



*STEEL PROCESSING SERVICES*

# **ROLLCO PTY LIMITED**

## **STEEL PROCESSING SERVICES**

### **Information & Capability**



## **Introduction**

Since our establishment in 1981, Rollco Pty Limited has been providing the construction and manufacturing industry with quality curved steel and alloy products, from our strategically located premises at Revesby in Sydney's western suburbs.

Cold rolling or rollbending of steel or alloy material is recognised world wide as the most economical process to produce curves or bends in sectional or plate material that can be used from a simple sign post, right through to a bridge girder or structural roof beam.

Since our inception, we have remained focused on achieving customer satisfaction. We now offer a vast array of services that enable most requirements to be processed under one roof, eliminating the need for multiple orders & deliveries.

As we are not fabricators or structural engineers, our scope of work is limited to processing orders to customer's specifications, through a documented quality system based on AS/NZS ISO 9001 : 2000.

Apart from our comprehensive range of specialized machinery & tooling, Rollco enjoys the benefit of employing a dedicated team of highly skilled and experienced operators, that look forward to a challenge and ensuring the highest quality of workmanship and contractual requirements are achieved at all times

It is Rollco's commitment to continually address customer & industry demands and expectation, thus ensuring Rollco remains a leader in our chosen field of supplying quality curved steel and alloy products that meet the needs of Australian industries.

## SECTION ROLLING

### Process

Our process, commonly known as section rolling or ring rolling, is a cold roll bending procedure, acknowledged world wide as the most economical means of curving sectional material.

### Min. Radii

This is the suggested minimum radius a section should be curved. We have established this by collating over 20 years experience & feed back from customers.

It should be noted that change in section profile is quite common when cold rolling of sectional material & customers should ensure that the integrity of the finished product is suitable for their individual specifications. As a general rule, the thicker the material the less deformation or ovality that will be present.

### Lead in / out

Ring rolling requires additional material on each end of the curve, which is sometimes referred to as green or grab. This material as a general rule is left on the job for latter removal by the customer.

### Capacity

In our facilities at Revesby we have incorporated some of the finest & largest machinery with in Australia that has the capacity to roll the full complement of locally produced hot rolled sections available.

Cold formed sections along with stainless steel, aluminum & brass are also capable of being curved through our process.

### Capacity tables

The following tables are intended as a guide only. All customers are encouraged to seek an engineer's advice on the suitability for specific applications.

Tighter radius bends are achievable but excessive deformation or ovality may occur.

Individual specifications should be quoted when enquiring.

In addition to the nominated sections with in the tables, rail, tee section, round bar, billets & multiple radii curved (elliptical) are also available.

Quick links to the following tables:

[Channels](#)

[Beams](#)

[Columns](#)

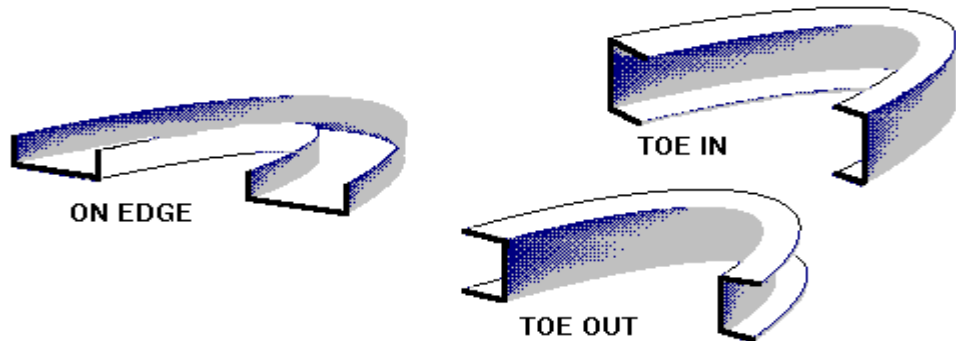
[Angle Iron](#)

[Pipe](#)

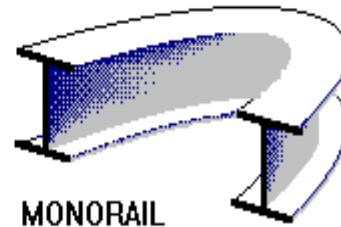
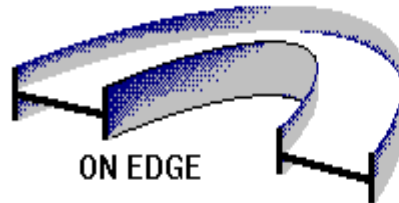
[R.H.S.](#)

[Flat Bar](#)

### CHANNELS

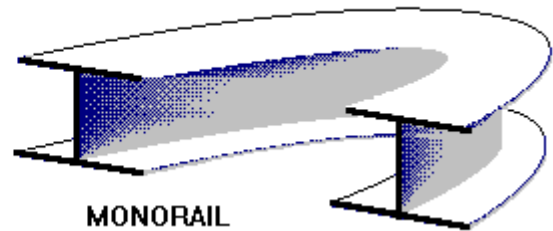
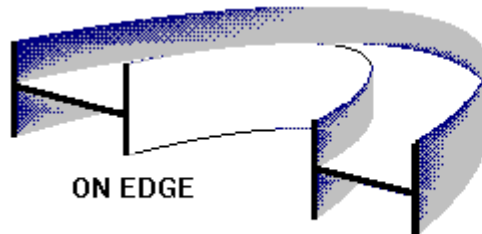


Section	ON EDGE ( X-X AXIS )		TOE IN / OUT ( Y-Y AXIS )	
	Min. Radii.	Lead In / Out	Min. Radii.	Lead In / Out
75*40 PFC	6000	450	300	300
100*50 PFC	2000	550	350	350
125*65 PFC	2500	650	500	450
150*75 PFC	2100	750	600	500
180*75 PFC	2400	750	700	500
200*75 PFC	3000	700	900	500
230*75 PFC	5000	700	1000	600
250*90 PFC	6000	700	1200	600
300*90 PFC	9300	700	1200	650
380*100 PFC	20000	1000	1500	700

**BEAMS**

**ON EDGE ( X-X AXIS )**
**MONORAIL ( Y-Y AXIS )**

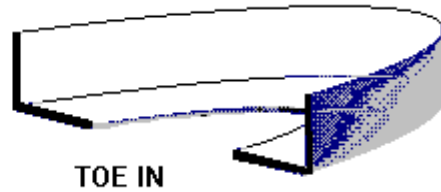
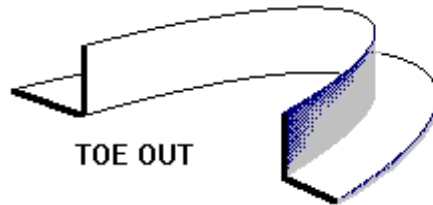
Section	ON EDGE ( X-X AXIS )		MONORAIL ( Y-Y AXIS )	
	Min. Radii.	Lead In / Out	Min. Radii.	Lead In / Out
100*45 TFB	1200	650	500	450
125*65 TFB	2500	650	600	500
150 UB 18	1500	650	700	500
180 UB 22	1300	700	900	500
200 UB 25	4500	700	1000	500
200 UB 30	2200	750	1000	500
250 UB 31	7000	750	1000	600
250 UB 37	3600	800	1000	600
310 UB 40	12000	750	1500	650
310 UB 46	4800	950	1500	700
360 UB 44	14000	750	2000	700
360 UB 57	7000	1000	2000	700
410 UB 60	8000	1000	2500	850
460 UB 74	13000	1000	2500	850
530 UB 92	18000	1000	2500	850
610 UB 101	25000	1000	3000	850
610 UB 125	22000	1000	2500	850
700 WB	CALL		CALL	
1000 WB 322	N/A		4500	1000

## COLUMNS

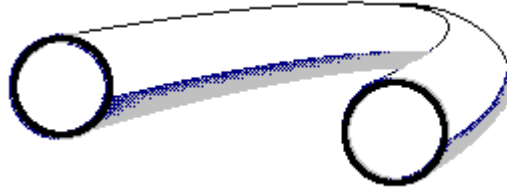


Section	ON EDGE ( X-X AXIS )		MONORAIL ( Y-Y AXIS )	
	Min. Radii.	Lead In / Out	Min. Radii.	Lead In / Out
100 UC 14	1400	550	500	450
150 UC 23	10000	650	2500	600
150 UC 30	2000	650	1500	600
150 UC 37	1400	700	1200	550
200 UC 46	CALL		3000	600
200 UC 60	2500	1000	1500	700
250 UC 89	4000	1000	3000	700
310 UC 97	6000	1000	3000	900
310 UC 118	6000	1000	3000	800
310 UC 137	6000	1000	3000	800
310 UC 158	5138	1000	CALL	

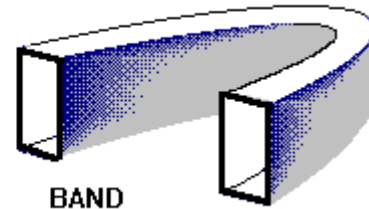
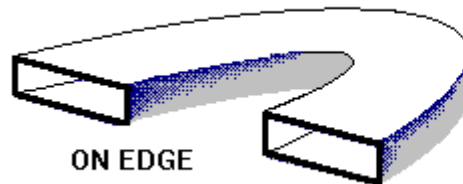
### ANGLE IRON


**TOE OUT**
**TOE IN**

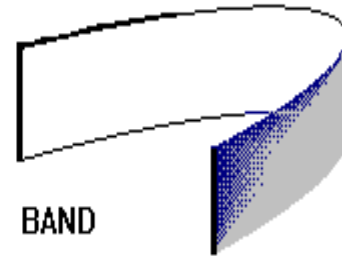
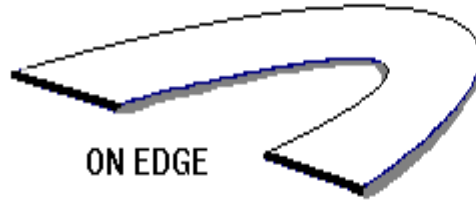
Section	TOE OUT		TOE IN	
	Min. Radii.	Lead In / Out	Min. Radii.	Lead In / Out
25*25*3	150	150	200	200
50*50*6	250	250	350	300
75*75*6	450	350	500	350
100*100*6	1000	450	1500	500
100*100*10	450	500	650	500
125*125*6	1400	550	2000	650
125*125*12	700	550	900	650
150*150*12	900	600	1500	650
150*150*20	900	650	1000	700
200*200*13	3500	700	4500	750
200*200*20	2500	700	4000	750

**PIPE**

<b>Section</b>	<b>Min. Radii.</b>	<b>Lead In / Out</b>
21 OD * 2.6	150	200
27 OD * 2.6	100	200
34 OD * 3.2	200	200
42 OD * 3.2	200	200
48 OD * 3.2	200	200
60 OD * 3.6	250	300
76 OD * 3.6	350	300
89 OD * 4.0	550	450
102 OD * 4.0	450	450
114 OD * 4.5	600	500
140 OD * 4.9	850	500
168 OD * 6.4	1000	600
219 OD * 4.8	3000	700
219 OD * 6.4	1500	700
219 OD * 12.7	3500	700
273 OD * 6.4	2100	750
323 OD	CALL	
356 OD	CALL	
406 OD	CALL	

**R.H.S.**

**ON EDGE ( X-X AXIS )**
**BAND ( Y-Y AXIS )**

Section	Min. Radii.	Lead In / Out	Min. Radii.	Lead In / Out
25*25*3	150	150		
50*25*3	250	300	150	200
50*50*4	350	350		
75*50*5	500	450	350	350
75*75*6	500	450		
100*50*6	800	550	400	450
100*100*6	2500	600		
100*100*9	750	600		
125*75*5	2500	600	1500	600
150*50*5	1600	600	3000	600
150*100*6	2200	600	1200	600
150*150*6	5000	750		
150*150*9	2000	650		
200*100*6	10000	800	10000	800
200*100*9	3500	700	2000	700
200*150*9	7400	750	6000	750
200*200*9	9000	800		
250*150*9	7000	800	6000	800
250*250*9	17000	800		

**FLAT BAR**

**ON EDGE ( X-X AXIS )**
**BAND ( Y-Y AXIS )**

<b>Section</b>	<b>Min. Radii.</b>	<b>Lead In / Out</b>	<b>Min. Radii.</b>	<b>Lead In / Out</b>
32*6	100	150	See plate capacity	
50*6	200	250	See plate capacity	
75*6	220	250	See plate capacity	
75*20	400	350	See plate capacity	
100*6	1000	450	See plate capacity	
100*25	500	450	See plate capacity	
150*10	1200	500	See plate capacity	
150*20	800	500	See plate capacity	
200*12	1500	500	See plate capacity	
200*25	700	600	See plate capacity	
200*40	2200	700	See plate capacity	
250*12	8000	700	See plate capacity	
250*20	2000	700	See plate capacity	
250*25	2000	750	See plate capacity	
250*150	2700	750	2100	750
400*30	4000	900	See plate capacity	

# PRESS BRAKE

## Process

Press Brake machines are a common and economical means of forming plate into various shapes. Our machines are fitted with the latest technology ensuring repeatability and accuracy is assured.

## Capacity

Our CNC machines have a capacity of 550 tonnes, with a six meter bed, and a maximum capacity of 300 tonnes per meter.

Various tooling is available to ensure most requirements are accommodated.

The following table, which is based on 250 grade mild steel, is an indication of our capability, and may vary dependant on material and bend radii required.

### PRESS BRAKE CAPACITY

Material Thickness	Minimum inside radius	Minimum outside leg	Plate length					
			1000	2000	3000	4000	5000	6000
1.6 mm	2.5	15	Yes	Yes	Yes	Yes	Yes	Yes
3 mm	3.2	17	Yes	Yes	Yes	Yes	Yes	Yes
	5.7	25	Yes	Yes	Yes	Yes	Yes	Yes
6 mm	9.6	42	Yes	Yes	Yes	Yes	Yes	Yes
8 mm	9.6	49	Yes	Yes	Yes	Yes	Yes	Yes
10 mm	12.5	62	Yes	Yes	Yes	Yes	Yes	Yes
	16	74	Yes	Yes	Yes	Yes	Yes	Yes
12 mm	12.5	66	Yes	Yes	Yes	Yes	Yes	Yes
	16.5	78	Yes	Yes	Yes	Yes	Yes	Yes
	22	98	Yes	Yes	Yes	Yes	Yes	Yes
16 mm	22	106	Yes	Yes	Yes	Yes	Yes	Yes
20 mm	35	170	Yes	Yes	Yes	Yes	Yes	Yes
25 mm	38	190	Yes	Yes	Yes	Yes	Yes	Yes
	44	206	Yes	Yes	Yes	Yes	Yes	Yes
	47	215	Yes	Yes	Yes	Yes	Yes	Yes

## GUILLOTINING

### Process

Guillotining or shearing is a common means of cutting sheet or plate with out the concerns of distortion caused through other methods such as profile cutting.

This process can be extremely beneficial if further activities are required post cutting, such as bending or rolling, due to the fact that no additional stresses are introduced into the material.

### Capacity

Our latest acquisition, an N.C Controlled machine for assured accuracy, has increases our range up to 4.0 meter width, with a maximum thickness of 6 mm.

## PLATE ROLLING

### Process

Cold rolling of plate is a world wide acknowledged process, enabling plate to be accurately and efficiently curved into a range of radial shapes for a multitude of uses, such as cylinders, cones & lobster backs.

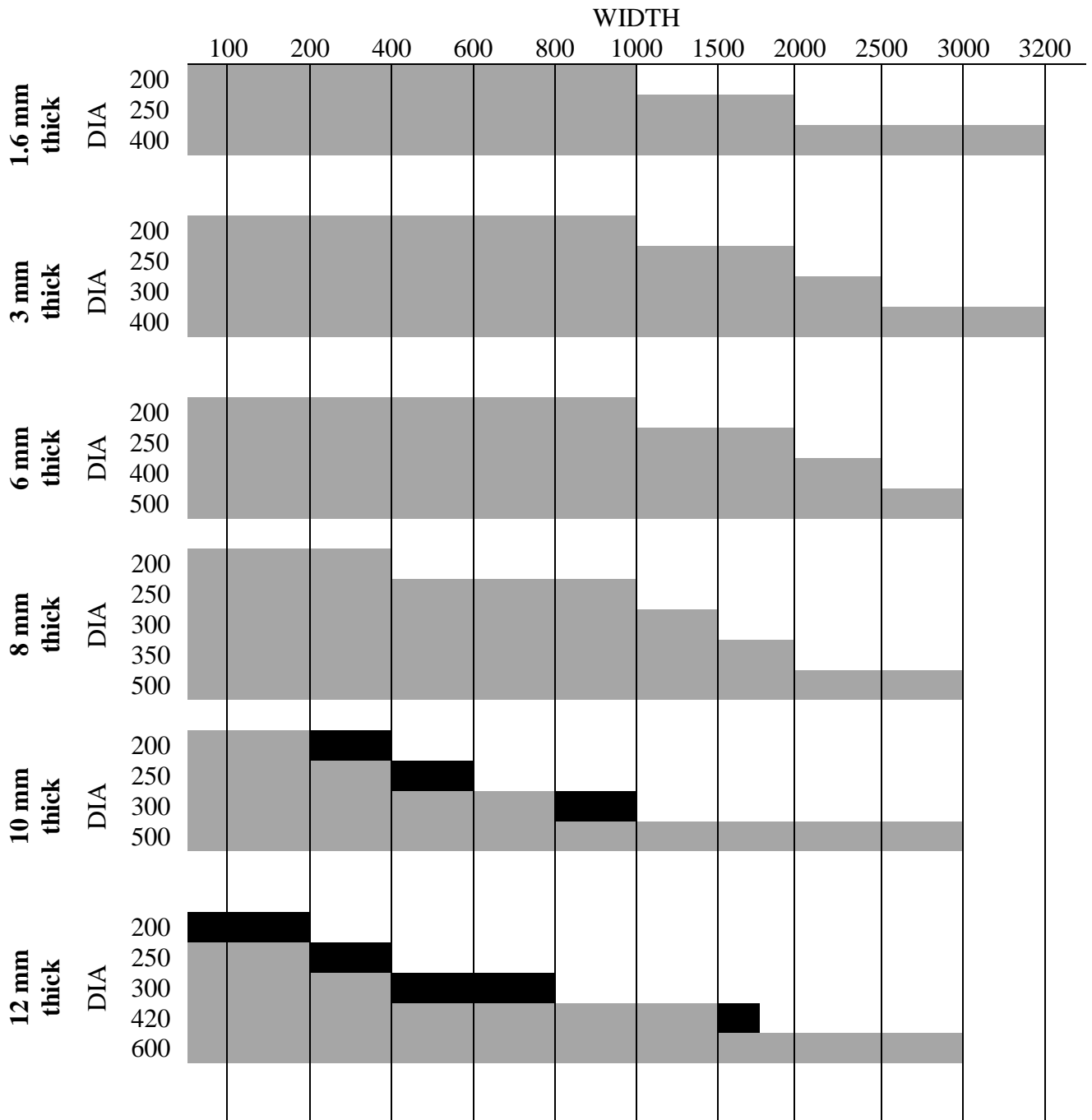
### Green

Green is a term used to describe the material required before and after the curve that is necessary for grab in the machine. This material remains straight & needs to be removed after rolling.

Our machines are double initial pinch, which means in most cases pre-setting the ends is possible & no additional material is required, hence increasing efficiencies in material costs & eliminating post cutting.

### Capacity

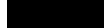
In our facilities at Revesby we have a number of machines varying in size that accommodate most requirements. The following table, which is based on 250 grade mild steel, is intended as a guide only and we encourage enquires for more specific details.

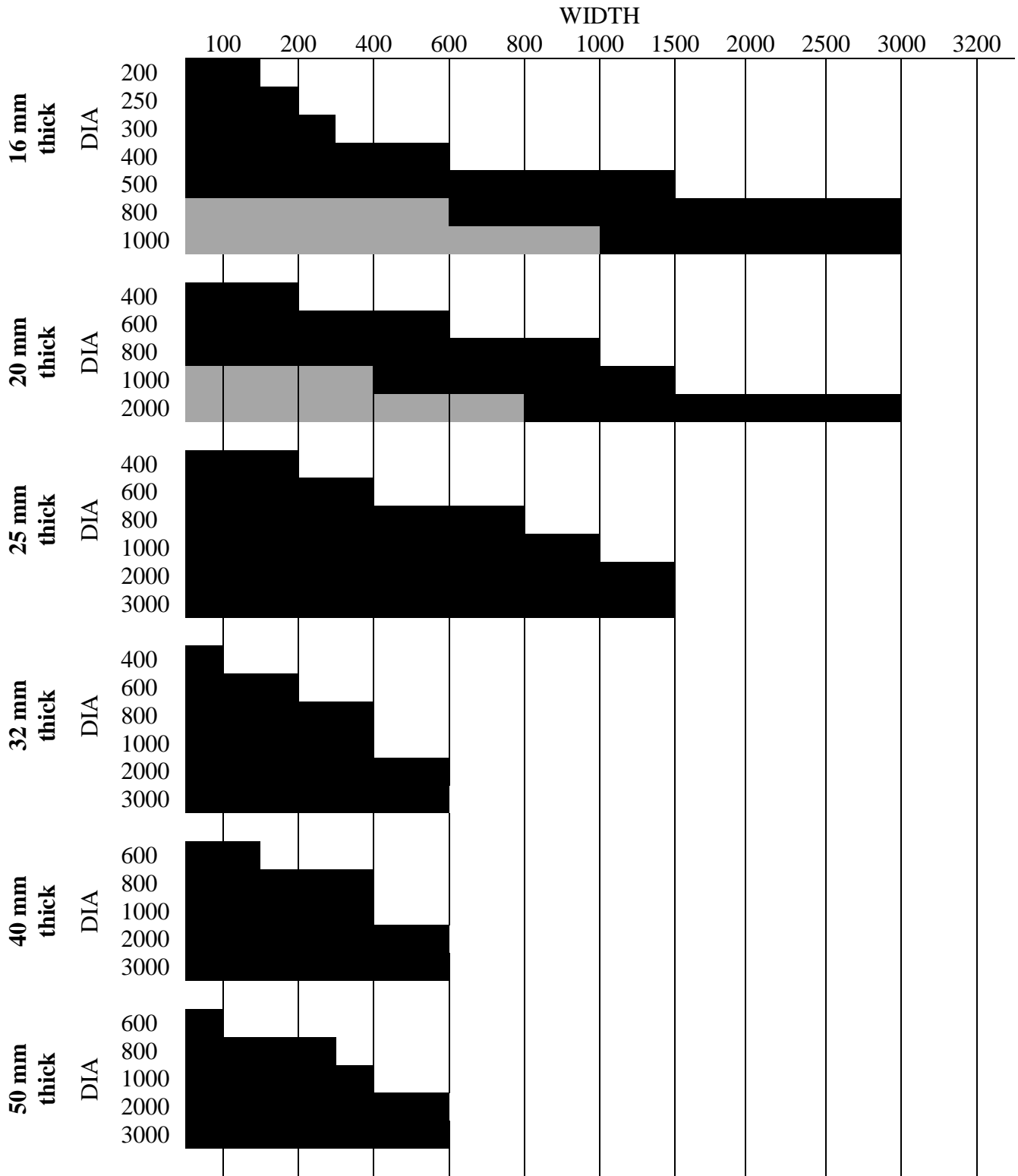
**PLATE ROLLING CAPACITY**

**Legend**

Preset



Green required

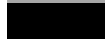


**PLATE ROLLING CAPACITY**

**Legend**

Preset



Green required



## PURLINS

### Process

In response to architectural and engineering requirements to construct a light weight roof structure for the Dunc Gray Velodrome for the Sydney 2000 Olympics, R & D was undertaken to establish procedures and tooling to enable curving of Cee purlins. Since that time, many structures have been constructed incorporating Cee purlins, achieving cost effective gains by minimizing weight and connection details. This is carried out through a cold rolling process and curving can only be done through the X-X Axis, due to the thinness of the section.

### Lead in / out

Lead in / out is a term used to describe the material required before and after the curved that is necessary for grab in the machine. This material remains straight & needs to be removed after rolling. Due to the properties of purlins, twisting is inherent when curving. To minimize this effect an additional 1100 mm on each end is required for lead in / out.

### Capacity

As a general rule in all cases the heavier section should be specified as this enables tighter radii and the integrity of the section to be maintained. C100 purlins are possible to roll, although we have not manufactured tooling for this size due to the unpopularity of this size. The following table is intended as a guide only and we encourage enquires for more specific details, as individual specifications may require alternative designs.

Section	Minimum radius
C15024	8000 mm
C20024	35000 mm
C25024	75000 mm

## OTHER

<b>SPIRAL STAIR CASES</b>	Channel and flat bar spiral stringers
<b>AXIAL FAN CASES</b>	Rolled, flanged, punched & galvanized
<b>FLANGES</b>	Rolled, welded, punched & galvanized
<b>TUNNEL SETS</b>	Manufactured complete
<b>SHEETMETAL WORK</b>	Cutting, shaping, punching & welding