

Product Catalogue
Vertical Formwork

FS tifa-lite



FS form-scaff

Formwork & Scaffolding
Solutions

We are
WACO



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The Group provides services in the areas of formwork, shoring and scaffolding, insulation, painting and blasting, hydraulics and suspended access platforms, relocatable modular buildings, portable sanitation products and integrated hygiene services.

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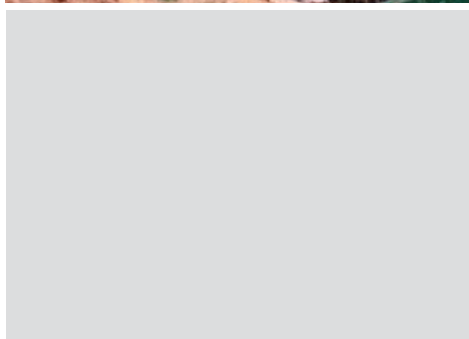
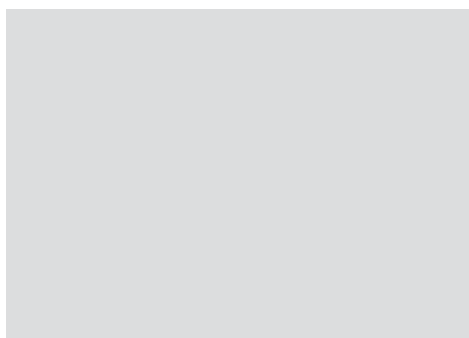


tifa-lite

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tifa-lite



Tifa-Lite Walls

Tifa-Lite is the system of choice for manhandled formwork applications such as Walls, Beams and Foundations.

With very few clamps and ties, the system is very fast and easy to erect and dismantle.

All frames are hot dip galvanised frames for prolonged life and comes fitted with high quality plywood.

System Features

- Tifa-Lite is a light duty man handled wall forming system.
- The system is able to resist a concrete pressure of 60 kN/m².
- The Panels are available in lengths of 2700, 1500 and 1200mm and in widths of 900, 600, 450, 300 and 150mm.
- The panels may be gang-formed to convert Tifa-Lite into a crane handled system.
- Most of the components are galvanized for long life protection.
- The system includes safe working platforms.
- The Tifa-Lite system is generally compatible with the Tifa system.



General Assembly



Panels

Panels

Tifa-Lite Panels are used to form the straight sides of concrete walls.

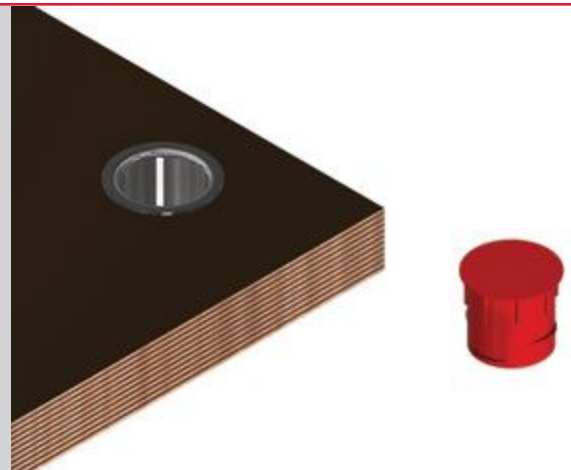
CODE	DESCRIPTION	MASS(kg)
5128001	TIFA-LITE PANEL 2700 X 900	95.9
5125024	TIFA-LITE PANEL 2700 X 600	69.7
5125030	TIFA-LITE PANEL 2700 X 450	59.4
5125031	TIFA-LITE PANEL 2700 X 300	49.6
5125032	TIFA-LITE PANEL 2700 X 150	36.1
5128002	TIFA-LITE PANEL 1500 X 900	55.4
5125001	TIFA-LITE PANEL 1500 X 600	33.5
5125002	TIFA-LITE PANEL 1500 X 450	32.5
5125003	TIFA-LITE PANEL 1500 X 300	26.9
5125013	TIFA-LITE PANEL 1500 X 150	19.6
5128003	TIFA-LITE PANEL 1200 X 900	44.3
5125004	TIFA-LITE PANEL 1200 X 600	32.0
5125005	TIFA-LITE PANEL 1200 X 450	26.9
5125006	TIFA-LITE PANEL 1200 X 300	22.2
5125012	TIFA-LITE PANEL 1200 X 150	16.1



Plastic Plugs & Steel Tie Hole Sleeves

Plastic Plugs are used to seal the tie holes that are not in use. Steel Tie Hole Sleeves are inserted into each tie hole to provide a neat finish around each hole and also to protect the plywood edges around the hole.

CODE	DESCRIPTION	MASS(kg)
5110302	STEEL TIE HOLE SLEEVE 21 (15 BOARD)	0.01
5110300	PLASTIC PLUG (21/15)	0.01





External Corner Panels

Tifa External Corner Panels are used to connect two Tifa-Lite Panels together at 90° to each other at the external corners of a concrete wall.

CODE	DESCRIPTION	MASS(kg)
5110006	TIFA EXTERNAL CORNER PANEL 2700	41.0
5110081	TIFA EXTERNAL CORNER PANEL 1500	25.2
5110020	TIFA EXTERNAL CORNER PANEL 1200	22.0
5110028	TIFA EXTERNAL CORNER PANEL 900	10.5



Internal Corner Panels

Tifa Internal Corner Panels are used to connect two Tifa-Lite Panels together at 90° to each other at the internal corners of a concrete wall.

CODE	DESCRIPTION	MASS(kg)
5110014	TIFA INTERNAL CORNER PANEL 2700 X 300 X 300	130.0
5110025	TIFA INTERNAL CORNER PANEL 1500 X 300 X 300	91.0
5110026	TIFA INTERNAL CORNER PANEL 1200 X 300 X 300	65.0
5110017	TIFA INTERNAL CORNER PANEL 900 X 300 X 300	39.0



Hinged Splay Panels

The Tifa Hinged Splay Panel is used to connect two Tifa-Lite Panels together at various angles on both the internal and external faces of concrete walls.

Tifa Hinged Splay Panels range between 70° and 250°.

CODE	DESCRIPTION	MASS(kg)
5110013	TIFA HINGED SPLAY PANEL 2700 X 300 X 300	127.0
5125021	TIFA HINGED SPLAY PANEL 1500 X 300 X 300	74.8
5105014	TIFA HINGED SPLAY PANEL 1200 X 300 X 300	61.8
5110070	TIFA HINGED SPLAY PANEL 900 X 300 X 300	44.9



Clamps

Crab Clamps

Tifa-Lite Crab Clamps are used to connect two Tifa-Lite Panels side by side and may be connected anywhere along the length or width of the Panel's Periphery.

CODE	DESCRIPTION	MASS(kg)
5125034	TIFA-LITE CRAB CLAMP	1.7



Universal Clamps

Tifa Universal Clamps are used to connect Tifa and Tifa-Lite Panels together and may substitute any other type of Tifa or Tifa-Lite Clamp.

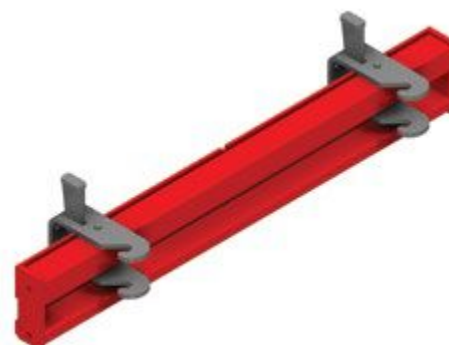
CODE	DESCRIPTION	MASS(kg)
5110170	TIFA UNIVERSAL CLAMP	7.1



Alignment Bars

Tifa Alignment Bars are used to stiffen the Panel joints when lifting and rotating gang-formed Panels from a horizontal to a vertical position.

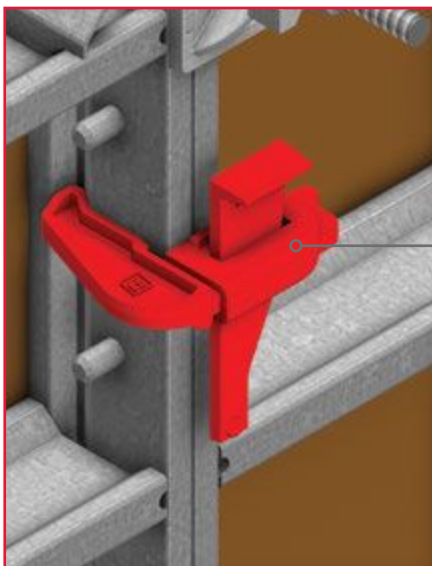
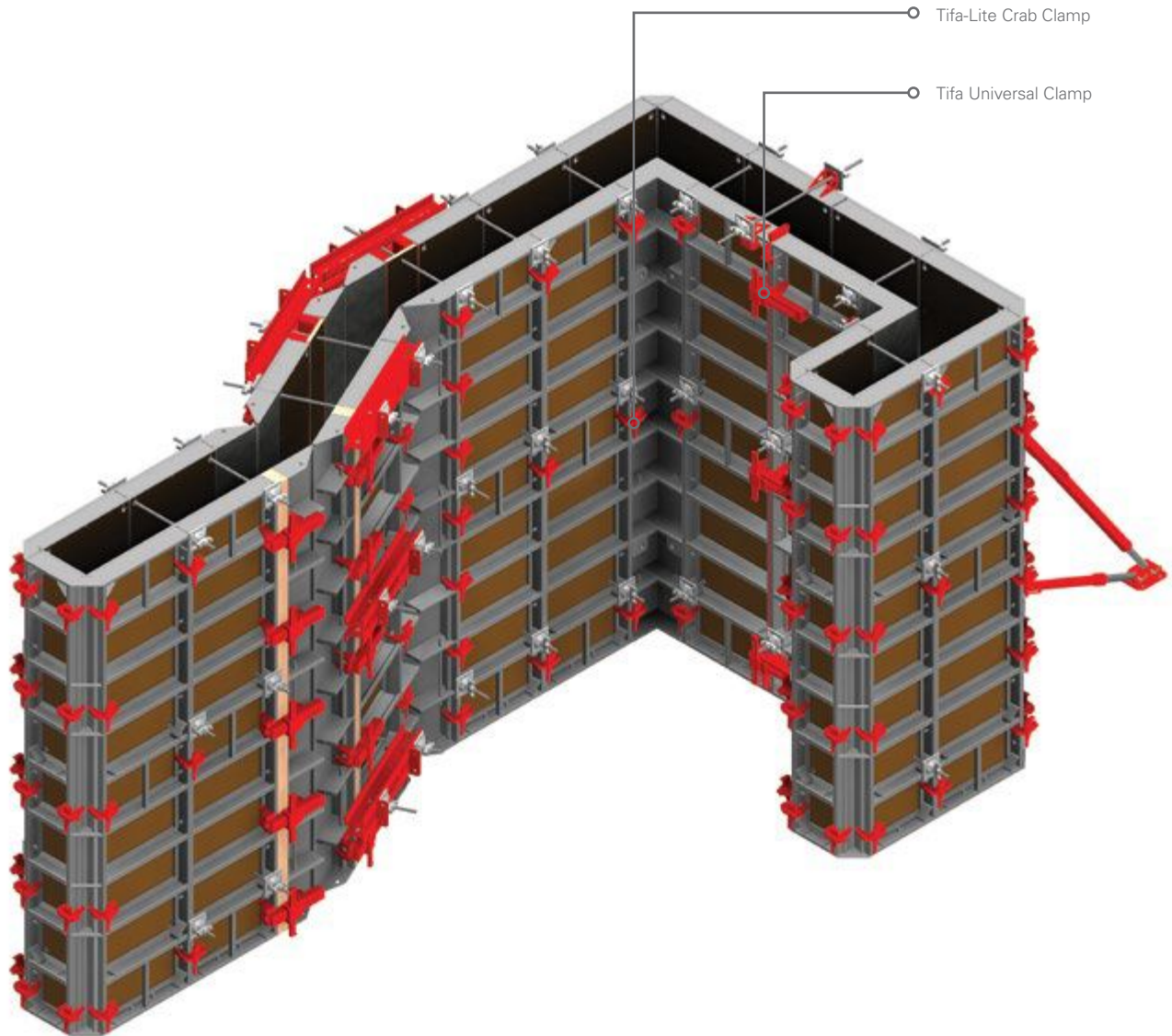
CODE	DESCRIPTION	MASS(kg)
5110135	TIFA ALIGNMENT BAR 1220	15.3
5110015	TIFA ALIGNMENT BAR 920	11.5
5110034	TIFA ALIGNMENT BAR CLAMP	1.9



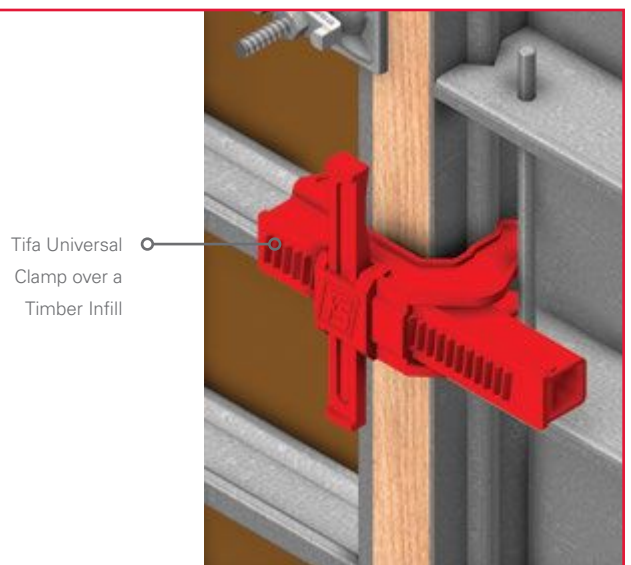


tifa-lite

Application - Clamps



Tifa-Lite Crab
Clamp joining two
Tifa-Lite Panels



Tifa Universal
Clamp over a
Timber Infill

Stripping & Infills

Stripping Bars & Stripping Bar Extensions

The 8mm thick Tifa Stripping Bars, with a thickened end hammering plate, are used to facilitate the stripping of Tifa-Lite Panels in confined areas. Tifa Stripping Bar Extensions, without the end hammering plate, are used to extend the length of the stripping bars within the panels.

CODE	DESCRIPTION	MASS(kg)
5110038	TIFA STRIPPING BAR 2750	24.5
5110039	TIFA STRIPPING BAR 2450	22.0
5110040	TIFA STRIPPING BAR 1550	14.6
5110041	TIFA STRIPPING BAR 1250	10.5
5110049	TIFA STRIPPING BAR 950	8.5
5110050	TIFA STRIPPING BAR EXTENSION 2700	24.5
5110051	TIFA STRIPPING BAR EXTENSION 2400	22.0
5110082	TIFA STRIPPING BAR EXTENSION 1500	12.3
5110052	TIFA STRIPPING BAR EXTENSION 1200	12.1
5110053	TIFA STRIPPING BAR EXTENSION 900	8.1



Stripping Corner

Tifa Internal Corner Panels are used to connect two Tifa-Lite Panels together at 90° to each other at the internal corners of a concrete wall.

CODE	DESCRIPTION	MASS(kg)
5110400	TIFA-LITE STRIPPING CORNER 2700	120.0



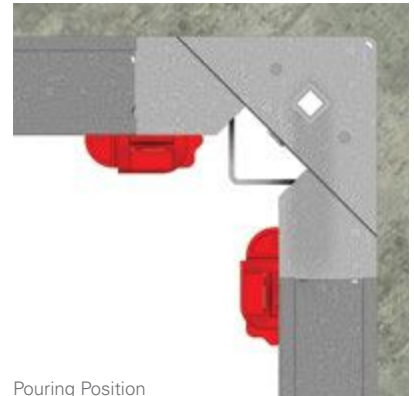
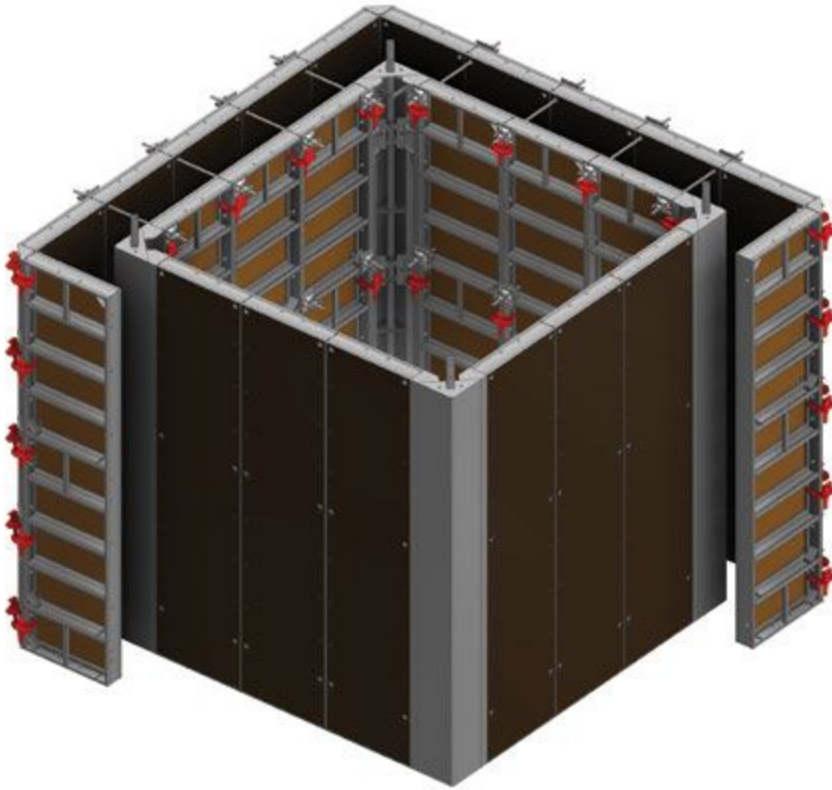
Twin Profile Infills

Tifa Twin Profile Infills are used to support a 21mm plywood infill between two Tifa-Lite Panels. The plywood is secured in position using Ø5mm x 20 mm long self tapping screws.

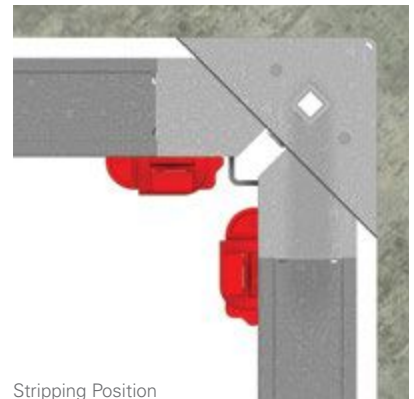
CODE	DESCRIPTION	MASS(kg)
5110130	TIFA TWIN PROFILE INFILL 2700	25.0
5110083	TIFA TWIN PROFILE INFILL 1500	13.8
5110131	TIFA TWIN PROFILE INFILL 1200	11.0
5110132	TIFA TWIN PROFILE INFILL 900	8.0



Application - Stripping Corners

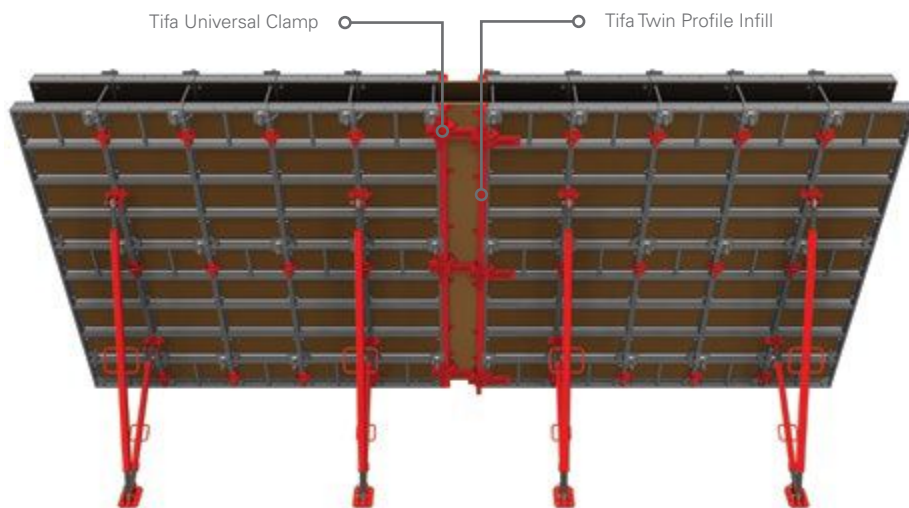


Pouring Position



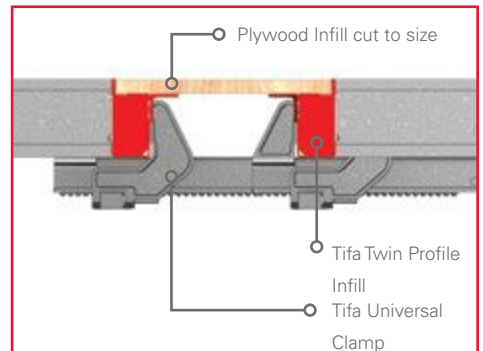
Stripping Position

Application - Infills



Tifa Universal Clamp

Tifa Twin Profile Infill



Plywood Infill cut to size

Tifa Twin Profile Infill
Tifa Universal Clamp

Stop-ends

Stop-end Hooks

Tifa Stop-end Hooks are used to secure Multi-Form Walers in position at the stop-end of a concrete wall. The Dywidag Combi Wing Nut Ø15 is used in conjunction with the Stop-end Hook.

CODE	DESCRIPTION	MASS(kg)
5110206	TIFA STOP-END HOOK	1.6



Walers

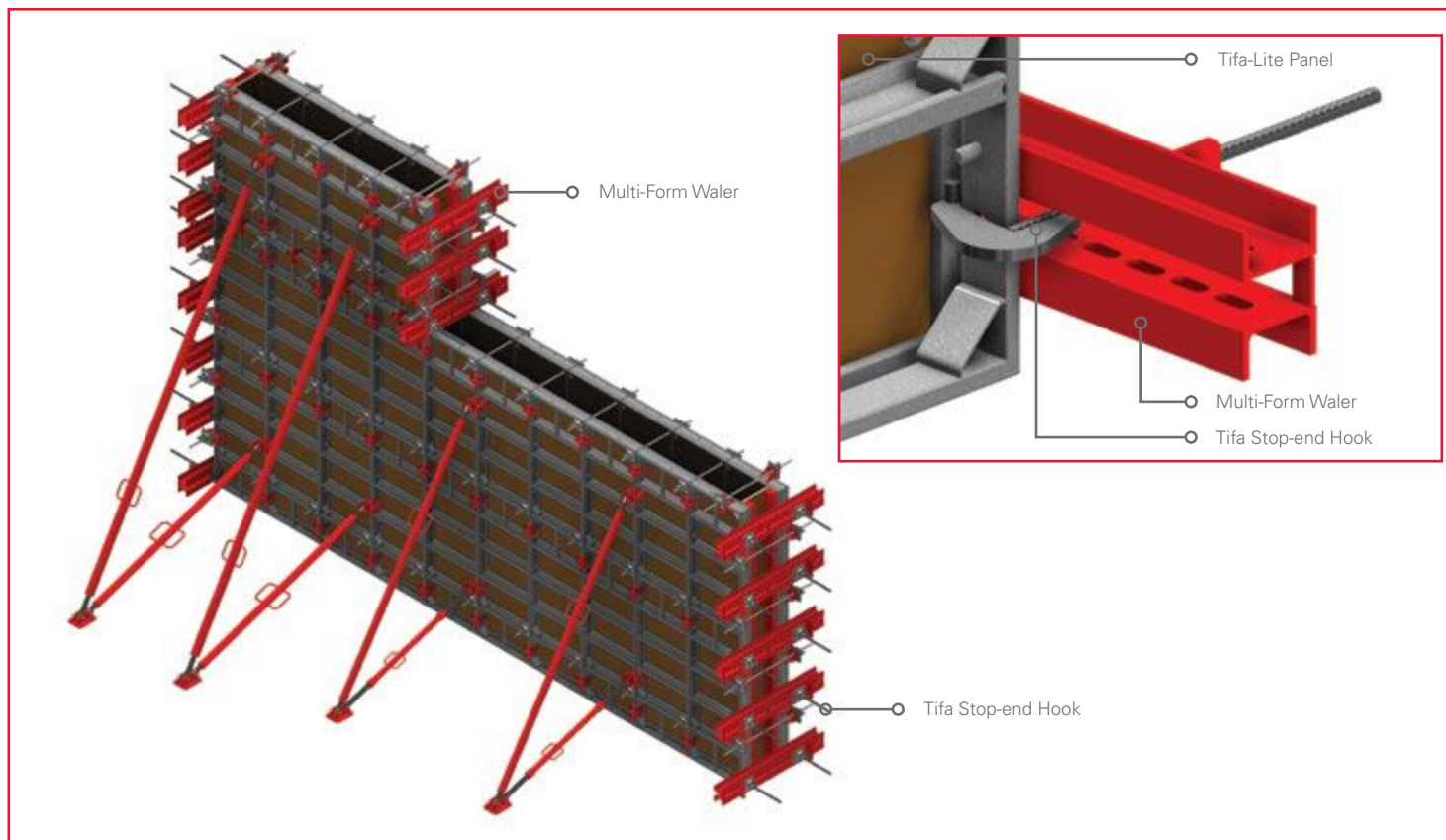
Multi-Form Walers are used as horizontal support in conjunction with Tifa Stop-end Hooks at the stop-end of a concrete wall.

Multi-form Walers are used as horizontal support across timber infills between Tifa-Lite Panels.

CODE	DESCRIPTION	MASS(kg)
1605074	MULTI-FORM WALER 2400	48.7
1605073	MULTI-FORM WALER 1800	36.5
1605010	MULTI-FORM WALER 1500	30.3
1605072	MULTI-FORM WALER 1200	24.2
1605071	MULTI-FORM WALER 900	18.4
1605025	MULTI-FORM WALER 600	11.9



Application - Stop-ends



Ties

Ø15mm Dywidag Bars with Dywidag Combi Nuts are to be used with the Tifa-Lite System. The Dywidag Bars Ø15mm are available in lengths of 500mm increments up to 6000mm. The Dywidag Spanner 15mm is used to prevent the tie from turning when tightening / loosening the Combi Wing Nuts.

CODE	DESCRIPTION	MASS(kg)
5405095	DYWIDAG BAR 15MM 6000	8.7
5405094	DYWIDAG BAR 15MM 5500	8.0
5405093	DYWIDAG BAR 15MM 5000	7.2
5405092	DYWIDAG BAR 15MM 4500	6.5
5405089	DYWIDAG BAR 15MM 4000	5.8
5405088	DYWIDAG BAR 15MM 3500	5.1
5405087	DYWIDAG BAR 15MM 3000	4.3
5405086	DYWIDAG BAR 15MM 2500	3.6
5405085	DYWIDAG BAR 15MM 2000	2.9
5405079	DYWIDAG BAR 15MM 1500	2.2
5405078	DYWIDAG BAR 15MM 1000	1.5
5110150	DYWIDAG COMBI WING NUT 15 DIA.	1.6
5405098	DYWIDAG SPANNER 15MM	1.0



PVC Ferrule Tubes & Cones

PVC Ferrule Tubes 22 ID & 25 OD and PVC Ferrule Tube Cones 22 OD are used in conjunction with the Dywidag Bars and Dywidag Combi Wing Nuts on the Tifa-Lite system.

CODE	DESCRIPTION	MASS(kg)
5520372	PVC FERRULE TUBE 22 ID & 25 OD	0.01
5520382	PVC FERRULE TUBE CONE 22 OD	0.01



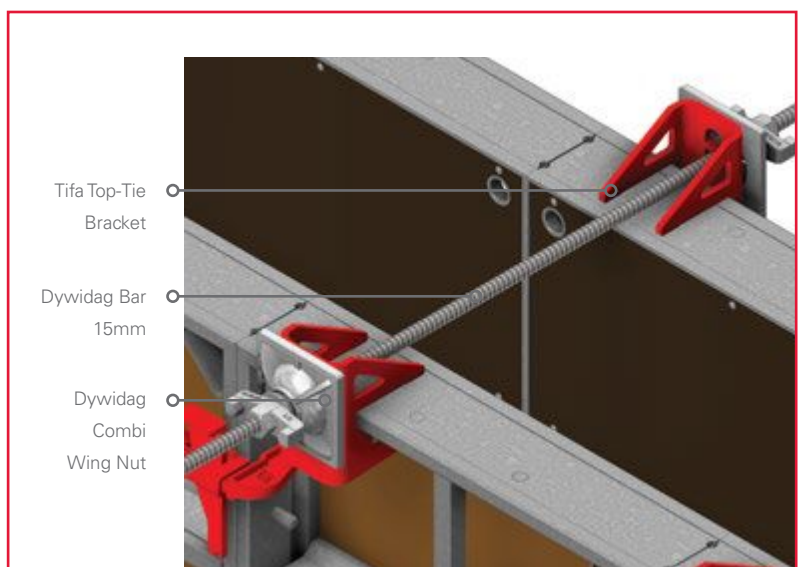
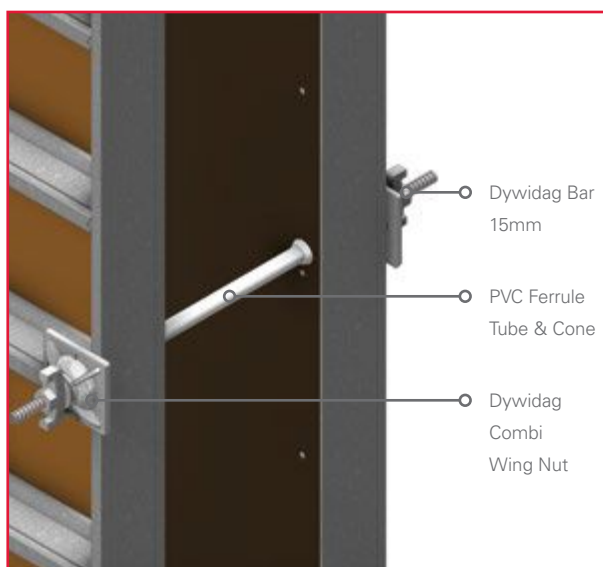
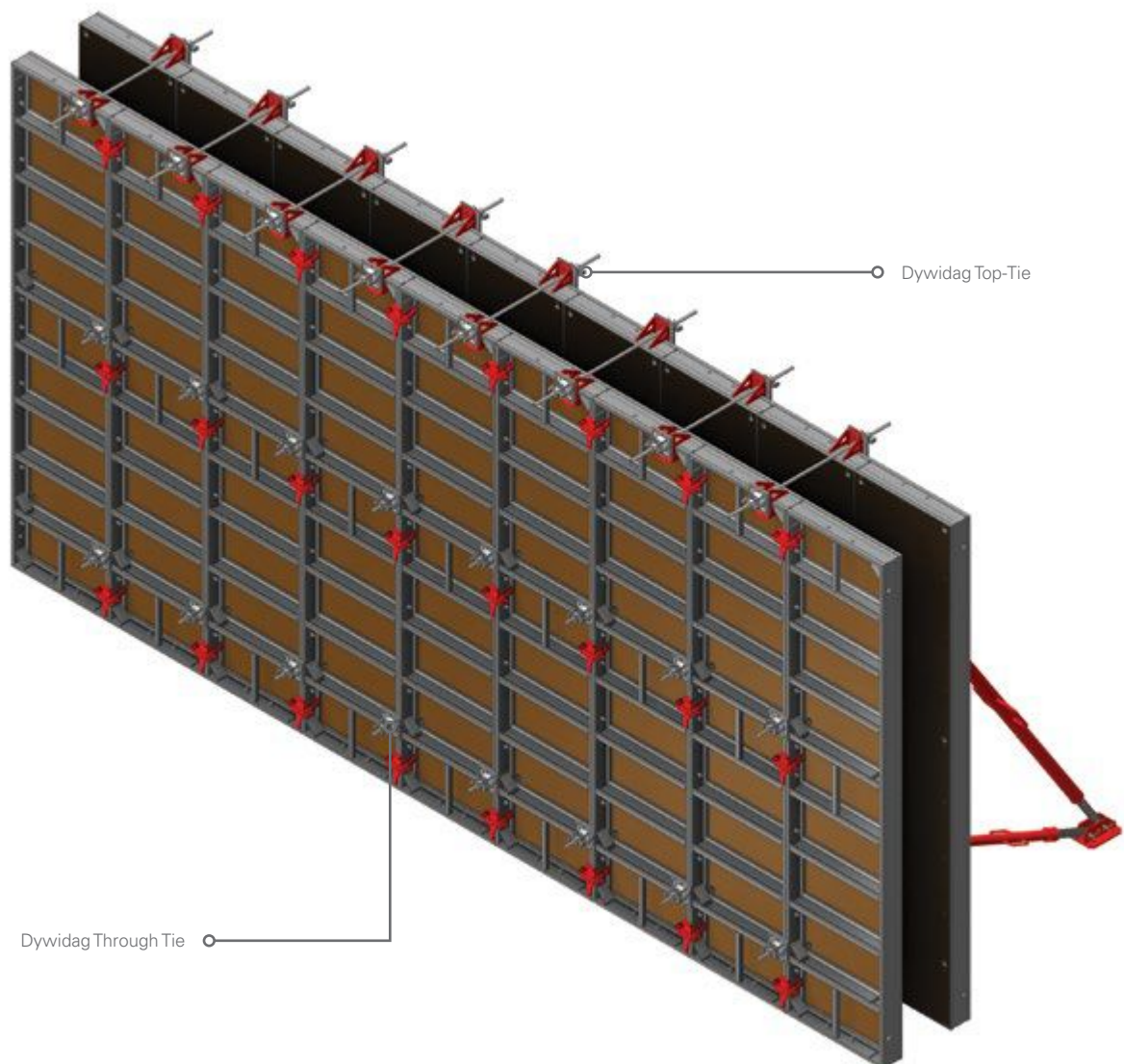
Top-Tie Brackets

Tifa Top-Tie Brackets fit onto the periphery of Tifa-Lite Panels to keep ties in place around the edges of the Panels.

CODE	DESCRIPTION	MASS(kg)
5125028	TIFA TOP-TIE BRACKET	3.0



Application - Ties



Push-Pull Props

Push-Pull Props and Push-Pull Prop Ties are used to plumb the Tifa-Lite Panels.

CODE	DESCRIPTION	MASS(kg)
5110022	PUSH-PULL PROP 5700	63.3
5110201	PUSH-PULL PROP 4200	23.0
5110024	PUSH-PULL PROP 3100	16.6
5110007	PUSH-PULL PROP 2500	14.0
5110100	PUSH-PULL PROPTIE	8.4



Prop Connecting Brackets Stiffener Type

Tifa-Lite Prop Connecting Brackets Stiffener Type are secured to the stiffeners of Tifa-Lite Panels, in order to attach each Push-Pull Prop assembly to the Panels.

CODE	DESCRIPTION	MASS(kg)
5125029	TIFA-LITE PROP CONNECTING BRACKET (STIFFENER TYPE)	1.3



Prop Connecting Brackets Periphery Type

Tifa-Lite Prop Connecting Brackets Periphery Type are secured to the Periphery of Tifa-Lite Panels, in order to attach each Push-Pull Prop assembly to the Panels.

CODE	DESCRIPTION	MASS(kg)
5125041	TIFA-LITE PROP CONNECTING BRACKET (PERIPHERY TYPE)	2.9



Swivel Feet

Push-Pull Prop Swivel Feet are used at the base of the Push-Pull Prop assemblies to connect the Push-Pull Props together.

CODE	DESCRIPTION	MASS(kg)
5110021	PUSH-PULL PROP SWIVEL FOOT 300 X 250	7.6
5110008	PUSH-PULL PROP SWIVEL FOOT 200 X 150	3.4



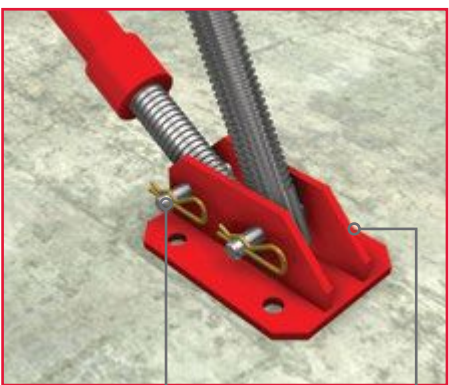
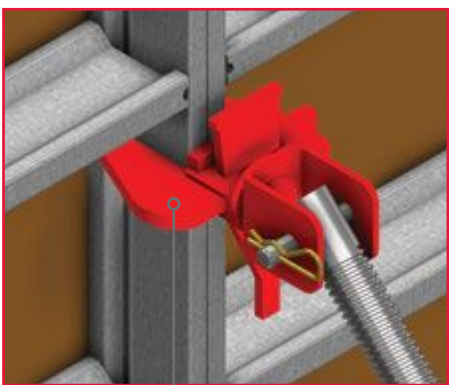
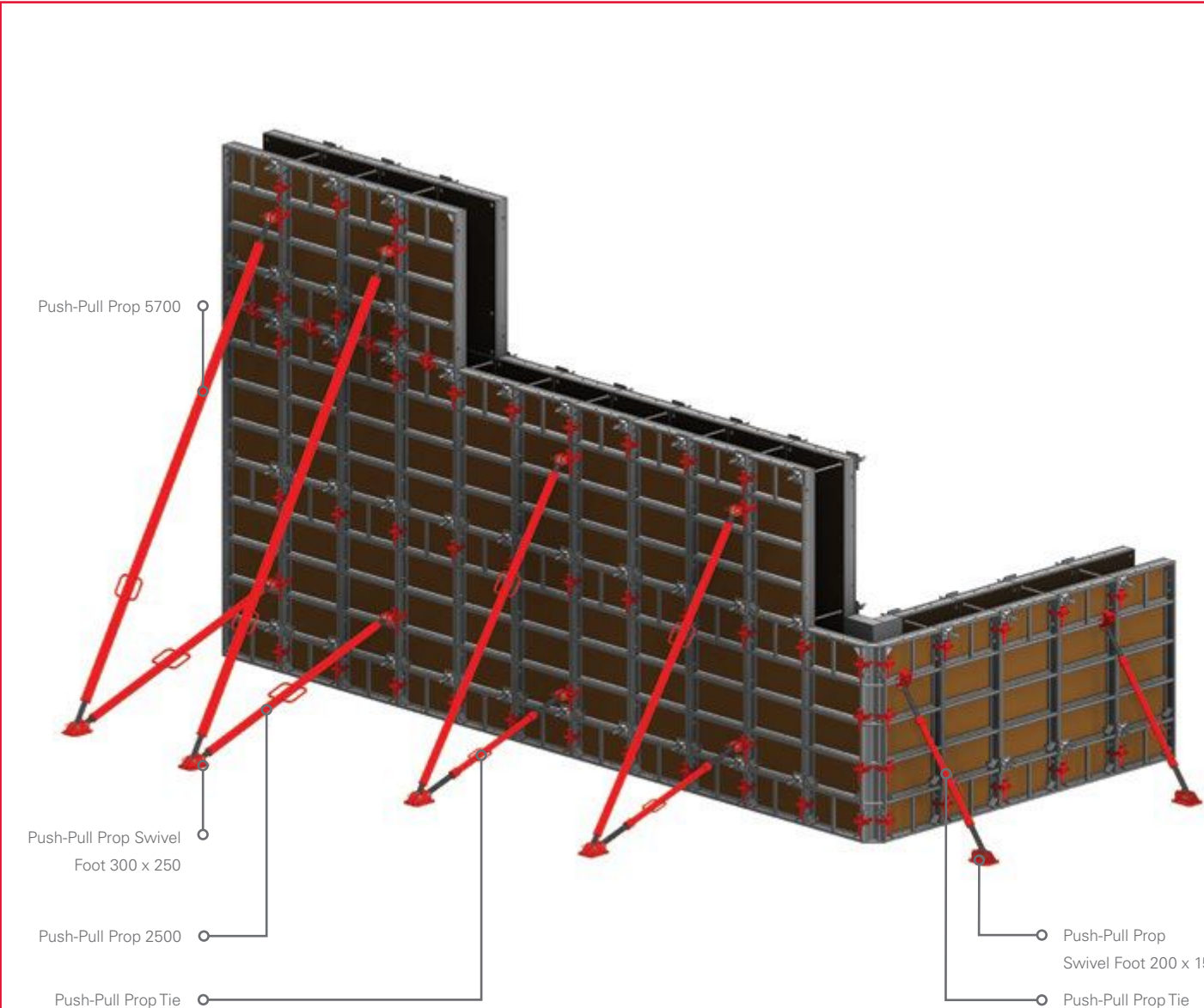
Pins & R-Clip

Connection Pins 16 x 90 complete with R-Clip 70 x 3 are used to secure the ends of the Props in position.

CODE	DESCRIPTION	MASS(kg)
5110090	CONNECTING PIN 16 X 90	0.2
5110059	R-CLIP 70 X 3	0.01



Application - Propping



Access Bracket

Tifa-Lite Access Brackets are secured to the Ø16mm Attachment Pins located along the stiffeners of Tifa-Lite Panels in order to support access platforms, toe-boards and guardrails at the required working height.

CODE	DESCRIPTION	MASS(kg)
5125027	TIFA-LITE ACCESS BRACKET	14.1



TF/MF Access Bracket

The TF/MF Access Brackets can be attached to any of the vertical and horizontal Ø16mm Attachment Pins located along the stiffeners of Tifa-Lite Panels due to the swivel function of the attachment head.

The 30 degree slanted back post creates additional workspace and the timber insert allows for easy fixing of timber scaffold boards.

CODE	DESCRIPTION	MASS(kg)
5110169	TF/MF ACCESS BRACKET	17.5



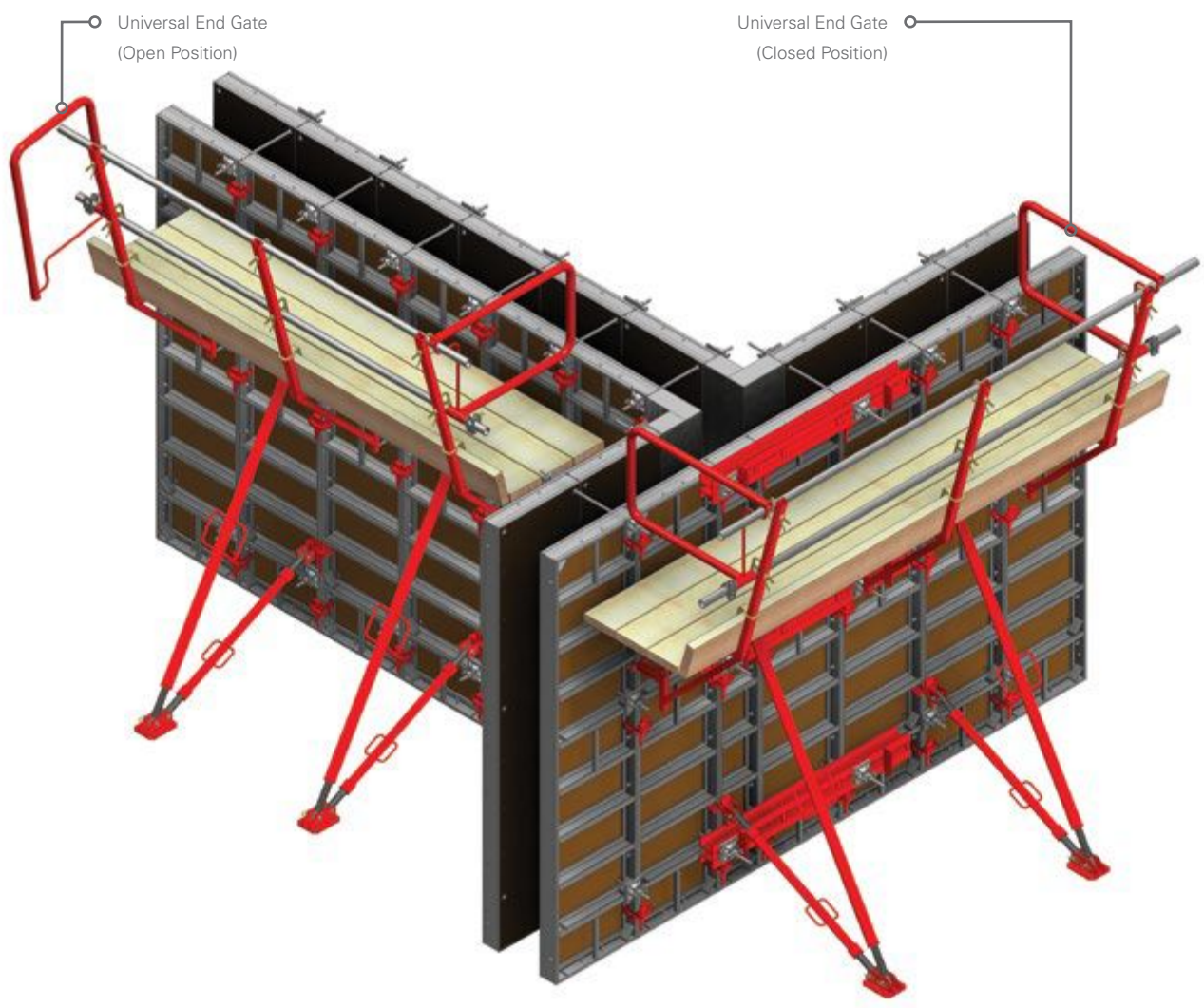
Universal End Gate

The Universal End Gate is secured to the Scaffold Tube Hand - and Knee Rails as a guardrail at the ends of a working platform.

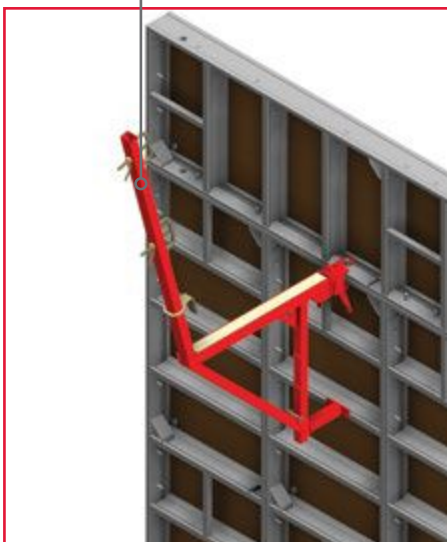
CODE	DESCRIPTION	MASS(kg)
1126028	UNIVERSAL END GATE	8.5



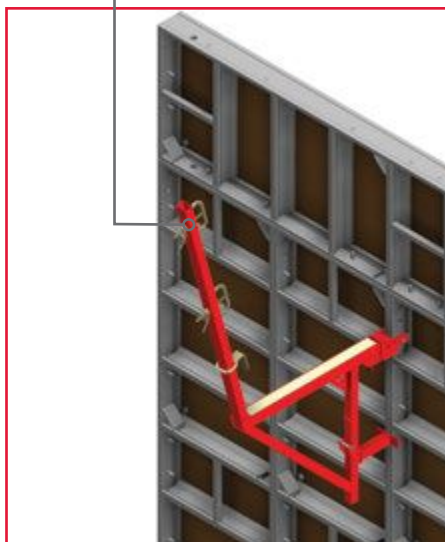
Application - Access



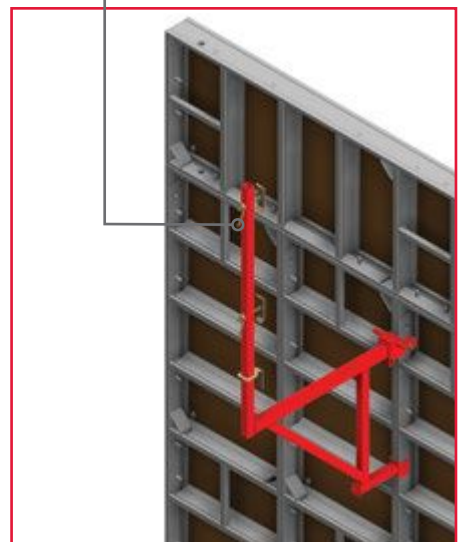
TF/MF Access Bracket
(using vertical pins)



TF/MF Access Bracket
(using horizontal pins)



Tifa-Lite Access Bracket
(using horizontal pins)



Lifting Beams

Universal Lifting Beams are used in conjunction with the Tifa-Lite Lifting Clamps and Chain Slings to lift the Tifa-Lite system either as individual Panels or in gang-form format.

CODE	DESCRIPTION	MASS(kg)
5110101	UNIVERSAL LIFTING BEAM 3300	175
5110103	UNIVERSAL LIFTING BEAM SAFETY CHAIN SHACKLE 4.75 TON	1.1
5110105	UNIVERSAL LIFTING BEAM 10MM GRADE 8 CHAIN X 1250	2.6
5110106	UNIVERSAL LIFTING BEAM 16MM GRADE 8 OBLONG LINK	0.7



Lifting Clamps

Tifa-Lite Lifting Clamps are used to lift the Tifa-Lite system in conjunction with the Universal Lifting Beam.

Tifa Lifting Clamps are secured to the periphery of the Tifa-Lite Panels with the aid of a Gravity Pin.

CODE	DESCRIPTION	MASS(kg)
5125023	TIFA-LITE LIFTING CLAMP	3.3



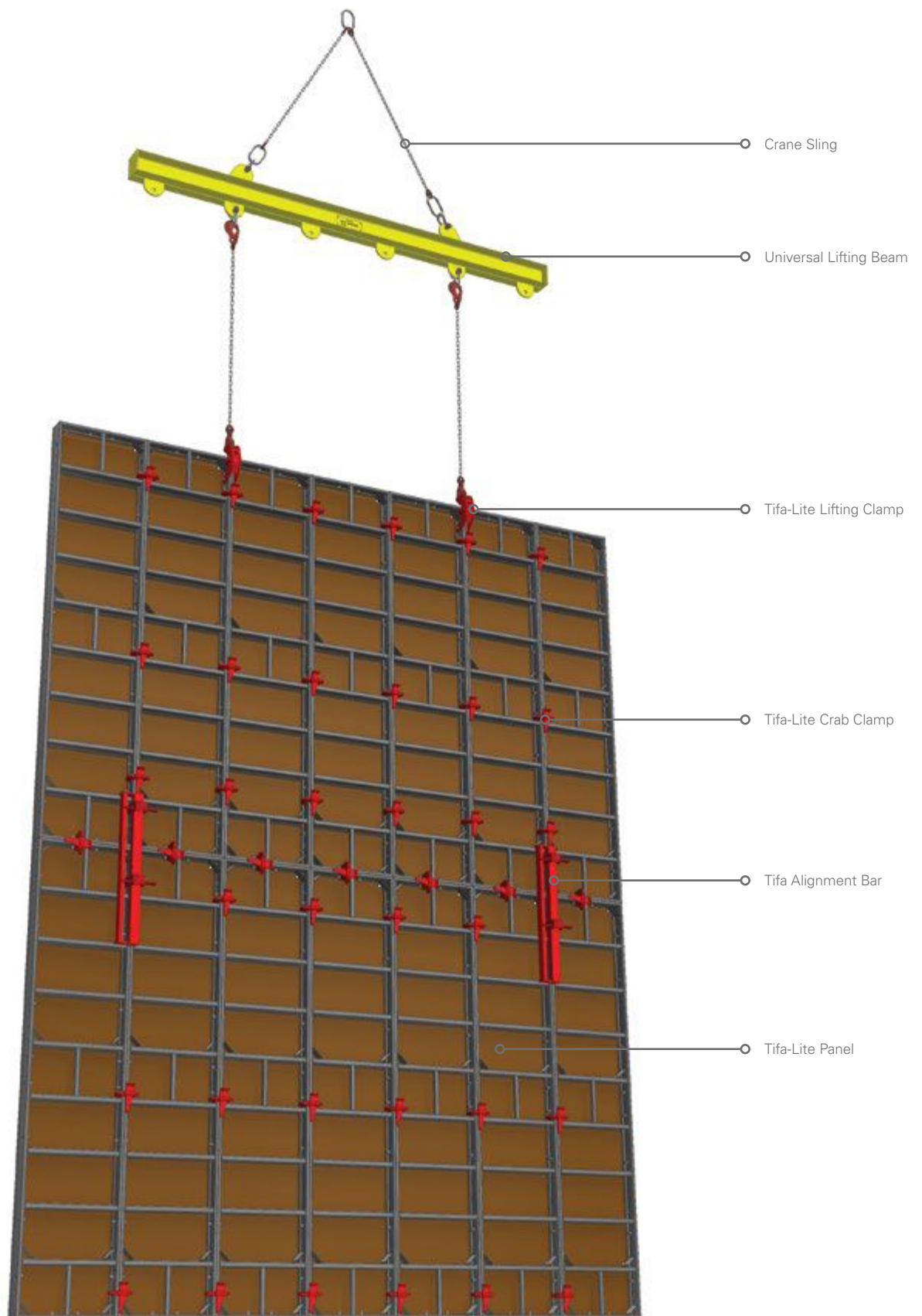
Levelling Jacks

Tifa-Lite Levelling Jacks are used to level the top of gang-formed units and are secured to the Panel Periphery using a Connecting Pin 16 x 90 and R-Clip 70 x 3.

CODE	DESCRIPTION	MASS(kg)
5125035	TIFA-LITE LEVELLING JACK	9.0



Application - Lifting



Flex Panels

Tifa-Lite Flex Panels are used to form the curved concrete surfaces of vertical structures.

CODE	DESCRIPTION	MASS(kg)
5125025	TIFA-LITE FLEX PANEL 2700 X 300	31.2
5125026	TIFA-LITE FLEX PANEL 2700 X 250	29.0
5125033	TIFA-LITE FLEX PANEL 2700 X 200	26.8
5125009	TIFA-LITE FLEX PANEL 1500 X 300	18.8
5125008	TIFA-LITE FLEX PANEL 1500 X 250	17.6
5125007	TIFA-LITE FLEX PANEL 1500 X 200	16.4
5125014	TIFA-LITE FLEX PANEL 1200 X 300	16.0
5125015	TIFA-LITE FLEX PANEL 1200 X 250	15.0
5125016	TIFA-LITE FLEX PANEL 1200 X 200	14.0



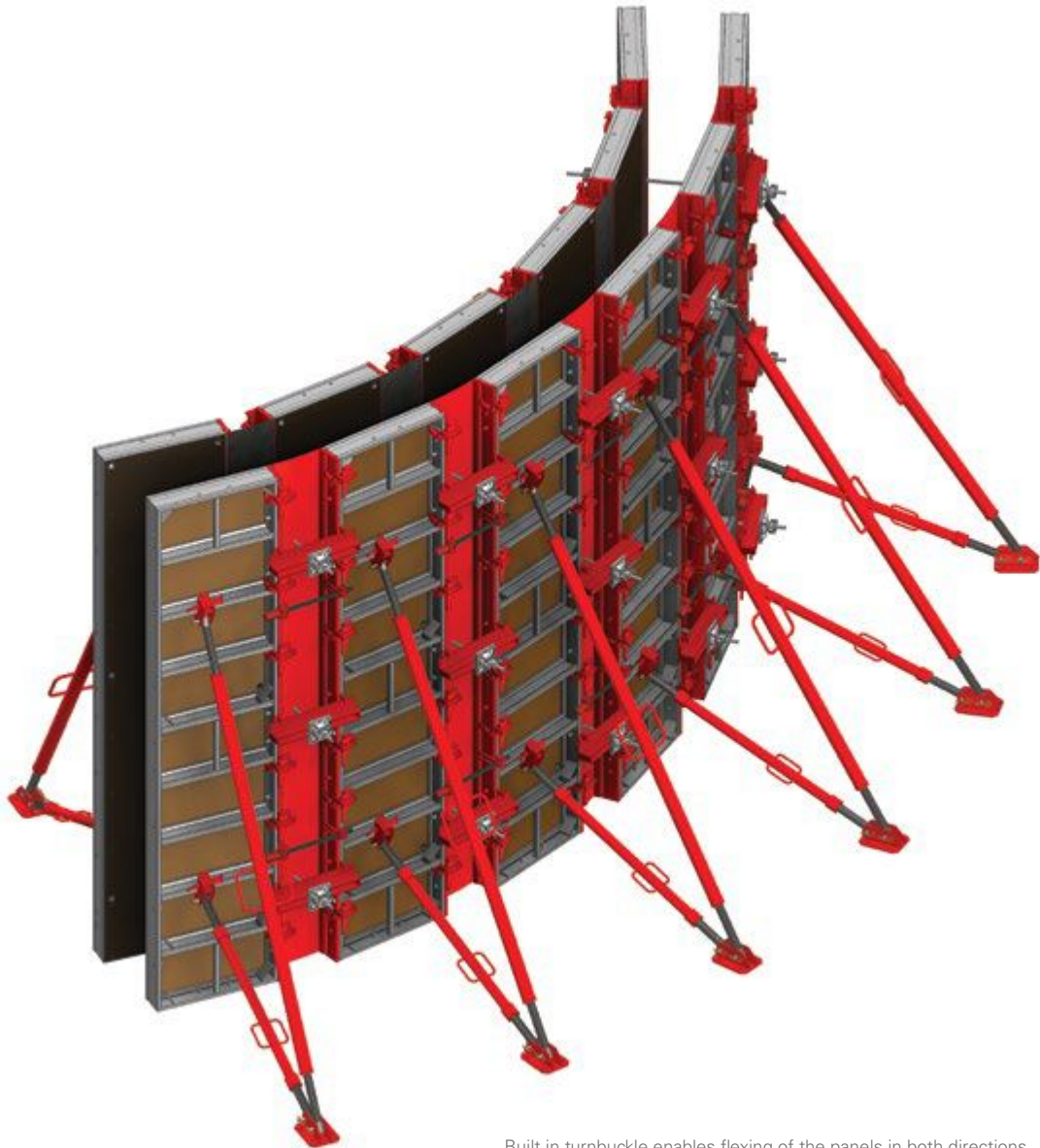
Flex Walers

Tifa-Lite Flex Walers are located over the tie hole in the Flex Panels to keep the Dywidag Tie System in place.

CODE	DESCRIPTION	MASS(kg)
5125011	TIFA-LITE FLEX WALER	5.2

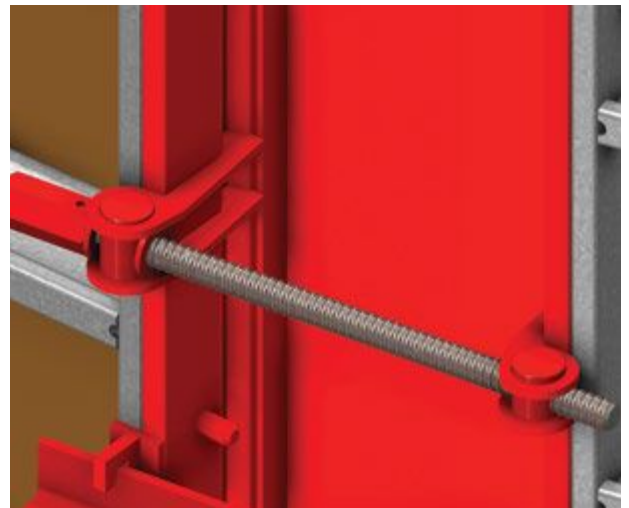
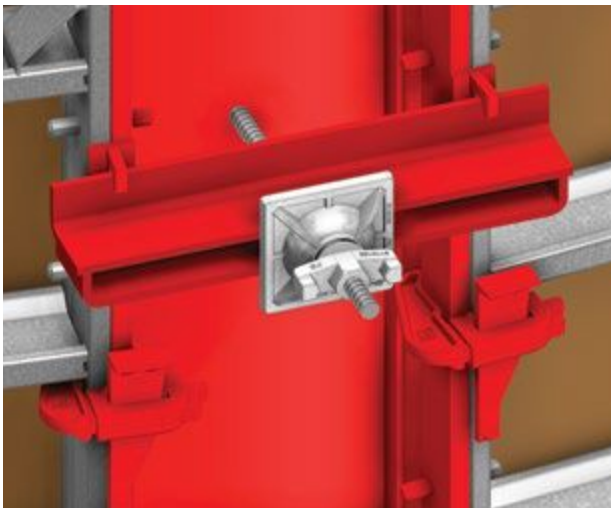


Application - Circular Formwork



Dywidag Tie System

Built in turnbuckle enables flexing of the panels in both directions.



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