

Orrcon Steel Manufacturing Pocket Catalogue



we'll see it through

Orrcon Steel is a leading Australian Manufacturer of Steel, Tube and Pipe. Our Structural Tubing is produced in Salisbury, Brisbane, Queensland and our Precision Tubing is manufactured in Lonsdale, O'Sullivan Beach South Australia. We supply our tubular products throughout Australia and export to New Zealand and on occasion South Pacific Islands.



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.

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.

For further information, visit www.orrconsteel.com.au

Why Choose Us

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

Our extensive product range covers RHS, SHS and CHS structural tubular steel.

Orrcon Steel supplies steel, tube and pipe to a diverse customer base including steel fabricators, furniture and trailer body manufacturers, housing and construction companies, pipeline and infrastructure engineering firms and more.

Our products are available from most Steel Distribution centres throughout Australia.

At Orrcon Steel we recognise that our success is derived from a flexible and nimble approach to market opportunities and our long-term success depends on our ability to meet or exceed the needs and expectations of our customers.

We also understand that the quality of our products, services and delivery performance is critical.

we'll see it through ...

more than a tag line to our Orrcon Steel brand

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 employ over 600 people who use their steel industry knowledge and experience to produce and supply reliable steel products.

When buying Australian made Orrcon Steel, there is traceability to the mill rolling and original steel coils.

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

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

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

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

SALISBURY, QLD
Tube and Pipe
Manufacturing Plant

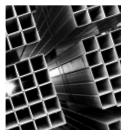


O'SULLIVAN BEACH, SA
Precision
Manufacturing Plant



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Structural Tube & Pipe - Brisbane Mill

1.1.1 SQUARE HOLLOW SECTIONS (SHS)



Section: Square (SHS)

Standard: AS/NZS 1163

Grade: C350L0

Surface Finish: PTD/ALLGAL®/OILED/NOPC*

Size dxb (mm)	Nom. Thick (mm)	Surface Finish		Nom. Linear Mass (Kg/m)	Nom. Mtre / Tonne	Lengths /Pack	Lengths /MiniPak
		PTD	ALLGAL				
6500mm Lengths Standard							
20 x 20	1.6	✓	✓	0.87	1146	100	49
25 x 25	1.6	✓	✓	1.12	890	100	49
	2.0	✓	✓	1.36	733	100	49
	2.5	✓	✓	1.64	610	100	49
	3.0	✓	✓	1.89	529	100	49
8000mm Lengths Standard							
30 x 30	1.6	✓	✓	1.38	727	100	49
	2.0	✓	✓	1.68	596	100	49
	2.5	✓	✓	2.03	492	100	49
	3.0	✓	✓	2.36	423	64	36
35 x 35	1.6	-	✓	1.63	615	100	49
	2.0	✓	✓	1.99	502	100	49
	2.5	✓	✓	2.42	412	64	30
	3.0	✓	✓	2.83	353	64	30
40 x 40	1.6	✓	✓	1.88	533	81	36
	2.0	✓	✓	2.31	434	81	36
	2.5	✓	✓	2.82	355	64	30
	3.0	✓	✓	3.30	303	64	30
	4.0	✓	✓	4.09	244	49	25
50 x 50	1.6	✓	✓	2.38	420	64	30
	2.0	✓	✓	2.93	341	64	30
	2.5	✓	✓	3.60	278	49	25
	3.0	✓	✓	4.25	236	49	25

Table continues over page

1.1.1 SQUARE HOLLOW SECTIONS (SHS) CONT...



Section: Square (SHS)
Standard: AS/NZS 1163

Grade: C350L0

Surface Finish: PTD/ALLGAL®/OILED/NOPC*

Size dxb (mm)	Nom. Thick (mm)	Surface Finish		Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne	Lengths /Pack 8000mm	Lengths /Pack 12000mm	Lengths /MiniPak 8000& 12000mm
		PTD	ALLGAL					
8000mm & 12000mm Lengths Standard								
50 x 50	4.0	✓	✓	5.35	187	36	20	-
	5.0	✓	✓	6.39	156	30	16	-
	6.0	✓	-	7.32	137	25	12	-
65 x 65	1.6	-	✓	3.13	319	49	25	-
	2.0	✓	✓	3.88	258	42	20	-
	2.5	✓	✓	4.78	209	42	20	-
	3.0	✓	✓	5.66	177	36	20	-
	4.0	✓	✓	7.23	138	30	16	-
	5.0	✓	✓	8.75	114	25	12	-
	6.0	✓	✓	10.15	99	20	12	-
75 x 75	2.0	✓	✓	4.50	222	30	30	16
	2.5	✓	✓	5.56	180	30	30	16
	3.0	✓	✓	6.60	152	30	30	16
	3.5	✓	✓	7.53	133	25	25	12
	4.0	✓	✓	8.49	118	25	25	12
	5.0	✓	✓	10.32	97	20	20	9
	6.0	✓	✓	12.03	83	16	16	9
89 x 89	2.0	✓	✓	5.38	186	25	25	9
	3.5	✓	✓	9.07	110	20	20	9
	5.0	✓	✓	12.51	80	16	16	9
	6.0	✓	✓	14.67	68	12	12	6

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

1.1.1 SQUARE HOLLOW SECTIONS (SHS) CONT...



Section: Square (SHS)

Standard: AS/NZS 1163

Grade: C350L0

Surface Finish: PTD/ALLGAL®/OILED/NOPC*

Size dx b (mm)	Nom. Thick (mm)	Surface Finish		Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne	Lengths / Pack 8000mm	Lengths / Pack 12000mm	Lengths / MiniPak 8000 & 12000mm
		PTD	ALLGAL					
8000mm & 12000mm Lengths Standard								
100 x 100	2.0	✓	✓	6.07	165	20	12	12
	2.5	✓	✓	7.53	133	20	12	12
	3.0	✓	✓	8.96	112	20	20	9
	4.0	✓	✓	11.63	86	16	16	9
	5.0	✓	✓	14.24	70	12	12	6
	6.0	✓	✓	16.74	60	12	12	6
125 x 125	4.0	✓	✓	14.80	68	12	12	6
	5.0	✓	✓	18.17	55	12	12	6
	6.0	✓	✓	21.45	47	9	9	4

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

1.1.2 RECTANGULAR HOLLOW SECTIONS (RHS)



Section: Rectangular (RHS)

Standard: AS/NZS 1163

Grade: C350L0

Surface Finish: PTD/ALLGAL®/OILED/NOPC*

Size dxb (mm)	Nom. Thick (mm)	Surface Finish		Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne	Lengths / Pack	Lengths / MiniPak
		PTD	ALLGAL				
8000mm Lengths Standard							
50 x 25	1.6	✓	✓	1.75	571	96	48
	2.0	✓	✓	2.15	465	96	48
	2.5	✓	✓	2.62	382	72	36
	3.0	✓	✓	3.07	326	60	30
65 x 35	1.6	-	✓	2.38	420	54	24
	2.0	✓	✓	2.93	341	54	24
	2.5	✓	✓	3.60	278	54	24
	3.0	✓	✓	4.25	236	45	21
75 x 25	1.6	-	✓	2.38	420	65	32
	2.0	✓	✓	2.93	341	65	32
	2.5	✓	✓	3.60	278	48	24
75 x 50	1.6	-	✓	3.01	332	42	20
	2.0	✓	✓	3.72	269	42	20
	2.5	✓	✓	4.58	218	42	20
	3.0	✓	✓	5.42	184	35	18
	4.0	✓	✓	6.92	145	28	12
	5.0	✓	✓	8.35	120	24	12
	6.0	✓	✓	9.67	103	20	12
100 x 50	1.6	-	✓	3.64	275	32	15
	2.0	✓	✓	4.50	222	32	15
	2.5	✓	✓	5.56	180	32	15
	3.0	✓	✓	6.60	152	32	15
	3.5	✓	✓	7.53	133	24	12
	4.0	✓	✓	8.49	118	24	12
	5.0	✓	✓	10.32	97	18	9
	6.0	✓	✓	12.03	83	15	9

Table continues over page

1.1.2 RECTANGULAR HOLLOW SECTIONS (RHS) CONT...



Section: Rectangular (RHS)

Standard: AS/NZS 1163

Grade: C350L0

Surface Finish: PTD/ALLGAL®/OILED/NOPC*

Size dxh (mm)	Nom. Thick (mm)	Surface Finish		Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne	Lengths /Pack 8000mm	Lengths /Pack 12000mm	Lengths / MiniPak 8000 & 12000mm
		PTD	ALLGAL					
8000mm & 12000mm Lengths Standard								
125 x 75	2.5	✓	✓	7.53	133	20	20	12
	3.0	✓	✓	8.96	112	20	20	12
	4.0	✓	✓	11.63	86	15	15	8
	5.0	✓	✓	14.24	70	15	15	8
	6.0	✓	✓	16.74	60	12	12	6
150 x 50	2.0	-	✓	6.07	165	21	21	15
	2.5	✓	✓	7.53	133	21	21	12
	3.0	✓	✓	8.96	112	21	21	12
	4.0	✓	✓	11.63	86	15	15	8
	5.0	✓	✓	14.24	70	15	15	8
	6.0	✓	✓	16.74	60	15	15	8
150x100	4.0	✓	✓	14.77	68	12	12	8
	5.0	✓	✓	18.17	55	12	12	8
	6.0	✓	-	21.45	47	9	9	4

NOTE:

- » Some 6.0mm 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**

1.1.3 RECTANGULAR HOLLOW SECTIONS (RHS) - NON STANDARD



Section: Rectangular (RHS)

Standard: AS/NZS 1163

Grade: C350L0

Surface Finish: PTD/ALLGAL®/OILED/NOPC*

Size dxb (mm)	Nom. Thick (mm)	Surface Finish		Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne	Lengths /Pack	Lengths /MiniPak
		PTD	ALLGAL				
8000mm Lengths Standard							
38 x 25	1.6	✓	✓	1.45	689	72	36
	2.0	✓	✓	1.77	564	72	36
	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	20
	4.0	✓	✓	6.23	161	32	-
80 x 40	1.6	✓	✓	2.88	347	50	-
	2.5	✓	✓	4.39	228	36	-

Table continues over page

1.1.3 Rectangular Hollow Sections (RHS) - Non Standard

1.1.3 RECTANGULAR HOLLOW SECTIONS (RHS) - NON STANDARD



Section: Rectangular (RHS)

Standard: AS/NZS 1163

Grade: C350L0

Surface Finish: PTD/ALLGAL®/OILED/NOPC*

Size dxb (mm)	Nom. Thick (mm)	Surface Finish		Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne	Lengths /Pack	Lengths /MiniPak
		PTD	ALLGAL				
8000mm Lengths Standard							
102 x 76	3.5	✓	✓	9.07	110	20	12
	5.0	✓	✓	12.51	80	15	9
	6.0	✓	✓	14.67	68	12	6
127 x 51	3.0	✓	✓	7.92	126	18	-
	4.0	✓	✓	10.24	98	12	-
	5.0	✓	✓	12.51	80	12	6
	6.0	✓	✓	14.67	68	12	6
152 x 76	5.0	✓	✓	16.44	61	12	6
	6.0	✓	✓	19.38	52	9	6
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.

*** Refer to Glossary of Terms**

1.1.4 CIRCULAR HOLLOW SECTIONS (CHS)



Section: Pipe (CHS)

Standard : AS/NZS 1163 & AS 1074

Grade: C250L0, C350L0

Surface Finish: PTD/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	Lengths /MiniPak
				C250L0	C350L0	PTD	ALLGAL				
6500mm Lengths Standard											
-	25.4	2.0	XL	-	❖	-	✓	1.15	866	91	-
20	26.9	2.3	L	-	✓	✓	✓	1.38	735	127	-
	26.9	2.6	M	✓	-	✓	✓	1.56	642	127	-
25	33.7	2.0	XL	✓	❖	✓	✓	1.56	640	91	-
	33.7	2.6	L	✓	❖	✓	✓	1.99	501	91	-
	33.7	3.2	M	✓	-	✓	✓	2.41	415	91	-
	33.7	4.0	H	✓	-	✓	✓	2.93	341	91	-
32	42.4	2.0	XL	✓	❖	✓	✓	1.99	502	61	37
	42.4	2.6	L	✓	❖		✓	2.55	392	61	37
	42.4	3.2	M	✓	-	✓	✓	3.09	323	61	37
	42.4	4.0	H	✓	-		✓	3.79	264	61	37
40	48.3	2.3	XL	-	❖	✓	✓	2.61	383	61	37
	48.3	2.9	L	✓	❖	✓	✓	3.25	308	61	37
	48.3	3.2	M	✓	-	✓	✓	3.56	281	61	37
	48.3	3.5	M	✓	-	✓	✓	3.87	258	-	-
	48.3	4.0	H	✓	❖	✓	✓	4.37	229	61	37
-	51	2.0	XL	✓	-	✓	✓	2.42	413	-	-
-	51	4.0	H	✓	-	✓	✓	4.64	216	-	-
50	60.3	2.3	XL	✓	❖	✓	✓	3.29	304	37	19
	60.3	2.9	L	✓	❖	✓	✓	4.11	244	37	19
	60.3	3.5	M	✓	❖	✓	✓	4.90	204	-	-
	60.3	3.6	M	✓	❖	✓	✓	5.03	199	37	19
	60.3	4.5	H	✓	❖	✓	✓	6.19	161	37	19
65	76.1	2.3	XL	✓	❖	✓	✓	4.19	239	37	19
	76.1	3.2	L	✓	❖	✓	✓	5.75	174	37	19
	76.1	3.6	M	✓	❖	✓	✓	6.44	155	37	19
	76.1	4.5	H	✓	❖	✓	-	7.95	126	37	19

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1.1.4 CIRCULAR HOLLOW SECTIONS (CHS) CONT...



Section: Pipe (CHS)

Standard: AS/NZS 1163 & AS 1074

Grade: C250L0, C350L0

Surface Finish: PTD/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	Lengths /MiniPak
				C250L0	C350L0	PTD	ALLGAL				
6500mm Lengths Standard											
80	88.9	2.6	XL	-	❖	✓	-	5.53	181	19	10
	88.9	3.2	L	✓	❖	✓	✓	6.76	148	19	10
	88.9	4.0	M	✓	❖	✓	✓	8.38	119	19	10
	88.9	5.0	H	✓	❖	✓	✓	10.35	97	19	10
90	101.6	2.6	XL	-	❖	✓	✓	6.35	158	19	10
	101.6	3.2	L	-	❖	✓	✓	7.77	129	19	10
	101.6	4.0	M	✓	❖	✓	-	9.63	104	19	10
	101.6	5.0	H	✓	❖	✓	-	11.91	84	19	10
100	114.3	3.2	XL	-	❖	✓	✓	8.77	114	19	10
	114.3	3.6	L	✓	❖	✓	✓	9.83	102	19	10
	114.3	4.5	M	✓	❖	✓	✓	12.19	82	19	10
	114.3	5.4	H	✓	❖	✓	-	14.50	69	19	10
125	139.7	3.0	XL	✓	❖	✓	-	10.11	99	13	7
	139.7	3.5	L	-	❖	✓	✓	11.76	85	13	7
	139.7	5.0	M	✓	❖	✓	✓	16.61	60	13	7
	139.7	5.4	H	✓	❖	✓	-	17.89	56	13	7
150	165.1	3.0	XL	-	❖	✓	✓	11.99	83	10	7
	165.1	3.5	L	-	❖	✓	✓	13.95	72	10	7
	165.1	5.0	M	✓	❖	✓	✓	19.74	51	10	7
	165.1	5.4	H	✓	-	✓	-	21.27	47	10	7

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.
- » Pipe to be used for low pressure water/gas reticulation is manufactured to meet AS 1074.

* Refer to Glossary of Terms

1.1.5 API 5L EQUIVALENT SIZED PIPE (CHS) - STRUCTURAL



Section: Pipe (CHS)
Standard: AS/NZS1163
Grade: C350L0

NB (mm)	OD (mm)	Nom. Thick (mm)	Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne
12000mm Lengths Standard				
80	88.9	5.5	11.31	88
100	114.3	4.8	12.96	77
	114.3	6.0	16.02	62
125	141.3	4.8	16.16	62

NOTE:

- » Stock lengths are 12 metres.
- » Non standard sizes, surface finishes and lengths available subject to enquiry.
Minimum order quantities (MOQ's) apply.
- » Surface finish is NOPC or Mill Varnish.
- » Contact your Orrcon Steel Representative for the correct quantity of lengths per pack.

1.2 YARD RAIL



Section: Yard Rail
Standard: AS/NZS 1163
Grade: C350L0
Surface Finish: PTD/ALLGAL®/NOPC*

Size dxb (mm)	Nom. Thick (mm)	Surface Finish		Nom. Linear Mass (Kg/m)	Nom. Mtre / Tonne	Lengths /Pack	Lengths /Mini Pak
		PTD	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	✓	✓	1.85	541	48	-
59 x 30	1.6	✓	✓	1.84	543	48	-
	2.0	✓	✓	2.28	439	48	-
62 x 50	2.0	✓	✓	2.88	348	25	-
	2.5	✓	✓	3.56	281	25	-
	3.0	✓	✓	4.24	236	25	-
	4.0	✓	✓	5.55	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	✓	✓	2.74	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	✓	✓	4.91	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.

1.3 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	Mini-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.

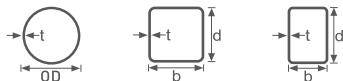
1.4 STRUCTURAL STANDARDS & TOLERANCES

1.4.1 STANDARD MECHANICAL PROPERTIES - STRUCTURAL TUBE & PIPE

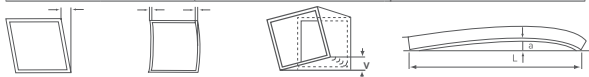
Standard	Grade*	Yield Strength MPa (min)	Tensile Strength MPa (min)	Elongation, % (min)					
				CHS (d_o/t)			RHS & SHS (b/t)		
				<15	15-30	>30	<15	15-30	>30
AS/NZS 1163	C250 / C250L0	250	320	18	20	22	14	16	18
	C350 / C350L0	350	430	16	18	20	12	14	16
	C450 / C450L0	450	500	12	14	16	10	12	14

*L0 designation indicates guaranteed impact strength properties at 0°C, refer glossary.
C = Cold formed hollow section.

1.4.2 STANDARD TOLERANCES - STRUCTURAL TUBE & PIPE



AS1163		Dimensional Tolerances	
Characteristic		Pipe (CHS)	Rectangular & Square (RHS / SHS)
External dimensions (d, b, d _o)		±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	



AS1163		Shape Tolerances	
Characteristic		All Sections	
Corner Radius	$\leq 50 \times 50\text{mm}$ equivalent perimeter	1.5t to 3t	
	$> 50 \times 50\text{mm}$ equivalent perimeter	1.8t to 3t	
Twist (v)		$\leq 2\text{mm} \pm 0.5\text{mm/m}$ Lengths	
Concavity / Convexity		Max 0.8% or 0.5mm, whichever is greater	
Squareness		$90 \pm 1^\circ$	
		Pipe (CHS)	Rectangle & Square (RHS/SHS)
Straightness		0.20% of total Lengths	0.15% of total Lengths

1.4.3 STRUCTURAL PROCESSING & SERVICES

JET ROLLING

Rolling of product outside the normal schedule. Minimum order quantities (MOQ's) apply. Surcharge for this service will apply unless otherwise stated.

MINIPAKS®

- » Retain current stock level but increase stock range.
- » Easier to handle, store and transport.
- » Increase customer stock turns.
- » Comes in ALLGAL® and painted finishes in most sizes.
- » Note: Special Lengths MiniPaks available ex-rolling. Minimum order quantities (MOQ's) apply.
- » Surcharges apply to MiniPak purchases, unless otherwise stated.

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
- » 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. Surcharge will apply unless otherwise stated.

1.4.4 TUBE & PIPE INFORMATION

1.4.5 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 C250, C350, C450, C250L0, C350L0, & C450L0).

COATINGS & SURFACE FINISHES

Electro Galvanized coating applied to ALLGAL® hollow sections complies to the following standard:

- » AS 4750 - Electro Galvanized (zinc) coatings on ferrous hollow sections.

PREGAL coating applied on hollow section complies to:

- » AS / NZS 4792 Section 3 HDG coating on hollow sections by welding pre-galvanized strip.

CURRENT SURFACE FINISHES

- » SMARTCOTE® – Painted blue/black water based acrylic primer.
- » ALLGAL® – Electro Galvanized coil internal and external surface coating.
- » ALLGAL® PCQ – Powder coat quality - no tube mark, oiled.
- » PREGAL – HDG coil internal & external surface coating, Z100 coating class.
- » ULTRASPEC GAL™ - HDG coil internal and external surface coating, Z275 coating class.
- » OILED – Lightly oiled for short term corrosion protection.
- » NOPC – No oil, paint or coating.

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.

1.5.1 SPRINKLER & HYDRANT PIPE - ORRFIRE® PIPE RANGE



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

OD (mm)	NB (mm)	Nominal Thick- ness (mm)	Designa- tion	Surface Finish		Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne	Lengths /Pack	Lengths /Mini- Pack
				SMART- COTE	ALL- GAL				
6500mm Lengths Standard									
26.7	20	2.0	XLIGHT	✓	✓	1.23	814	127	61
	20	2.3	Light	✓	✓	1.40	717	127	61
	20	2.6	Medium	✓	✓	1.56	642	127	61
33.4	25	2.0	XLIGHT	✓	✓	1.56	639	91	37
	25	2.6	Light	✓	✓	1.99	501	91	37
	25	3.2	Medium	✓	✓	2.41	415	91	37
42.2	32	2.0	XLIGHT	✓	✓	1.99	501	61	37
	32	2.6	Light	✓	✓	2.55	392	61	37
	32	3.2	Medium	✓	✓	3.09	323	61	37
48.3	40	2.3	XLIGHT	✓	✓	2.61	383	61	37
	40	2.9	Light	✓	✓	3.25	308	61	37
	40	3.2	Medium	✓	✓	3.56	280	61	37
60.3	50	2.3	XLIGHT	✓	✓	3.29	304	37	19
	50	2.9	Light	✓	✓	4.11	244	37	19
	50	3.6	Medium	✓	✓	5.03	199	37	19
76.1	65	2.3	XLIGHT	✓	✓	4.19	239	37	19
	65	3.2	Light	✓	✓	5.75	174	37	19
	65	3.6	Medium	✓	✓	6.44	155	37	19
88.9	80	2.6	XLIGHT	✓	✓	5.53	181	-	-
	80	3.2	Light	✓	✓	6.76	148	-	-
	80	4.0	Medium	✓	✓	8.38	119	-	-

Table continues over page

1.5.1 SPRINKLER & HYDRANT PIPE - ORRFIRE® PIPE RANGE CONT...



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

OD (mm)	NB (mm)	Nominal Thick- ness (mm)	Designa- tion	Surface Finish		Nom. Linear Mass (Kg/m)	Nom. Mtre/ Tonne	Lengths /Pack	Lengths /Mini- Pack
				SMART- COTE	ALL- GAL				
6500mm Lengths Standard									
114.3	100	2.5	-	✓	✓	6.89	145	-	-
	100	3.2	XLight	✓	✓	8.76	114	-	-
	100	3.6	Light	✓	✓	9.83	102	-	-
	100	4.5	Medium	✓	✓	12.20	82	-	-
139.7	125	3.0	XLight	✓	✓	10.11	99	-	-
	125	3.5	Light	✓	✓	11.08	85	-	-
	125	5.0	Medium	✓	✓	16.60	60	-	-
165.1	150	3.0	XLight	✓	✓	11.99	83	-	-
	150	3.5	Light	✓	✓	13.90	72	-	-
	150	5.0	Medium	✓	✓	19.70	51	-	-
	150	5.4	Heavy	✓	✓	21.30	47	-	-

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 (transverse) and 200 MPa for medium wall.
- » These tables are applicable for services where pipe contents temperature does not exceed 250°C.
- » Pipe 20NB up to 150NB is painted fire red primer.
- » Non standard sizes, surface finish and lengths available, subject to enquiry.
- » Minimum order quantities (MOQ's) apply.
- » Contact your Orrcon Steel representative for the correct quantity of lengths per pack.

1.5.2 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%

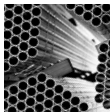
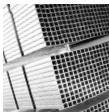
1.5.2 SPRINKLER & HYDRANT PIPE - ORRFIRE® PIPE SPECIFICATIONS



The current ActivFire® approvals are listed below.
Current copies of ActivFire® certificates are available
from www.orrconsteel.com.au

1.5.2 Sprinkler & Hydrant Pipe - ORRFIRE® Pipe Specifications

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



Precision Tube - Adelaide Mill

1.6.1 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		
6100mm & 7320mm Lengths Standard						
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

Table continues over page

1.6.1 PRECISION SQUARE TUBE CONT...



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 & 7320mm Lengths Standard						
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
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
41 x 41	2.0	-	✓	-	2.368	36
45 x 45	1.6	-	✓	✓	2.129	36
	2.5	-	-	✓	3.210	36

Table continues over page

1.6.1 PRECISION SQUARE TUBE CONT...



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 & 7320mm Lengths Standard						
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 representative for availability & minimum order quantities (MOQ's).

*** Mechanical Properties - refer to section 1.7.1 - Standards - Precision Tube.**

**** Refer to Glossary of Terms**

1.6.2 PRECISION RECTANGULAR TUBE



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 & 7320mm 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

Table continues over page

1.6.2 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 & 7320mm Lengths Standard						
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
	1.6	-	-	✓	2.380	24
	3.0	-	-	✓	4.245	24
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
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 representative for availability & minimum order quantities (MOQ's).

***Mechanical properties - refer to section 1.7.1 - Standards - Precision Tube.**

**** Refer to Glossary of Terms**

1.6.3 PRECISION ROUND TUBE



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 & 7320mm 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

Table continues over page

1.6.3 PRECISION ROUND TUBE CONT...



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 & 7320mm Lengths Standard								
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
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

Table continues over page

1.6.3 PRECISION ROUND TUBE CONT...



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 & 7320mm Lengths Standard								
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
88.9	1.6	✓	-	-	-	✓	3.44	7
90.0	1.6	✓	-	-	-	✓	3.488	7
101.6	1.6	✓	-	-	-	✓	3.950	7

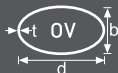
NOTE:

- » 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 representative for availability & minimum order quantities (MOQ's).

* Mechanical properties - refer to section 1.7.1 - Standards - Precision Tube.

** Refer to Glossary of Terms

1.6.4 PRECISION OVAL TUBE



Section: Oval Tube

Standard: AS 1450*

Surface Finish: SEMB/MSGB/MSBR**

Size dxb (mm)	Oval Side	Gauge (mm)	Surface Finish		Nom. Linear Mass (Kg/m)	Lengths Per Pack
			SEMB	MSGB		
6100mm & 7320mm Lengths Standard						
30 x 15	OV	2.0	✓	-	1.152	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

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 representative for availability & minimum order quantities (MOQ's).

1.6.5 PRECISION FLAT SIDED TUBE



Section: Oval Tube

Standard: AS 1450*

Surface Finish: SEMB/MSGB/MSBR**

Size dxb (mm)	Flat Side	Gauge (mm)	Surface Finish			Nom. Linear Mass (Kg/m)	Lengths Per Pack
			SEMB	MSGB	MSBR		
6100mm & 7320mm Lengths Standard							
31.8 x 16	FS	1.2	-	-	✓	0.740	128
	FS	1.6	-	-	✓	0.998	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
75 x 16	FS	1.0	-	✓	-	1.334	48

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 representative for availability & minimum order quantities (MOQ's).

1.6.6 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 & 7320mm 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, 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 representative for availability & minimum order quantities (MOQ's).

***Mechanical properties - refer to section 1.7.1 - Standards - Precision Tube.**

**** Refer to Glossary of Terms**

1.6.7 MECSPEC-GAL™ TUBE & PIPE

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 with a spangled surface. The combined coating thickness of both sides is 275g/m².

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.

1.6.8 MECSPEC-GAL™ TUBE (SHS)



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.

1.6.9 MECSPEC-GAL™ PIPE (CHS)



Section: MECSPEC-GAL™ Pipe

Standard: AS1450

Grade: C250, C350

Surface Finish: AS1397 Z275 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
	33.7	3.2	Medium	✓	2.41	91
32	42.4	2.0	XLight	✓	1.99	61
	42.4	2.6	Light	✓	2.55	61
	42.4	3.2	Medium	✓	3.09	61
40	48.3	2.3	XLight	✓	2.61	61
	48.3	2.9	Light	✓	3.25	61
	48.3	3.2	Medium	✓	3.56	61
50	60.3	2.3	XLight	✓	3.29	37
65	76.1	2.3	XLight	✓	4.19	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.

1.7.1 PRECISION STANDARDS & TOLERANCES

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:

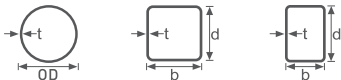
» AS 1450 - Steel Tubes for Mechanical Purposes (Grades C200 & C250 ERW).

Standard Mechanical Properties - Precision Tube

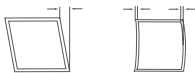
Standard	Surface Finish	D/T Ratio	Yield Strength MPa (min)	Tensile Strength MPa (min)	Elong on 5.65√S % (min)
AS1450	Commercial Quality & Aluminium Coated	<15	300	310	15
		15 to 25	275	300	20
		<25 to 35	250	290	25
		< 35	200	280	30
	MECSPEC-Gal™ 250	-	250	300	20
	MECSPEC-Gal™ 350	-	350	400	15

D = Outside diameter or equivalent round | t = nominal wall thickness | S_e = Cross Sectional Area

Tolerances - Precision Tube



AS1450		Dimensional Tolerances	
Characteristic		Round	Rectangular & Square
Dimension (d, b, d ₀)	≤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	

1.7.2 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.

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/NZS 2312 'Guide to the Protection of Iron Steel against Exterior Atmospheric Corrosion'.

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.

1.7.2 PRECISION SURFACE FINISHES & SERVICES CONT...

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.



General Information

1.8.1 TEST CERTIFICATES & LETTERS OF COMPLIANCE

Orrcon Steel manufacture and source a range of structural steel products which comply with any of the following Australian Standards:

» **AS/NZS 1163 Cold-Formed Structural Steel Hollow Sections.**

Test Certificates (TC's) and Letters of Compliance (LOC's) are available for customers and end-users of Orrcon Steel manufactured products on request. LOC's list details of the products supplied and may also provide indicative properties. LOC's are issued on an Orrcon Steel letterhead and are signed by a responsible officer. 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 full compliance with the appropriate standard and are generated as email ready Adobe PDF documents.

If requirements for the supply of TC or LOC documents are not specified at the point of order it is the customers 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 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.

1.8.2 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, aluminised or ALLGAL® products, 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 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 it's bulkiness. It may be unattractive, but is not usually detrimental to the other properties of the coating.

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 have to 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.

Products should never be stored in contact with cardboard or paper products, cinders, clinkers, unseasoned timbers or harmful chemicals. White rust can be removed with a high pressure water cleaner, scrubbing brush or soft scouring pad. Kerosene is also a good agent for the removal of white rust.

If the zinc or ALLGAL® coating is subject to excessively rough treatment and some damage does occur, the area should be cleaned and touched up with one of the following coatings:

- » **Organic zinc-rich primer; or**
- » **In-organic zinc silicate paint; or**
- » **Zinc metal spray**

These coatings should be applied in accordance with manufacturer recommendations.

NOTE:

- » Production Calendar and Rolling Programs available upon request.

1.8.3 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	
Appearance: Structural	Blue (Primed), Red (Primed), Black (Primed), Silver (Electro Galvanized) and NOPC (no oil, paint or coating).
Appearance: Precision	Dull Grey and Silver (zinc and aluminium coated)
Melting Point	Base Metal 1535 °C
Fire and Explosive Hazard	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/m² which meet ACGIH threshold limit values.

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 10mg/m², when normal welding practices are used.

FIRE/EXPLOSION HAZARD

Irritant fumes may be produced during a fire situation. Decomposition products include oxides of Carbon.

1.8.3 MATERIAL SAFETY DATA INFORMATION CONT...

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

FIRST AID

Swallowed:	Not applicable.
Eye:	Holding eyelids open, flood with water for at least 15 minutes. Seek medical attention urgently.
Skin:	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.
Inhaled:	Remove from contaminated air. Maintain breathing with artificial respiration if necessary. Seek medical attention urgently.
Advice to Doctor:	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.

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.

1.8.4 GLOSSARY OF TERMS

Tube & Pipe (Standard)

ACMS	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.
BMT	Base Metal Thickness. The base thickness of the steel material without any coating applied to it.
CHS	Circular Hollow Section(s)
ERW	Electric Resistance Welding.
HRSB	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.
HTGB	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.
L0	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.
MDMT	Material Design Minimum Temperature.
MSBL	Mild Steel Black. Tube has a black, mill finish. Ideal for hot dipped galvanized applications such as signs or fence posts.
MSBR	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.

1.8.4 GLOSSARY OF TERMS CONT...


MSGB	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.
NB	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.
NOM.	Nominal
NOPC	No oil or paint coating.
OD	Outside Diameter
PTD	Painted
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.
RHS	Rectangular Hollow Section(s)
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.
SHS	Square Holow Section(s)
YIELD POINT	The stress at which material permanently deforms. This is the same stress as the yield strength and is another way of describing it.


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.

NOTES

1.9 END CODING CHART - TUBE & PIPE

<div>  Square (SHS) </div>		
Size (mm)	Thickness (mm)	Colour
20 x 20	1.6	Purple
25 x 25	1.6	Purple
30 x 30	1.6	Purple
35 x 35	1.6	Purple
40 x 40	1.6	Purple
50 x 50	1.6	Purple
65 x 65	1.6	Purple
25 x 25	2.0	Yellow
30 x 30	2.0	Yellow
35 x 35	2.0	Yellow
40 x 40	2.0	Yellow
50 x 50	2.0	Yellow
65 x 65	2.0	Yellow
75 x 75	2.0	Yellow
89 x 89	2.0	Yellow
100 x 100	2.0	Yellow
25 x 25	2.5	Pink
30 x 30	2.5	Pink
35 x 35	2.5	Pink
40 x 40	2.5	Pink
50 x 50	2.5	Pink
65 x 65	2.5	Pink
75 x 75	2.5	Pink
89 x 89	2.5	Pink
100 x 100	2.5	Pink
25 x 25	3.0	Blue
30 x 30	3.0	Blue
35 x 35	3.0	Blue
40 x 40	3.0	Blue
50 x 50	3.0	Blue
65 x 65	3.0	Blue
75 x 75	3.0	Blue
100 x 100	3.0	Blue

<div>  Square (SHS) </div>		
Size (mm)	Thickness (mm)	Colour
75 x 75	3.5	Grey
89 x 89	3.5	Grey
40 x 40	4.0	Green
50 x 50	4.0	Green
65 x 65	4.0	Green
75 x 75	4.0	Green
100 x 100	4.0	Green
125 x 125	4.0	Green
50 x 50	5.0	Orange
65 x 65	5.0	Orange
75 x 75	5.0	Orange
89 x 89	5.0	Orange
100 x 100	5.0	Orange
125 x 125	5.0	Orange
50 x 50	6.0	White
65 x 65	6.0	White
75 x 75	6.0	White
89 x 89	6.0	White
100 x 100	6.0	White
125 x 125	6.0	White


<div>  Rectangular (RHS) </div>		
Size (mm)	Thickness (mm)	Colour
50 x 25	1.6	Purple
65 x 35	1.6	Purple
75 x 25	1.6	Purple
75 x 50	1.6	Purple
100 x 50	1.6	Purple
38 x 25 ⁺	1.6	Purple
50 x 20 ⁺	1.6	Purple

Table continues over page


1.9 END CODING CHART - TUBE & PIPE CONT...

Rectangular (RHS)		
Size (mm)	Thickness (mm)	Colour
76 x 38 ⁺	1.6	Purple
80 x 40 ⁺	1.6	Purple
50 x 25	2.0	Yellow
65 x 35	2.0	Yellow
75 x 25	2.0	Yellow
75 x 50	2.0	Yellow
100 x 50	2.0	Yellow
125 x 75	2.0	Yellow
150 x 50	2.0	Yellow
38 x 25 ⁺	2.0	Yellow
50 x 20 ⁺	2.0	Yellow
50 x 30 ⁺	2.0	Yellow
50 x 40 ⁺	2.0	Yellow
76 x 38 ⁺	2.0	Yellow
127 x 51 ⁺	2.0	Yellow
75 x 50	2.3	Silver
50 x 25	2.5	Pink
65 x 35	2.5	Pink
75 x 25	2.5	Pink
75 x 50	2.5	Pink
100 x 50	2.5	Pink
125 x 75	2.5	Pink
150 x 50	2.5	Pink
38 x 25 ⁺	2.5	Pink
50 x 20 ⁺	2.5	Pink
50 x 30 ⁺	2.5	Pink
76 x 38 ⁺	2.5	Pink
80 x 40 ⁺	2.5	Pink
127 x 51 ⁺	2.5	Pink
50 x 25	3.0	Blue
65 x 35	3.0	Blue
75 x 50	3.0	Blue
100 x 50	3.0	Blue
125 x 75	3.0	Blue

Rectangular (RHS)		
Size (mm)	Thickness (mm)	Colour
150 x 50	3.0	Blue
150 x 100	3.0	Blue
50 x 20 ⁺	3.0	Blue
76 x 38 ⁺	3.0	Blue
127 x 51 ⁺	3.0	Blue
100 x 50	3.5	Grey
102 x 76 ⁺	3.5	Grey
127 x 51 ⁺	3.5	Grey
152 x 76 ⁺	3.5	Grey
65 x 35	4.0	Green
75 x 50	4.0	Green
100 x 50	4.0	Green
125 x 75	4.0	Green
150 x 50	4.0	Green
150 x 100	4.0	Green
76 x 38 ⁺	4.0	Green
127 x 51 ⁺	4.0	Green
75 x 50	5.0	Orange
100 x 50	5.0	Orange
125 x 75	5.0	Orange
150 x 50	5.0	Orange
150 x 100	5.0	Orange
102 x 76 ⁺	5.0	Orange
127 x 51 ⁺	5.0	Orange
152 x 76 ⁺	5.0	Orange
75 x 50	6.0	White
100 x 50	6.0	White
125 x 75	6.0	White
150 x 50	6.0	White
150 x 100	6.0	White
102 x 76 ⁺	6.0	White
127 x 51 ⁺	6.0	White
152 x 76 ⁺	6.0	White

Table continues over page

1.9 END CODING CHART - TUBE & PIPE CONT...

 Yard Rail		
Size (mm)	Thickness (mm)	Colour
59 x 30	1.6	Purple
59 x 30	2.0	Yellow
97 x 42	2.0	Yellow
115 x 42	2.0	Yellow
62 x 50*	2.0	Yellow
80 x 61*	2.0	Yellow
115 x 42	2.3	Silver
97 x 42	2.5	Pink
62 x 50*	2.5	Pink
80 x 61*	2.5	Pink

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

 Pipe (CHS)		
Size (mm)	Thickness (mm)	Colour
50 NB / 60.3 OD	2.9	Yellow Light
125 NB / 139.7 OD	3.0	Green Extra Light
150 NB / 165.1 OD	3.0	Green Extra Light
20 NB / 26.9 OD	3.2	N/A
25 NB / 33.7 OD	3.2	Blue Medium
32 NB / 42.4 OD	3.2	Blue Medium
40 NB / 48.3 OD	3.2	Blue Medium
65 NB / 76.1 OD	3.2	Yellow Light
80 NB / 88.9 OD	3.2	Yellow Light
90 NB / 101.6 OD	3.2	Yellow Light
100 NB / 114.3 OD	3.2	Green Extra Light
125 NB / 139.7 OD	3.5	Yellow Light
150 NB / 165.1 OD	3.5	Yellow Light
50 NB / 60.3 OD	3.6	Blue Medium
65 NB / 76.1 OD	3.6	Blue Medium
100 NB / 114.3 OD	3.6	Yellow Light
25 NB / 33.7 OD	4.0	Red Heavy
32 NB / 42.4 OD	4.0	Red Heavy
40 NB / 48.3 OD	4.0	Red Heavy
80 NB / 88.9 OD	4.0	Blue Medium
90 NB / 101.6 OD	4.0	Blue Medium
50 NB / 60.3 OD	4.5	Red Heavy
65 NB / 76.1 OD	4.5	Red Heavy
100 NB / 114.3 OD	4.5	Blue Medium
80 NB / 88.9 OD	5.0	Red Heavy
90 NB / 101.6 OD	5.0	Red Heavy
125 NB / 139.7 OD	5.0	Blue Medium
150 NB / 165.1 OD	5.0	Blue Medium
100 NB / 114.3 OD	5.4	Red Heavy
125 NB / 139.7 OD	5.4	Red Heavy
150 NB / 165.1 OD	5.4	Red Heavy



Quality
ISO 9001
SAI GLOBAL



ACCREDITED FOR
**TECHNICAL
COMPETENCE**



**GOLD
MEMBER**
Fire Protection
Association Australia



Member of
AUSTRALIAN STEEL INSTITUTE



NOTE:

- » Products listed without an end code have no designated code.
- » Other sizes available subject to enquiry.
- » + Non-standard rectangular (RHS).
- » * Flat sided round (post).

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