

Precision Steel Tube Sizing

Round Tube

Size (mm)	Product Type & Gauge (mm)			Nom. Linear mass (kg/m)					Lengths per pack
	CR250	GS300	HR350	1.2	1.4	1.6	2.0	2.5	
9.5				0.25	0.28	0.31			100
12.7	1.2, 1.6, 2.0			0.32	0.39	0.44	0.52		100
15.9	1.6, 2.0	1.2, 1.6		0.43	0.50	0.57	0.67		100
19.1	1.6, 2.0	1.6		0.51	0.61	0.68	0.83	1.02	100
22.2	1.2, 1.6, 2.0	1.6		0.61	0.72	0.81	0.98	1.21	100
25.4	1.2, 1.4, 1.6, 2.0	1.2, 1.6	2.5	0.71	0.83	0.93	1.15	1.41	100
28.6	1.2, 1.6, 2.0			0.78	0.94	1.07	1.32	1.69	48
31.8	1.2, 1.6, 2.0	1.6	2.5	0.87	1.04	1.17	1.43	1.80	48
34.9	1.2, 1.6			0.99	1.15	1.30	1.60	2.00	48
38.1	1.2, 1.6	1.6, 2.0	2.5	1.07	1.22	1.36	1.78	2.13	48
41.3	1.2, 1.6			1.15	1.38	1.52	1.89	2.42	48
44.5	1.2, 1.6, 2.0			1.06	1.49	1.65	2.03	2.52	48
47.6	1.2, 1.6, 2.0			1.35	1.57	1.78	2.19	2.78	48
50.8	1.2, 1.6, 2.0	2.0, 2.5		1.42	1.67	1.88	2.35	3.02	48
54.0				1.56	1.82	2.03	2.53	3.14	48
57.2	1.2, 1.6, 2.0	1.6		1.61	1.89	2.14	2.66	3.33	24
60.3				1.72	2.00	2.28	2.80	3.60	24
63.5	1.2, 1.6, 2.0			1.71	2.09	2.39	2.99	3.79	24
69.9					2.35	2.67	3.23	4.16	24
76.2	1.6, 2.0, 3.0	1.6, 2.0			2.56	2.89	3.59	4.57	24
88.9	1.6, 2.0					3.44	4.28	5.33	10
101.6	1.6					3.95	4.91	6.11	10
127.0						4.87	6.04	7.68	8
152.4						5.87	7.57	9.24	8

Flat-Sided Oval & Oval Tube

Size (mm)	FSO/Oval	Product Type & Gauge (mm)			Nom. Linear mass (kg/m)					Lengths per pack
		CR250	GS300	HR350	1.2	1.4	1.6	2.0	2.5	
19.0x12.0	OV				0.43	0.50	0.56	0.67		50
25.4x15.9	FSO				0.65	0.75	0.83	1.00		50
31.8x15.9	FSO	1.6			0.71	0.83	0.93	1.15		50
31.8x17.1	OV				0.71	0.83	0.93	1.15		50
32.0x22.0	OV	1.6			0.74	0.89	1.01	1.26		50
34.9x15.9	FSO				0.78	0.94	1.07	1.32		50
50.8x15.9	FSO	1.6			1.07	1.26	1.36	1.78		50
54.0x35.0	FSO				1.35	1.57	1.79	2.19	2.78	49
59.0x30.0	OV				1.35	1.57	1.79	2.19	2.78	49
72.0x45.0	FSO				1.81	2.14	2.42	3.02	3.85	42
97.0x42.0	FSO						2.89	3.59	4.54	24

Precision Steel Tube Sizing

Square Tube

Size (mm)	Product Type & Gauge (mm)			Nom. Linear mass (kg/m)					Lengths per pack
	CR250	GS300	HR350	1.2	1.4	1.6	2.0	2.5	
12.7x12.7	1.2, 1.6			0.41	0.48	0.53			100
15.9x15.9	1.6			0.51	0.60	0.66	0.83		100
19.1x19.1	1.2, 1.4, 1.6, 2.0	1.6	2.0	0.64	0.75	0.83	1.00		100
22.2x22.2	1.2, 1.4, 1.6			0.78	0.89	1.03	1.25		100
25.4x25.4	1.2, 1.4, 1.6, 2.0	1.6	2.5	0.89	1.03	1.17	1.42	1.75	100
31.8x31.8	1.2, 1.4, 1.6, 2.0	1.6	2.5	1.11	1.31	1.48	1.79	2.24	50
34.9x34.9	1.2, 1.6			1.22	1.42	1.63	2.01	2.51	49
38.1x38.1	1.6			1.32	1.57	1.78	2.13	2.75	49
40.0x40.0	2.0	1.6		1.43	1.67	1.89	2.26	3.06	49
50.0x50.0	1.6			1.81	2.10	2.40	3.94	3.69	49
65.0x65.0	1.6				2.78	3.08	3.58	4.78	30

Rectangle Tube

Size (mm)	Product Type & Gauge (mm)			Nom. Linear mass (kg/m)					Lengths per pack
	CR250	GS300	HR350	1.2	1.4	1.6	2.0	2.5	
25.4x12.7	1.6	1.6		0.65	0.76	0.84	1.06		50
31.8x15.9	1.6			0.82	1.00	1.13	1.42		50
34.9x19.1	1.6, 2.0			0.95	1.21	1.28	1.58		50
38.1x25.4	1.6			1.13	1.50	1.76	1.79	2.24	49
46.5x21.2	1.6			1.06	1.49	1.65	2.03	2.52	50
50.8x25.4	1.2, 1.6, 2.0			1.35	1.62	1.82	2.25	2.78	50
50.8x31.8	1.6, 2.0			1.49	1.74	1.95	2.45	2.94	50
57.2x34.9				1.61	1.89	2.14	2.66	3.33	50
60.0x30.0	1.6			1.61	1.89	2.14	2.66	3.33	50
63.5x38.1	1.6			1.84	2.09	2.39	2.99	3.26	50
68.0x14.0	1.2			1.43	1.67	1.91	2.39		100
68.0x43.0				1.97	2.35	2.67	3.23	4.16	50
70.0x11.0				1.43	1.67	1.91	2.39		100

Any products not shown in the stocked (bolded) items are available ex-mill rolling in most wall thicknesses. Kg/m denotes what is possible to manufacture in each wall thickness. Coatings including Z450 or higher strength options such as G310 or 1P are available for some profiles. MOQ's apply.

Specifications

CRCA Base Material - Typical Mechanical Properties

Yield strength	Tensile strength	El % on Lo = 50mm
170 MPa	320 MPa	43

HRPO Base Material - Typical Mechanical Properties

Yield strength	Tensile strength	El % on Lo = 50mm
285 MPa	380 MPa	30

G250 (GS) Base Material - Typical Mechanical Properties

Yield strength	Tensile strength	El % on Lo = 50mm
250 MPa	320 MPa	27

Tolerances

External Dimensions	±0.13mm <50.8mm ±0.26mm <101.6mm
Wall Thickness	CRCA ±5% (<2.0mm), HRPO ±10% (<2.6mm), GALVSTEEL ±7% (<2.5mm)
Out-of-Roundness (Ovality)	±0.13mm <50.8mm, ±0.26mm <101.6mm
Squareness of sides	90° ±1 degree
Twist (Rectangle/Square)	<3mm over 5.5m
Straightness	<5.5mm over 5.5m

Formed Tube - Example of Mechanical Properties (CRCA, CR250)

149mm Slit Width	1.6x47.6	1.6x38.1x38.1	1.6x50.8x25.4
YS 193 MPa, TS 313 MPa, EL % 46	YS 260 MPa, TS 326 MPa, EL % 43	YS 286 MPa, TS 340 MPa, EL % 41	YS 276 MPa, TS 335 MPa, EL % 42

Note: Tested to AS/NZS 1391. Rectangle test sample taken from the 50.8 side. The above mechanical properties are from a specific coil batch and mill run/s and are to be treated as such. When full test certificates are required for a specific product, this must be requested at time of order and an additional charge applies.

Products & Surface Finishes

Products	Base Material (Strip)	Finish	Typical Applications
CR250	Cold-rolled close annealed	Higher-grade, bright, critical finish	Furniture, displays, automotive
HR350	Hot-rolled pickled & oiled	Steel grey, semi-bright finish	Racking, cargo barriers, seat frames
GS300	Continuously hot-dip galvanised	Z275 coating (both sides). Spangle	Outdoor structures, furniture, fencing, conveyors

Coating Suitability

Products	Powder Coating	Paint	Chrome Plating	Electroplating	Hot Dip Galvanising
CR250	Excellent	Excellent	Excellent	Excellent	Excellent
HR350	Good	Excellent	Poor	Good	Excellent
GS300	Excellent	Excellent	n/a	n/a	n/a

Note: Our pre-galvanised range maintains the zinc coating adhesion during all of our in-house mechanical testing. Higher zinc coating thicknesses are available.