6	✓	*	—	*	—	3.488	7
101.6	1.6	✓	*	—	*	—	3.950	7

### NOTE:

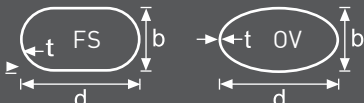
- » Non standard lengths available subject to enquiry.
- » Other coatings available include - HTGB, HRSB, HRGB, HRPO, GALVANIZED\*\*. These sections may not be available in these coatings. Please contact Orrcon Steel for availability.
- » The products listed are indicative of the range however you need to check with your local Orrcon Steel / Metalcop representative for availability & minimum order quantities (MOQ's).

**\* Mechanical properties - refer to section 1.5.9 - Standards - Precision Tube.**

**\*\* Refer to Glossary of Terms**

**\* Capable but not currently made.**

## 1.5.4 PRECISION OVAL TUBE



**Section: Oval Tube**  
**Standard: AS 1450\***  
**Surface Finish: SEMB / MSGB / MSBR\*\***

Size dxb (mm)	Flat / Oval Side	Gauge (mm)	Surface Finish			Nom. Linear Mass (Kg/m)	Lengths Per Pack
			SEMB	MSGB	MSBR		
6100mm, 6500mm, 7320mm & 8000mm Lengths Standard							
30 x 15	OV	2.0	✓	*	—	1.152	128
31.8 x 16	FS	1.2	*	*	✓	0.740	128
	FS	1.6	*	*	✓	0.998	128
31.8 x 17.5	OV	1.6	✓	*	—	0.940	96
	OV	2.0	✓	*	—	1.196	120
35 x 15	OV	2.0	✓	*	—	1.312	128
37.7 x 20.7	FS	1.6	✓	*	—	1.237	84
51 x 16	FS	1.2	✓	*	—	1.114	80
	FS	1.6	✓	*	—	1.476	80
61.8 x 29.6	OV	1.6	*	✓	—	1.858	48
75 x 16	FS	1.0	—	✓	—	1.334	48

**NOTE:**

- » Non standard lengths available subject to enquiry.
- » Other coatings available include - HTGB, HRSB, HRGB, HRP0, GALVANIZED\*\*. These sections may not be available in these coatings. Please contact Orrcon Steel for availability.
- » The products listed are indicative of the range however you need to check with your local Orrcon Steel / Metalcorp representative for availability & minimum order quantities (MOQ's).

**\* Capable but not currently made.**

## 1.5.5 PRECISION SPECIAL SHAPES



**Section:** Special Shapes

**Standard:** AS 1450\*

**Surface Finish:** SEMB / MSGB\*\*

Size dxb (mm)	Gauge (mm)	Surface Finish		Nom. Linear Mass (Kg/m)	Lengths Per Pack
		SEMB	MSGB		
6100mm, 6500mm, 7320mm & 8000mm Lengths Standard					
50.8 H/RAIL	1.6	*	✓	1.941	30
50 x 50 30-25	1.6	*	✓	2.470	25
	2.0	✓	*	2.907	25
50 x 50 x 68.6	1.6	✓	*	2.006	25

**NOTE:**

- » Non standard lengths available subject to enquiry.
- » Other coatings available include - HTGB, HRSB, HRGB, HRP0, GALVANIZED\*\*. These sections may not be available in these coatings. Please contact Orrcon Steel for availability.
- » The products listed are indicative of the range however you need to check with your local Orrcon Steel / Metalcorp representative for availability & minimum order quantities (MOQ's).

**\*Mechanical properties - refer to section 1.5.9 - Standards - Precision Tube.**

**\*\* Refer to Glossary of Terms**

**\* Capable but not currently made.**

## 1.5.6 MECSPEC-GAL® TUBE & PIPE INFORMATION

### CHOOSE ORRCON STEEL'S MECSPEC-GAL® FOR A DURABLE STEEL COMMERCIAL PIPE SOLUTION

Orrcon Steel's MECSPEC-GAL® presents a high quality galvanized steel coating. Shorter production lead times are achieved because manufacturing is at our South Australian Precision Manufacturing Mill using BlueScope steel.

MECSPEC-GAL® Pipe offers a viable and competitive alternative to hot dipped galvanized pipe.

Finished tube properties achieve minimum 350 MPa yield strength.

Finished pipe properties achieve 350 MPa yield strength for Extra Light and Light, 250MPa yield strength for Medium. MECSPEC-GAL® tube and pipe provide guaranteed ductility for mechanical manipulation and end use.

The BlueScope coil used in Orrcon Steel's MECSPEC-GAL® tube and pipe is hot dipped zinc coated to AS 1397 with a spangled surface finish. The combined coating thickness of both sides is 275g/m<sup>2</sup>.

#### PRODUCT BENEFITS

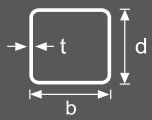
- » Orrcon Steel's MECSPEC-GAL® Pipe sizes are available locally from ex-stock
- » High quality steel and tube-making to meet the demand of applications requiring both strength and ductility
- » AS 4792 ZB135 / 135 coating class providing excellent durability for general purpose applications
- » Guaranteed coating adhesion during bending, flaring or flattening.
- » Good paint and powder coat performance because of MECSPEC-GAL® Pipe consistent surface finish
- » Painted ends to indicate gauge thickness

#### NOTE:

\*Suitability is determined by the application of the product, the environment and the size and specifications of the pipe and tube. The BlueScope brand mark is a registered trade mark of BlueScope Steel Limited. MECSPEC-GAL® is a registered trade mark of Orrcon Manufacturing Pty Ltd. © 2018 BlueScope Distribution Pty Ltd ABN 88 096 380 068 trading as Orrcon Steel. For MECSPEC-GAL® Pipe's availability please contact your Orrcon Steel representative. Please note that not all products are available in all regions.

# 1.5.7 MECSPEC-GAL® TUBE (SHS)

1



**Section:** MECSPEC-GAL® Tube  
**Standard:** AS1450  
**Grade:** C350  
**Surface Finish:** AS/NZS 4792 ZB135/135 Zinc Coating

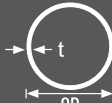
Size dxb (mm)	Gauge (mm)	Surface Finish	Nom. Linear Mass (Kg/m)	Lengths Per Pack
		GAL		
6500mm & 8000mm Lengths Standard*				
20 x 20	1.6	✓	0.87	100
	2.0	✓	1.05	100
25 x 25	1.6	✓	1.12	100
	2.0	✓	1.36	100
	2.5	✓	1.64	100
30 x 30	1.6	✓	1.38	100
	2.0	✓	1.68	100
	2.5	✓	2.03	100
35 x 35	1.6	✓	1.63	100
	2.0	✓	1.99	100
	2.5	✓	2.42	64
40 x 40	1.6	✓	1.88	81
	2.0	✓	2.31	81
	2.5	✓	2.82	64

**NOTE:**  
» \*20 x 20 x 1.6mm up to 25 x 25 x 2.5mm are 6500mm and 30 x 30 x 1.6mm up to 40 x 40 x 2.5mm are 8000mm.  
» MOQ and extra apply for non-standard length.  
» Standard pack configuration only.

1.5.7 MEC SPEC-GAL® Tube (SHS)

1.5.8 MECSPEC-GAL® PIPE (CHS)

1



**Section:** MECSPEC-GAL® Pipe  
**Standard:** AS1450  
**Grade:** C250, C350  
**Surface Finish:** AS1397 ZB135/135 Zinc Coating

NB (mm)	OD (mm)	Nominal Thickness (mm)	Designation	Surface Finish	Nom. Linear Mass (Kg/m)	Lengths Per Pack
				GAL		
6500mm & 7200mm Lengths Standard						
20	26.9	2.0	XLight	✓	1.23	91
	26.9	2.3	Light	✓	1.40	91
	26.9	2.6	Medium	✓	1.56	91
25	33.7	2.0	XLight	✓	1.56	91
	33.7	2.6	Light	✓	1.99	91
32	42.4	2.0	XLight	✓	1.99	61
	42.4	2.6	Light	✓	2.55	61
40	48.3	2.3	XLight	✓	2.61	61
	48.3	2.9	Light	✓	3.25	61
50	60.3	2.3	XLight	✓	3.29	37
	60.3	2.6	Light	✓	4.11	37
65	76.1	2.3	XLight	✓	4.19	37
	76.1	2.6	Light	✓	5.75	37

- NOTE:**
- » MOQ and extra apply for non-standard length.
  - » 50NB and 65NB Light are subject to enquiry.
  - » Standard pack configuration only.
  - » Finished tube properties achieve 350 MPa yield strength for Extra Light and Light, 250 MPa yield strength for Medium.

1.5.8 MECSPEC-GAL® Pipe (CHS)

1.5.9 PRECISION STANDARDS & TOLERANCES

1 Standards - Precision Tube

Orrcon Steel products are manufactured by cold forming and electric resistance welding and are tested to meet the following Australian Standards:

MECHANICAL

Hollow sections used for mechanical purposes are manufactured to generally meet:

- » AS 1450 - Steel Tubes for Mechanical Purposes (Grades C200 & C250 ERW).

Standard Mechanical Properties - Precision Tube

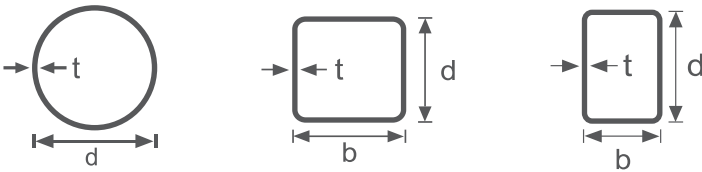
Standard	Surface Finish	D/T Ratio	Yield Strength MPa (min)	Tensile Strength MPa (min)	Elong on 5.65√S <sub>0</sub> % (min)
AS1450	Commercial Quality & Aluminium Coated	<15	300	310	15
		15 to 25	275	300	20
		<25 to 35	250	290	25
		< 35	200	280	30
	Zinc Coated	—	300	350	15

D = Outside diameter or equivalent round | t = nominal wall thickness | S<sub>0</sub> = Cross Sectional Area

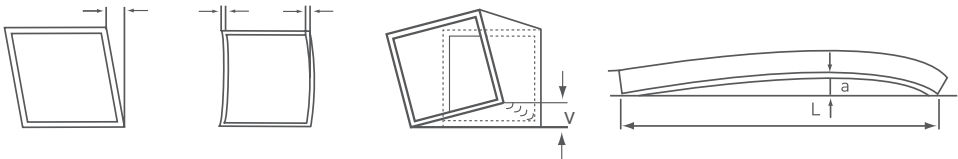


1.5.9 PRECISION STANDARDS & TOLERANCES CONT...

Tolerances - Precision Tube



AS1450		Dimensional Tolerances	
Characteristic		Round	Rectangular & Square
Dimension (d, b, d <sub>o</sub> )	≤25mm	±0.15mm	±0.5mm
	>25 and ≤50	±0.20mm	
	>50 and ≤75	±0.30mm	±1%
	>75 and ≤100	±0.40mm	
		Rounds, Rectangular & Square	
Mass		±10%	



AS1450	Shape Tolerances
Characteristic	All Sections
Corner Radius	Max 3t
Twist (v)	< 2mm + 0.5mm/m Lengths
Squareness	90 ± 1°
Straightness (a)	Shall not exceed: Mill Lengths(mm) / 600

1.5.10 PRECISION SURFACE FINISHES & SERVICES

COMMERCIAL QUALITY ERW STEEL TUBING

Standard tubing is manufactured from a range of steel strip types including cold rolled and hot rolled pickled and oiled. The strip has a matt finish, and after being polished in the tube rolling process the resulting surface finish is suitable in most applications.

Tubing is coated with a non-tacky rust preventative that is designed to withstand corrosion for at least three months when stored in normal, dry warehouse conditions. The tube can be welded without removal of the rust preventative.

Precision

Hollow sections to be used for precision purposes are manufactured to meet:

- AS/NZS 1450 – Steel tubes for mechanical purposes (Standard Grade C250, others grades maybe available however you need to check with your local to your Orrcon Metalcorp Representative for availability and minimum order quantities (MOQ's)

# 1.5.10 PRECISION SURFACE FINISHES & SERVICES CONT...

## Surface Finishes - Precision Tube

### RUST PROTECTION

Rust preventative oil should be re-applied periodically where prolonged storage is required.

### MSGB, HTGB, ACMS, ZINC AND ALUMINIUM COATED ERW STEEL TUBING

Tubing is manufactured from a range of zinc and aluminium coated steel strip types which are coated on both sides. The welded seam of the tube is re-coated with a zinc and aluminium alloy to replace the material that the welding process has burnt away. Zinc coated tube is coated with a protective agent designed to withstand white rust when stored in normal, dry conditions. Aluminium coated tube is supplied without this protective agent.

The performance of zinc coated steel is influenced by micro-environments, which vary from site to site. In corrosive environments it is recommended that a suitable barrier coating (eg. paint or powder coating) be applied over the zinc surface. This application should be in accordance with the supplier's recommendations with regard to surface pre-treatment, application, curing, and maintenance of the coating - refer to AS 2312.1 'Guide to the Protection of Structural Steel against Corrosion by the use of Protective Coatings - Paint Coatings'.

### MSBR – MILD STEEL BRIGHT

Finish – Has a bright finish and is typically used in the manufacture of products that require a higher grade surface finish such as electroplating or similar critical finish applications.

### SEMB – SEMI BRIGHT

Finish – Typically has a steel grey appearance and suitable surface for general applications. Ideal where demanding and consistent properties are required.

### HRSB – HOT ROLLED SEMI BRIGHT

Finish - Typically has a steel grey appearance and suitable surface for general applications. Ideal for paint or powder coated products.


### MSBL – MILD STEEL BLACK

Finish - Has a black, mill finish.

## Special Requirements & Non Standard Products

If you have special requirements which are not in our standard range of Commercial Quality, zinc coated or aluminium coated products, Orrcon Steel is happy to assist. Some of the services we offer include different mill lengths, other section sizes, different grades, chemical composition, and mechanical properties, exact cut Lengths, restricted tolerances, other surface finishes and coating thickness as well as perforating. Minimum order quantities (MOQ's) may apply.

1.6 HOT DIPPED GALVANIZED PIPE



Section: HDG Pipe  
Standard: AS 1074 / AS 1450\*  
Surface Finish: AS 4792-HDG 300

Size (mm)	OD (mm)	AS 1074	AS 1450	Nom. Thickness (mm)	Lengths / Pack	Nom. Linear Mass (kg/m)	Length (mm)	Mass / Pack (Tonnes)
6500mm Lengths Standard								
15NB	21.3	M	—	2.6	91	1.23	6500	0.73
20NB	26.9	—	XL	2.0	91	1.28	6500	0.75
		—	XL	2.0	91	1.28	7200	0.84
		L	—	2.3	91	1.44	6500	0.85
		M	—	2.6	91	1.60	6500	0.95
		H	—	3.2	91	1.92	6500	1.13
25NB	33.7	—	XL	2.0	91	1.62	6500	0.96
		—	XL	2.0	91	1.62	7200	1.06
		L	—	2.6	91	2.05	6500	1.21
		M	—	3.2	91	2.46	6500	1.46
		H	—	4.0	91	2.99	6500	1.77
32NB	42.4	—	XL	2.0	61	2.07	6500	0.82
		—	XL	2.0	61	2.07	7200	0.91
		L	—	2.6	61	2.63	6500	1.04
		M	—	3.2	61	3.17	6500	1.26
		H	—	4.0	61	3.86	6500	1.53
40NB	48.3	—	XL	2.3	61	2.70	6500	1.07
		—	XL	2.3	61	2.70	7200	1.18
		L	—	2.9	61	3.33	6500	1.32
		L	—	2.9	61	3.33	7200	1.46

NOTE: + Grade C250

Table continues over page

1.6 Hot Dipped Galvanized Pipe

## 1.6 HOT DIPPED GALVANIZED PIPE CONT...

1



Section: HDG Pipe  
Standard: AS 1074 / AS 1450\*  
Surface Finish: AS 4792-HDG 300

Size (mm)	OD (mm)	AS 1074	AS 1450	Nom. Thickness (mm)	Lengths / Pack	Nom. Linear Mass (kg/m)	Length (mm)	Mass / Pack (Tonnes)
40NB	48.3	M	—	3.2	61	3.64	6500	1.44
		M	—	3.2	61	3.64	7200	1.60
		H	—	4.0	61	4.45	6500	1.77
50NB	60.3	—	XL	2.3	37	3.40	6500	0.82
		—	XL	2.3	37	3.40	7200	0.91
		L	—	2.9	37	4.21	6500	1.01
		M	—	3.6	37	5.14	6500	1.24
		H	—	4.5	37	6.30	6500	1.51
65NB	76.1	—	XL	2.3	37	4.33	6500	1.04
		L	—	3.2	37	5.89	6500	1.42
		M	—	3.6	37	6.57	6500	1.58
		H	—	4.5	37	8.08	6500	1.94
80NB	88.9	—	XL	2.6	19	5.70	6500	0.70
		L	—	3.2	19	6.92	6500	0.86
		M	—	4.0	19	8.54	6500	1.05
		H	—	5.0	19	10.50	6500	1.30
90NB	101.6	—	XL	2.6	19	6.53	6500	0.81
		L	—	3.2	19	7.95	6500	0.98
		M	—	4.0	19	9.81	6500	1.21
		H	—	5.0	19	12.09	6500	1.49
100NB	114.3	—	XL	3.2	19	8.98	6500	1.11
		L	—	3.6	19	10.04	6500	1.24
		M	—	4.5	19	12.39	6500	1.53
		H	—	5.4	19	14.71	6500	1.82
125NB	139.7	—	XL	3.0	13	10.37	6500	0.88
		L	—	3.5	13	12.01	6500	1.02
		M	—	5.0	13	16.86	6500	1.42
		H	—	5.4	13	18.14	6500	1.53
150NB	165.1	—	XL	3.0	10	12.30	6500	0.80
		L	—	3.5	10	14.25	6500	0.93
		M	—	5.0	10	20.04	6500	1.30
		H	—	5.4	10	21.57	6500	1.40

### NOTE:

» Non standard lengths are available, subject to enquiry. Product conformance letter provided upon request. Higher grades may be available. Contact your local Orrcon Steel / Metalcorp representative for further information.

+ Grade C250



## 1.7 STRUCTURAL STANDARDS & TOLERANCES

### Manufacturing Standards

Orrcon Steel products are manufactured by Cold Forming and Electric Resistance Welding (ERW) and are tested to meet the following Australian Standards:

#### STRUCTURAL

Hollow sections to be used for structural purposes are manufactured to meet:

- » AS/NZS 1163 - Structural Steel Hollow Sections (Grades C250L0, C350L0, & C450L0).

#### LOW PRESSURE RETICULATION

Circular hollow sections for tubes suitable for threading and screw fittings:

- » AS 1074 - Steel tubes and tubulars for ordinary service.

#### COATINGS & SURFACE FINISHES

Structural Tube is available in a range of hot-rolled and galvanized finishes;

##### Hot-rolled

- » SMARTCOTE® - PAINTED - Painted blue/black/red using a water based acrylic primer.
- » OILED - as-rolled surface lightly oiled for short term corrosion protection.
- » NOPC - No oil, paint or coating.

##### Galvanized

Orrcon Steel's own Electrogalvanized coating applied to ALLGAL® hollow sections complies to the standard AS 4750 - Electrogalvanised (zinc) coatings on ferrous hollow and open sections, designated ZE50/50.

Available on 1.6 mm to 6mm steel. A matte, spangle-free surface appearance.

- » ALLGAL® - internal and external surface, with a ClearTec coating.
- » ALLGAL® PCQ - Electrogalvanized Powder Coat Quality - no tube mark, attention to aesthetics, lightly oiled.

##### Pregalvanized

strip by hot-dip galvanizing (zinc) complies with AS/NZS 4792:2006. Available on 1.6mm to 3.2mm steel. Zinc spangle appearance.

- » PREGAL - internal & external surface, with a ClearTec coating. AS4792 ZB50 (zinc coating weight matches ALLGAL)
- » ULTRASPEC-GAL® - internal & external surface, with a ClearTec coating. AS4792 ZB135. Higher zinc coating weight for when greater durability is required.

#### ORRCON STEEL BROADSPEC® - STRUCTURAL & PRESSURE PIPE

Broadspec® covers the following Australian and International standards:

Standard	Grades
API 5L	X42 PSL1
AS/NZS 1163	C350L0

- » Broadspec® meets the design rules as specified in AS 4041, AS 2118/4118 and AS 4100, as well as in other standards.

#### WELDLINE LOCATION (NON-CIRCULAR TUBE)

Where weldline location is specified, appropriate gauging shall be determined by agreement.

#### INTERNAL FITMENTS

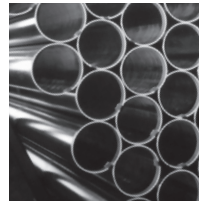
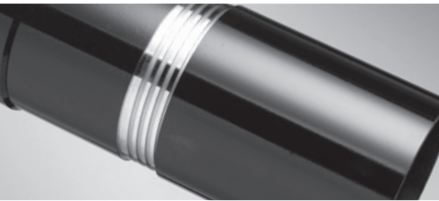
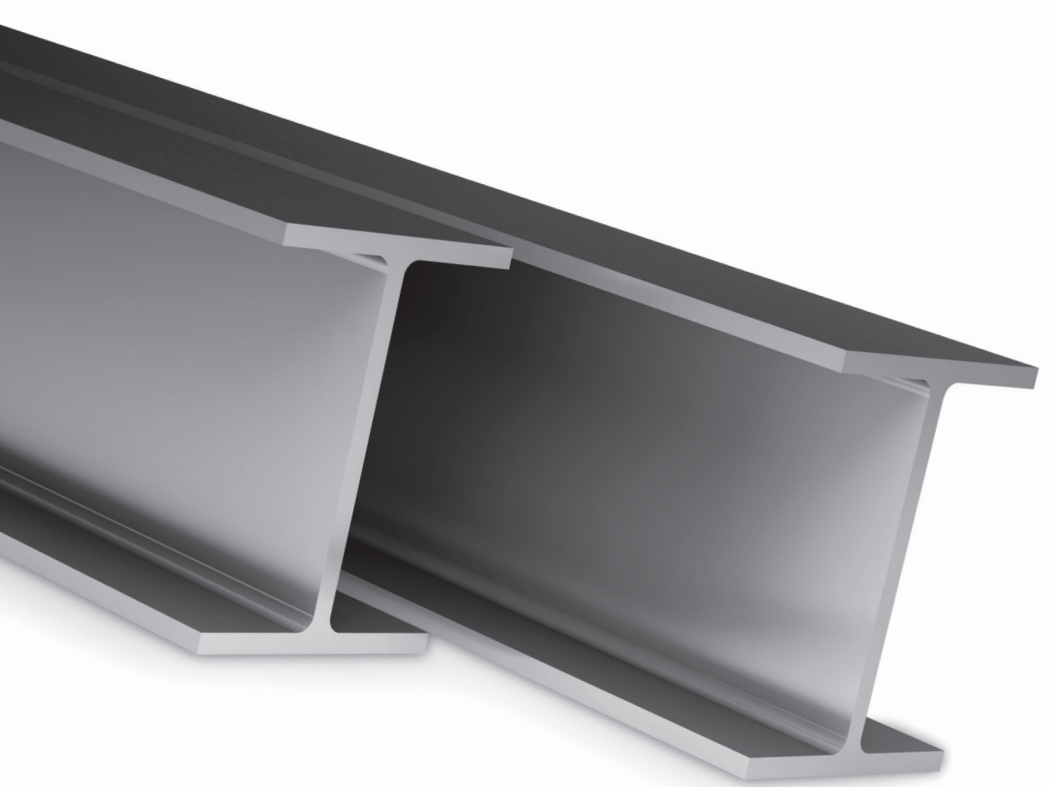
Where internal fitments are specified, appropriate gauging shall be determined by agreement.

## Standard Mechanical Properties - Structural Tube & Pipe

Standard	Grade*	Yield Strength MPa (min)	Tensile Strength MPa (min)	Elongation, % (min)					
				CHS (d <sub>s</sub> /t)			RHS & SHS (b/t)		
				<15	15-30	>30	<15	15-30	>30
AS/NZS 1163	C250L0	250	320	18	20	22	14	16	18
	C350L0	350	430	16	18	20	12	14	16
	C450L0	450	500	12	14	16	10	12	14

\*L0 designation indicates guaranteed impact strength properties at 0°C, refer glossary.

C = Cold formed hollow section.



## Hot Rolled Structural, Plate & Merchant Bar

## 2.0 HOT ROLLED STRUCTURAL, PLATE & MERCHANT BAR

Orrcon Steel offers a complete range of Hot Rolled Structural Products, including beams, columns, channels, angles, merchant bar (flats, angles, rounds, squares) & plate.

### 2.1 PRODUCT STANDARDS & GRADES

**Flats/Angles/Rounds/Squares** – Manufactured in accordance with AS/NZS 3679.1.

Grades available – 300 MPa

**UB, UC, PFC & Angles** – Hot rolled sections are manufactured in accordance with AS/NZS 3679.1.

Grades available – 300MPa

**Plain & Floor(Checker) Plate** – Manufactured in accordance with AS/NZS 3678 & AS/NZS 1594.

Grades available -250 & 350MPa

### SERVICES

- » Computerised Nesting and Quoting.
- » Processing – Including straight and mitre cutting. Drilling and plasma profiling only available in QLD at selected branches.
- » Delivery of all products.
- » Other requirements – Please contact your Orrcon Steel / Metacorp representative.

**NOTE:** Not all services available at all locations. Contact your Orrcon Steel / Metacorp representative for details.

### 2.2 SECTION TRANSLATION GUIDE

#### Section Translation Guide – STG

Now you can compare open steel sections with hollow steel sections by a click of your mouse!

The STG is a free web based software that allows you to compare structural steel hollow sections against hot-rolled open sections. It will assist you to get the best architectural effect, structural efficiency and cost savings for your designs and projects.

**The best part is it's a free resource.**

If you would like to access the STG, simply go to [www.sectiontranslation.com.au](http://www.sectiontranslation.com.au) and register.



2.3 UNIVERSAL BEAMS (UB)



**Section:** Universal Beams (UB)  
**Standard:** AS/NZS 3679.1  
**Grade:** 300MPa  
**Surface Finish:** Mill Finish

2

2.3 Universal Beams (UB)

Size Specification (mm)	Weight (kg/m)	Metre/ Tonne	Depth of Section	Flange (mm)		Web (mm)	
				Width	Thickness	Depth	Thickness
150 UB	14.0	71	150	75	7.0	136	5.0
	18.0	56	155	75	9.5	136	6.0
180 UB	16.1	62	173	90	7.0	159	4.5
	18.1	55	175	90	8.0	159	5.0
	22.2	45	179	90	10.0	159	6.0
200 UB	18.2	55	198	99	7.0	184	4.5
	22.3	45	202	133	7.0	188	5.0
	25.4	39	203	133	7.8	188	5.8
	29.8	34	207	134	9.6	188	6.3
250 UB	25.7	39	248	124	8.0	232	5.0
	31.4	32	252	146	8.6	234	6.1
	37.3	27	256	146	10.9	234	6.4
310 UB	32.0	31	298	149	8.0	282	5.5
	40.4	25	304	165	10.2	284	6.1
	46.2	22	307	166	11.8	284	6.7
360 UB	44.7	22	352	171	9.7	333	6.9
	50.7	20	356	171	11.5	333	7.3
	56.7	18	359	172	13.0	333	8.0
410 UB	53.7	19	403	178	10.9	381	7.6
	59.7	17	406	178	12.8	381	7.8
460 UB	67.1	15	454	190	12.7	428	8.5
	74.6	13	457	190	14.5	428	9.1
	82.1	12	460	191	16.0	428	9.9
530 UB	82.0	12	528	209	13.2	502	9.6
	92.4	11	533	209	15.6	502	10.2
610 UB	101.0	10	602	228	14.8	572	10.6
	113.0	9	607	228	17.3	572	11.2
	125.0	8	612	229	19.6	572	11.9

UNIVERSAL BEAMS LENGTHS MATRIX

Size Specification (mm)	9.0m	10.5m	12m	13.5m	15m	16.5m	18m
150 UB	✓	✓	✓	✓	✓	✓	—
180 UB	✓	✓	✓	✓	✓	✓	—
200 UB	✓	✓	✓	✓	✓	✓	✓
250 UB	✓	✓	✓	✓	✓	✓	✓
310 UB	✓	✓	✓	✓	✓	✓	✓


**NOTE:** Not all products are available at all locations. Please contact your Orrcon Steel / Metalcorp representative for availability.



2.3 UNIVERSAL BEAMS (UB) CONT...

UNIVERSAL BEAMS LENGTHS MATRIX							
Size Specification (mm)	9.0m	10.5m	12m	13.5m	15m	16.5m	18m
360 UB	✓	✓	✓	✓	✓	✓	✓
410 UB	✓	✓	✓	✓	✓	✓	✓
460 UB	✓	✓	✓	✓	✓	✓	✓
530 UB	✓	✓	✓	✓	✓	✓	✓
610 UB	✓	✓	✓	✓	✓	✓	✓

2.4 UNIVERSAL COLUMNS (UC)

<div></div> <div>Section: Universal Columns (UC) Standard: AS/NZS 3679.1 Grade: 300MPa Surface Finish: Mill Finish</div>							
Size Specification (mm)	Weight (kg/m)	Metre/ Tonne	Depth of Section	Flange (mm)		Web (mm)	
				Width	Thickness	Depth	Thickness
100 UC	14.8	68	97	99	7.0	83	5.0
150 UC	23.4	43	152	152	6.8	139	6.1
	30.0	33	158	153	9.4	139	6.6
	37.2	27	162	154	11.5	139	8.1
200 UC	46.2	22	203	203	11.0	181	7.3
	52.2	19	206	204	12.5	181	8.0
	59.5	17	210	205	14.2	181	9.3
250 UC	72.9	14	254	254	14.2	225	8.6
	89.5	11	260	256	17.3	225	10.5
310 UC	96.8	10	308	305	15.4	277	9.9
	118.0	8	315	307	18.7	277	11.9
	137.0	7	321	309	21.7	277	13.8
	158.0	6	327	311	25.0	277	15.7

UNIVERSAL COLUMNS LENGTHS MATRIX							
Size Specification (mm)	9.0m	10.5m	12m	13.5m	15m	16.5m	18m
100 UC	✓	—	✓	—	✓	—	—
150 UC	✓	✓	✓	✓	✓	✓	—
200 UC	✓	✓	✓	✓	✓	✓	✓
250 UC	✓	✓	✓	✓	✓	✓	✓
310 UC	✓	✓	✓	✓	✓	✓	✓

**NOTE:** Not all products are available at all locations. Please contact your Orrcon Steel / Metalcorp representative for availability.

2.5 PARALLEL FLANGE CHANNELS

<div><div></div><div>Section: Parallel Flange Channels (PFC) Standard: AS/NZS 3679.1 Grade: 300MPa Surface Finish: Mill Finish</div></div>							
Size Specification (mm)	Weight (kg/m)	Metre/ Tonne	Depth of Section	Flange (mm)		Web (mm)	
				width	Thickness	Depth/Flange	Thickness
50 x 25*	3.83	261.1	50	25	—	—	—
75 x 40	5.92	169.0	75	40	6.1	62.8	3.8
100 x 50	8.33	120.0	100	50	6.7	86.6	4.2
125 x 65	11.90	84.0	125	65	7.5	110.0	4.7
150 x 75	17.70	56.5	150	75	9.5	131.0	6.0
180 x 75	20.90	47.6	180	75	11.0	158.0	6.0
200 x 75	22.90	43.7	200	75	12.0	176.0	6.0
230 x 75	25.10	39.8	230	75	12.0	206.0	6.5
250 x 90	35.50	28.2	250	90	15.0	220.0	8.0
300 x 90	40.10	24.9	300	90	16.0	268.0	8.0
380 x 100	55.20	18.1	380	100	17.5	345.0	10.0

PARALLEL FLANGE CHANNELS LENGTH MATRIX					
Metric Designation (mm)	9.0m	10.5m	12m	13.5m	15m
75 x 40	✓	—	✓	—	—
100 x 50	✓	—	✓	—	—
125 x 65	✓	—	✓	—	—
150 x 75	✓	✓	✓	✓	✓
180 x 75	✓	✓	✓	✓	✓
200 x 75	✓	✓	✓	✓	✓
230 x 75	✓	✓	✓	✓	✓
250 x 90	✓	✓	✓	✓	✓
300 x 90	✓	✓	✓	✓	✓
380 x 100	✓	✓	✓	✓	✓

NOTE:

- » \*Taper Flange Channel is available subject to enquiry.
- » Not all products are available at all locations. Please contact your Orrcon Steel / Metalcorp representative for availability.

2.6 ANGLES  
2.6.1 ANGLES - EQUAL ANGLES (EA)

<div><div></div><div>Section: Equal Angles (EA) Standard: AS/NZS 3679.1 Grade: 300MPa Surface Finish: Mill Finish</div></div>			
Nominal Size (mm)	Nominal Thickness (mm)	Weight / Metre (kg/m)	Metres / Tonne (m/t)
20 x 20	3	0.92	1087
25 x 25	3	1.12	893
	5	1.65	606
	6	2.08	481
30 x 30	3	1.35	741
	5	2.01	498
	6	2.56	391
40 x 40	3	1.83	546
	5	2.73	366
	6	3.50	286
45 x 45	3	2.06	485
	5	3.10	323
	6	3.97	252
50 x 50	3	2.31	433
	5	3.48	287
	6	4.46	224
	8	5.68	176
55 x 55	5	3.84	260
	6	4.93	203
65 x 65	5	4.56	219
	6	5.87	170
	8	7.51	133
	10	9.02	111
75 x 75	5	5.27	190
	6	6.81	147
	8	8.73	115
	10	10.50	95
90 x 90	6	8.22	122
	8	10.60	94
	10	12.70	79
100 x 100	6	9.16	109
	8	11.80	85
	10	14.20	70
	12	17.70	57


2

2.6.1 Angles - Equal Angles

Table continues over page



2.6.1 ANGLES - EQUAL ANGLES CONT...


	<b>Section:</b> Equal Angles (EA) <b>Standard:</b> AS/NZS 3679.1 <b>Grade:</b> 300MPa <b>Surface Finish:</b> Mill Finish		
	<b>Nominal Size (mm)</b>	<b>Nominal Thickness (mm)</b>	<b>Weight / Metre (kg/m)</b>
			<b>Metres / Tonne (m/t)</b>
	125 x 125	8	14.90
		10	18.00
		12	22.50
		16	29.10
	150 x 150	10	21.90
		12	27.30
		16	35.40
		19	42.10
	200 x 200	13	40.00
		16	48.70
		18	54.40
		20	60.10
		26	76.80

EQUAL ANGLES LENGTH MATRIX				
Nominal Size (mm)	6m	7.5m	9m	12m
20 x 20	✓	✓	—	—
25 x 25	✓	✓	—	—
30 x 30	✓	✓	—	—
40 x 40	—	✓	✓	—
45 x 45	—	✓	✓	—
50 x 50	—	✓	✓	—
55 x 55	—	✓	✓	—
65 x 65	—	✓	✓	—
75 x 75	—	—	✓	✓
90 x 90	—	—	✓	✓
100 x 100	—	—	✓	✓
125 x 125	—	—	✓	✓
150 x 150	—	—	✓	✓
200 x 200	—	—	✓	✓

NOTE:

- » Minimum order quantities (MOQ's) will apply for non standard lengths.
- » Not all products are available at all locations. Please contact your Orrcon Steel / Metalcorp representative for availability.

2.6.2 ANGLES - UNEQUAL ANGLES (UA)



**Section:** Unequal Angles  
**Standard:** AS/NZS 3679.1  
**Grade:** 300MPa  
**Surface Finish:** Mill Finish

Nominal Size (mm)	Nominal Thickness (mm)	Weight / Metre (kg/m)	Metres / Tonne (m/t)
65 x 50	5	4.02	249
	6	5.16	149
	8	6.59	152
75 x 50	5	4.40	228
	6	5.66	176
	8	7.23	138
100 x 75	6	7.98	125
	8	10.30	97
	10	12.40	81
125 x 75	6	9.16	109
	8	11.80	85
	10	14.20	70
	12	17.70	57
150 x 90	8	14.30	70
	10	17.3	58
	12	21.6	46
150 x 100	10	18.0	56
	12	22.5	44

2

2.6.2 Angles - Unequal Angles (UA)


UNEQUAL ANGLES LENGTH MATRIX		
Nominal Size (mm)	9m	12m
65 x 50	✓	✓
75 x 50	✓	✓
100 x 75	✓	✓
125 x 75	✓	✓
150 x 90	✓	✓
150 x 100	✓	✓

NOTE:

- » Minimum order quantities (MOQ's) will apply for non standard lengths.
- » Not all products are available at all locations. Please contact your Orrcon Steel / Metalcop representative for availability.

## 2.7 MERCHANT BAR


### 2.7.1 MERCHANT BAR - ROUNDS

<div>  <div> <b>Section: Merchant Bar - Rounds</b>  <b>Standard: AS/NZS 3679.1</b>  <b>Grade: 300MPa</b>  <b>Surface Finish: Mill Finish</b> </div> </div>		
Nominal Size Diameter (mm)	Weight / Metre (kg/m)	Metres / Tonne (m/t)
6	0.23	4348
8	0.41	2439
10	0.63	1587
12	0.91	1099
14	1.24	806
16	1.61	621
18	2.04	490
20	2.52	397
22	3.05	327
24	3.64	275
27	4.61	217
30	5.69	176
33	6.88	145
36	8.19	122
39	9.61	104

**NOTE:**

- » Standard lengths - 6 metres.
- » Non standard lengths available subject to enquiry.
- » Not all products are available at all locations. Please contact your Orrcon Steel representative for availability.

### 2.7.2 MERCHANT BAR - SQUARES

<div>  <div> <b>Section: Merchant Bar - Squares</b>  <b>Standard: AS/NZS 3679.1</b>  <b>Grade: 300MPa</b>  <b>Surface Finish: Mill Finish</b> </div> </div>		
Nominal Size (mm)	Weight / Metre (kg/m)	Metres / Tonne (m/t)
10	0.81	1235
12	1.16	862
16	2.06	485
20	3.22	311
25	5.03	199
32	8.24	121
40	12.87	78

**NOTE:**

- » Standard lengths - 6 metres.
- » Non standard lengths available subject to enquiry.
- » Not all products are available at all locations. Please contact your Orrcon Steel / Metalcorp representative for availability.

2.7.3 MERCHANT BAR - FLATS

Section: Merchant Bar - Flats

Standard: AS/NZS 3679.1

Grade: 300MPa

Surface Finish: Mill Finish

Nominal Size (mm)	Weight / Metre (kg/m)	Metres / Tonne (m/t)
10 x 3 *	0.25	4000
13 x 3 *	0.31	3226
13 x 5 *	0.53	1887
13 x 6 *	0.56	1786
16 x 3 *	0.36	2778
16 x 5 *	0.60	1667
16 x 8	1.03	971
20 x 3	0.48	2083
20 x 5	0.80	1250
20 x 6	0.96	1042
20 x 10	1.61	621
25 x 3	0.60	1667
25 x 5	1.01	990
25 x 6	1.21	826
25 x 8	1.61	621
25 x 10	2.00	500
25 x 12	2.41	415
32 x 3	0.77	1299
32 x 5	1.29	775
32 x 6	1.54	649
32 x 8	2.06	485
32 x 10	2.57	389
32 x 12	3.09	324
40 x 3	0.97	1031
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

NOTE:

» \*4 metres lengths only.

» Standard lengths - 6 metres.

» Non standard lengths available subject to enquiry.

» Not all products are available at all locations.

Please contact your Orrcon Steel / Metalcorp representative for availability.

Table continues over page

2.7.3 MERCHANT BAR - FLATS CONT...

**Section: Merchant Bar - Flats**  
**Standard: AS/NZS 3679.1**  
**Grade: 300MPa**  
**Surface Finish: Mill Finish**

Nominal Size (mm)	Weight / Metre (kg/m)	Metres / Tonne (m/t)
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	4.02	249
50 x 12	4.83	207
50 x 16	6.44	155
50 x 20	8.05	124
50 x 25	10.06	99
65 x 3	1.57	637
65 x 5	2.62	382
65 x 6	3.14	318
65 x 8	4.18	239
65 x 10	5.23	191
65 x 12	6.28	159
65 x 16	8.37	119
65 x 20	10.46	96
65 x 25	13.08	76
75 x 5	3.02	331
75 x 6	3.62	276
75 x 8	4.83	207
75 x 10	6.03	166
75 x 12	7.24	138
75 x 16	9.66	104
75 x 20	12.07	83
75 x 25	15.09	66
75 x 40	24.14	41
90 x 6	4.35	230
90 x 8	5.79	173
90 x 10	7.24	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

Table continues over page



2.7.3 MERCHANT BAR - FLATS CONT...

<div><div></div><div>Section: Merchant Bar - Flats Standard: AS/NZS 3679.1 Grade: 300MPa Surface Finish: Mill Finish</div></div>		
Nominal Size (mm)	Weight / Metre (kg/m)	Metres / Tonne (m/t)
100 x 16	12.92	77
100 x 20	16.10	62
100 x 25	20.12	50
110 x 5	4.42	226
110 x 6	5.31	188
110 x 8	7.08	141
110 x 10	8.85	113
110 x 12	10.62	94
130 x 5	5.23	191
130 x 6	6.28	159
130 x 8	8.37	120
130 x 10	10.46	96
130 x 12	12.55	80
130 x 16	16.74	60
130 x 20	20.92	48
130 x 25	26.15	38
150 x 5	6.03	166
150 x 6	7.24	138
150 x 8	9.66	104
150 x 10	12.10	83
150 x 12	14.48	69
150 x 16	19.31	52
150 x 20	24.14	41
150 x 25	30.17	33
150 x 50	60.34	17
180 x 5	7.25	138
180 x 6	8.69	115
180 x 8	11.57	86
180 x 10	14.48	69
180 x 12	17.38	58
180 x 16	23.18	43
180 x 20	28.97	35
180 x 25	36.21	28
200 x 6	9.65	104
200 x 8	12.87	78
200 x 10	16.09	62

Table continues over page

2.7.3 MERCHANT BAR - FLATS CONT...

2

<div><div></div><div>Section: Merchant Bar - Flats</div><div>Standard: AS/NZS 3679.1</div><div>Grade: 300MPa</div><div>Surface Finish: Mill Finish</div></div>		
Nominal Size (mm)	Weight / Metre (kg/m)	Metres / Tonne (m/t)
200 x 12	19.31	52
200 x 16	25.75	39
200 x 20	32.18	31
200 x 25	40.23	25
250 x 6	12.07	83
250 x 10	20.12	50
250 x 12	24.13	41
250 x 16	32.18	31
250 x 20	40.28	25
250 x 25	50.32	20
300 x 6	14.48	69
300 x 10	24.14	41
300 x 12	28.97	35
300 x 16	38.64	26
300 x 20	48.27	21
300 x 25	60.37	17

NOTE:

- » Standard lengths - 6 metres.
- » Non standard lengths available subject to enquiry.
- » Not all products are available at all locations.  
Please contact your Orrcon Steel / Metalcorp representative for availability.

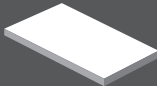
2.8 PLATE

2.8.1 PLAIN PLATE

<div><div></div><div>Section: Plain Plate</div><div>Standard: AS/NZS 3678</div><div>Grade: 250 &amp; 350MPa</div><div>Surface Finish: Mill Finish</div></div>					
Plate Thickness (mm)	Weight / Square Metre (kg/m²)	Weight / Linear Metre of Plate Width (kg)			
		1200mm	1500mm	1800mm	2400mm
3	23.55	28.3	35.3	42.4	56.5
4	31.40	37.7	47.1	56.5	75.4
5	39.25	47.1	58.9	70.7	94.2
6	47.10	56.5	70.7	84.8	113.0
8	62.80	75.4	94.2	113.0	150.7

Table continues over page

2.8.1 PLAIN PLATE CONT...



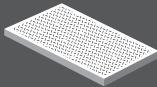
**Section:** Plain Plate  
**Standard:** AS/NZS 3678  
**Grade:** 250 & 350MPa  
**Surface Finish:** Mill Finish

2

2.8.1 Plain Plate cont...

Plate Thickness (mm)	Weight / Square Metre (kg/m <sup>2</sup> )	Weight / Linear Metre of Plate Width (kg)			
		1200mm	1500mm	1800mm	2400mm
10	78.50	94.0	118.0	141.0	188.0
12	94.20	113.0	141.0	170.0	226.0
16	125.60	151.0	188.0	226.0	301.0
20	157.00	188.0	236.0	283.0	377.0
22	172.70	207.0	259.0	311.0	415.0
25	196.25	236.0	294.0	353.0	471.0
28	219.80	264.0	330.0	396.0	528.0
32	251.20	301.0	377.0	452.0	603.0
36	282.60	339.0	424.0	509.0	678.0
40	314.00	377.0	471.0	565.0	754.0
45	353.25	424.0	530.0	636.0	848.0
50	392.50	471.0	589.0	707.0	942.0
55	431.75	518.0	648.0	777.0	1036.0
60	471.00	565.0	707.0	848.0	1130.0
65	510.00	612.0	765.0	918.0	1224.0
70	549.50	659.0	824.0	989.0	1319.0
75	588.75	707.0	883.0	1060.0	1413.0
80	628.00	754.0	942.0	1130.0	1507.0
90	706.50	848.0	1060.0	1272.0	1696.0
100	785.00	942.0	1178.0	1413.0	1884.0

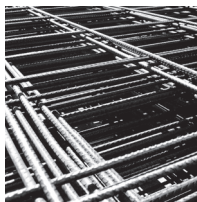
2.8.2 FLOOR (CHECKER) PLATE



**Section:** Floor (Checker) Plate  
**Standard:** AS/NZS 3678  
**Grade:** 250MPa  
**Surface Finish:** Mill Finish





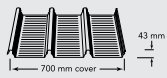


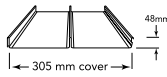
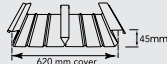
Plate Thickness (mm)	Weight / Square Metre (kg/m <sup>2</sup> )	Weight / Linear Metre of Plate Width (kg)		
		1200mm	1500mm	1800mm
2.1	18.49	22.2	—	—
3.0	25.55	30.7	38.3	—
5.0	41.25	49.5	61.9	—
6.0	49.10	58.9	73.7	88.4

**NOTE:** Not all products are available at all locations.  
Please contact your Orrcon Steel / Metalcop representative for availability.



## Building Products

3.1.1 ROOFING PROFILES

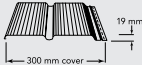
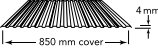



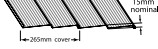
ROOFING PROFILE SELECTION GUIDE										
Roofing & Walling Profiles	BMT (mm)	Mass (kg/m <sup>2</sup> ) CB	Min. recom. roof pitch (mm)	Screws /m <sup>2</sup>	Maximum recommended spacing of supports for normal conditions (mm)					
Profile					Roofs				Walls	
					End Spans	Internal Spans	Unstiff'd Eaves Overhang	Stiffened Eaves Overhang	End Spans	Internal Spans
	0.42 0.48	4.4 4.9	5°	5	900 1300	1200 1700	200 250	300 350	2500 2700	2700 2700
	0.60	6.0	5°	5	1600	1800	200	300	3000	3300
	0.42 0.48	4.4 4.9	2°	5.5	1300 1850	1900 2600	150 200	300 350	3000 3000	3000 3000
	0.42	4.4	25 mm/m	5.5	Home Improvement Application*			Overhang		
					2700			500		
	0.42 0.48	4.7 5.4	3°	5.5	1800 2200	2400 3000	300 400	600 700	3000 3000	3300 3300
	0.42	4.7	25 mm/m	5.5	Home Improvement Application*			Overhang		
					3000			700		
	0.42 0.48	4.7 5.4	2° 1°	4.5	1750 2350	2200 2800	150 200	450 600	3200 3450	3850 3900
	0.48	5.18	3°	5	1500	1900	200	450	2700	2700
	0.48	5.37	2°	5	1600	2400	300	600	2700	2700
	0.70 0.70	9.7 -	1°	3 4.5	2000 2000	2500 2500	150 150	450 450	2700 2700	2700 2700
	0.42	[CB]	2°	8	4800*	4800	-	-	-	-

NOTE:

» \* NI (W 28) Non trafficable only.

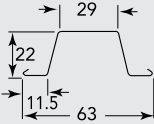
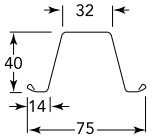
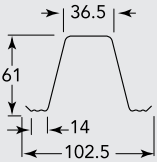
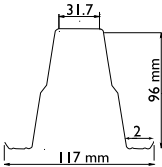
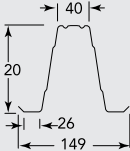
3.1.1 ROOFING PROFILES

ROOFING PROFILE SELECTION GUIDE

Walling Profiles	BMT (mm)	Mass (kg/m <sup>2</sup> ) CB	Screws /m <sup>2</sup>	Maximum recommended spacing of supports for normal conditions (mm)		
				Single Spans (mm)	End Spans (mm)	Internal Spans (mm)
Profile						
	0.42	4.6	6	—	1500	1500
	0.35 0.42	3.3 3.9	8 8	1100 1200	1200 1200	1200 1200
	0.42	4.0	8	1200	1500	1500
	0.35 0.42	3.3 4.0	4 4	1400 1700	1800 1800	1800 1800
	0.35	3.7	5.5	2100	2900	3000
	0.42	4.2	6	600	600	600

3.1.1 Roofing Profiles

3.1.2 LIGHT STEEL SECTION

LIGHT STEEL SECTION				
Profile	Product	Prod. Code	BMT (mm)	Stock Lengths (mm)
	Topspan 22 Ceiling Batten (Truecore®)	TS22426100	0.42	6100
	Topspan 40 Roof Batten (non Cyclonic) (Truecore®)	TS40556100	0.55	6100
	Topspan 40 Roof Batten (Cyclonic) (Truecore®)	TS40757500	0.75	7500
	Topspan 61 Garage Batten (Zincalume®)	TS61757500	0.75	7500
		TS6110_	1.00	3600/6100/7500
		TS61127500	1.2	7500
	Topspan 96 (Zincalume®)	TSQ9675_	0.75	6100 / 7500 / Custom Cut
		TSQ9610NS	1.0	Custom Cut
		TSQ9612NS	1.20	Custom Cut
	Topspan 120 Rural Batten (Zincalume®)	TS12070_	0.70	Custom Cut
		TS12090_	0.90	6100/Custom Cut
		TS12010_	1.00	6100/Custom Cut


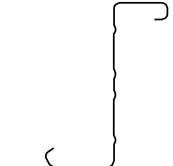

NOTE:

- » \_ means length (mm), example TS61106100.
- » Where custom cut is specified please add NS (Non-Std) to the end of the product code.

### 3.1.3 PURLIN PRODUCT RANGE

3

3.1.3 Purlin Product Range

PURLIN PRODUCT RANGE						
Purlin Profiles	Product	Prod. Code	Depth (mm)	Thickness BMT (mm)	Lineal m/tonne	Mass kg/m
 <p>Traditional Z&amp;C</p>	Z/C10010	P-10010ZL^	102	1.0	566	1.77
	Z/C10012	P-10012^		1.2	475	2.10
	Z/C10015	P-10015^		1.5	382	2.61
	Z/C10019	P-10019^		1.9	304	3.29
 <p>Lysaght SupaZed *</p>	SZ/SC15012	P-15012^	152	1.2	346	2.89
	SZ/SC15015	P-15015^		1.5	279	3.58
	SZ/SC15019	P-15019^		1.9	222	4.51
	SZ/SC15024	P-15024^		2.4	176	5.67
 <p>Lysaght SupaCee *</p>	SZ/SC20012	P-20012^	203	1.2	276	3.62
	SZ/SC20015	P-20015^		1.5	223	4.49
	SZ/SC20019	P-20019^		1.9	174	5.73
	SZ/SC20024	P-20024^		2.4	139	7.20
	SZ/SC25015	P-25015^	254	1.5	194	5.16
	SZ/SC25019	P-25019^		1.9	154	6.50
	SZ/SC25024	P-25024^		2.4	125	8.16
	SZ/SC30019	P-30019^	300	1.9	124	8.02
	SZ/SC30024	P-30024^		2.4	99	10.09
	SZ/SC30030	P-30030^		3.0	80	12.56
	SZ/SC35024	P-35024^	350	2.4	82	12.20
	SZ/SC35030	P-35030^		3.0	66	15.09
	SZ/SC40024	P-40024^	400	2.4	82	13.13
	SZ/SC40030	P-40030^		3.0	65	16.42

#### NOTE:

- » Additional freight charges may apply for Supapurlin deliveries in Central and North Queensland regions.
- » Purlin coating mass is generally Z350. This may vary by region.
- » Downturned lip purlins POA on request. Downturned lip purlins available in all profiles excluding C/Z400 and SC/SZ400
- » 305 means C and Z Purlins traditional. 341 means Supacee and Supazed.
- » Product code to have S prefix for Supapurlins.
- » – means Z or C
- » ^ means U (unpunched) or P (punched).
- » \* means 300lm MOQ

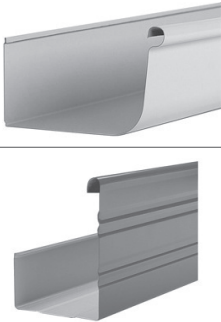


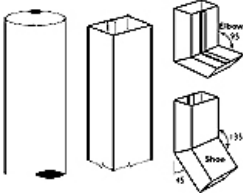
3.1.4 PURLIN ACCESSORIES

PURLIN ACCESSORIES			
Profiles	Description	Prod. Code	Size
	Clamp Plate	PCP100	100
		PCP150	150
		PCP200	200
		PCP250	250
	Angle Connector	PAC100	100
		PAC150	150
		PAC200	200
		PAC250	250
		PAC300	300
	Raking Girt Bracket	PRGB100	100
	General Purpose Bracket	PGPB100	100
		PGPB150	150
		PGPB200	200
		PGPB250	250
		PGPB300	300
	Single Cleats	PCZ100	100
		PCZ150	150
		PCZ200	200
	Handy Cleat	HC	
			Size
	Purlin Bolts & Nuts (flanged) per 100	PB1230	12 x 30mm GR 4.6
		PB1230HS	12 x 30mm GR 8.8
		PB1645	16 x 45mm GR 4.6
		PB1645HS	16 x 45mm GR 8.8
	Purlin Fascia Bolts	PFB1230	12 x 30mm GR 4.6

- NOTE:**
- » Accessories are delivered in bags or packages as appropriate.
  - » Purlin bolt availability may vary by region contact your local service centre.
  - » Design of fascia bolt head may vary .
  - » Accessories may vary slightly from drawing indicated.

3.1.5 RAINWATER PRODUCTS

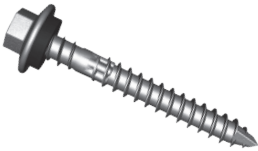
RAINWATER PRODUCTS		
Profiles	Gutters & Fascia Type	Gutter Accessories
	115 O.G	Mitres
	115 Quad	Stop Ends
	150 Low Front Quad	Leaf Guards
	115 Hi Front Quad	GD Brackets
	150 Halfline	Spike Brackets
	150 Half Round	—
	Fascia Gutter	—
	Flat Fascia	—
	Fascia Cover	—

Profiles	Down Pipe Accessories
	Rectangle Down Pipes
	Round Down Pipes
	Outlets
	Rainheads
	Sumps
	Straps
	Bends

**NOTE:**

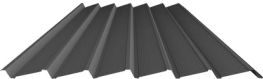
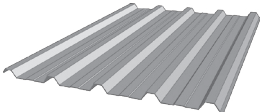
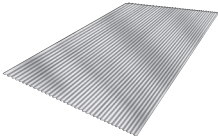
- » Different manufacturers gutter profiles are available but will differ in dimensions and name.
- » More rainwater products available to order.

3.1.6 ACCESSORIES


STEEL, TIMBER AND ZIPS		
Profiles	Fastener Type	Unit
	M5.5 x 40 Batten Zips Plain	100 Pack
	M6 x 50 Hex Roof Zip Cl4 Eucalypt	100 Pack
	M6 x 50 Hex Roof Zip Cl4 Paperbark	100 Pack
	M6 x 50 Hex Roof Zip Cl4 Surf Mist	100 Pack
	M6 x 50 Hex Roof Zip Cl4 Headland	100 Pack

3.2 FENCING & WIRE MESH PRODUCTS

3.2.1 COLORBOND® FENCING

COLORBOND® FENCING - PRODUCT COMPONENT LIST		
Profiles	Components	Colour Range
 <p>16mm high corrugated rib fixed profile</p>  <p>42mm high clip fixed profile</p>  <p>6mm high mini corrugated rib fixed profile</p>	3 x fence sheets	Colorbond® Colour range
	2 x posts	
	2 x rails	
	15 x 10 x 16 tek screws (approx)	
	1 x plastic post cap	


3.3 STEEL SHEET - COATED & UNCOATED

<div><div></div><div>Section: Steel Sheet - Coated &amp; Uncoated Standard: AS/NZS 1365, 1397, 1594, 1595 Surface Finish: Mill Finish, GALVABOND®, ZINCANNEAL®, ZINCALUME®, COLORBOND®</div></div>						
Thickness		Sheet Size mm x mm	Sheet Count / Tonne			
Hot Rolled	Cold Rolled		Hot Rolled	GALVABOND®	ZINCANNEAL® ZINCALUME®	Sign White & COLORBOND®
—	0.40	1800 x 1200	—	132.76	—	—
—	0.40	2400 x 1200	—	99.57	—	—
—	0.55	1800 x 1200	—	100.48	102.38	100.20
—	0.55	2400 x 1200	—	75.36	76.78	75.16
—	0.75	1800 x 1200	—	74.95	75.67	—
—	0.75	2400 x 1200	—	56.21	56.75	—
—	0.95	1800 x 1200	—	59.76	61.01	—
—	0.95	2400 x 1200	—	44.82	45.76	—
—	1.15	1800 x 1200	—	49.69	50.55	—
—	1.15	2400 x 1200	—	37.27	37.91	—
—	1.15	2400 x 1500	—	—	30.77	—
1.60	1.55	1800 x 1200	38.86	37.16	37.65	—
1.60	1.55	2400 x 1200	27.64	27.87	28.33	—
1.60	1.55	3000 x 1200	22.12	22.30	22.59	—
—	1.55	3000 x 1500	—	18.26	—	—
2.00	1.95	1800 x 1200	29.49	29.68	29.99	—
2.00	1.95	2400 x 1200	22.12	22.26	22.49	—
2.00	1.95	3000 x 1200	17.69	17.81	17.99	—
2.50	2.45	1800 x 1200	23.59	23.80	—	—
2.50	2.45	2400 x 1200	17.69	17.85	—	—
2.50	2.45	3000 x 1200	14.15	14.28	—	—
3.00	2.95	1800 x 1200	19.66	19.75	—	—
3.00	2.95	2400 x 1200	14.74	14.82	—	—
3.00	2.95	3000 x 1200	11.80	—	—	—

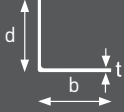
NOTE: Galvabond®, Zincanneal®, Zincalume®, Colorbond® are all registered trademarks of BlueScope.

3.4. GAL PROFILES

3.4.1 GAL FLATS

<div><div></div><div>SECTION: Gal Flats STANDARD: OSP-008 GRADE: C350L0 SURFACE FINISH: AS 4750-Z100</div></div>					
Nominal Size - b (mm)	Nominal Thickness (mm)	Product Length (mtrs)	Nom. Linear Mass (Kg/m)	Nom. Metres / Tonne	Lengths per Pack
25	2.5	6.0	0.493	2027.88	90
50	2.5	6.0	0.986	1013.94	70
50	4.0	6.0	1.575	634.92	57
50	5.0	6.0	1.968	508.26	45
65	4.0	6.0	2.048	488.40	44
65	5.0	6.0	2.558	390.97	36
75	4.0	6.0	2.363	423.28	38
75	5.0	6.0	2.951	338.84	32
100	4.0	6.0	3.150	317.46	28
100	5.0	6.0	3.935	254.13	28
100	6.0	6.0	4.720	211.86	26

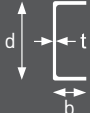
### 3.4.2 GAL ANGLES

<div></div> <div><b>SECTION:</b> Gal Angles <b>STANDARD:</b> OSP-008 <b>GRADE:</b> C350L0 <b>SURFACE FINISH:</b> AS 4750-Z100</div>					
Nominal Size (mm) d x b	Nominal Thickness (mm)	Product Length (mtrs)	Nom. Linear Mass (Kg/m)	Nom. Metres / Tonne	Lengths per Pack
25 x 25	3.0	6.0	0.955	1047.24	90
30 x 30	2.5	6.0 & 9.0	1.025	975.26	80
40 x 40	2.5	6.0 & 9.0	1.420	704.29	60
40 x 40	4.0	6.0 & 9.0	2.116	472.68	39
45 x 45	2.5	6.0 & 9.0	1.617	618.38	54
45 x 45	4.0	6.0 & 9.0	2.431	411.42	36
50 x 50	2.5	6.0 & 9.0	1.814	551.15	33
50 x 50	3.0	6.0 & 9.0	2.137	467.86	33
50 x 50	4.0	6.0 & 9.0	2.746	364.22	27
50 x 50	5.0	6.0 & 9.0	3.303	302.73	24
65 x 65	4.0	6.0 & 9.0	3.691	270.96	22
65 x 65	5.0	6.0 & 9.0	4.484	223.02	22
75 x 75	4.0	6.0 & 9.0	4.321	231.45	22
75 x 75	5.0	6.0 & 9.0	5.271	189.72	22
100 x 100	6.0	6.0 & 9.0	8.531	117.23	16
75 x 50	4.0	6.0 & 9.0	3.533	283.04	22
75 x 50	5.0	6.0 & 9.0	4.287	233.26	22

3

3.4.2 Gal Angles

### 3.4.3 GAL CHANNELS

<div></div> <div><b>SECTION:</b> Gal Channels <b>STANDARD:</b> OSP-008 <b>GRADE:</b> C350L0 <b>SURFACE FINISH:</b> AS 4750-Z100</div>					
Nominal Size (mm) d x b	Nominal Thickness (mm)	Product Length (mtrs)	Nom. Linear Mass (Kg/m)	Nom. Metres / Tonne	Lengths per Pack
75 x 40	4.0	6.0 & 9.0	4.074	245.48	18
100 x 50	4.0	6.0 & 9.0	5.491	182.11	18
125 x 65	4.0	6.0 & 9.0	7.224	138.43	18

**NOTE:**

- » Not all products are available at all locations. Please contact your Orrcon Steel / Metalcop representative for availability.
- » An alternative Gal profile surface finish specification is available on request.

### 3.5 REINFORCING PRODUCTS

DEFORMED BAR - Deformed Reinforcement Bar D500N - AS/NZS 4671		
Size (mm)	Weight Per Metre (kg/m)	Metres Per Tonne (m/t)
N12	0.923	1083
N16	1.642	609
N20	2.470	390

**NOTE:**

- » Available in 6, 9 & 12m lengths subject to minimum order quantities (MOQ's).
- » S Grade bar for swimming pools is available upon request. Subject to minimum order quantities (MOQ's).

REINFORCING MESH AS/NZS 4671			
Description	Standard Unit	Typical Size (mm)	Weight Per Sheet (kg)
SL52	Sheet	6.0 x 2.4	11
SL52H	Half Sheet	3.0 x 2.4	11
SL62	Sheet	6.0 x 2.4	33
SL62H	Half Sheet	3.0 x 2.4	16
SL72	Sheet	6.0 x 2.4	40
SL72H	Half Sheet	3.0 x 2.4	20
SL81	Sheet	6.0 x 2.4	105
SL82	Sheet	6.0 x 2.4	52
SL92	Sheet	6.0 x 2.4	65
SL102	Sheet	6.0 x 2.4	80
RL718	Sheet	6.0 x 2.4	68
RL818	Sheet	6.0 x 2.4	79
RL918	Sheet	6.0 x 2.4	93
RL1018	Sheet	6.0 x 2.4	109
RL1118	Sheet	6.0 x 2.4	131
RL1218	Sheet	6.0 x 2.4	157

**NOTE:**

**Product designation example - RL718**

- » R (Rectangular), L (Class L - low carbon), 7 (long wire nominal diameter), 1 (100mm long wire pitch spacing), 8 (cross wire nominal diameter).
- » Cross wire pitch spacing is always 200mm for rectangular mesh.

**Product designation example - SL82**

- » S (Square), L (Class L - low carbon), 8 (long & cross wire nominal diameter), 2 (200mm long & cross wire pitch spacing) H - this defines a half sheet.

3.5 REINFORCING PRODUCTS CONT...

TRENCH MESH AS/NZS 4671			
Description	Lengths (m)	Width (m)	Weight Per Sheet (kg)
3 Bar 200 x 8mm	6.0	0.2	7
3 Bar 200 x 11mm	6.0	0.2	13
4 Bar 300 x 11mm	6.0	0.3	9
4 Bar 300 x 8mm	6.0	0.3	18
5 Bar 400 x 11mm	6.0	0.4	11
5 Bar 400 x 8mm	6.0	0.4	22

WELDED MESH Galvanized			
Description	Lengths (m)	Width (m)	Weight Per Sheet (kg)
25 x 25 x 2.5mm	2.0	1.2	8
25 x 25 x 2.5mm	2.4	1.2	9
25 x 25 x 2.5mm	3.0	2.4	23
25 x 25 x 3.15mm	3.0	2.4	
50 x 50 x 3.0mm	2.0	1.2	
50 x 50 x 3.5mm	2.4	1.2	12
50 x 50 x 4.0mm	2.0	1.2	10
50 x 50 x 4.0mm	2.4	1.2	12
50 x 50 x 4.0mm	3.0	2.4	29
75 x 75 x 4.0mm	2.0	1.2	
75 x 50 x 2.5mm	1.8	2.0	9
75 x 50 x 3.0mm	2.4	1.2	9
75 x 50 x 3.5mm	2.4	1.2	10
75 x 50 x 4.0mm	2.0	1.2	8
75 x 50 x 4.0mm	3.0	2.4	24
100 x 100 x 4.0mm	2.0	1.2	5
100 x 100 x 5.0mm	3.0	2.4	19

REINFORCING ACCESSORIES	
Description	Unit
Bar chairs 50/65	200 per pack
1.57mm black belt pak	95m



3.6 BUILDING CONSUMABLE PRODUCTS

CONCRETE	
Description	Unit
Post Mix 20kg	20kg
Rapid Set Mix 20kg	20kg











ABRASIVES	
Description	Unit
Cutting Disc	ea
Grinding Disc	ea
Sanding Disc	ea
Metal Twist Knots	ea
Wire Bench Wheel	ea



WELDING	
Description	Unit
Welders	ea
Gas Kits	ea
Mig wire - Gas & Gasless	ea
Welding rods - 2.0mm, 2.5mm, 3.2mm	ea
Welding Accessories	ea
Gas Accessories	ea

METAL PAINT PROTECTION	
Description	Unit
Liquid ALLGAL® paint - aerosol	400g
Liquid ALLGAL® - drum	20L
Black paint - aerosol	400g
Yellow paint - aerosol	400g
Liquid Zinc paint - aerosol	400g
Silver Zinc paint - aerosol	400g
White paint - aerosol	400g
Anti Spatter paint - aerosol	400g
Lanolin paint - aerosol	400g
Etch Primer	400g
Red Oxide primer	400g



3.7 BUILDING ACCESSORIES & TOOLS

GENERAL FENCING & WIRE MESH	
Profiles	Product
	Chain Wire
	Hinged Joint Fencing
	Barbed Wire
	Wire Netting
	Fence Wire
	Tie Wire
	Post Caps
	Fence Joints & Fittings
	Gate Fittings
	Fencing Accessories

ACCESSORIES & TOOLS		
Profiles	Product	Details
	Load restraints	A range of ratchet assemblies, chains, & ropes are available.
	Trade tools	A variety of trade tools are available ranging from bolt cutters, pliers, post drivers and more.

**NOTE:** For further information and detailed product specifications on the range of building accessories & tools available, refer to the **Orrcon Steel Building & Accessories Product Catalogue**.

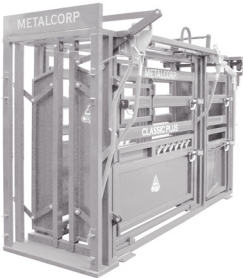



## Rural Products




4.1 RURAL PRODUCTS & ACCESSORIES


4.1.1 CRUSHES, CRUSH ACCESSORIES & YARDS

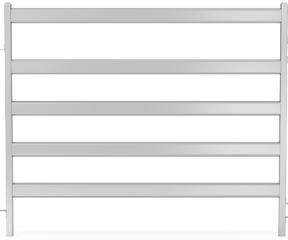
CRUSHES AND HEADBAILS		
PRODUCT	BRAND	TYPE
	CLASSIC PLUS®	CATTLE
	CATTLEMASTER®	CATTLE
	FARMHAND®	CATTLE
	HOBBYMASTER® Vet	CATTLE
	Heavy Duty Headbail	CATTLE

CRUSH ACCESSORIES		
PRODUCT	BRAND	TYPE
	Heavy Duty Bulk Gate	CATTLE
	Roof Kit	CATTLE
	Crush / Race Shelters	CATTLE
	Drop in Floor	CATTLE
	Weigh Crate	CATTLE


DRAFT, YARD AND FORCE RANGE		
PRODUCT	BRAND	TYPE
	CATTLEKING® Rotary Force	CATTLE
	CATTLEKING® Drafting Pound	CATTLE
	CATTLEMASTER® Safe-T-Force	CATTLE
	Adjustable 3-Way Draft with Throw Down Gate	SHEEP
	SHEEPKING® V-Race	SHEEP

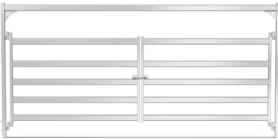
### 4.1.2 RAMPS & PANELS

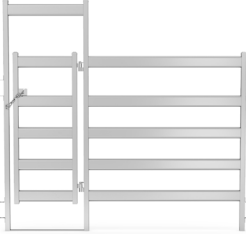
RAMPS		
PRODUCT	BRAND	TYPE
	CATTLEKING® 5200mm	CATTLE
	CATTLEKING® 3600mm Fixed with walkway	CATTLE
	CATTLEKING® 3600mm Adjustable with walkway	CATTLE
	CATTLEKING® 3600mm Adjustable	CATTLE
	CATTLEKING® Fixed 3600mm	CATTLE
	STOCKMASTER® 3000mm Adjustable	CATTLE
	SHEEPKING® 3000mm Adjustable Walkway	SHEEP
	SHEEPKING® 3000mm Adjustable	SHEEP
	3 Part 2400mm	SHEEP
	Sheep Knockdown 3600mm	SHEEP

PANELS		
PRODUCT	BRAND	TYPE
	CATTLEKING®	CATTLE
	CATTLEMASTER®	CATTLE
	STUDMASTER®	CATTLE
	STOCKMASTER®	CATTLE
	SHEEPKING®	SHEEP
	SHEEPMASTER®	SHEEP
	GOATMASTER	GOAT

4.1.3 GATE IN FRAMES & MANWAY PANELS

GATE IN FRAME		
PRODUCT	BRAND	TYPE
	CATTLEKING®	CATTLE
	CATTLEMASTER®	CATTLE
	STUDMASTER®	CATTLE
	STOCKMASTER®	CATTLE
	SHEEPKING®	SHEEP
	SHEEPMASTER	SHEEP
	HORSEKING®	HORSE


DOUBLE GATE IN FRAME		
PRODUCT	BRAND	TYPE
	CATTLEKING®	CATTLE
	CATTLEMASTER®	CATTLE
	STUDMASTER®	CATTLE
	SHEEPKING®	SHEEP


MANWAY PANEL		
PRODUCT	BRAND	TYPE
	CATTLEKING®	CATTLE
	CATTLEMASTER®	CATTLE
	STUDMASTER®	CATTLE
	STOCKMASTER®	CATTLE
	SHEEPKING®	SHEEP

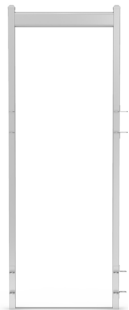
4

4.1.3 Gate In Frames & Manway Panels

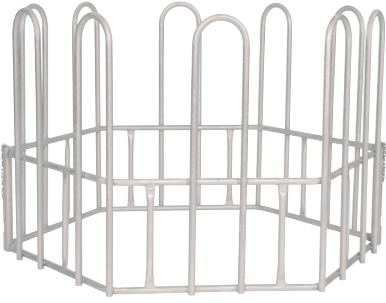
4.1.4 MANWAY GATES, SLIDE GATES & RACE BOWS


MANWAY GATES		
PRODUCT	BRAND	TYPE
	CATTLEKING®	CATTLE
	CATTLEMASTER®	CATTLE
	STUDMASTER®	CATTLE
	STOCKMASTER®	CATTLE


SLIDE GATES		
PRODUCT	BRAND	TYPE
	CATTLEKING®	CATTLE
	CATTLEMASTER®	CATTLE
	STUDMASTER®	CATTLE
	STOCKMASTER®	CATTLE
	SHEEPKING®	SHEEP

RACE BOWS		
PRODUCT	BRAND	TYPE
	CATTLEKING®	CATTLE
	CATTLEKING® Force	CATTLE
	CATTLEMASTER®	CATTLE
	STUDMASTER®	CATTLE
	STOCKMASTER®	CATTLE
	SHEEPKING®	SHEEP
	SHEEPMaster®	SHEEP

4.1.5 FEEDERS, HAY RACKS, GATES AND STAR PICKETS

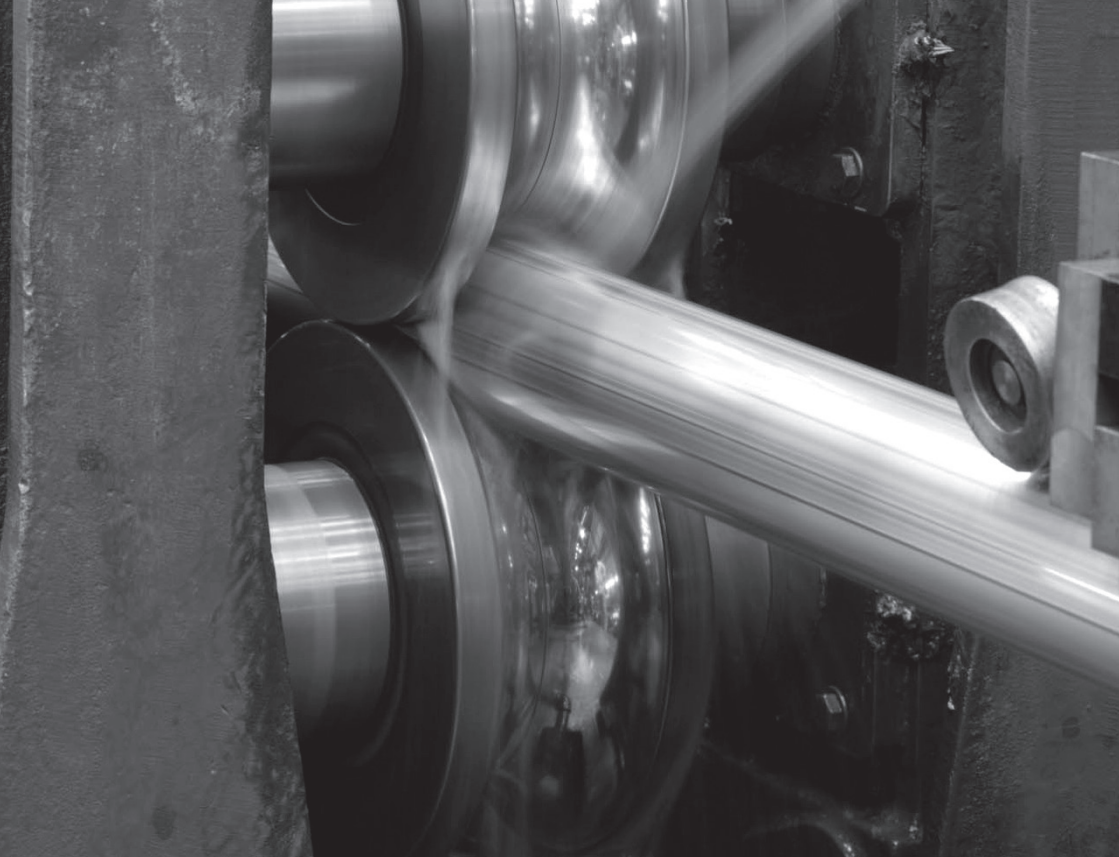
FEEDERS & HAY RACKS	
PRODUCT	BRAND
	Hay Feeder 2400mm
	Rubber Feeder 4000mm x 640mm
	2 Piece Round Bale Feeder 1800mm x 1300mm
	2 Piece Round Bale Feeder Extensions
	Square Bale Feeder 8' x 4'
	Heavy Duty Hay Rack 3000mm
	Sheep Lick Feeder 1500mm x 2400mm
	Cattle Lick Feeder 1500mm x 2400mm
	Jumbo Grain Feeder

GATES	
PRODUCT	BRAND
	Vertical Brace
	N-Stay
	5 - Bar
	6 - Bar

STAR PICKETS		
Profiles	Product	Details
	Star Picket	450mm Black Ptd
		600mm Black Ptd
		900mm Black Ptd
		1350mm Black Ptd
		1650mm Black Ptd
		1800mm Black Ptd
		2400mm Black Ptd
		1650mm Galvanized
		1800mm Galvanized

NOTE:

- » Not all products are available at all locations. Please contact your Orrcon Steel / Metalcop representative for availability.
- » More stock and variety in branches
- » Images used are an example only. Product may differ, consult your local dealer for accurate products



## General Information





## 5.1 TEST CERTIFICATES & LETTERS OF COMPLIANCE

Orrcon Steel manufacture and source a range of structural steel products which comply with Australian and/or International Standards, including the following:

- » AS/NZS 1163 Cold-Formed Structural Steel Hollow Sections.
- » AS 1074 Steel Tubes for Ordinary Service.
- » AS 1450 Steel tubes for Mechanical purposes
- » AS/NZS 3679.1 Structural Steel, Part 1 Hot Rolled Bars and Sections.
- » AS/NZS 3679.2 Structural Steel, Part 2 Welded I Sections.
- » AS/NZS 3678 Structural Steel Hot Rolled Plates, Floor plates and Slabs.
- » AS/NZS 4671 Steel Reinforcing Materials
- » API 5L Specification for Line Pipe

Test Certificates (TC's) are available for customers and end-users of Orrcon Steel Manufactured Structural Tubular products and for sourced products on request. TC's detail standard and grade specification details along with the results of chemical, mechanical and physical property analysis conducted on representative samples from the supplied batch of product. They provide sufficient product identification and technical detail to enable independent verification of batch compliance to the relevant standard. These documents are developed in compliance with the appropriate standard and are generated as email ready PDF documents.

Letter of Compliance (LOC's) list details of the products supplied, the applicable Standard / Grade and may also provide indicative properties. LOC's are issued on an Orrcon Steel letterhead and are signed by a responsible officer. LOC's are available for Precision Tube products on request, or for Structural Tubes when pack/heat traceability cannot be confirmed but a purchase order record is available.

If requirements for the supply of TC or LOC documents are not specified at the point of order it is the customer's responsibility to provide suitable product traceability details as requested by Orrcon Steel such as pack numbers, tube marking and heat or coil numbers. Orrcon Steel cannot be held responsible for product traceability once it has been delivered to a customer's site.

Orrcon Steel utilise National Association of Testing Authorities (NATA) accredited laboratories to determine the chemistry and mechanical properties of its manufactured Structural Hollow Sections product range. NATA is an International Laboratory Accreditation Cooperation (ILAC) (MRA) signatory and the relevant details for the test laboratories are noted on test certificates.

### OTHER CERTIFICATIONS AND ACCREDITATIONS

Orrcon Steel have a range of certifications and accreditations available to download from [www.orrconsteel.com.au/resources/certificates](http://www.orrconsteel.com.au/resources/certificates)

This includes;

- ISO9001 Quality Management System,
- ISO/IEC17025 – General Requirements for the Competence of Testing and Calibrating Laboratories
- ACRS third-party certification (AS/NZS1163)
- CSIRO ActivFire certification for Sprinkler and Hydrant Pipes

As a business of BlueScope documentation to support Green Building schemes, and a range of Policies including Responsible Sourcing, Sustainability and Business Conduct are available.

## 5.2 PACKAGING, HANDLING AND STORAGE

### Storage and Transport

Store all steel and steel related products in a stable configuration. Avoid contact with corrosive agents such as acids, alkalis and salts. Transport in accordance with Government Regulations and always ensure load is secure.

With zinc coated, including ALLGAL® products, and aluminised coatings attention should be paid to the conditions of transport and storage to avoid the possibility of damage or wet-storage stain. A corrosion known as 'white rust' or 'storage stain' can occur on freshly zinc coated products that are transported or stored under damp and/or badly ventilated conditions. The corrosion is frequently superficial despite its bulkiness. It may be unattractive but is not usually detrimental to the other properties of the coating if addressed promptly.

## 5.2 PACKAGING, HANDLING AND STORAGE CONT...

The packed product should be kept under roof in clean, dry and ventilated conditions. This is especially important for products in the lower size range as their bundle configuration restricts natural ventilation. Storage under covers which restrict ventilation (e.g. tarps) is not recommended. If products must be stored outside, then the packs should be broken up and stacked with a wooden spacer between each layer. The stack should be on an incline so that any water can run off the product. Prevention is better than a cure and keeping product dry and stored appropriately can prevent the onset of corrosion and save time, money and hassle.

## 5.3 MATERIAL SAFETY DATA INFORMATION

### Electric Resistance Welding (ERW) Tube Identification

**STRUCTURAL TUBE** - Rectangular Hollow Section (RHS), Square Hollow Section (SHS) and Circular Hollow Section (CHS).

**Use:** Building structures, major sporting arena's, mining & industry infrastructure etc.

**PRECISION TUBE** - Rectangular, Square, Round and oval.

**Use:** Steel fabricating, fencing, furniture, exhausts etc.

Physical Description / Properties	
<b>Appearance: Structural</b>	Blue (Primed), Red (Primed), Black (Primed), Silver (Electrogalvanized) and NOPC (no oil, paint or coating).
<b>Appearance: Precision</b>	Dull Grey and Silver (zinc and aluminium coated)
<b>Melting Point</b>	Base Metal 1535 °C
<b>Fire and Explosive Hazard</b>	Steel products (primed or oiled) in the solid state present no fire or explosive hazard. Under normal fire conditions decomposition of the metal will not occur, but deformation of the steel member may occur. Irritant fumes may be produced during a fire situation. Hazardous decomposition products may occur on heating or burning of the primer giving Carbon Dioxide, Carbon Monoxide, soot and smoke.

### Health Hazard Information

Steel products under normal conditions do not present an inhalation, ingestion or contact health hazard. However, operations such as burning, welding, sawing, brazing, grinding etc., which result in the temperature of the product rising above the melting point of the steel or surface coating, may present health hazards. Welding fume tests performed show that no organic compounds are evolved when welding painted Orrcon Steel tube & pipe. The fumes generated are less than 5mg/m<sup>3</sup> which meet ACGIH threshold limit values.

## 5.3 MATERIAL SAFETY DATA INFORMATION CONT...

### Fuming

Zinc coated, aluminum coated and ALLGAL® coated product are designed so that weld fume levels are well below the accepted Short Term Exposure Limits (STEL) of 10 mg/m<sup>3</sup>, when normal welding practices are used.

**FIRE/EXPLOSION HAZARD:** irritant fumes may be produced during a fire situation. Decomposition products include oxides of Carbon.

### Effects Of Over-Exposure

The major exposure hazard is the inhalation of fumes or dust. Chronic inhalation of high concentration Iron Oxide fumes or dusts may lead to Benign Pneumoconiosis (Siderosis). Inhalation of high concentration of Ferric Oxide may increase the risk of lung cancer in persons exposed to pulmonary carcinogens.

### Precautions For Use

Metal products are stable under normal conditions of use, storage, handling and transport and require no special precautions. When performing normal metalworking operations, eye and respiratory protection should be used.

### Welding

The following consumables are recommended by AS 1544.1 when welding welded tube sections:

- » Manual metal-arc (MMAW) E41XX, E48XX
- » Gas metal-arc (MIG) (GMAW) W50x

Welding ALLGAL® is similar to welding painted tube & pipe. Further information on welding practices is available from the Welding Technology Institute of Australia (WTIA). [www.wtia.com.au](http://www.wtia.com.au)

### First Aid

<b>Swallowed:</b>	Not applicable.
<b>Eye:</b>	Holding eyelids open, flood with water for at least 15 minutes. Seek medical attention urgently.
<b>Skin:</b>	For lacerations, clean and dress wound. Apply pressure bandage and elevate injured area. Obtain medical aid urgently. For burns, apply copious quantities of cool water. Do not apply creams. Seek medical attention urgently.
<b>Inhaled:</b>	Remove from contaminated air. Maintain breathing with artificial respiration if necessary. Seek medical attention urgently.
<b>Advice to Doctor:</b>	Refer to section on inhalation hazards for welding operations involving zinc coated steel.

For a safety sheet and further information please contact Orrcon Steel.

**NOTE:** This information is taken from sources believed to be accurate and correct. Orrcon Steel makes no warranty as to the correctness or the sufficiency of the information supplied. Furthermore no warranty is given or implied that under certain conditions additional protective measures may be required.

## 5.3 MATERIAL SAFETY DATA INFORMATION CONT...

### Spills and Disposal

Recycle scrap steel or dispose of it at an approved site.

**FIRE/EXPLOSION HAZARD:** Irritant fumes may be produced during a fire situation. Decomposition products include oxides of Carbon.

## 5.4 GLOSSARY OF TERMS

### Tube & Pipe (Standard)

<b>ACMS</b>	Aluminium Coated Mild Steel. Tube rolled from hot dipped aluminium coated steel strip, with aluminium coating both sides. Typical applications include heat resistant applications such as automotive exhausts and domestic gas heaters.
<b>BMT</b>	Base Metal Thickness. The base thickness of the steel material without any coating applied to it.
<b>L0</b>	L0 is the impact property designation AS/NZS 1163. L refers to guaranteed impact properties, 0 is the low temperature impact test at 0 degrees. This is used to define product suitability for low temperature applications. Refer to section 1.7.1 of this catalogue for the relationship with steel grades.
<b>ERW</b>	Electric Resistance Welding.
<b>HRSB</b>	Hot Rolled Semi Bright. Tube has typical steel grey appearance, surface is suitable for general applications and is ideal for paint or powder coated processes. Typical applications include racking, shelving, fitness equipment, cargo barriers etc.
<b>HTGB</b>	Hi Tensile Galvabond®. High strength tube rolled from hot dipped zinc coated steel strip with zinc coating both sides. Typical applications include outdoor tubular products where greater strength and reduced weight is required.
<b>MDMT</b>	Material Design Minimum Temperature.
<b>MSBL</b>	Mild Steel Black. Tube has a black, mill finish. Ideal for hot dipped galvanized applications such as signs or fence posts.
<b>MSBR</b>	Mild Steel Bright. Tube has a bright finish and is typically used in the manufacture of products that require a higher grade surface finish such as electroplating or similar critical finish applications. Typical applications include domestic & commercial furniture, chrome plated lawn mower handles etc. This material is seldom used given cost and low demand.
<b>MSGB</b>	Mild Steel Galvabond®. Tube rolled from hot dipped zinc coated steel strip, with zinc coating both sides. Typical applications include exterior use such as tubular fencing, outdoor furniture and promotional signage.
<b>NB</b>	Nominal Bore. Refers to a set of standard pipe sizes (designated NB) with a nominal inner pipe diameter in millimetres. Equivalent to the European DN (diameter nominal) and the North American NPS, Nominal Pipe Size. Actual dimensions vary due to metric designations of an imperial pipe size.
<b>NOPC</b>	No oil or paint coating.

## 5.4 GLOSSARY OF TERMS CONT...

**PICKLED STEEL** Steel that has gone through a process of pickling which is a surface treatment used to remove impurities, such as stains, inorganic contaminants, rust or scale.

**SEMB** Semi Bright. Tube has typical steel grey appearance and has a suitable surface for general applications. Ideal where demanding and consistent properties are required. Typical applications include domestic and commercial furniture, exhaust systems, shelving etc.

### Hot Rolled Structural & Plate (Standard)

**ANGLE LINE** A machine tool that uses a conveyor to move an angle section into position, then drills holes. The drill moves but the angle is static.

**ASSEMBLY & SHAFT DRAWINGS** Drawings where overall dimensions of the assembled object are usually indicated, but the detailed dimension for manufacture is excluded.

**BAND SAW** A band saw is a machine which uses a blade consisting of a continuous band of metal with teeth along one edge to cut steel sections.

**BEAM LINE** An automatic structural steel processing system. This includes cutting, drilling, coping, and bevelling processes. The components in the line include band saws and drilling machines.

**BEARING PLATE** A flat steel plate used under the end of a wall-bearing beam to distribute the load over a broader area.

**BISPLATE® & HARDOX®** Brand names for wear plate. A high strength, wear resistant, and armour grade steel plate. It is a quench and tempered plate.

**BORING** In machining, boring is the process of enlarging a hole that has already been drilled or cast, by means of a single-point cutting tool. Boring is used to achieve greater accuracy of the diameter of a hole, and can be used to cut a tapered hole.

**BROACHING** Broaching is a machining process that uses a toothed tool, called a broach, to remove material. The two main types of broaching are linear and rotary.

**CHECKER / FLOOR PLATE** A type of slip-resistant floor plate with a distinctive raised pattern that is used for walkways and platforms.

**COPING** Coping a beam assures it can be fixed to an intersecting column, or another beam, by eliminating a part that could be an interference. Machinery builders developed a means whereby the beam is rolled into a "cutting box" and this is done in a beam line.

**GUSSET** A steel plate used to connect two or more structural members in the same plane. Often used to strengthen the section beneath the bottom flange.

**HAUNCH** Also known as a Knee. The deepened portion of a column or rafter, designed to accommodate the high stress where column and rafter intersect and connect.

**HOT ROLLED** A steel section that is shaped by rollers in a semi-molten state.

**FAST CAM** A software system for fabrication of steel elements and all types of processes that go with it. It includes an integrated drawing editor and is fully compatible with CAD and other industry standard files. A quoting system is also built-in to this.

**FITTINGS** The term also used to describe cleats and items that are welded onto beams and columns.

## 5.4 GLOSSARY OF TERMS CONT...

<b>LASER CUTTING</b>	A process that cuts material with the heat obtained by directing a laser beam against a metal surface.
<b>PFC</b>	Parallel Flange Channel.
<b>PLASMA CUTTING</b>	Plasma cutters work by sending an electric arc through a gas that is passing through a constricted opening. As the metal being cut is part of the circuit, the electrical conductivity of the plasma causes the arc to transfer to the work.
<b>PLATE PROFILE CUTTING BED</b>	A platform used to support the plate material whilst cutting with the oxy, plasma, or laser cutting machine.
<b>MERCHANT BAR</b>	A steel section that is hot rolled from a billet into a round, square, hexagonal or other shape.
<b>SCALE</b>	Layers of iron oxide formed on the surface of hot steel when oxygen from the atmosphere combines with iron from the steel. Also referred to as Mill Scale.
<b>SHOP DRAWINGS</b>	The drawings used to manufacture the steel components for a structure.
<b>UA</b>	Unequal Angle section
<b>UB</b>	Universal Beam. The section is used as a beam and is an I shape section. A structural member which is ordinarily subject to bending and is usually a horizontal member carrying vertical loads.
<b>UC</b>	Universal Column. The section is used as a column and is a H shape section.
<b>ULTIMATE TENSILE STRENGTH</b>	The maximum stress a material can withstand before the cross section of the product starts to fracture or fail.
<b>WEB STIFFENER</b>	A plate that is welded in between the bottom and top flanges to create stability and strength for the web of the section.
<b>YIELD STRESS / STRENGTH</b>	Stress / Strength measurement at which steel first exhibits plastic deformation. Beyond this point it does not return to it's original form after the stress has been removed.
<b>YIELD POINT</b>	The stress at which material permanently deforms. This is the same stress as the yield strength and is another way of describing it.
<b>250 MPa YIELD (PLATE)</b>	Plate with yield strength grade $\geq$ 250 MPa and tensile strength $\geq$ 410 MPa.
<b>300 MPa YIELD (HR PRODUCT)</b>	Hot Rolled Structural Product with yield strength grade $\geq$ 300 MPa and tensile strength $\geq$ 440 MPa.
<b>350 MPa YIELD (PLATE)</b>	Plate with yield strength grade $\geq$ 350 MPa and tensile strength $\geq$ 450 MPa.

### DISCLAIMER

The information and advice contained in this document is of a general nature only. You should always obtain specialist advice to ensure that the materials, approach and techniques referred to in this document meet your specific requirements. Orrcon Steel disclaims all liability and responsibility for any loss or damage, direct or indirect, which may be suffered by any person acting in reliance on anything contained in or omitted from this document.

5.5 END CODING CHARTS

5.5.1 END CODING CHART - HOT ROLLED STRUCTURAL

Universal Beams (UB)			Universal Columns (UC)			Round & D-Bar	
Depth (mm)	Weight (kg/mtr)	Colour	Depth (mm)	Weight (kg/mtr)	Colour	Diameter (mm)	Colour
150	14.0	Blue	100	14.8	Blue	6.0	White
150	18.0	Purple	150	23.4	Blue	8.0	Red
180	16.1	Blue	150	30.0	Purple	10.0	Yellow
180	18.1	Purple	150	37.2	Red	12.0	Pink
180	22.2	Red	200	46.2	Blue	14.0	Orange
200	18.2	White	200	52.2	Purple	16.0	Grey
200	22.3	Blue	200	59.5	Red	18.0	Purple
200	25.4	Purple	250	72.9	Blue	20.0	Green
200	29.8	Red	250	89.5	Purple	24.0	Pink
250	25.7	Blue	310	96.8	White	27.0	Blue
250	31.4	Purple	310	118.0	Blue	30.0	Yellow
250	37.3	Red	310	137.0	Purple	33.0	Grey
310	32.0	Blue	310	158.0	Red	36.0	Red
310	40.4	Purple	Parallel Flange Channels (PFC)			39.0	Orange
310	46.2	Red				Square Bar	
360	44.7	Blue				Thickness (mm)	Colour
360	50.7	Purple	Size (mm)	Colour		10.0	Yellow
360	56.7	Red	75 x 40	Blue		12.0	Pink
410	53.7	Blue	100 x 50	Purple		16.0	Grey
410	59.7	Purple	125 x 65	Red		20.0	Green
460	67.1	Blue	150 x 75	Blue		25.0	Purple
460	74.6	Purple	180 x 75	Purple		32.0	Orange
460	82.1	Red	200 x 75	Red		40.0	Yellow
530	82.0	Blue	230 x 75	White		50.0	Green
530	92.4	Purple	250 x 90	Orange			
610	101.0	Blue	300 x 90	Yellow			
610	113.0	Purple	380 x 100	White			
610	125.0	Red					

5.5.1 END CODING CHART - HOT ROLLED STRUCTURAL CONT...

5

5.5.1 End Coding Chart - Hot Rolled Structural cont...

Sheet – Flat Plate & Plate	
Thickness (mm)	Colour
0.55	Grey
0.75	Green
0.95	Orange
1.20	White
1.60	Purple
2.00	Yellow
2.10	Grey
2.40	Pink
3.0	Blue
4.0	Green
5.0	Orange
6.0	White
8.0	Red
10.0	Yellow
12.0	Pink
16.0	Grey
20.0	Green
25.0	Purple
28.0	Blue
32.0	Orange
36.0	Red
40.0	Yellow
45.0	Grey
50.0	Green

Flat Bar & Angle	
Thickness (mm)	Colour
2.0	Yellow
3.0	Blue
4.0	Green
5.0	Orange
6.0	White
8.0	Red
10.0	Yellow
12.0	Pink
14.0	Orange
16.0	Grey
20.0	Green
25.0	Purple

NOTE:

- » Not all products are available at all locations. Please contact your local Orrcon Steel / Metalcorp branch for availability of products.
- » 350 Grade plate is identified with a red mark on the product.



## 5.5.2 END CODING CHART - TUBE & PIPE

<div> <div></div> Square (SHS) </div>		
Size (mm)	Thickness (mm)	Colour
20x20	1.6	Purple
25x25	1.6	Purple
30x30	1.6	Purple
35x35	1.6	Purple
40x40	1.6	Purple
50x50	1.6	Purple
65x65	1.6	Purple
25x25	2.0	Yellow
30x30	2.0	Yellow
35x35	2.0	Yellow
40x40	2.0	Yellow
50x50	2.0	Yellow
65x65	2.0	Yellow
75x75	2.0	Yellow
89x89	2.0	Yellow
100x100	2.0	Yellow
25x25	2.5	Pink
30x30	2.5	Pink
35x35	2.5	Pink
40x40	2.5	Pink
50x50	2.5	Pink
65x65	2.5	Pink
75x75	2.5	Pink
89x89	2.5	Pink
100x100	2.5	Pink
25x25	3.0	Blue
30x30	3.0	Blue
35x35	3.0	Blue
40x40	3.0	Blue
50x50	3.0	Blue
65x65	3.0	Blue
75x75	3.0	Blue
100x100	3.0	Blue
75x75	3.5	Grey
89x89	3.5	Grey
40x40	4.0	Green
50x50	4.0	Green
65x65	4.0	Green
75x75	4.0	Green
100x100	4.0	Green
125x125	4.0	Green
50x50	5.0	Orange
65x65	5.0	Orange
75x75	5.0	Orange
89x89	5.0	Orange

<div> <div></div> Square (SHS) </div>		
Size (mm)	Thickness (mm)	Colour
100x100	5.0	Orange
125x125	5.0	Orange
150x150	5.0	Orange
200x200	5.0	Orange
50x50	6.0	White
65x65	6.0	White
75x75	6.0	White
89x89	6.0	White
100x100	6.0	White
125x125	6.0	White
150x150	6.0	White
200x200	6.0	White
250x250	6.0	White
300x300	6.0	White
100x100	9.0	Purple
125x125	9.0	Purple
150x150	9.0	Purple
200x200	9.0	Purple
250x250	9.0	Purple
300x300	9.0	Purple
400x400	9.0	Purple
200x200	12.5	N/A
250x250	12.5	N/A
300x300	12.5	N/A
350x350	12.5	N/A
400x400	12.5	N/A
200x200	16.0	N/A
250x250	16.0	N/A
300x300	16.0	N/A
350x350	16.0	N/A
400x400	16.0	N/A

<div> <div></div> Rectangular (RHS) </div>		
Size (mm)	Thickness (mm)	Colour
50x25	1.6	Purple
65x35	1.6	Purple
75x25	1.6	Purple
75x50	1.6	Purple
100x50	1.6	Purple
38x25*	1.6	Purple
50x20*	1.6	Purple

<div> <div></div> Rectangular (RHS) </div>		
Size (mm)	Thickness (mm)	Colour
76x38*	1.6	Purple
80x40*	1.6	Purple
50x25	2.0	Yellow
65x35	2.0	Yellow
75x25	2.0	Yellow
75x50	2.0	Yellow
100x50	2.0	Yellow
125x75	2.0	Yellow
150x50	2.0	Yellow
38x25*	2.0	Yellow
50x20*	2.0	Yellow
50x30*	2.0	Yellow
50x40*	2.0	Yellow
76x38*	2.0	Yellow
127x51*	2.0	Yellow
75x50	2.3	Silver
50x25	2.5	Pink
65x35	2.5	Pink
75x25	2.5	Pink
75x50	2.5	Pink
100x50	2.5	Pink
125x75	2.5	Pink
150x50	2.5	Pink
38x25*	2.5	Pink
50x20*	2.5	Pink
50x30*	2.5	Pink
76x38*	2.5	Pink
80x40*	2.5	Pink
127x51*	2.5	Pink
50x25	3.0	Blue
65x35	3.0	Blue
75x50	3.0	Blue
100x50	3.0	Blue
125x75	3.0	Blue
150x50	3.0	Blue
150x100	3.0	Blue
50x20*	3.0	Blue
76x38*	3.0	Blue
127x51*	3.0	Blue
100x50	3.5	Grey
102x76*	3.5	Grey
127x51*	3.5	Grey
152x76*	3.5	Grey
65x35	4.0	Green
75x50	4.0	Green

Table continues over page

## 5.5.2 END CODING CHART - TUBE & PIPE CONT...

Rectangular (RHS)		
Size (mm)	Thickness (mm)	Colour
100x50	4.0	Green
125x75	4.0	Green
150x50	4.0	Green
150x100	4.0	Green
200x100	4.0	Green
76x38*	4.0	Green
127x51*	4.0	Green
75x50	5.0	Orange
100x50	5.0	Orange
125x75	5.0	Orange
150x50	5.0	Orange
150x100	5.0	Orange
200x100	5.0	Orange
250x150	5.0	Orange
102x76*	5.0	Orange
127x51*	5.0	Orange
152x76*	5.0	Orange
75x50	6.0	White
100x50	6.0	White
125x75	6.0	White
150x50	6.0	White
150x100	6.0	White
200x100	6.0	White
250x150	6.0	White
300x200	6.0	White
400x200	6.0	White
102x76*	6.0	White
127x51*	6.0	White
152x76*	6.0	White
150x100	9.0	Purple
200x100	9.0	Purple
250x150	9.0	Purple
300x200	9.0	Purple
400x200	9.0	Purple
400x300	9.0	Purple
250x150	12.5	N/A
300x200	12.5	N/A
350x250	12.5	N/A
400x200	12.5	N/A
400x300	12.5	N/A
250x150	16.0	N/A

Rectangular (RHS)		
Size (mm)	Thickness (mm)	Colour
300x200	16.0	N/A
350x250	16.0	N/A
400x300	16.0	N/A

Yard Rail		
Size (mm)	Thickness (mm)	Colour
59x30	1.6	Purple
59x30	2.0	Yellow
97x42	2.0	Yellow
115x42	2.0	Yellow
62x50*	2.0	Yellow
80x61*	2.0	Yellow
115x42	2.3	Silver
97x42	2.5	Pink
62x50*	2.5	Pink
80x61*	2.5	Pink

Pipe (CHS)		
Size (mm)	Thickness (mm)	Colour
25.4 NB	2.0	Green
20 NB / 26.9 OD	2.0	Green
25 NB / 33.7 OD	2.0	Green
32 NB / 42.4 OD	2.0	Green
20 NB / 26.9 OD	2.3	Yellow
40 NB / 48.3 OD	2.3	Green
50 NB / 60.3 OD	2.3	Green
65 NB / 76.1 OD	2.3	Green
20 NB / 26.9 OD	2.6	Blue
25 NB / 33.7 OD	2.6	Yellow
32 NB / 42.4 OD	2.6	Yellow
80 NB / 88.9 OD	2.6	Green
90 NB / 101.6 OD	2.6	Green
100 NB / 114.3 OD	2.6	N/A
40 NB / 48.3 OD	2.9	Yellow
50 NB / 60.3 OD	2.9	Yellow
125 NB / 139.7 OD	3.0	Green

Pipe (CHS)		
Size (mm)	Thickness (mm)	Colour
150 NB / 165.1 OD	3.0	Green
20 NB / 26.9 OD	3.2	N/A
25 NB / 33.7 OD	3.2	Blue
32 NB / 42.4 OD	3.2	Blue
40 NB / 48.3 OD	3.2	Blue
65 NB / 76.1 OD	3.2	Yellow
80 NB / 88.9 OD	3.2	Yellow
90 NB / 101.6 OD	3.2	Yellow
100 NB / 114.3 OD	3.2	Green
125 NB / 139.7 OD	3.5	Yellow
150 NB / 165.1 OD	3.5	Yellow
50 NB / 60.3 OD	3.6	Blue
65 NB / 76.1 OD	3.6	Blue
100 NB / 114.3 OD	3.6	Yellow
25 NB / 33.7 OD	4.0	Red
32 NB / 42.4 OD	4.0	Red
40 NB / 48.3 OD	4.0	Red
80 NB / 88.9 OD	4.0	Blue
90 NB / 101.6 OD	4.0	Blue
50 NB / 60.3 OD	4.5	Red
65 NB / 76.1 OD	4.5	Red
100 NB / 114.3 OD	4.5	Blue
80 NB / 88.9 OD	5.0	Red
90 NB / 101.6 OD	5.0	Red
125 NB / 139.7 OD	5.0	Blue
150 NB / 165.1 OD	5.0	Blue
100 NB / 114.3 OD	5.4	Red
125 NB / 139.7 OD	5.4	Red
150 NB / 165.1 OD	5.4	Red

LEGEND	
SHS, RHS & Rails	Pipe (CHS)
Purple	1.6
Yellow	2.0
Silver	2.3
Pink	2.5
Blue	3.0
Grey	3.5
Green	4.0
Orange	5.0
White	6.0
Purple	9.0
Green	Extra Light
Yellow	Light
Blue	Medium
Red	Heavy

### NOTE:

- » Broadspec® Pipe is not listed and has no end code.
- » Products listed without an end code have no designated code.
- » Other sizes available subject to enquiry.
- » + Non-standard rectangular (RHS).
- » \* Flat sided round (post).

October 2020 | REV 5 | This version supersedes all previous issues.

The published date and revision status above provides guidance on the currency of this Pocket Catalogue. Considerable effort has gone into ensuring the accuracy of content in this catalogue, but occasionally variations may occur. If you find that information or data doesn't reconcile with actual product specifications or configurations please advise Orrcon Steel's Customer Service Centre on 1300 677 266.

**For latest version please refer to the website [www.orrconsteel.com.au](http://www.orrconsteel.com.au)**

# ORRCON MANUFACTURING

---

## we'll see it through

It is a statement that says a lot about our business and the people that work in it. Being part of our culture, it reflects our relationship both internally and externally.

Orrcon Steel employs hundreds of Australians who use their steel industry knowledge and experience to produce and supply reliable steel products.

Orrcon Steel has an ISO 9001 accredited Quality Management System for the manufacturing of Pipe and Tube at its Salisbury and O'Sullivan Beach Mills. This ensures that when buying Australian made Orrcon Steel, there is traceability through our distribution centres, branches and stockists to the mill rolling and original steel coils.

Orrcon Steel's Hollow Structural Sections manufactured in Salisbury are certified by the Australasian Certification Authority for Reinforcing and Structural Steels (ACRS).

Importantly, we have our own on-site laboratory at the Salisbury Mill that is accredited by the National Association of Testing Authorities (NATA) for Mechanical and Chemical testing.

Orrcon Steel has a range of certifications and systems in place aimed to satisfy your compliance requirements.

You can be sure of the quality of Australian made Orrcon Steel, knowing that it complies with Australian standards and regulations.







**1300 ORRCON (1300 677 266)**  
[www.orrconsteel.com.au](http://www.orrconsteel.com.au)

#### HEAD OFFICE

121 Evans Road,  
**SALISBURY** QLD 4107  
Tel: 07 3274 0500 | Fax: 07 3274 0517  
E: [info@orrcon.com.au](mailto:info@orrcon.com.au)



[facebook.com/OrrconSteel](https://facebook.com/OrrconSteel)



[linkedin.com/company/orrcon-steel](https://linkedin.com/company/orrcon-steel)

#### QLD

75 Aumuller Street,  
**CAIRNS** (Portsmith) QLD 4870  
Tel: 07 4035 5155 | Fax: 07 4035 5199  
E: [salescairns@orrcon.com.au](mailto:salescairns@orrcon.com.au)

920 Nudgee Road,  
**NORTHGATE** QLD 4013  
Tel: 07 3873 9233 | Fax: 07 3633 8220  
E: [salesqld@orrcon.com.au](mailto:salesqld@orrcon.com.au)

#### SA

123-131 Bedford Street,  
**GILLMAN** SA 5013  
Tel: 08 8245 5900 | Fax: 08 8245 5910  
E: [salessa@orrcon.com.au](mailto:salessa@orrcon.com.au)

#### NSW

145 Hollinsworth Road,  
**MARSDEN PARK** NSW 2765  
Tel: 02 8856 6700 | Fax: 02 9675 9500  
E: [salesnsw@orrcon.com.au](mailto:salesnsw@orrcon.com.au)

#### WA

62 Chester Pass Road,  
**ALBANY** WA 6330  
Tel: 08 9841 9700 | Fax: 08 9841 9711  
E: [salesalbany@orrcon.com.au](mailto:salesalbany@orrcon.com.au)

9 Bradford Street,  
**KEWDALE** WA 6105  
Tel: 08 9208 1000 | Fax: 08 6250 1124  
E: [saleswa@orrcon.com.au](mailto:saleswa@orrcon.com.au)

#### VIC

2-30 Point Henry Road,  
**GEELONG** (Moolap) VIC 3221  
Tel: 03 5240 0300 | Fax: 03 5240 0320  
E: [salesgeelong@orrcon.com.au](mailto:salesgeelong@orrcon.com.au)

Gate 1, 16-24 Westall Road,  
**WESTALL** (Clayton South) VIC 3169  
Tel: 03 9253 9686 | Fax: 03 8571 9701  
E: [salesvic@orrcon.com.au](mailto:salesvic@orrcon.com.au)

## METALCORP

*Everything in Steel*

**1300 306 204**  
[www.metalcorp.com.au](http://www.metalcorp.com.au)

#### QLD

21 Charlie Triggs Crescent,  
**BUNDABERG** QLD 4670  
Tel: 07 4131 4200 | Fax: 07 4131 4211  
E: [salesbundy@metalcorp.com.au](mailto:salesbundy@metalcorp.com.au)

Hugh Quinn Crescent,  
**CHARTERS TOWERS** QLD 4820  
Tel: 07 4761 5000 | Fax: 07 4761 5005  
E: [salesct@metalcorp.com.au](mailto:salesct@metalcorp.com.au)

920 Nudgee Road,  
**NORTHGATE** QLD 4013  
Tel: 07 3873 9234 | Fax: 07 3622 9388  
E: [salesngate@metalcorp.com.au](mailto:salesngate@metalcorp.com.au)

340-360 Anzac Avenue,  
**TOOWOOMBA** QLD 4350  
Tel: 07 4614 2000 | Fax: 07 4634 7555  
E: [salestwba@metalcorp.com.au](mailto:salestwba@metalcorp.com.au)

#### VIC

843-845 Creswick Road,  
**BALLARAT** VIC 3350  
Tel: 03 4333 7800 | Fax: 03 4313 5844  
E: [salesballarat@metalcorp.com.au](mailto:salesballarat@metalcorp.com.au)

15 - 35 Fairview Road,  
**BENDIGO** (Kangaroo Flat) VIC 3555  
Tel: 03 5448 3811 | Fax: 03 5448 3822  
E: [salesbendigo@metalcorp.com.au](mailto:salesbendigo@metalcorp.com.au)

503 Hammond Road,  
**DANDENONG** VIC 3175  
Tel: 03 9212 1203 | Fax: 03 9768 1210  
E: [salesdandenong@metalcorp.com.au](mailto:salesdandenong@metalcorp.com.au)

51 Cowie Street,  
**GEELONG** VIC 3215  
Tel: 03 5247 4100 | Fax: 03 5272 2330  
E: [salesgeelong@metalcorp.com.au](mailto:salesgeelong@metalcorp.com.au)

5 Kirwin Road,  
**MORWELL** VIC 3840  
Tel: 03 5134 6266 | Fax: 03 5133 7253  
E: [salesmorwell@metalcorp.com.au](mailto:salesmorwell@metalcorp.com.au)

24 Portland-Nelson Road,  
**PORTLAND** VIC 3305  
Tel: 03 5522 4255 | Fax: 03 5559 4277  
E: [saleswarrn@metalcorp.com.au](mailto:saleswarrn@metalcorp.com.au)

#### NSW

2 Jannali Road,  
**DUBBO** NSW 2830  
Tel: 02 6841 2155 | Fax: 02 6841 2166  
E: [salesdubbo@metalcorp.com.au](mailto:salesdubbo@metalcorp.com.au)

32 Hume Street,  
**TAMWORTH** (Taminda) NSW 2340  
Tel: 02 6767 3200 | Fax: 02 6755 3232  
E: [salestamworth@metalcorp.com.au](mailto:salestamworth@metalcorp.com.au)

#### SA

285 Grand Junction Road,  
**OTTOWAY** SA 5013  
Tel: 08 8245 3777 | Fax: 08 8245 3877  
E: [salesottoway@metalcorp.com.au](mailto:salesottoway@metalcorp.com.au)

#### WA

9 Bradford Street,  
**KEWDALE** WA 6105  
Tel: 08 9208 1018 | Fax: 08 6250 1155  
E: [saleskewdale@metalcorp.com.au](mailto:saleskewdale@metalcorp.com.au)



[facebook.com/Metalcorp1](https://facebook.com/Metalcorp1)



[linkedin.com/company/7020120/](https://linkedin.com/company/7020120/)



**BLUESCOPE**

we are BlueScope businesses



we'll see it through

**METALCORP**

*Everything in Steel*