



CATALOGUE

ECO-FORM PANELS



ECO-FORM PANELS

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ECO-FORM

WORCA ECO-form is a high end panels product with a medium duty load capacity, it is one of the most preferable formwork systems for columns and walls when fast and high repetition pouring cycle is essential. ECO-form panels also can be either man-handled when lifting each panel separated or crane-handled according to site conditions.


ECO-FORM WALLS




TIME SAVER




COMPATIBLE




MEDIUM DUTY




SIMPLE ASSEMBLY



SUPERIOR CONCRETE FINISH



MAN HANDLE
For single panel



CRANE HANDLE
For assembled panels

APPLICATIONS

- Pile caps.
 - Walls.
 - Foundations.
 - Culverts.
- Beams sides
 - Cores, tanks.

LOADS

Permitted fresh-concrete pressure				
	55kN/m ²	70 kN/m ²	85 kN/m ²	90 kN/m ²
1.05m	✓			
0.90m	✓			
0.75m	✓	✓		
0.60m	✓	✓	✓	
0.45m	✓	✓	✓	✓
0.30m	✓	✓	✓	✓

ACCORDING TO BS CODE [BS 5950 2000]

TECHNICAL DATA

- **Clamp range**
Coupler, universal clamp [Filler 0 - 100 mm] & Compensation waler [Filler 100 - 300 mm].
- **Allowable height**
Up to 7.20 m
- **Assembly**
With crane assistance or man handling. Panels are aligned, connected together ensuring tight and flush connections using couplers / universal clamp and Compensation Waler.
- **Concrete finish**
Fair-faced concrete quality finishing obtained by using premium WORCA board



- **Panels surface**
Superb powder coating allows easy and fast cleaning, also maintenance and long life.
- **Corner**
Fixed [90°] / hinged [55° - 180°].
Internal @ external

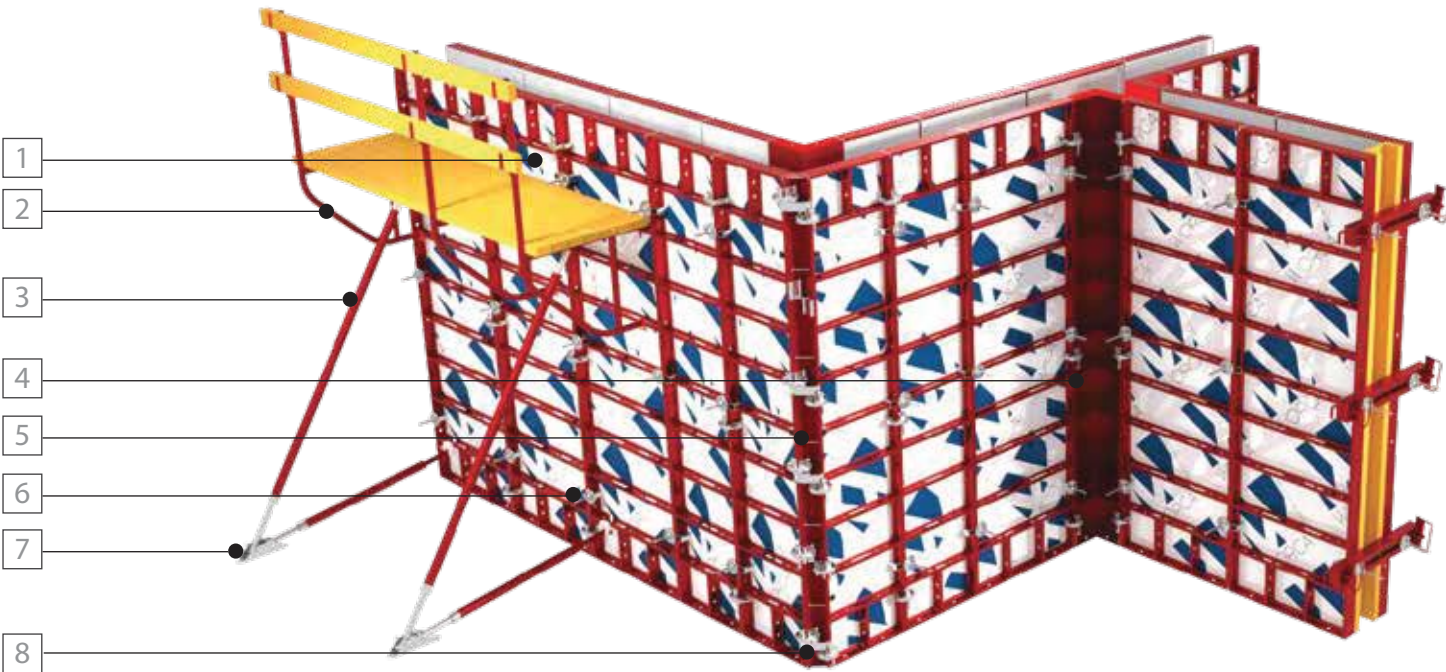
COMPATIBILITY

- Single Sided Walls (Light Frames / Brace Frames / HD Trusses)
- ACCS Crane Climbing Brackets
- AOSB190 Single Sided Climbing Brackets
- BSC Self-Climbing Brackets
- Hi-Skaf

PANEL RANGE

Width [m]	Height [m]				
	0.60	1.20	1.80	2.40	3.00
0.30	● ▲	● ▲	● ▲	● ▲	● ▲
0.45	● ▲	● ▲	● ▲	● ▲	● ▲
0.60	● ▲ ■	● ▲ ■	● ▲	● ▲	● ▲ ■
0.75	● ▲ ■	● ▲ ■	● ▲	● ▲	● ▲ ■
0.90	● ▲ ■	● ▲ ■	● ▲	● ▲	● ▲ ■
1.05	● ▲	● ▲	● ▲	● ▲	● ▲

■ COLUMN PANELS ● WALL PANELS ▲ MULTI PANELS



MAIN COMPONENTS

Supplied by WORCA

- 1- ECO-form panel C/W. WORCA board
- 2- Access brackets
- 3- Tilting items
- 4- ECO-form internal corner panel
- 5- ECO-form external corner angle
- 6- ECO-form coupler
- 7- Double base plate
- 8- Connecting rivets, bolts and nuts

SITE REQUIREMENTS

Supplied by Contractor



TIMBER



R.C. ANCHOR BOLTS



PLASTIC TUBE



ASSEMBLY TOOLS




PROJECT REFERENCES

ECO-form wall panel







ECO-FORM COLUMNS




TIME SAVER




COMPATIBLE




MEDIUM DUTY




SIMPLE ASSEMBLY



SUPERIOR CONCRETE FINISH



MAN HANDLE
For single panel



CRANE HANDLE
For assembled panels

APPLICATIONS

- Pile caps.
- Columns.
- Foundations.
- Beams side.

LOADS

Panel Width	Permitted fresh-concrete pressure		
	70 kN/m ²	75kN/m ²	80 kN/m ²
	0.90m	✓	
	0.75m	✓	✓
	0.60m	✓	✓

ACCORDING TO BS CODE [BS 5950 2000]



TECHNICAL DATA

- **Allowable height**
Up to 7.20 m
- **Assembly**
With crane assistance or man handling. Panels are aligned, connected together ensuring tight and flush connections using couplers.
- **Concrete finish**
Fair-faced concrete quality finishing obtained by using premium WORCA board



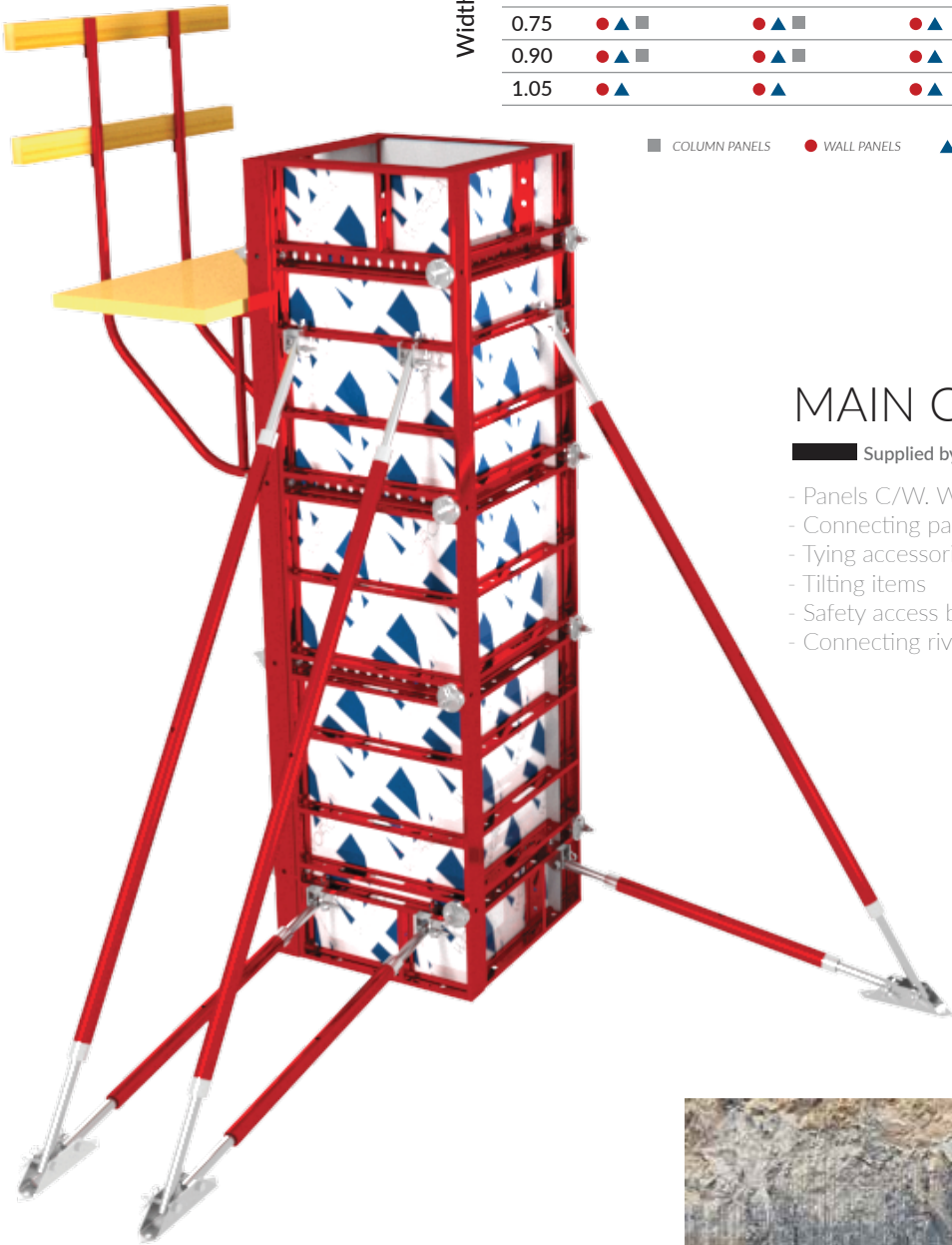
- **Panels surface**
Superb powder coating allows easy and fast cleaning, also maintenance and long life.

COMPATIBILITY

- Single Sided Walls (Light Frames / Brace Frames / HD Trusses)
- ACCS Crane Climbing Brackets
- AOSB190 Single Sided Climbing Brackets
- BSC Self-Climbing Brackets
- Hi-Skaf

PANEL RANGE

Width [m]	Height [m]				
	0.60	1.20	1.80	2.40	3.00
	0.30	● ▲	● ▲	● ▲	● ▲
	0.45	● ▲	● ▲	● ▲	● ▲
	0.60	● ▲ ■	● ▲ ■	● ▲ ■	● ▲ ■
	0.75	● ▲ ■	● ▲ ■	● ▲ ■	● ▲ ■
	0.90	● ▲ ■	● ▲ ■	● ▲ ■	● ▲ ■
	1.05	● ▲	● ▲	● ▲	● ▲
■ COLUMN PANELS ● WALL PANELS ▲ MULTI PANELS					




MAIN COMPONENTS


- Supplied by WORCA
- Panels C/W. WORCA board
 - Connecting parts (Couplers & compensation walers)
 - Tying accessories
 - Tilting items
 - Safety access brackets
 - Connecting rivets, bolts and nuts

SITE REQUIREMENTS


Supplied by Contractor



TIMBER



R.C. ANCHOR BOLTS



PLASTIC TUBE



ASSEMBLY TOOLS



PROJECT REFERENCES

ECO-form column panel



ECO-FORM MULTI-PANEL

TIME SAVER

COMPATIBLE

MEDIUM DUTY

SIMPLE ASSEMBLY

SUPERIOR CONCRETE FINISH

MAN HANDLE
For single panel

CRANE HANDLE
For assembled panels

ECO Multi-Panel takes the good of both, it can work as column or wall. This gives the panel great advantage over the regular panel in many situations. Also, the presented design keeps the advantage of using the panel along with any regular panel using same accessories.

APPLICATIONS

- Foundations.
 - Columns.
 - Pile caps.
 - Beams side.
- Walls
 - Cores, tanks.
 - Culverts

LOADS

	Permitted fresh-concrete pressure					
	55 kN/m²	56 kN/m²	70 kN/m²	85 kN/m²	90 kN/m²	100 kN/m²
1.05m	✓					
0.90m	✓	✓				
0.75m	✓	✓	✓			
0.60m	✓	✓	✓	✓		
0.45m	✓	✓	✓	✓	✓	
0.30m	✓	✓	✓	✓	✓	✓

ACCORDING TO BS CODE [BS 5950 2000]

PANEL RANGE

	Height [m]				
	0.60	1.20	1.80	2.40	3.00
Width [m]	0.30	● ▲	● ▲	● ▲	● ▲
	0.45	● ▲	● ▲	● ▲	● ▲
	0.60	● ▲ ■	● ▲	● ▲	● ▲ ■
	0.75	● ▲ ■	● ▲	● ▲	● ▲ ■
	0.90	● ▲ ■	● ▲	● ▲	● ▲ ■
	1.05	● ▲	● ▲	● ▲	● ▲
■ COLUMN PANELS ● WALL PANELS ▲ MULTI PANELS					

TECHNICAL DATA

Supplied by WORCA

- **Clamp range**
Coupler, universal clamp [Filler 0 - 100 mm] & Compensation waler [Filler 100 - 300 mm].
- **Allowable height**
Up to 7.20 m
- **Assembly**
With crane assistance or man handling. Panels are aligned, connected together ensuring tight and flush connections using couplers - universal clamp.
- **Concrete finish**
Fair-faced concrete quality finishing obtained by using premium WORCA board



- **Panels surface**
Superb powder coating allows easy and fast cleaning, also maintenance and long life.

SITE REQUIREMENTS

Supplied by Contractor



TIMBER



R.C ANCHOR BOLTS



PLASTIC TUBE



ASSEMBLY TOOLS

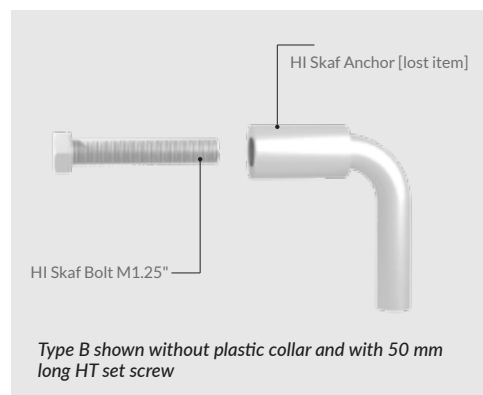
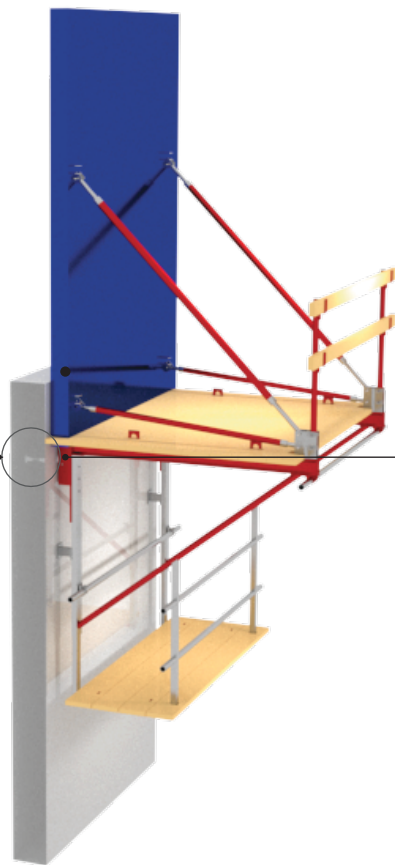


HI-SKAF

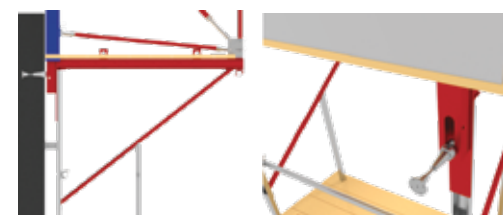
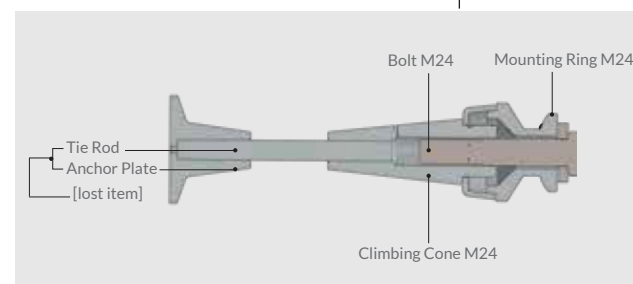
REGULAR

WORCA standard Hi-Skaf scaffold brackets have been developed as main members for an external suspended scaffold system. It is possible to extend the scope of these brackets with use of scaffold tubes and fittings to offer two or three levels of suspended platforms one below the other. The scaffold brackets are used at a maximum horizontal spacing of 2.40 m center to center. For practical purposes, a number of brackets are assembled together to form a unit, the scaffold brackets being connected together by scaffold tube and re-positioning these units is usually done by crane.

WITH FINISHING PLATFORM



Hi-Skaf type [B]



Hi-Skaf type [A]

ACCESS LADDERS

Since safe and efficient access is paramount in formwork, WORCA offers a diverse selection of access ladders tailored to various formwork systems. These ladders can be customized to your needs and the specific system you're using, with options such as safety cages, trap doors, and compatible connection parts. To find the perfect access ladder for your project, consult your trusted WORCA sales representative.



Ladder to Eco-Form Connection



WORCA BOARD



SPECIAL CLIENT BENEFITS

Formwork stripping

WORCA-BOARD is a non-stick formwork material that can be easily stripped from concrete without the need for a release agent. This leaves a clean and superior smooth concrete surface.

Physical Performance

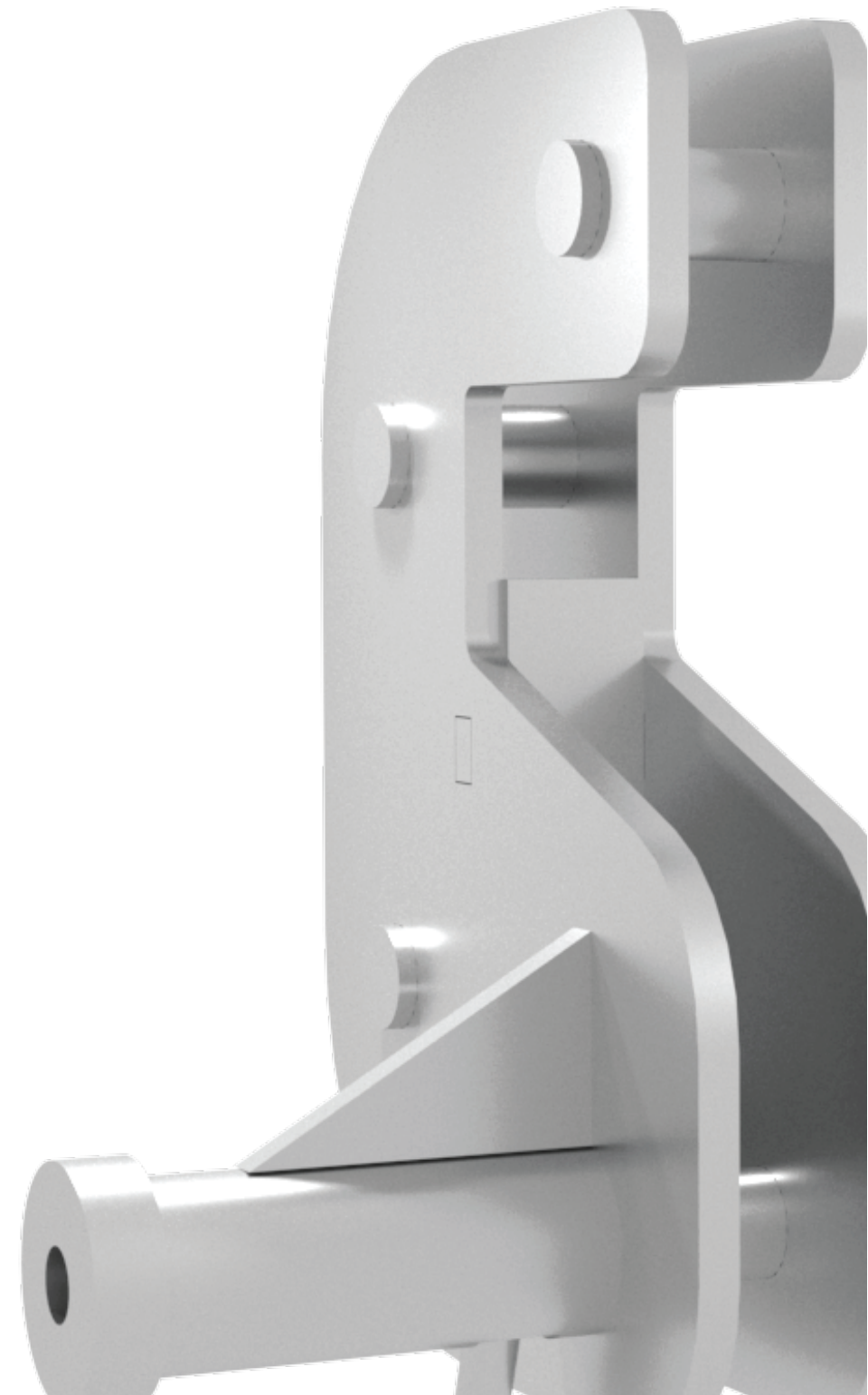
Can withstand moisture, and fire.

Site Requirement

No special tools or equipment needed when working with the WORCA-BOARD. Traditional timber tools, nails, saw hammer...etc. are used.



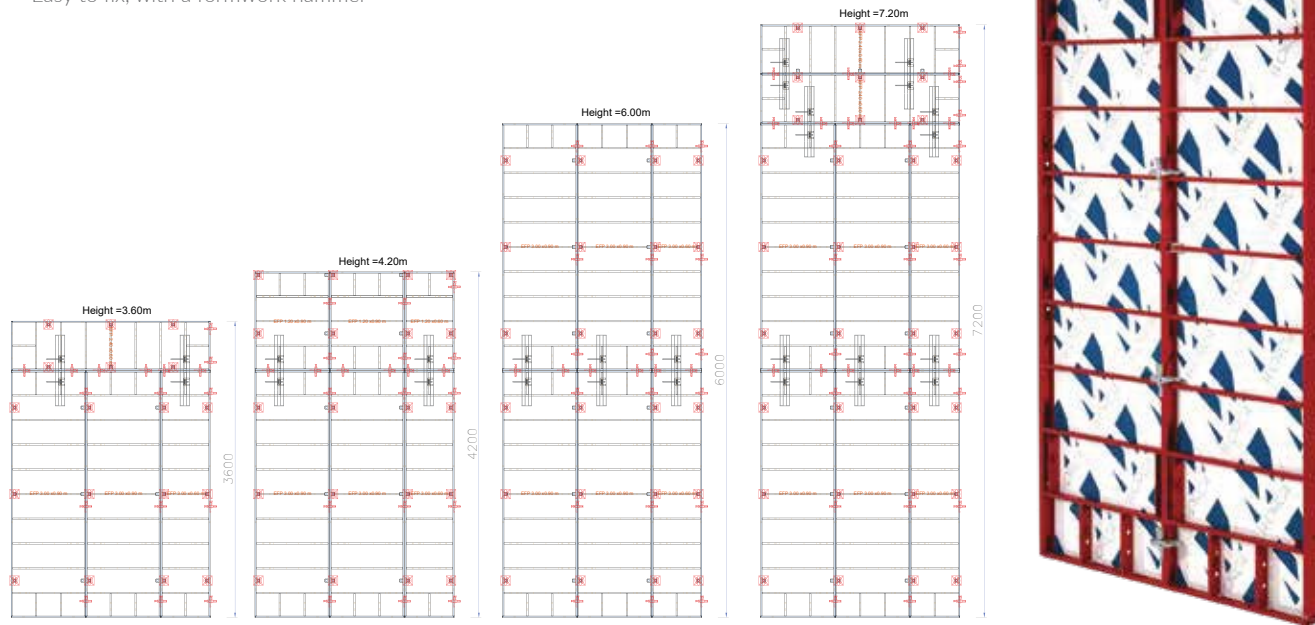
SOLUTIONS



ECO-FORM PANELS CONNECTIONS

Attributes of ECO-form accessories for connecting panels:

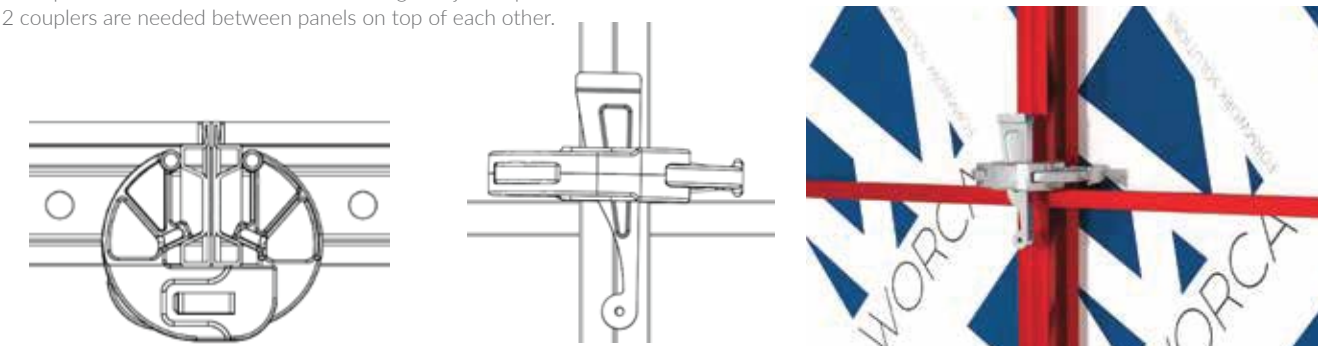
- Provide self-aligning, crane-handling-safe connections between the panels
- No losable small parts
- Dirt-resistant and hard-wearing for site use
- Easy to fix, with a formwork hammer



SIMPLE PANELS CONNECTIONS (WITHOUT FILLERS)

Using ECO-form Coupler (EFC)

3 couplers are needed to connect 3.0m height adjacent panels.
2 couplers are needed between panels on top of each other.



PANELS CONNECTIONS WITH FILLERS UP TO 10 CM

Using ECO-form Universal Coupler (EFUC)

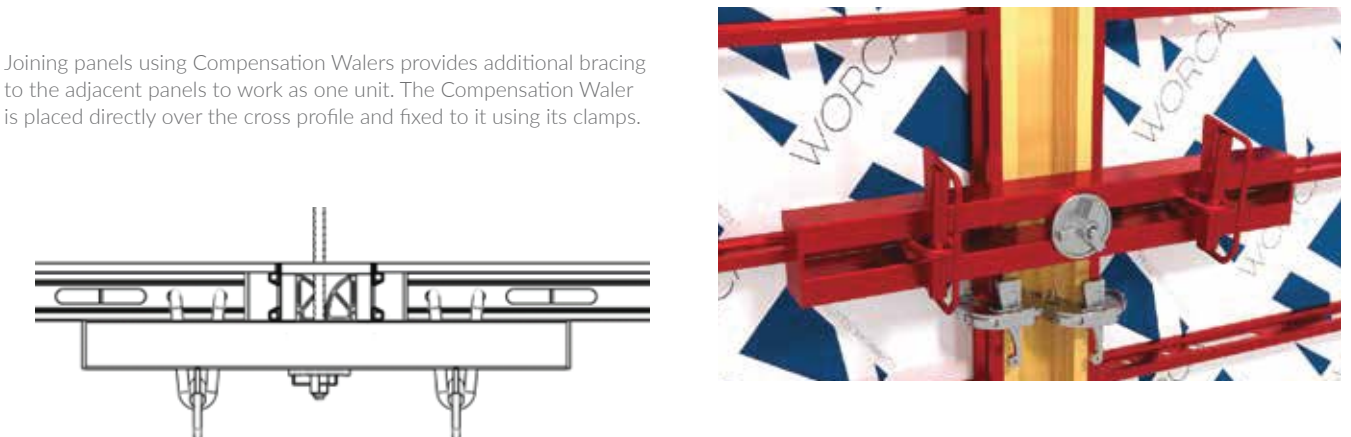
With the Universal coupler, the panels are joined so that they are resistant to tensile forces, and are aligned at the same time. The Universal coupler is placed directly over the cross profile.



PANELS CONNECTIONS WITH FILLERS (10 CM < FILLER < 30 CM)

Using ECO-form Compensation Waler (EFCW)

Joining panels using Compensation Walers provides additional bracing to the adjacent panels to work as one unit. The Compensation Waler is placed directly over the cross profile and fixed to it using its clamps.



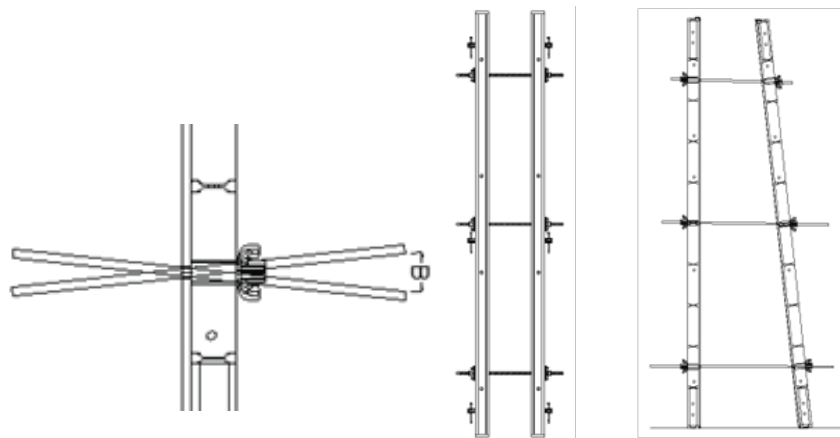
PANELS EXTENSIONS (VERTICAL STACKING OF PANELS)

Panels are stacked vertically up to a height of 7.20m using only ECO-form Couplers (EFC) & ECO-form Compensation Walers (EFCW).

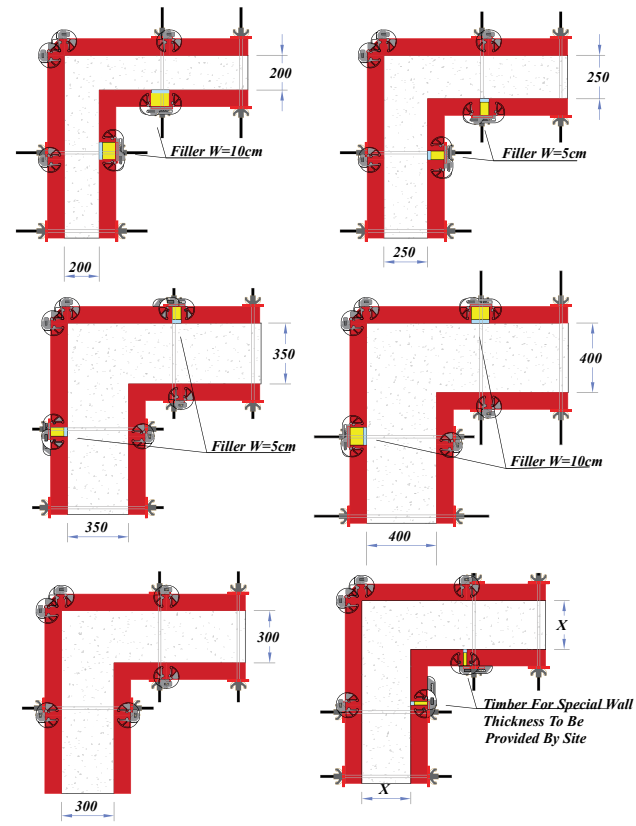


TYING SYSTEM

Tie Rods DW15 system is used with the ECO-form panels. Tapered plastic sleeves pass through the ECO-form panel frame to allow an inclination angle of +/-5° for the tie-rod



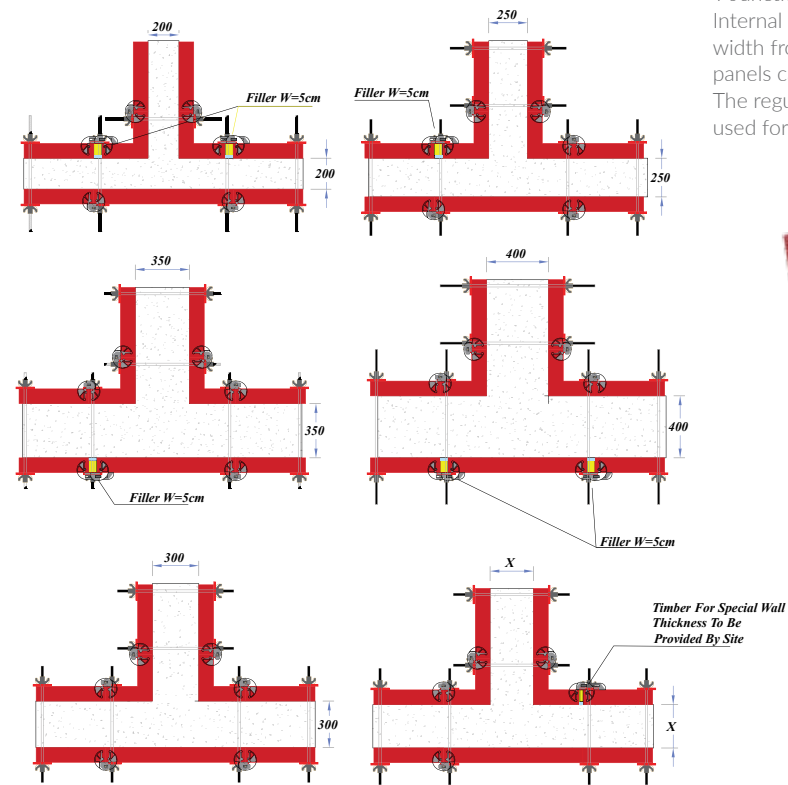
90° CORNERS



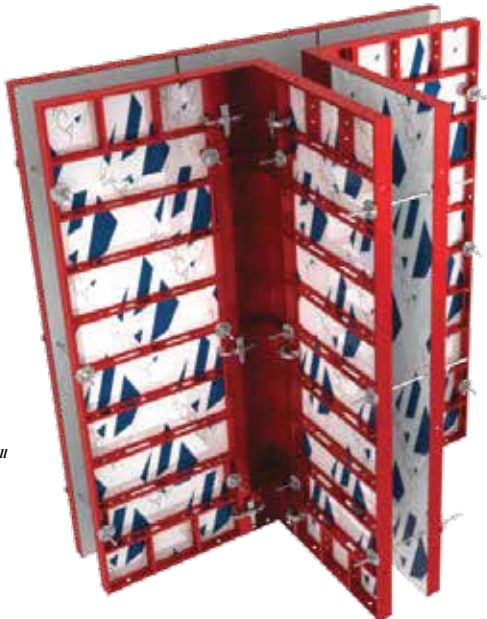
Corners for any wall thickness can be handled using ECO-form Internal Corner Panels from inside, and ECO-form External Corner Angles from outside with ECO-form panels with the right width. Any difference between the inside and outside panels can be compensated using 50mm or 100mm filling timber. The regular number of ECO-form Couplers / Universal Clamps are used for the internal side, while additional couplers are required for the external side to ensure tight connections (5 couplers per 3.0 m height for each side of the External Angle).



T-JUNCTION



T-Junction for any wall thickness can be handled using ECO-form Internal Corner Panels from inside, and ECO-form Panels with the right width from outside. Any difference between the inside and outside panels can be compensated using 50mm or 100mm filling timber. The regular number of ECO-form Couplers / Universal Clamps are used for all connections.



PUSH-PULL-BRACING

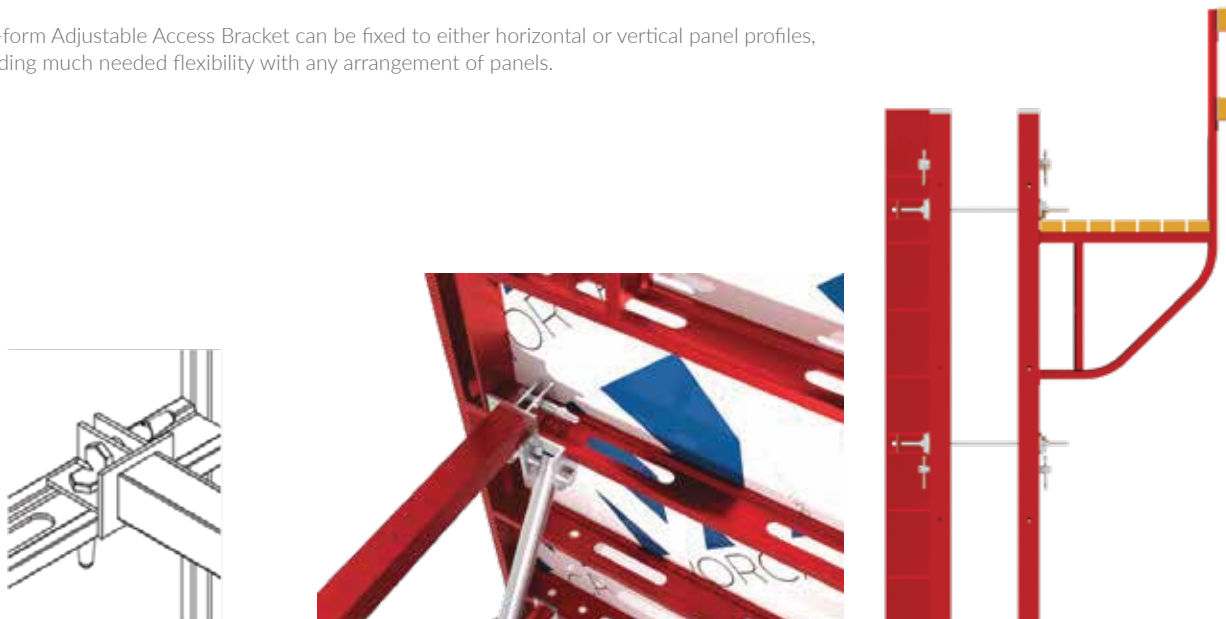
Push-Pull Props are connected to the ECO-form panels using ECO-form Double Shore Connector, which can be fixed to either the horizontal or vertical profiles of the panels. This provides the system with much needed flexibility. First panel must be braced with 2 push-pull props, and the arrangement afterwards is according to design tables based on height and wind conditions.



SAFETY ACCESS BRACKETS

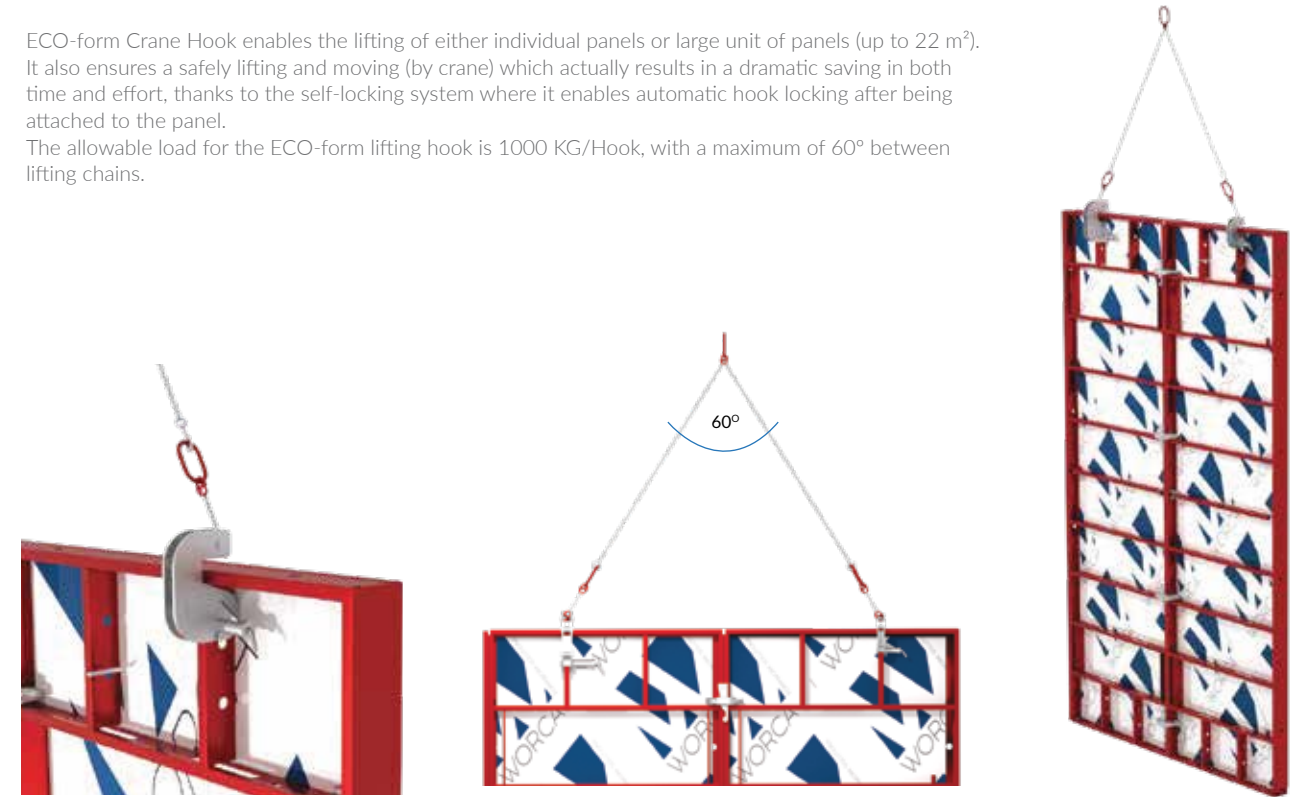
Since safety during concreting is a must, the wide working access bracket enables for a safer and faster working environment with an allowable load of 150 KG/m².

ECO-form Adjustable Access Bracket can be fixed to either horizontal or vertical panel profiles, providing much needed flexibility with any arrangement of panels.



LIFTING

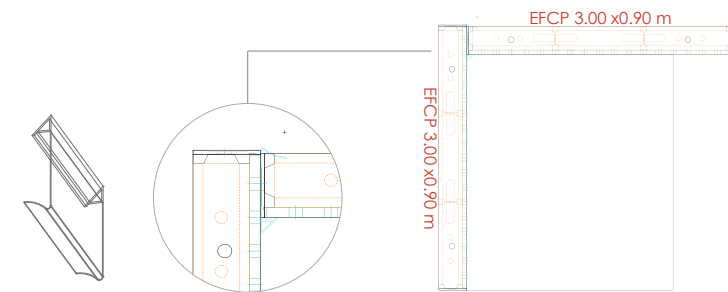
ECO-form Crane Hook enables the lifting of either individual panels or large unit of panels (up to 22 m²). It also ensures a safely lifting and moving (by crane) which actually results in a dramatic saving in both time and effort, thanks to the self-locking system where it enables automatic hook locking after being attached to the panel. The allowable load for the ECO-form lifting hook is 1000 KG/Hook, with a maximum of 60° between lifting chains.



COLUMN FORMWORK

Any column section can be shuttered in a windmill principle with ECO-form Column Panels, from 20x20 cm up to any size in 5cm increments. Perpendicular panels are closed together using WORCA Bolts. ECO-form Couplers, Compensation Walers & Tie Rods are added when any side requires several adjacent panels.

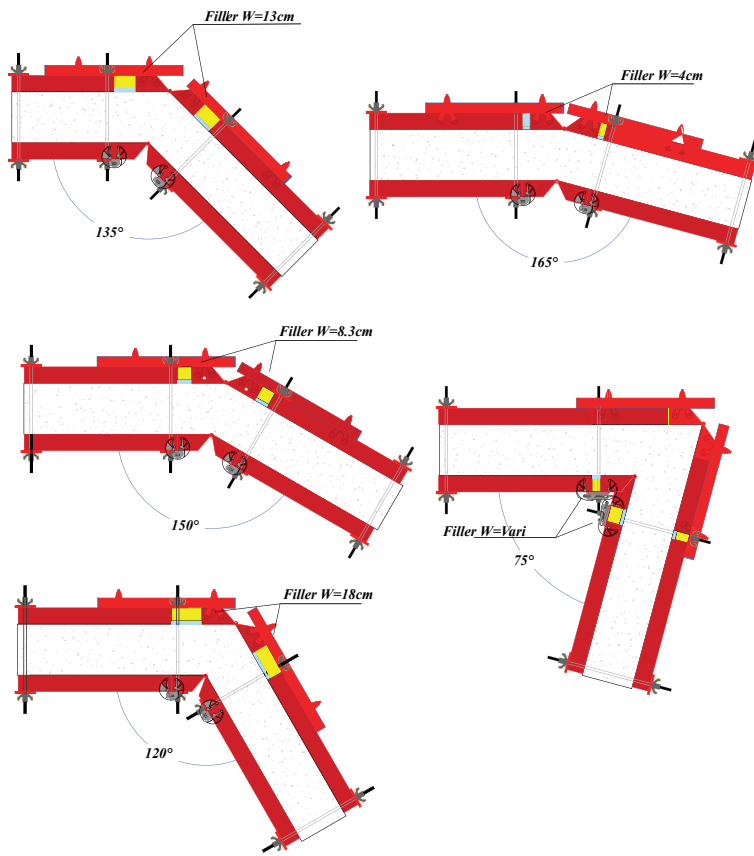
ECO-form Plastic Chamfers are used to have smooth chamfered corners. Their assembly is very easy - without nailing - by just pushing them in place [must be requested by customers].



Concreting Platforms for ECO-form columns are a safe and convenient way for concreting works. It has all the necessary safety measures and accessibility. It comes in 3 different sizes , each size covers a wide range of columns



ACUTE & OBTUSE-ANGLED CORNERS

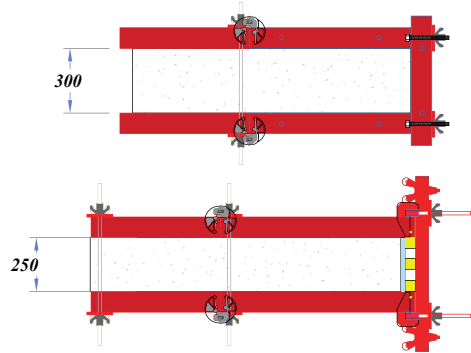


Articulated corners (either acute or obtuse angle) for any wall thickness can be handled using ECO-form Hinged Corner Panels from inside, and the same Hinged Corner Panels with ECO-form Multi-Panels with the right width from outside. Any difference between the inside and outside panels can be compensated using 50mm or 100mm filling timber. Using the same Hinged Corner Panel from both sides ease the work and reduce the number of different components required for the corner. Additional couplers are required for the external side to ensure tight connections (5 couplers per 3.0 m height), with also 2 ECO-form Compensation Walers per connection.



STOP-END FORMWORK

Stop-Ends for any wall thickness can be closed by either one of these 2 methods:
a) Traditionally closed with plywood & forming timber and lock them with ECO-form Compensation Walers fixed to both sides of the wall using ECO-form Stop-End Ties.
b) With ECO-form Multi-Panel with the suitable width fixed to both sides of the wall using WORCA Bolts.



PILASTERS

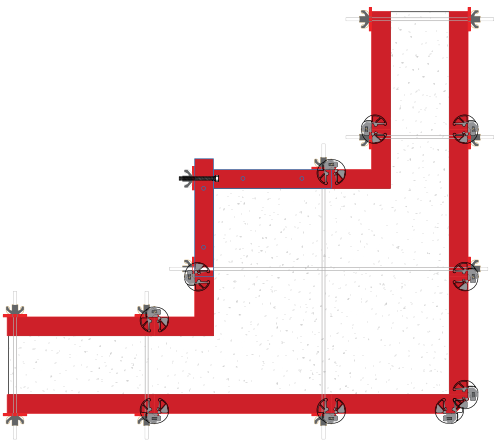
IN MID-WALLS:

Similar solutions to Stop-Ends but with the use of ECO-form Internal Corner Panels.



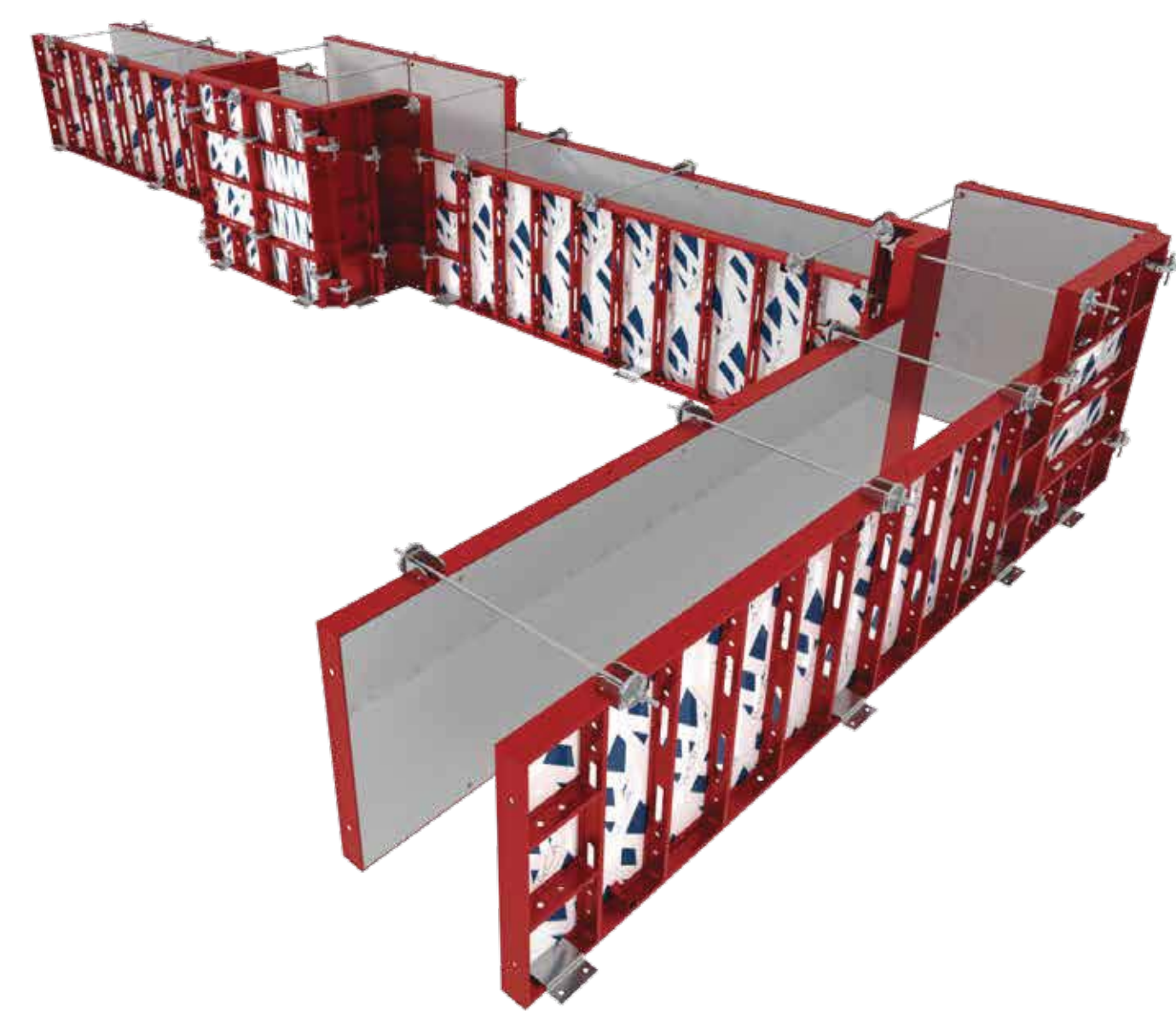
AT CORNERS:

Using ECO-form Internal Corner Panels & 2 perpendicular Multi-Panels tied together with WORCA Bolts. Timber fillers are used when necessary specially with small sizes of pilasters.



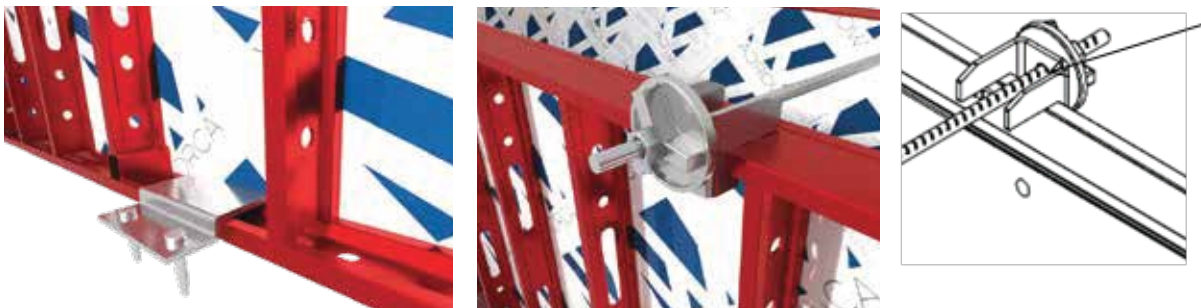
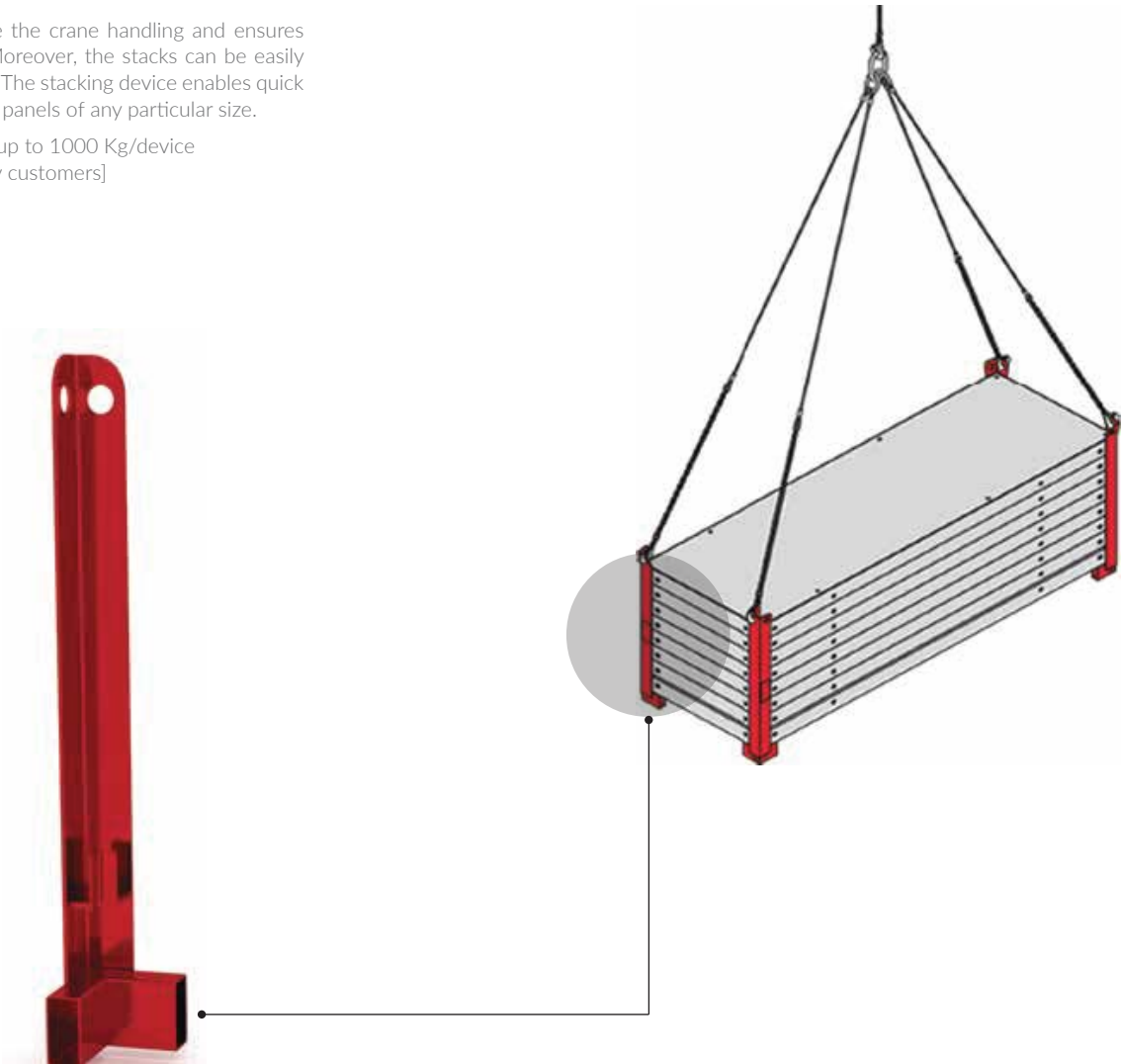
FOUNDATION FORMWORK

ECO-form panels and specific accessories facilitate the forming of all types of foundations, whether it is a single column footing, a wall strip footing or a raft. The 2 main accessories for foundations are the ECO-form Top Tie Clamp & the Lower Cleat Angle. They replace the regular tie-rods positions and eliminate the necessity of having the ECO-form panels aligned exactly, with the possibility to tie at any position on the panel.



STORAGE

- Stacking device ease the crane handling and ensures easier site stacking. Moreover, the stacks can be easily moved with a fork-lift. The stacking device enables quick and safe stacking of 8 panels of any particular size.
- Safe working load = up to 1000 Kg/device [must be requested by customers]




SYSTEM COMPONENTS

[WALL - COLUMN - MULTI PANEL]



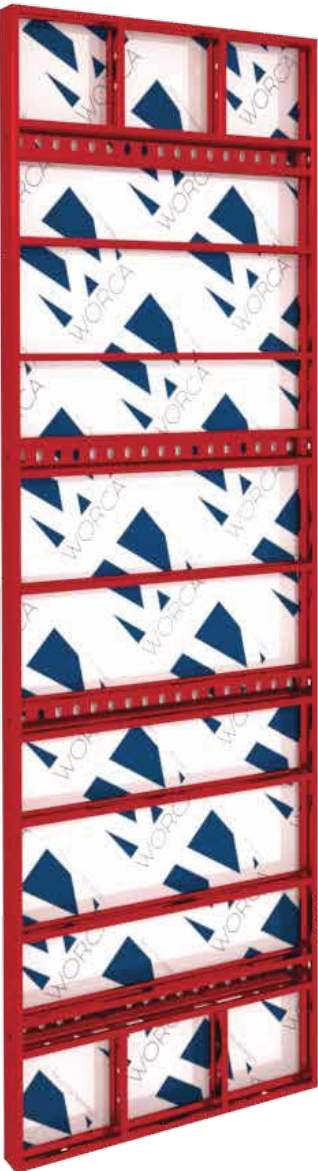


[A] ECO-FORM WALL

Item	Description	Weight (kg)
ECO-form wall panel [with WORCA board]		
	ECO-Form Panel 3.00 x W 1.05 m (WB)	108.21
	ECO-Form Panel 3.00 x W 0.90 m (WB)	96.73
	ECO-Form Panel 3.00 x W 0.75 m (WB)	79.92
	ECO-Form Panel 3.00 x W 0.60 m (WB)	69.52
	ECO-Form Panel 3.00 x W 0.45 m (WB)	59.13
	ECO-Form Panel 3.00 x W 0.30 m (WB)	46.94
	ECO-Form Panel 2.40 x W 1.05 m (WB)	84.47
	ECO-Form Panel 2.40 x W 0.90 m (WB)	76.01
	ECO-Form Panel 2.40 x W 0.75 m (WB)	65.76
	ECO-Form Panel 2.40 x W 0.60 m (WB)	57.31
	ECO-Form Panel 2.40 x W 0.45 m (WB)	50.92
	ECO-Form Panel 2.40 x W 0.30 m (WB)	38.62
	ECO-Form Panel 1.80 x W 1.05 m (WB)	66.19
	ECO-Form Panel 1.80 x W 0.90 m (WB)	59.67
	ECO-Form Panel 1.80 x W 0.75 m (WB)	54.60
	ECO-Form Panel 1.80 x W 0.60 m (WB)	44.86
	ECO-Form Panel 1.80 x W 0.45 m (WB)	38.36
	ECO-Form Panel 1.80 x W 0.30 m (WB)	30.06
	ECO-Form Panel 1.20 x W 1.05 m (WB)	46.84
	ECO-Form Panel 1.20 x W 0.90 m (WB)	42.27
	ECO-Form Panel 1.20 x W 0.75 m (WB)	35.90
	ECO-Form Panel 1.20 x W 0.60 m (WB)	31.35
	ECO-Form Panel 1.20 x W 0.45 m (WB)	26.78
	ECO-Form Panel 1.20 x W 0.30 m (WB)	20.42
	ECO-Form Panel 0.60 x W 1.05 m (WB)	27.48
	ECO-Form Panel 0.60 x W 0.90 m (WB)	24.84
	ECO-Form Panel 0.60 x W 0.75 m (WB)	20.58
	ECO-Form Panel 0.60 x W 0.60 m (WB)	17.82
	ECO-Form Panel 0.60 x W 0.45 m (WB)	15.35
	ECO-Form Panel 0.60 x W 0.30 m (WB)	10.84





[B] ECO-FORM COLUMN

Item	Description	Weight (kg)
ECO-form column panel [with WORCA board]		
	ECO-Form Column Panel H 3.00 x W 0.90 m (WB)	110.28
	ECO-Form Column Panel H 3.00 x W 0.75 m (WB)	95.15
	ECO-Form Column Panel H 3.00 x W 0.60 m (WB)	79.51
	ECO-Form Column Panel H 1.20 x W 0.90 m (WB)	50.89
	ECO-Form Column Panel H 1.20 x W 0.75 m (WB)	42.67
	ECO-Form Column Panel H 1.20 x W 0.60 m (WB)	36.25
	ECO-Form Column Panel H 0.60 x W 0.90 m (WB)	28.93
	ECO-Form Column Panel H 0.60 x W 0.75 m (WB)	23.85
	ECO-Form Column Panel H 0.60 x W 0.60 m (WB)	20.43



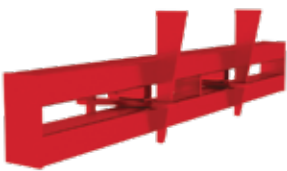

[C] ECO-FORM MULTI-PANELS





Item	Description	Weight (kg)
ECO-form Multi-Panel [with WORCA board]		
	ECO-Form Multi-Panel H 3.00 x W 1.05 m (WB)	120.30
	ECO-Form Multi-Panel H 3.00 x W 0.90 m (WB)	106.96
	ECO-Form Multi-Panel H 3.00 x W 0.75 m (WB)	91.31
	ECO-Form Multi-Panel H 3.00 x W 0.60 m (WB)	79.16
	ECO-Form Multi-Panel H 3.00 x W 0.45 m (WB)	65.55
	ECO-Form Multi-Panel H 3.00 x W 0.30 m (WB)	50.92
	ECO-Form Multi-Panel H 2.40 x W 1.05 m (WB)	102.87
	ECO-Form Multi-Panel H 2.40 x W 0.90 m (WB)	90.70
	ECO-Form Multi-Panel H 2.40 x W 0.75 m (WB)	78.70
	ECO-Form Multi-Panel H 2.40 x W 0.60 m (WB)	67.74
	ECO-Form Multi-Panel H 2.40 x W 0.45 m (WB)	56.77
	ECO-Form Multi-Panel H 2.40 x W 0.30 m (WB)	40.79
	ECO-Form Multi-Panel H 1.80 x W 1.05 m (WB)	78.47
	ECO-Form Multi-Panel H 1.80 x W 0.90 m (WB)	70.09
	ECO-Form Multi-PanelH 1.80 x W 0.75 m (WB)	59.89
	ECO-Form Multi-Panel H 1.80 x W 0.60 m (WB)	51.40
	ECO-Form Multi-Panel H 1.80 x W 0.45 m (WB)	43.15
	ECO-Form Multi-Panel H 1.80 x W 0.30 m (WB)	34.00
	ECO-Form Multi-Panel H 1.20 x W 1.05 m (WB)	58.07
	ECO-Form Multi-Panel H 1.20 x W 0.90 m (WB)	51.45
	ECO-Form Multi-Panel H 1.20 x W 0.75 m (WB)	43.86
	ECO-Form Multi-Panel H 1.20 x W 0.60 m (WB)	40.16
	ECO-Form Multi-Panel H 1.20 x W 0.45 m (WB)	32.75
	ECO-Form Multi-Panel H 1.20 x W 0.30 m (WB)	26.14
	ECO-Form Multi-Panel H 0.60 x W 1.05 m (WB)	32.38
	ECO-Form Multi-Panel H 0.60 x W 0.90 m (WB)	27.23
	ECO-Form Multi-Panel H 0.60 x W 0.75 m (WB)	23.90
	ECO-Form Multi-Panel H 0.60 x W 0.60 m (WB)	20.57
	ECO-Form Multi-Panel H 0.60 x W 0.45 m (WB)	15.42
	ECO-Form Multi-Panel H 0.60 x W 0.30 m (WB)	12.09



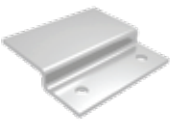



[D] ECO-FORM CORNER PANELS

Item	Description	Weight (kg)
ECO-form internal corner panel		
	ECO-Form Internal Corner Panel 3.00 x 0.30 x 0.30m	88.82
	ECO-Form Internal Corner Panel 2.40 x 0.30 x 0.30m	72.91
	ECO-Form Internal Corner Panel 1.80 x 0.30 x 0.30m	55.29
	ECO-Form Internal Corner Panel 1.20 x 0.30 x 0.30m	48.94
	ECO-Form Internal Corner Panel 0.60 x 0.30 x 0.30m	20.82
ECO-form external corner angle		
	ECO-Form External Corner Angle 3.00m	19.84
	ECO-Form External Corner Angle 2.40m	16.06
	ECO-Form External Corner Angle 1.80m	11.65
	ECO-Form External Corner Angle 1.20m	7.87
	ECO-Form External Corner Angle 0.60m	3.93
ECO-form Internal Hinged Corner Panel		
	ECO-Form Internal Hinged Corner Panel 3.00 x 0.20 x 0.20m	86.48
	ECO-Form Internal Hinged Corner Panel 2.40 x 0.20 x 0.20m	69.38
	ECO-Form Internal Hinged Corner Panel 1.80 x 0.20 x 0.20m	52.90
	ECO-Form Internal Hinged Corner Panel 1.20 x 0.20 x 0.20m	36.18
	ECO-Form Internal Hinged Corner Panel 0.60 x 0.20 x 0.20m	19.57





[E] ECO-FORM WALL ACCESSORIES

Item	Description	Weight (kg)
ECO-form Coupler (EFC)		
		1.40
ECO-form Universal Clamp		
		2.24
ECO-form Compensation Waler		
	ECO-Form Compensation Waler (EFCW) ECO-Form Compensation Waler L=1.30m	8.72 13.61
ECO-form Adjustable Access Bracket		
		15.02


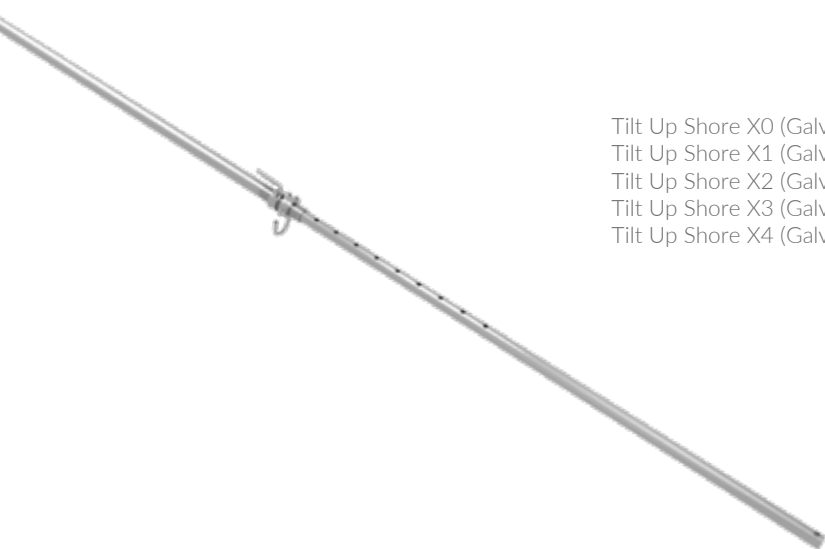

Item	Description	Weight (kg)
ECO-form Crane Hook Type (I)		
		3.93
ECO-form Stacking Device	Qty.	
	x8 8.10	
ECO-form stop end tie		
		2.11
Eco-Form Double Shore Connector		
		2.06

Item	Description	Weight (kg)
	Rivet Pin 17 mm, L=12.5 cm (Type I)	0.25
	Spring Clip (medium)	0.01
	Lower Cleat Angle	0.85
	Top Tie Clamp	2.35
	Plastic Cap	0.002
	Plastic Cover	0.002






[F] ECO-FORM COLUMN ACCESSORIES

Item	Description	Weight (kg)
	ECO-form Extension Panel	
	ECO-Form Extension Panel H 0.15 x W 0.90 m	7.60
	ECO-Form Extension Panel H 0.15 x W 0.75 m	7.25
	ECO-Form Extension Panel H 0.15 x W 0.60 m	5.80
	WORCA Bolt , L= 18 cm DVD	0.365
	ECO-form Plastic Chamfer	
	ECO-Form Plastic Chamfer 6.00 m	3.03
	ECO-Form Plastic Chamfer 3.00 m	1.52
	ECO-Form Plastic Chamfer 1.20 m	0.61
	ECO-Form Plastic Chamfer 0.60 m	0.31
	Plastic Cap	0.002


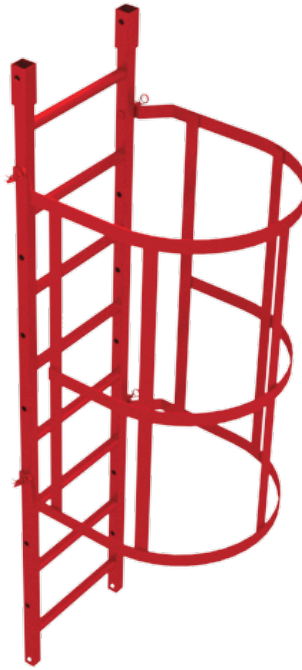

[G] TILTING ITEMS


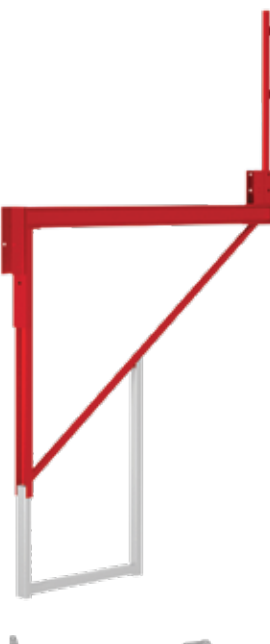
Item	Description	Weight (kg)
	Push Pull props	
	Push Pull PPS132	7.29
	Push Pull PPS162	8.38
	Push Pull PPS202	9.62
	Push Pull PPH164	21.72
	Push Pull PPH206	27.58
	Push Pull PPH304	33.02
	Push Pull PPH354	38.10
	Push Pull PPH404	42.37
	Push Pull PPH454	47.95
	Push-Pull Prop MPP4 (2.65:4.65) m	39.43
	Push-Pull Prop MPP5 (4.45:6.75) m	61.64
	Tilt Up Shore	
	Tilt Up Shore X0 (Galv.)	12.45
	Tilt Up Shore X1 (Galv.)	19.17
	Tilt Up Shore X2 (Galv.)	20.43
	Tilt Up Shore X3 (Galv.)	22.96
	Tilt Up Shore X4 (Galv.)	27.81
	Base Plate	
	Double Base Plate	2.94
	Single Base Plate	1.30

[H] TYING ITEMS

Item	Description	Weight (kg)
	Tie Rod DVD	
	Tie Rod DW L=0.50m	0.79
	Tie Rod DW L=0.75m	1.19
	Tie Rod DW L=1.00m	1.58
	Tie Rod DW L=1.25m	1.98
	Tie Rod DW L=1.50m	2.37
	Tie Rod DW L=1.75m	2.77
	Tie Rod DW L=2.00m	3.16
	Tie Rod DW L=2.25m	3.56
	Tie Rod DW L=2.50m	3.95
	Tie Rod DW L=2.75m	4.35
	Tie Rod DW L=3.00m	4.74
	Tie Rod TDW L=3.25m	5.14
	Tie Rod DW L=3.50m	5.53
	Tie Rod DW L=3.75m	5.93
	Tie Rod DW L=4.00m	6.32
	Tie Rod DW L=4.25m	6.72
	Tie Rod DW L=4.50m	7.11
	Tie Rod DW L=4.75m	7.51
	Tie Rod DW L=5.00m	7.90
	Tie Rod DW L=5.25m	8.30
	Steel Washer	
		1.13
	Forged Wing Nut 15 mm DVD (Type I)	
		0.35
	Wing Nut Pivot Plate 15mm DVD	
		1.55
	Tying Items	
	Water Barrier (flange type) (Type T)	0.56
	Plastic Reducer for Water Barrier	0.01

[I] PLATFORM ACCESSORIES

Item	Description	Qty.	Weight (kg)
Platforms of columns			
	Platform 1.40 x 1.40 m	x1	52.53
	Handrail Frame for Platform 1.40x1.40 m	x2	18.50
	Platform 1.80 x 1.80 m	x1	68.33
	Handrail Frame for Platform 1.80x1.80 m	x2	22.00
	Platform 2.20 x 2.20 m	x1	63.70
	Handrail Frame for Platform 2.20x2.20 m	x2	28.20
	Handrail Frame for L-Platforms, W=0.60 m	x1	10.51
	Handrail Post for L-Platforms	x2	5.29
	Hex. Nut Dvd 3 cm (Type I)	x4	0.10
	Rivet Pin 17 mm, L=12.5 cm (Type I)	x8	0.25
	Spring Clip (medium)	x8	0.03
	Bolt M16 × 120 mm Full Thread	x2	0.16
	Nut M16	x2	0.03
access ladders			
	Access Ladder 6.0 m (W42)		56.05
	Access Ladder 5.0 m (W42)		46.90
	Access Ladder 4.0 m (W42)		37.70
	Access Ladder 3.0 m (W42)		28.50
	Access Ladder 2.0 m (W42)		19.35
	Access Ladder 1.0 m (W42)		10.15
	Access Ladder 0.5 m (W42)		5.60
	Ladder Safety Cage 1.5 m (W42)		23.55
	Ladder Safety Cage 1.0 m (W42)		14.85
	Ladder Safety Cage 0.5 m (W42)		9.50
	Bolt M12 x 80 (8.8)		0.02
	Nut M12 (8.8)		0.01
Lifting Eye bolt L=23cm			
			1.50

Item	REGULAR	Description	Weight (kg)
Regular Hi-Skaf Bracketss			
		Hi-Skaf Bracket 2.40 m (Ø 32) (Unit)	66.40
		Hi-Skaf Bracket 2.00 m (Ø 32) (Unit)	53.95
		Hi-Skaf Bracket 1.80 m (Ø 32) (Unit)	52.10
		Hi-Skaf Bracket 1.50 m (Ø 32) (Unit)	48.55
		Hi-Skaf Bracket 1.20 m (Ø 32) (Unit)	45.60
		Hi-Skaf Bracket 1.00 m (Ø 32) (Unit)	43.55
		Hi-Skaf Bracket 0.90 m (Ø 32) (Unit)	42.60
		Hi-Skaf Bracket 0.75 m (Ø 32) (Unit)	30.85
		Bolts & Anchors for regular Hi-Skaf bracketss	
		HI Skaf Bolt M1.25" × 90 mm (10.9)	0.79
		HI Skaf Bolt M1.25" × 60 mm (10.9)	0.64
		lost item	
		HI Skaf Anchor [lost item]	
Hi-Skaf with Flnishing Platform			
		Hi-Skaf Bracket 2.40 m (Cone type) (Unit)	79.70
		Hi-Skaf Bracket 2.00 m (Cone type) (Unit)	64.75
		Hi-Skaf Bracket 1.50 m (Cone type) (Unit)	58.30
		Hi-Skaf Bracket 1.00 m (Cone type) (Unit)	52.30
		Finishing Platform for Hi-Skaf Bracket	36.00
		Bolts & Anchors for Hi-Skaf brackets with finishing platforms:	
		Climbing Cone M24	2.11
		Mounting Ring M24	0.59
		Bolt M24 x 100 (10.9)	0.42
		Bolt M24 x 60 (8.8)	0.37
		lost item	
		Tie Rod DW15 L=0.30m with Fixed Anchor Plate	1.24

TYING SYSTEM

The acrow DW16-ties system is primarily used with soldiers, where minimum number of ties is required.
The continuous thread high tensile steel rod is the basis of the DW 16 tie system assembly.
The wing nut is designed to freely spin on the fast threaded rod, which effectively speeds both the erection and stripping times of the formwork.

1-THRU DW tie system: there are no lost items.

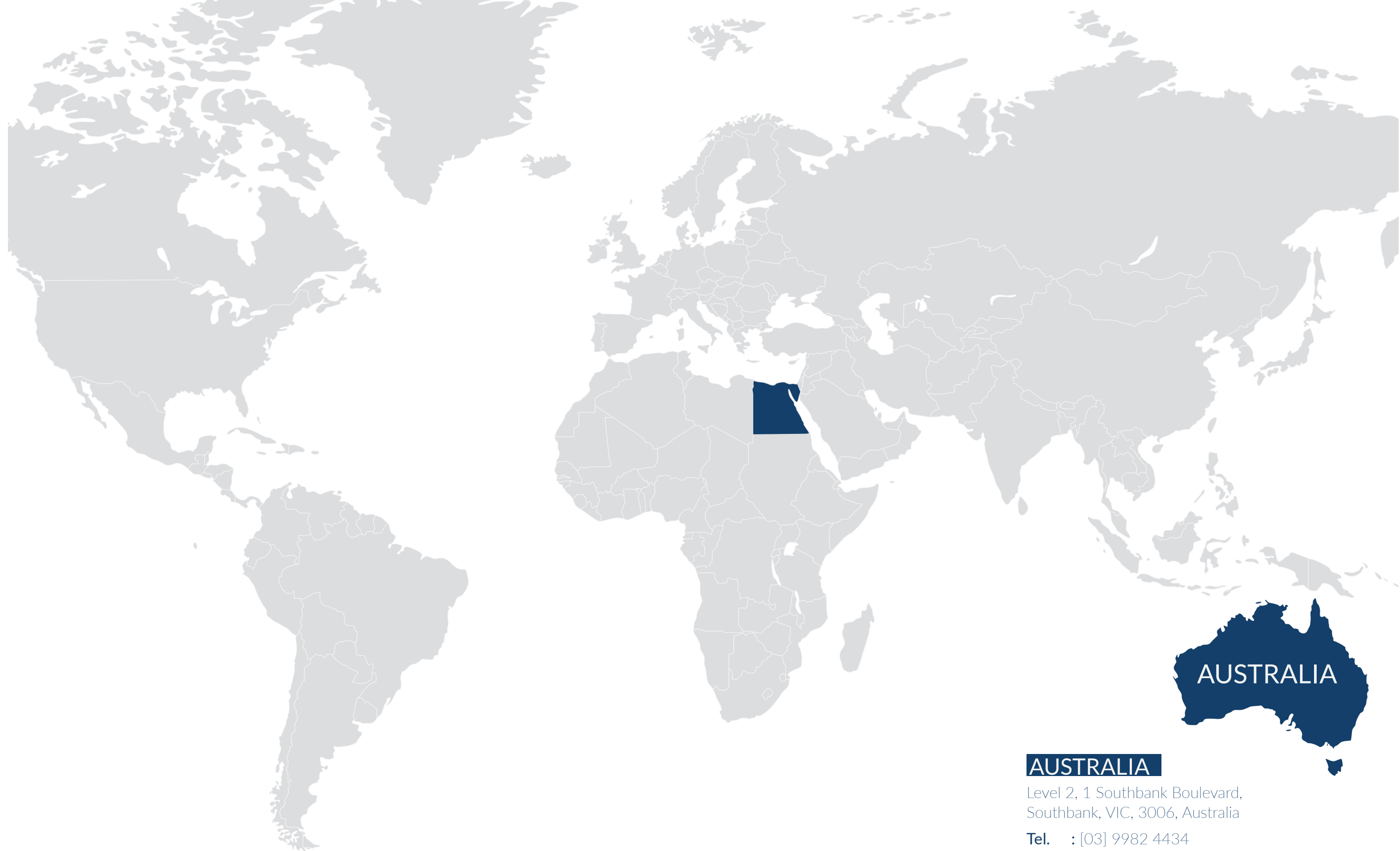


2 - WATER SEAL D W 16 tie system



3- STEEL PLASTIC CONE MKK





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