

# Handrail Products



# Our Handrail Systems are the Safe, Strong and Economical Solution



Our handrail systems have the ability to be erected in either a workshop or on-site without being labour intensive. As a result, this solution is used widely throughout the mining, petrochemical and mineral processing heavy industries.

Manufactured in accordance with AS1657, handrail can also be utilised in commercial, local government and general applications.

We also offer handrail solutions in both component form e.g. Stanchions, bends, pipe, kick plate and fully fabricated panels.

## Design & Installation Considerations

### Stanchion Centres:

- For steel it's recommended that a maximum of 2000mm centres be used for standard medium duty stanchions
- For aluminium it's recommended that a maximum of 1800mm centres are used

### Welding:

- For steel one 20mm tack weld should be made each side of the ball on the underside
- For aluminium a full circumferential weld should be made to each side of the ball

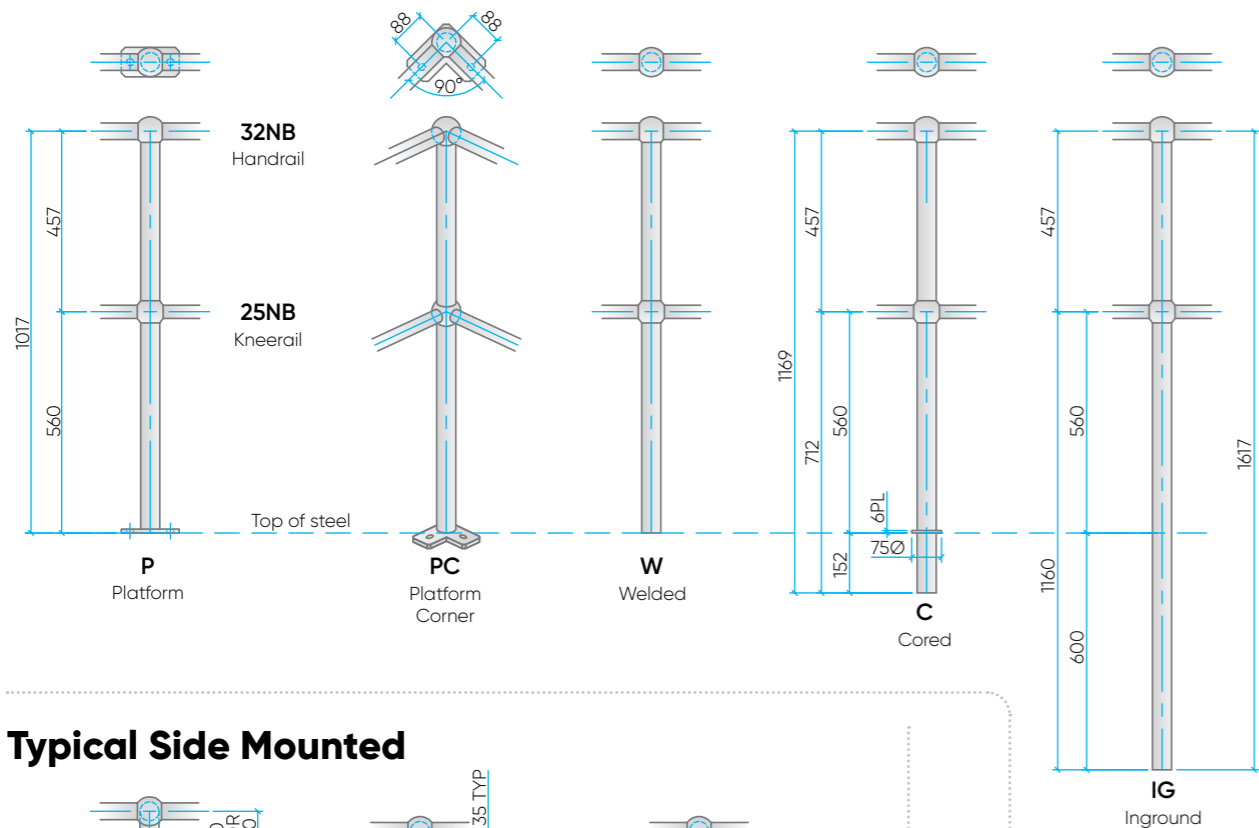
### General Tips:

- Whenever possible join rails inside the ball joints to hide them
- Bolt in place the first stanchion, then proceed with the others
- Make sure not to bolt the other stanchions in place and then try to feed the pipe through.
- Start stair and sloping runs at the bottom and work up
- Closure bends are designed so that the top rail is to join inside the top ball, and the lower leg of the bend stops on the outside of the knee rail ball with the knee rail sliding inside the bend

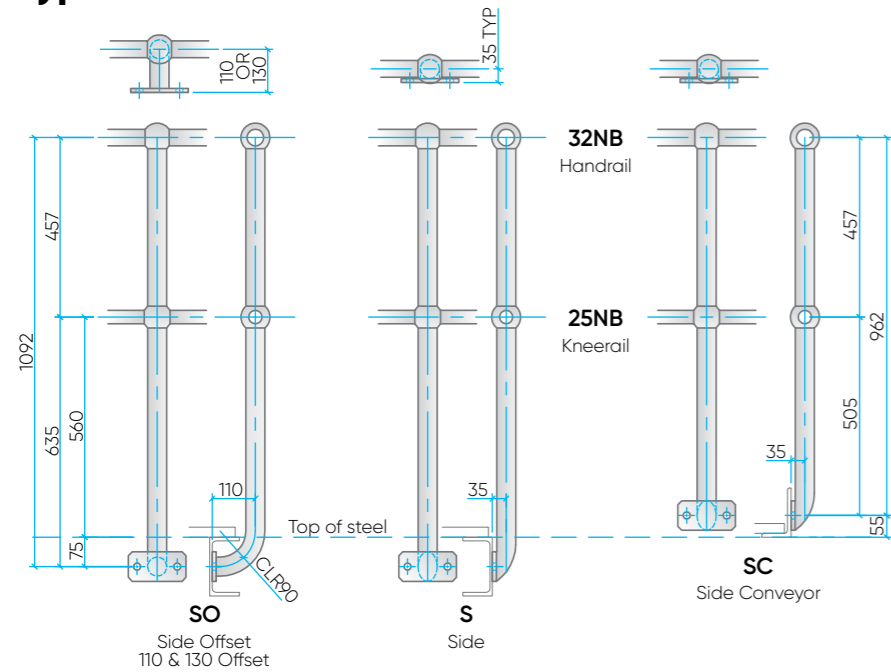


# Stanchions

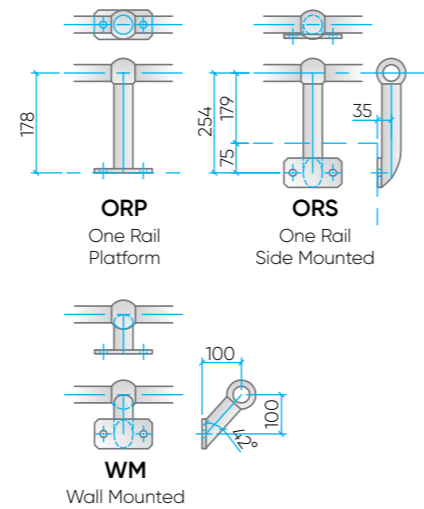
## Typical Top Mounted



## Typical Side Mounted



## Typical Rail Type

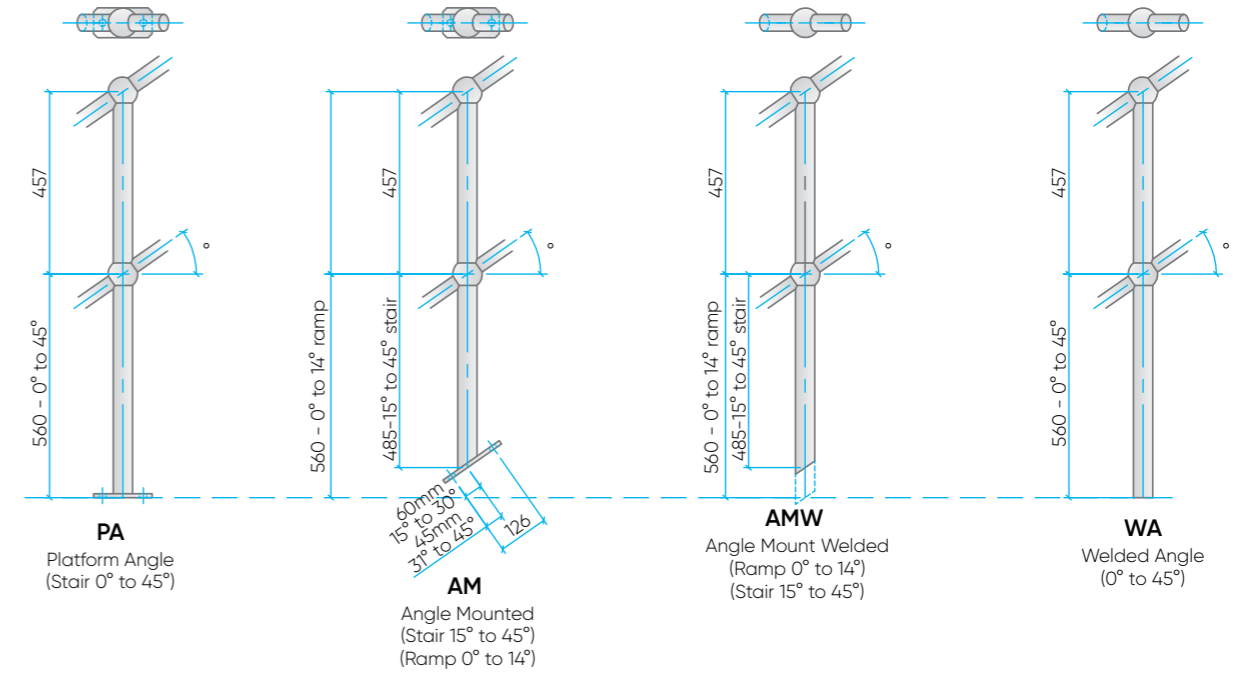


## SO Type Stanchion Offset Table

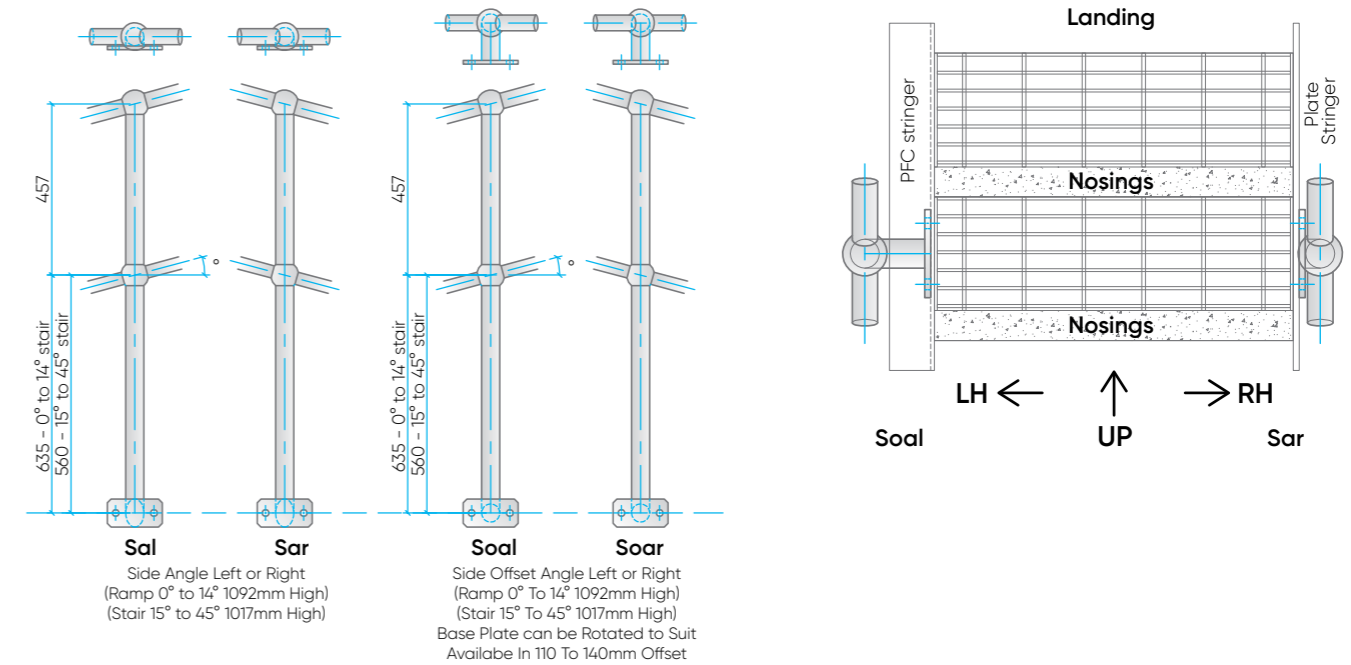
Parallel Flange Channels			
Section Size	Offset	Section Size	Offset
150x75PFC	110	250x75PFC	130
180x75PFC	110	300x75PFC	130
200x75PFC	110	380x100PFC	130
230x75PFC	110		

Universal Beams			
Section Size	Offset	Section Size	Offset
200UB	110	410UB	130
250UB	110	460UB	130
310UB	130	530UB	140
360UB	130		

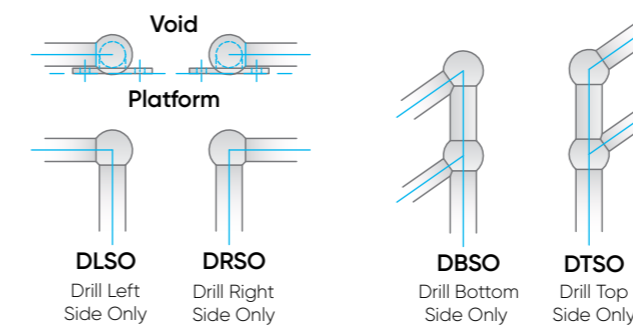
## Typical Top Mounted Angle Type



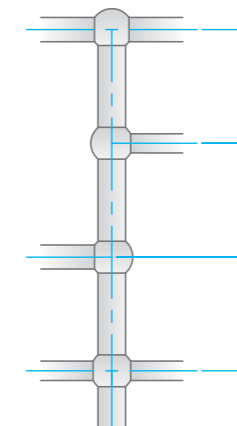
## Typical Side Angle Type



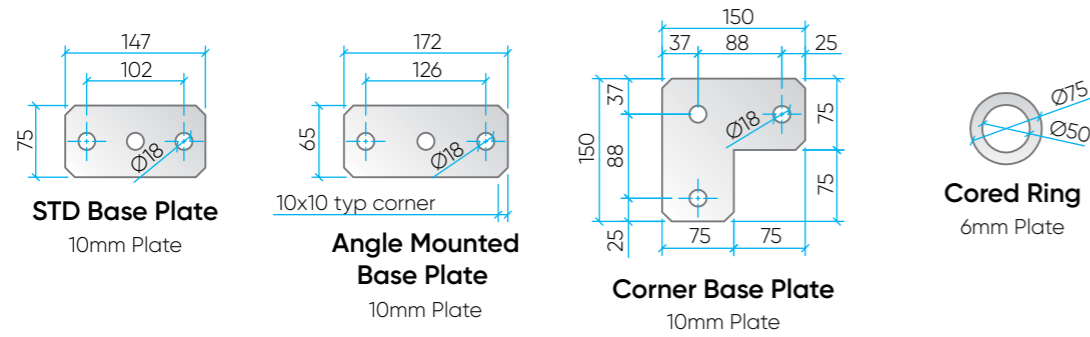
## Typical DOSO Directors



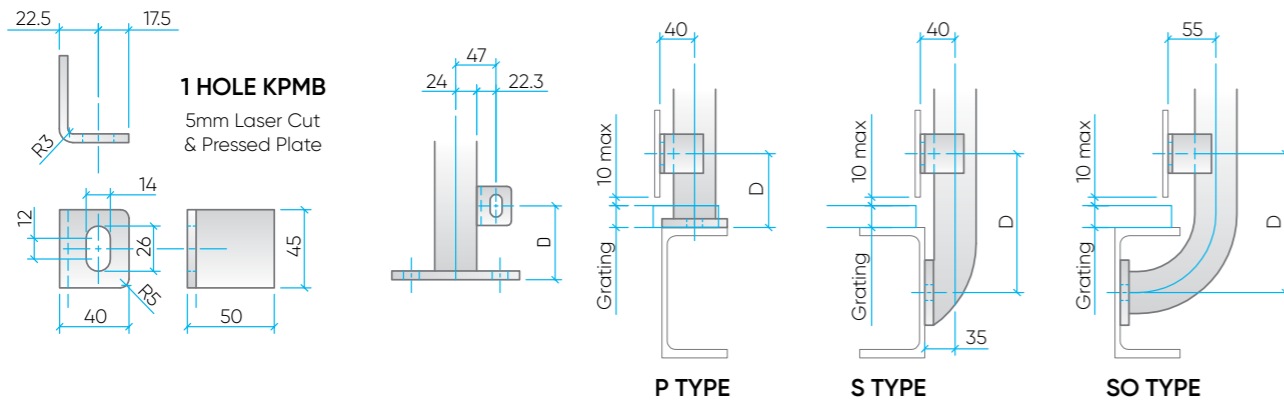
## Multi Ball Stanchions



## Base Plate Details

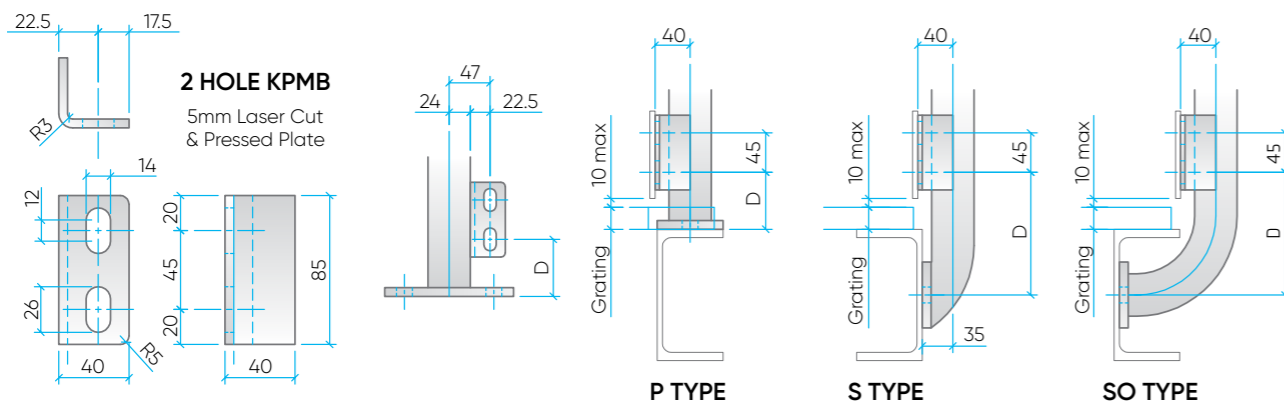


## 1 Hole Kick Plate Mounting Bracket Details



Single Hole KPMB – Dimension 'D' for various stanchion types				
Grating Height (mm)	Nil to 19mm	20 to 32mm	38 to 50mm	65mm
Platform Welded & Cored	D=60	D=85	D=100	D=120
Side & Side Offset	D=135	D=160	D=180	D=195

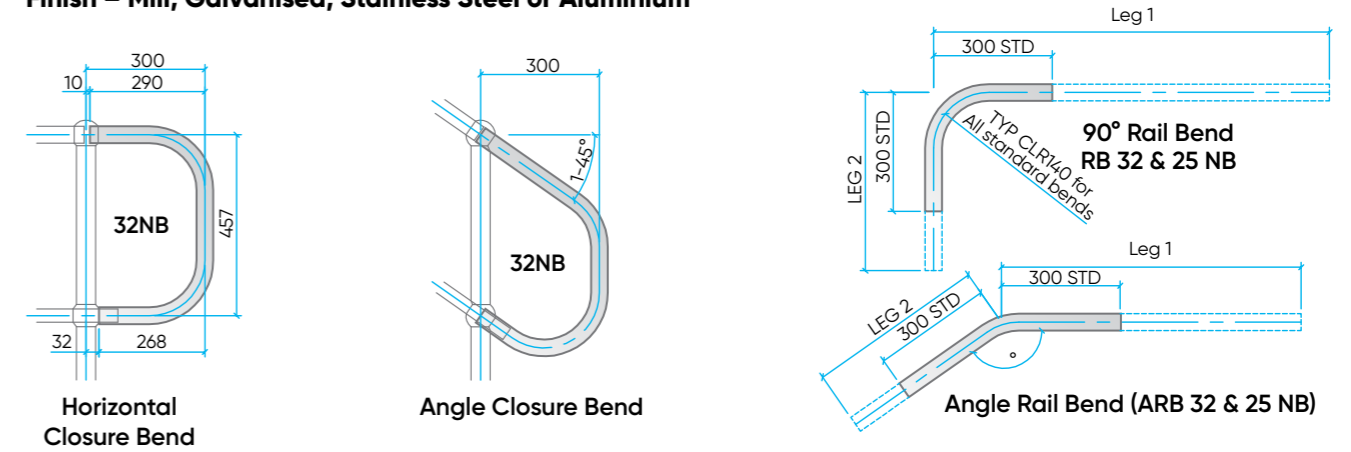
## 2 Hole Kick Plate Mounting Bracket Details



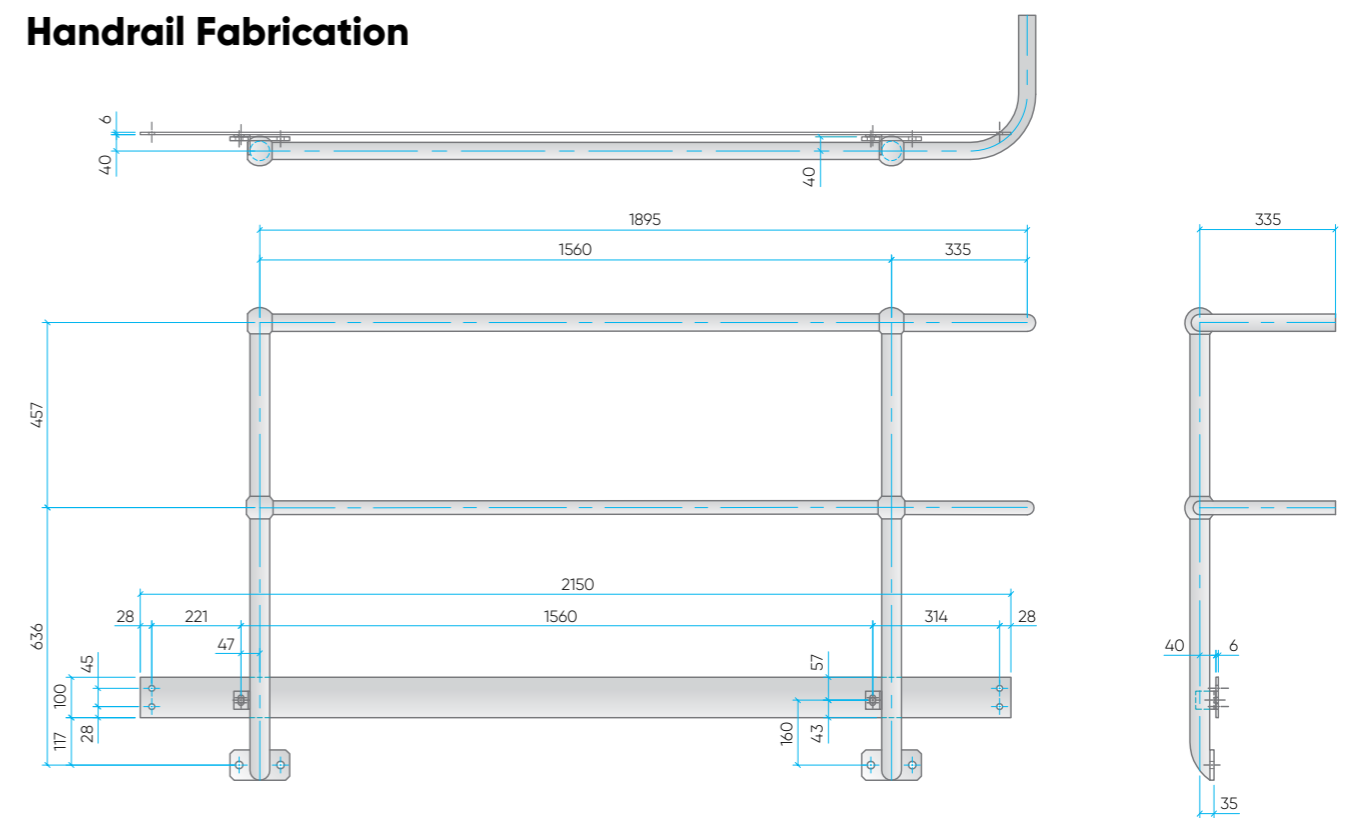
Two Hole KPMB – Dimension 'D' for various stanchion types				
Grating Height (mm)	Nil to 19mm	20 to 32mm	38 to 50mm	65mm
Platform Welded & Cored	D=40	D=65	D=80	D=100
Side & Side Offset	D=115	D=140	D=160	D=175

## Standard Rail Bends

Finish – Mill, Galvanised, Stainless Steel or Aluminium



## Handrail Fabrication



## Finish Options Available

- 1 Mill Finish/  
Untreated
- 2 Fab From  
Galvanised  
Components
- 3 Fab From  
Mill and  
Gal Panels
- 4 Painted
- 5 Powder  
Coated

All welds are 6mm CFW UNO and all balls are fully seal welded.

Kick plate can be supplied loose or bolted to the handrails as requested.



# Gates

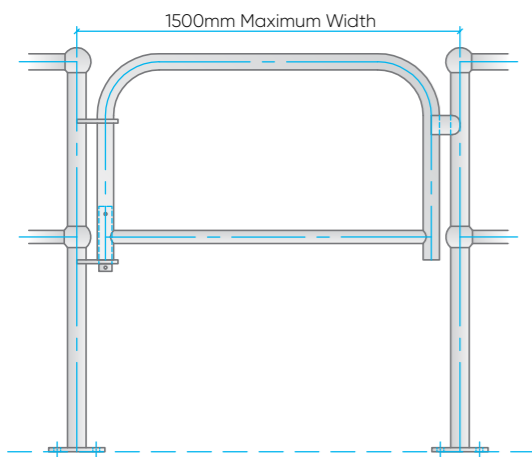
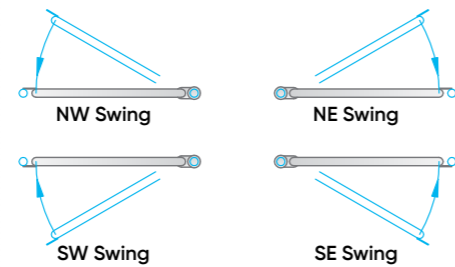
## Self Closing Gates

We can manufacture custom gates as per your design. When lead time is critical self-closing gates can be fabricated from galvanised components.

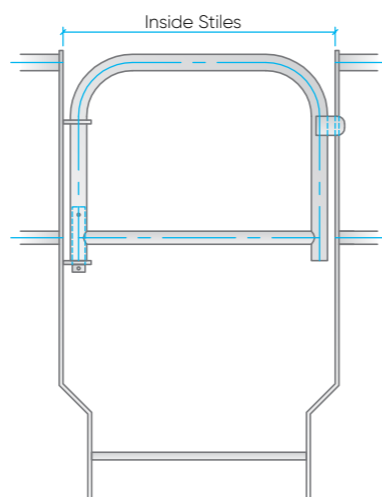
Recommended openings 600, 900 and 1,000mm.

**Note:** Gates are measured to stanchion centres.

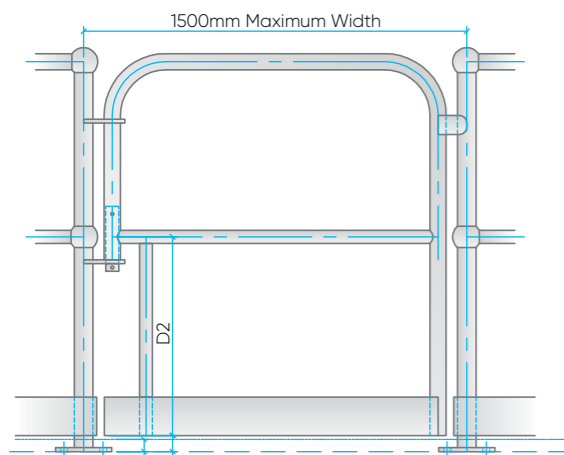
## Gate Swing Direction



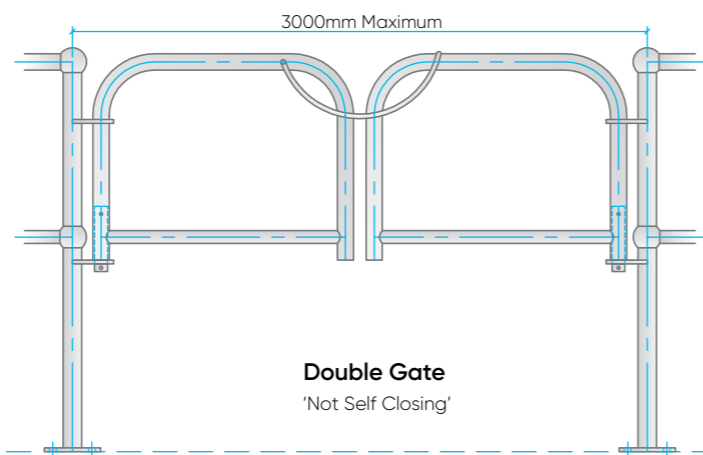
Standard Self Closing Gate



Self Closing Ladder Gate



Self Closing Gate  
With Kick Plate Dropper



Double Gate  
'Not Self Closing'

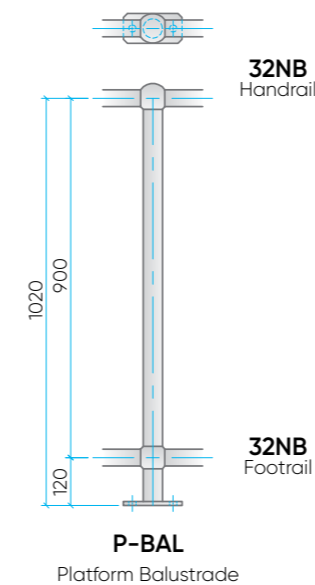
Self closing gate with kick plate dropper						
Grating Height (mm)	Nil	Floor Plate	20mm	25mm	32mm	40mm
D1 - TOS to kick plate	D1=20	D1=20	D1=30	D1=35	D1=42	D1=50
D2 - Kick plate to knee rail	D2=550	D2=540	D2=530	D2=525	D2=518	D2=510

# Balustrade

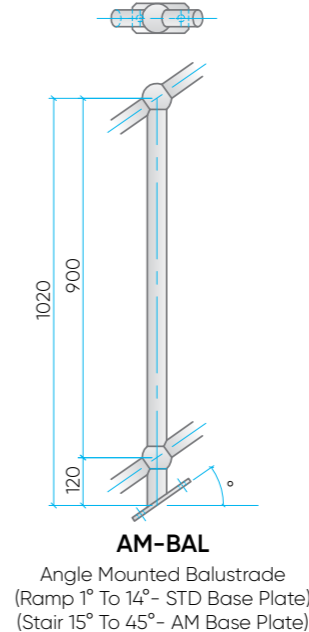
## Handrails

We can provide you with handrail components specially made for balustrade panels.

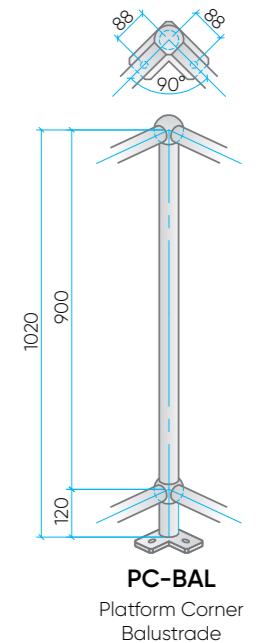
These stanchions are custom made for your order and can be provided in both mill finish or galvanised.



P-BAL  
Platform Balustrade



AM-BAL  
Angle Mounted Balustrade  
(Ramp 1° To 14° - STD Base Plate)  
(Stair 15° To 45° - AM Base Plate)

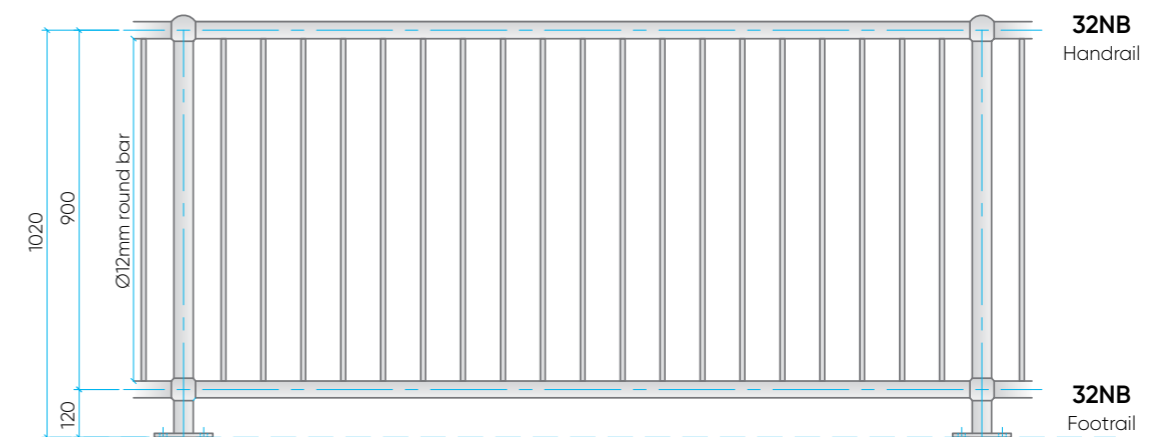


PC-BAL  
Platform Corner  
Balustrade

## Panels

We can offer complete panels fabricated to your project specifications. These panels are provided with 12mm vertical bars at 100mm centres.

These panels are compliant with the building codes of Australia (BCA2010) and New Zealand.



32NB  
Handrail

32NB  
Footrail



# Material & Tolerance Specifications

Material Specifications		Mild Steel	Aluminium	Stainless Steel
<b>Standard Stanchion</b>	Nominal Size:	40nb MED	ALHC 50	40nb Sched 10
	Dimensions:	48.3OD x 3.2WT	50.0OD x 4.0WT	48.3OD x 2.77WT
	Stock Length:	6.5 meters	6.0 meters	6.1 meters
	Grade:	C250LO Mild Steel	6060/6063 T6 Aluminium	Grade 316 Stainless Steel
<b>Heavy Duty Stanchion</b>	Nominal Size:	40nb HEAVY	No standard type of heavy duty aluminium stanchion listed unless specified.	40nb Sched 40
	Dimensions:	48.3OD x 4WT		48.3OD x 3.68WT
	Stock Length:	6.5 meters		6.1 meters
	Grade:	C250LO Mild Steel		Grade 316 Stainless Steel
<b>Handrail Pipe</b>	Nominal Size:	32nb MED	ALHC 46	32nb Sched 40
	Dimensions:	42.4OD x 3.2WT	46OD x 3.5WT	42.2OD x 3.56WT
	Stock Length:	6.5 meters	6.1 meters	6.1 meters
	Grade:	C250LO Mild Steel	6060/6063 T6 Aluminium	Grade 316 Stainless Steel
<b>Kneerail Pipe</b>	Nominal Size:	25nb MED	ALHC 38	25nb Sched 40
	Dimensions:	33.7OD x 3.2WT	38.1OD x 2.0WT	33.4OD x 3.38
	Stock Length:	6.5 meters	6 meters	6.1 meters
	Grade:	C250 Mild Steel	6060/6063 T6 Aluminium	Grade 316 Stainless Steel
<b>Kick Plate</b>	Dimensions:	100x6 Flatbar	100x6 Flatbar	100x6 Flatbar
	Stock Length:	6 meters	6 meters	6 meters
	Grade:	300 Mild Steel	6060/6063 T6 Aluminium	Grade 316 Stainless Steel
<b>Stanchions Ball</b>	Ball thickness:	3mm (+/- .5mm)	3mm (+/- .5mm)	3mm (+/- .5mm)
	Dimensions:	76mm OD	76mm OD	76mm OD
	Grade:	250 Mild Steel	6060/6063 T6 Aluminium	Grade 316 Stainless Steel
<b>Standard Base Plate</b>	Plate thickness:	10mm	12mm	10mm
	Dimensions:	147x75	147x80	147x75
	Stock Length:	250 Mild Steel	6060/6063 T6 Aluminium	Grade 316 Stainless Steel
	Grade:	102mm With vent hole	102mm Without vent hole	102mm Without vent hole
<b>Angle Mounted Base Plate</b>	Nominal Size:	10mm	12mm	10mm
	Dimensions:	172x75	170x80	172x75
	Stock Length:	250 Mild Steel	6060/6063 T6 Aluminium	Grade 316 Stainless Steel
	Grade:	126mm with vent hole	126mm without vent hole	126mm without vent hole
<b>Corner Base Plate</b>	Plate thickness:	10mm	12mm	10mm
	Dimensions:	150x150	150x150	150x150
	Grade:	250 Mild Steel	6060/6063 T6 Aluminium	Grade 316 Stainless Steel
	Hole Centres:	88mm with vent hole	88mm without vent hole	88mm without vent hole

Material Tolerances		Mild Steel	Aluminium	Stainless Steel
<b>Pipe Tolerances</b>	Outside Diameter:	+/- .2mm	+/- .2mm	+/- .4mm
	Wall thickness:	+/- 10%	+/- 10%	+/- 10%
<b>Base Plate Tolerances</b>	Plate Thickness:	+/- 1mm	+/- 1mm	+/- 1mm
	Outside Dimensions:	+/- 2mm	+/- 2mm	+/- 2mm
	Hole Centres:	+/- 2mm	+/- 2mm	+/- 2mm
<b>Stanchion Ball Tolerances</b>	Drilling Diameter:	Rail Diameter + 2-4mm	Rail Diameter + 2-4mm	Rail Diameter + 2-4mm
	Drilling Angles:	+/- 1°	+/- 1°	+/- 1°

# Part Code Table

Product			Weight			Unit
Type	Product Code	Product Name	Galvanised - Medium Duty (kg)	Galvanised - Heavy Duty (kg)	Aluminium - Medium Duty	
<b>Stanchions</b>	P	Platform	4.80	5.25	2.05	ea
	PC	Platform Corner	5.00	5.55	2.15	ea
	PA01-45	Platform Angle 0-45°	4.80	5.25	2.05	ea
	S	Side Mounted	5.05	5.65	2.20	ea
	SA01-14	Side Angle Mounted 0-14°	4.55	5.15	1.75	ea
	SA15-45	Side Angle Mounted 15-45°	4.90	5.45	2.10	ea
	SC	Side Conveyor	4.90	5.45	2.10	ea
	SO	Side Offset	5.40	5.90	2.50	ea
	SOA01-14	Side Offset Angle 0-14°	5.00	4.75	2.15	ea
	SOA15-45	Side Offset Angle 15-45°	5.35	5.65	2.30	ea
	W	Welded	3.90	4.45	1.67	ea
	C	Cored	4.90	5.35	2.08	ea
	IG	In-Ground	6.90	7.75	2.95	ea
	AM01-14	Angle Mounted 0-14°	4.80	5.25	2.05	ea
	AM15-45	Angle Mounted 15-45°	4.50	5.05	1.68	ea
	ORP	One-Rail Platform	1.70	1.95	0.70	ea
	ORS	One-Rail Side Mounted	2.00	2.35	0.88	ea
	<b>Bends</b>	RB32	32nb 90° Bend	1.74	2.30	
RB25		25nb 90° Bend	1.35	1.77		ea
B46-AL		46mm OD 90° Bend			0.80	ea
B38-AL		38mm OD 90° Bend			0.60	ea
HCB		Horizontal Closure Bend	2.82	3.76	1.20	ea
ACB		Angle Closure Bend	2.79	3.42	1.15	ea
<b>Pipe</b>	PGAL32NB	32nb Pipe	3.10	3.80		m
	PGAL25NB	25nb Pipe	2.41	2.94		m
	PALU46OD	46mm OD Pipe			1.30	m
	PALU38OD	38mm OD Pipe			0.97	m
<b>Flatbar</b>	100x6mm Flatbar	100x6mm - Flatbar	5.32		1.60	m
	130x6mm Flatbar	130x6mm - Flatbar	6.30			m
	130x6mm Flatbar	130x6mm - Flatbar	6.30			m



## Have Questions? We are Here to Help!

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### Product Key

-  Perforated Metal    Grating  
 Handrail    Expanded Metal