

Minima Panels

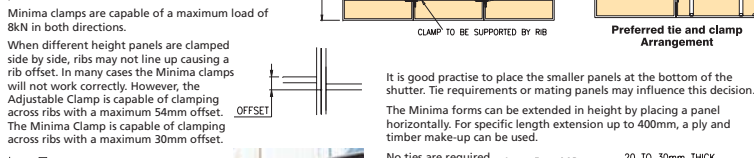
Minima Panel Details

Length	Width	Code	Weight (kg)	Length	Width	Code	Weight (kg)
1200	300	MM21230	18.7	2700	300	MM22730	38.9
1200	450	MM21245	24.0	2700	450	MM22745	45.4
1200	600	MM21260	29.2	2700	600	MM22760	53.2
1200	750	MM21275	33.5	2700	750	MM22775	60.0
1200	900	MM21290	38.5	2700	900	MM22790	69.1

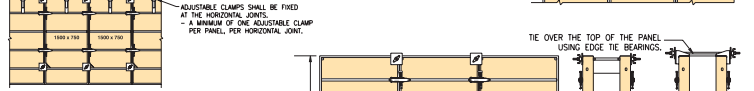
Length	Width	Code	Weight (kg)
1500	300	MM21130	22.6
1500	450	MM21145	26.5
1500	600	MM21160	31.1
1500	750	MM21175	35.9
1500	900	MM21190	41.4

Minima Panel Connections

Panels are connected by either the Minima Clamp (MM10003) or the Minima Adjustable Clamp (MM10002). The Minima Clamp can't be used on a horizontal joint. Clamping occurs at the panel edges. All clamps should be located over a panel rib. If the clamps on the vertical joints are not fixed across the ribs with a maximum 54mm offset. The Minima Clamp is capable of clamping across ribs with a maximum 30mm offset.



Minima clamps are capable of a maximum load of 8kN in both directions. When different height panels are clamped side by side, ribs may not line up causing a rib offset. In many cases the Minima clamps will not work correctly. However, the Adjustable Clamp is capable of clamping across ribs with a maximum 54mm offset. The Minima Clamp is capable of clamping across ribs with a maximum 30mm offset.



Minima Multi Purpose Panels

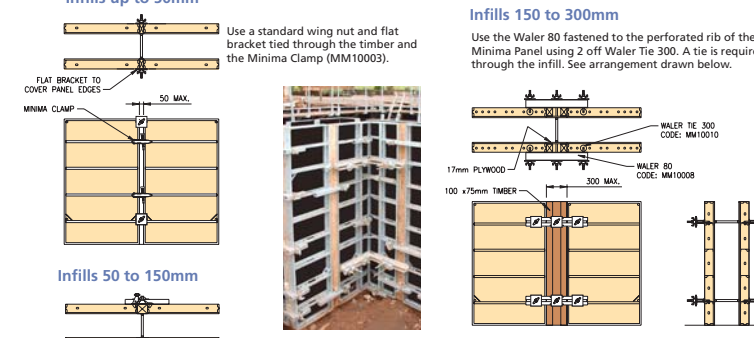
Length	Width	Code	Weight (kg)
2700	700	MM42770	60.1
1500	700	MM41570	39.2
1200	700	MM41270	35.5

Column Forms using Minima Multi Purpose Panels

The Minima Multi Purpose Panel has 2 continuous rows of tie holes which permits the joining of panels that fly past at corners. Using a Multi Purpose bolt and Multi Purpose nut, the Multi Purpose panels can be joined side to side as shown to the right. Only one side has a corresponding tie hole.

Minima Panel Infill Connections

To achieve a specific form length, timber infills may be required. Use a timber and ply make up to suit a panel depth of 120mm and tie with the following arrangements. When packer exceeds 50mm thick, Waler Tie Nut 230 must be used.



Gangform Shuttles

Minima Panels may be assembled into gangforms to create savings in time and labour for multiple pours on site. Care should be taken in both the design and construction of these shuttles to ensure that the joints are clamped or bolted correctly to construct a rigid structure suitable for moving by crane.

When lifting gangformed shuttles of three panels or more wide, the Minima Crane Hooks should be placed at the ends of the shutter. If infills are located within these shuttles they need to be bolted thru the adjoining panels using Tension Bolt 190's (MM10002), Flat Brackets 130 x 100 x 8 (BT2005) and 15mm Wing Nut or Full Nut. They shouldn't be clamped.

Minima Corners

Internal Corner

Size	Code	Weight (kg)
2700 x 300	MM32730	66.2
1500 x 300	MM31730	37.9
1200 x 300	MM31230	30.6

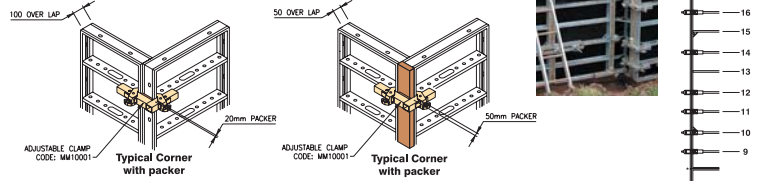
Hinged Corner 300mm

Size	Code	Weight (kg)
2700 x 300	MM52730	71.7
1500 x 300	MM51730	41.3
1200 x 300	MM51230	33.9

Hinged Corner 150mm

Size	Code	Weight (kg)
2700 x 150	MM52715	49.2
1500 x 150	MM51715	27.8

Corner clamps have an incorporated 20mm packer to achieve an even 100mm over lap, as the panel is 120mm deep. The clamp is adjustable to fit an extra 50mm packer to achieve 50mm increments in panel lengths. The clamps are positioned over a panel rib.

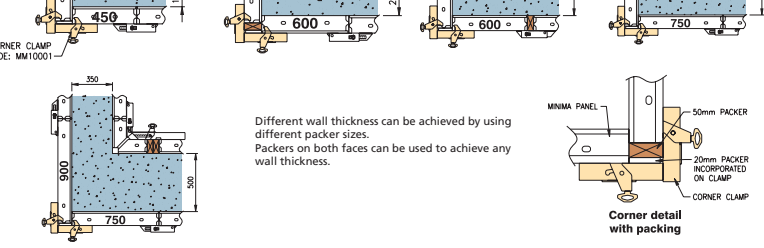


WALL HEIGHT	WALL WIDTH	PANEL RIB POSITION																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
3.0m	300mm																		
	400mm																		
	500mm																		
3.5m	300mm																		
	400mm																		
	500mm																		
4.2m	300mm																		
	400mm																		
	500mm																		

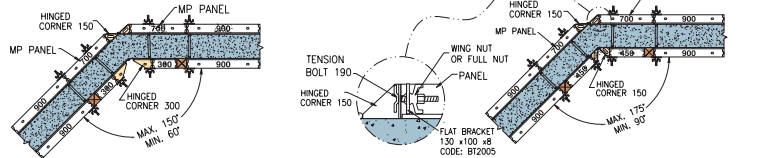
For walls higher than 2.7m, the Minima Panel make-up should always include a 2700mm high panel on the bottom. For walls greater than 4.2m, 2 No. 2700mm panels are required at the bottom.

Minima Corner Arrangements

Corner arrangements can be made neatly in 50mm increments from a wall thickness of 150mm to 500mm. Some corners require a 50mm packer within the corner clamp or between the connecting panel. It is important that the panel ends are equal lengths to allow for the tie holes to line up. Multi Purpose Panels can be used in complicated situations.

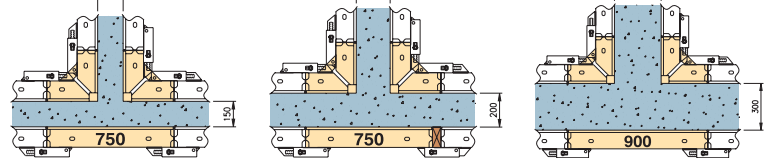


Obtuse and Acute Angle Arrangements: Using the hinged corners 150 and 300, it is possible to form non-right angled corners. Hinged corner 300 can only be used as an internal corner. Standard Minima clamps are used to connect them to panels. Hinged corner 150 can be used as an internal or an external corner. A tension bolt 190 is used to connect them to panels.



Minima 'T' Junction Arrangements

'T'-junctions can be formed for wall thickness of up to 400mm. Alternative wall thickness can be achieved by using different packing. It is important that the panel ends are equal lengths to allow for the tie holes to line up. Multi Purpose Panels can be used in complicated situations.



Minima Clamps

Minima Clamp

Code	Weight (kg)
MM10003	3.37

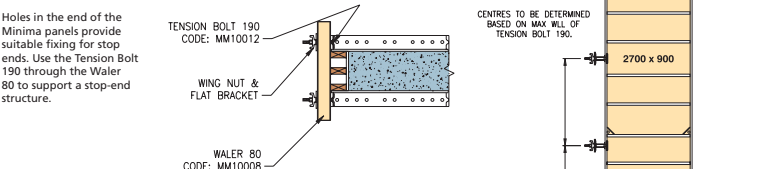
Corner Clamp

Code	Weight (kg)
MM10001	6.1

Adjustable Clamp

Code	Weight (kg)
MM10002	5.0

Stop-End Arrangement



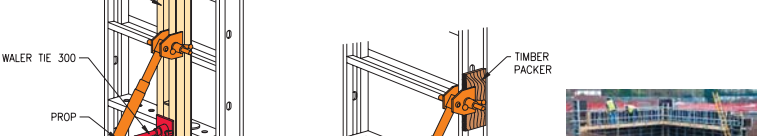
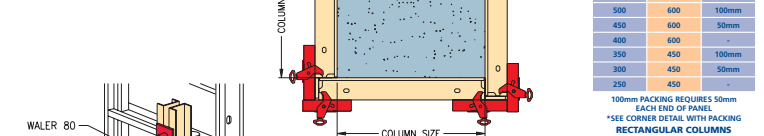
Column Forms using Standard Minima Panels

Standard Minima panels can be used to form both square and rectangular columns to a maximum height of 3.0m. Column cross sections range from 300mm to 900mm. The number of corner clamps required depends on the height and width of the forms.

COLUMN SIZE	PANEL SIZE	PACKING REQUIRED*
850 x 850	900	50mm
800 x 800	900	50mm
700 x 700	750	50mm
650 x 650	750	50mm
550 x 550	600	50mm
500 x 500	600	50mm
400 x 400	450	50mm
350 x 350	450	50mm

*SEE CORNER DETAIL WITH PACKING SQUARE COLUMNS AVAILABLE SIZES

FORM HEIGHT	PANEL WIDTH	NUMBER OF CLAMPS REQUIRED
< 600mm	> 600mm	4
1500	3	3
2700	4	4
3000 (1500 x 2)	5	6

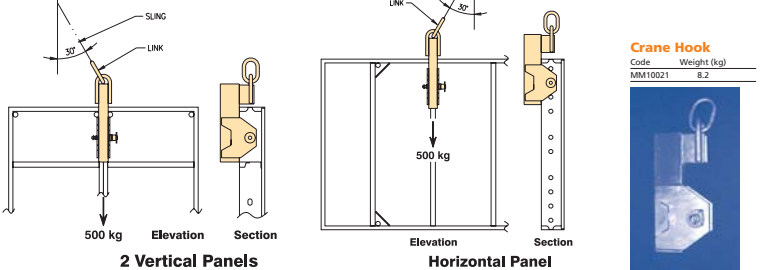


The Waler 80 can be used to connect the Alignment Prop to the column form. 2 off Waler Tie 300's are required to secure the Waler to the form.

Minima Crane Hook MM10021

Description of Use: The Minima Crane Hooks are used for lifting either single Minima panels, or Minima panels assembled into large shuttles. Two Minima Crane Hooks are used at all times. The Minima Crane Hook is engaged around either the top of edge of the vertical panel or side edge of the horizontal panel. The hook is always located around a vertical rib, or ribs. The captive pin needs to be fully engaged through the holes in the panel ribs before a sling is attached. A pair of suitable slings are attached to the links on the two Crane Hooks. The slings needs to be of a length that ensures that the maximum angle of spread between the two slings is 60°. Please consult the Minima Technical Data Sheet for further information about the Minima Crane Hook.

Lifting Capacity



Other Minima Accessories

Waler 80

Code	Weight (kg)
MM10008	6.3

Tension Bolt 190

Code	Weight (kg)
MM10012	0.9

Waler Tie 300

Code	Weight (kg)
MM10010	0.8

Edge Tie Bearing

Code	Weight (kg)
MM10023	2.4

Flat Bracket 130 x 100 x 8mm

Code	Weight (kg)
BT2005	0.79

Flat Bracket 130 x 130 x 10mm

Code	Weight (kg)
BT2004	1.31

MP Bolt

Code	Weight (kg)
MM10014	0.6

MP Nut

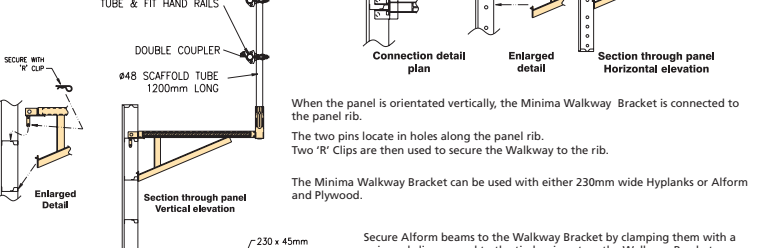
Code	Weight (kg)
MM10015	0.4

Walkway Bracket

Code	Weight (kg)
MM10006	14.0

Minima Access

The Minima Walkway Bracket can be connected to both vertically and horizontally orientated Minima panels in both horizontal and vertical directions. In both cases, the Walkway Bracket is attached to the panel rib and is fixed at the closest position to the top of the shutter. Hand rails are constructed using tube and fittings.



When the panel is orientated horizontally, the Minima Walkway Bracket is connected to the panel rib. The two slings locate around the rib. A Super Slim Connecting Pin is used to secure the Walkway to the rib.

When the panel is orientated vertically, the Minima Walkway Bracket is connected to the panel ribs. The two pins locate in holes along the panel rib. Two 'R' Clips are then used to secure the Walkway to the rib.

The Minima Walkway Bracket can be used with either 230mm wide Hyplanks or Alform and Plywood. Secure Alform beams to the Walkway Bracket by clamping them with a universal clip screwed to the timber insert on the Walkway Bracket.

Hyplanks can be arranged 4 planks wide. Secure the planks to the Walkway Bracket by nailing them to the timber insert on the Walkway Bracket. When using planks, brackets are not to be more than 1800mm apart. Planks may be lapped when necessary.

When edge protection is required without a walkway, a tube and fitting arrangement can be applied to the panel. A single coupler is bolted to the rib pressing with a M16 bolt and nut. The M16 bolt must have a low profile head or machined head to stay clear of the scaffold tube. A washer should be used under the nut to reduce damage to the rib.

Minima Medium & Short Alignment Props

The Minima Alignment Prop aligns and secures single Minima Panels up to a height of 2700mm. The prop comes completely assembled, including clamps, props and a base unit. The props are usually clamped to the edge profiles of the panel joints unless special arrangements are required. If propping must occur at the end panel, a timber packer is required.



Our policy is one of continuous improvement and we reserve the right to change, alter or modify any detail, design, weight, dimension or code without prior notice being given.

For further technical information on Minima please refer to the Minima Technical Data Sheet

Minima Wallchart Version 1 Issued November 05

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