



Data Sheet

PP

# Circular Hollow Sections

## Hollow Sections

Revision: 31/1/2012

### GENERAL DESCRIPTION

New Zealand Steel manufactures a range of general purpose, reticulation and structural, cold formed electric resistance welded circular hollow sections. These products are manufactured to meet international specifications and are supplied in a range of sizes, and surface and end finishes. Pipes are suitable for welding, screwing and bending.

### APPLICATIONS

Reticulation, agricultural, architectural, general engineering, mechanical handling and structural uses:

- Building services pipe work
- Cowsheds and yards
- Fencing
- Scaffolding
- Agricultural implements
- Frames and stock crates
- Sign gantries
- Service bridges
- Railings
- Columns
- Trusses

### STANDARDS

- AS 1074: 1989
- AS/NZS 1163:2009 Grade C250 / C350 Galvanising
- AS/NZS 4792:2006

MECHANICAL PROPERTIES			END FINISHES	
	AS1074 & AS/NZS1163 C250	AS/NZS 1163 C350		
Minimum Yield strength, MPa	250MPa	350MPa	Plain End (mill cut)	
Minimum Tensile strength, MPa	320MPa	430MPa	Screwed one or both ends	
Minimum Elongation (g.l. 5.65 √so)	18% to 20%	16% to 18%	Screwed and socketed	
			Swaged	

  

AVAILABLE LENGTHS			SURFACE FINISH	STANDARD LENGTHS	
	ND RANGE (mm)	LENGTH RANGE (m)			
Black	15 – 50	4.1 – 8.0	Black (Mill Finish)		
Black	65 – 100	4.5 – 9.0	Galvanised HDG 300		
Galvanised	15 – 50	4.1 – 6.5	Red primed		
Galvanised	65 – 100	4.8 – 6.5			
FINISH	LENGTH (m)				
Black	6.5				
Galvanised	6.5 (Max)				
Pre-primed	6.5				

Sectional Properties – Refer AS/NZS 1163:2009, Appendix D

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AS 1074 SPECIFICATION		
SIZE ND (mm)	DESCRIPTION	THICKNESS (mm)
15	Light	2
15	Medium	2.6
20	Light	2.3
20	Medium	2.6
20	Heavy	3.2
25	Light	2.6
25	Medium	3.2
25	Heavy	4
32	Light	2.6
32	Medium	3.2
32	Heavy	4
40	Light	2.9
40	Medium	3.2
40	Heavy	4
50	Light	2.9
50	Medium	3.6
50	Heavy	4.5
65	Light	3.2
65	Medium	3.6
65	Heavy	4.5
80	Light	3.2
80	Medium	4
80	Heavy	5
100	Light	3.6
100	Medium	4.5
100	Heavy	5.4

AS/NZS 1163 SPECIFICATION		
SIZE ND (mm)	DESCRIPTION	THICKNESS (mm)
20	Extra Light	2
25	Extra Light	2
32	Extra Light	2
40	Extra Light	2.3
50	Extra Light	2.3
65	Extra Light	2.3
80	Extra Light	2.6
100	Extra Light	3.2

MANUFACTURING TOLERANCES	
<b>Outside Dimension</b>	As per Standard tables 2.1, 2.2 and 2.3
AS1074	
AS/NZS 1163	±1% with a min ±0.5mm
<b>Thickness</b>	±10%
<b>Straightness</b>	Max 0.2% of total length
<b>Length</b>	-0 mm +20 mm

AVAILABLE DIMENSIONS	
THICKNESS (mm)	WIDTH (mm)
Thickness	2 – 5.4mm
Nominal diameter (Bore)	15mm – 100mm
Outside diameter	21.3mm – 114.3mm

THICKNESS IDENTIFICATION		
	AS 1074	AS/NZS 1163 C350
<b>Extra light</b>		Green
<b>Light</b>	Brown	Yellow
<b>Medium</b>	Blue	
<b>Heavy</b>	Red	

#### PACKING

Despatched material will be packed appropriately providing protection against weather and transit damage.

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