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Formwork & Scaffolding
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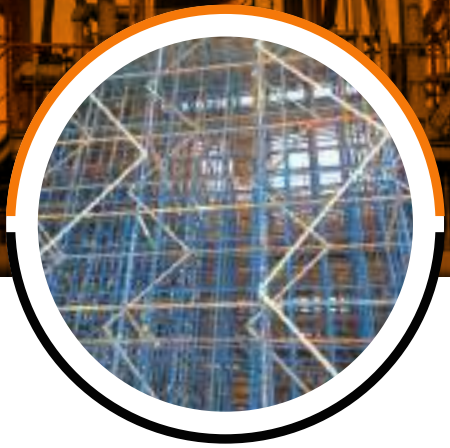


Content

Introduction

Cuplock is a multipurpose system suitable for access and support in all types of construction of building & civil engineering projects; it is fully painted/galvanized. Cuplock system is suitable for providing general access and supporting vertical loads. It can be used to create a huge range of access and support structures, staircase towers, circular scaffolds, loading towers and mobile towers. This manual has been designed to provide comprehensive details of components and guidance on the design and erection of Cuplock systems.

Connection & Locking Procedure

The main feature of Cuplock is the unique node locking method which allows up to four horizontal (ledgers) members to be fastened to a vertical standard in one action through two cups, lower cups welded in the standard tube at every 500 mm intervals and upper cups sliding along standard tube.
The ledger ends are put in the lower cup, then the upper cup is lowered down and locking by a hammer.

Dimension

All vertical standards and ledgers tubes are 48.3mm diameter with 3.00 or 3.20 mm thickness.
Cuplock Standards available in lengths from 1.00m up to 3.00m.
Cuplock Ledgers available in lengths from 0.60m up to 2.50m

Safety

Cuplock has safety built-in, as it is erected to a recognized configuration in a carefully developed sequence to work at every stage.
Cuplock scaffolds provide clear uninterrupted working platforms without obstructions from diagonal bracing across the deck in the majority of cases.

Safe working load

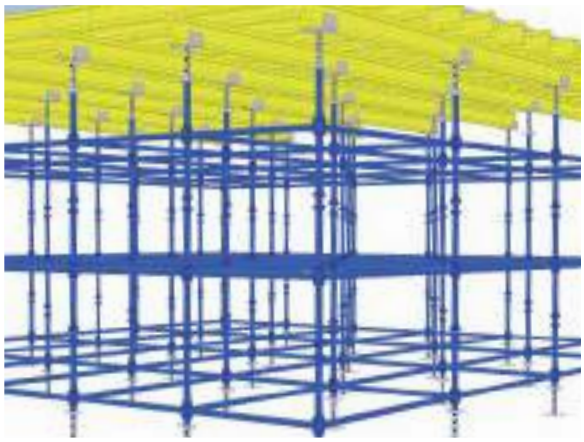
Standard safe working load up to 7.50 ton according to standard unbraced length and tube wall thickness.

Handling and Storage

Ease of handling through its light weight.
Minimal space requirements for storage.

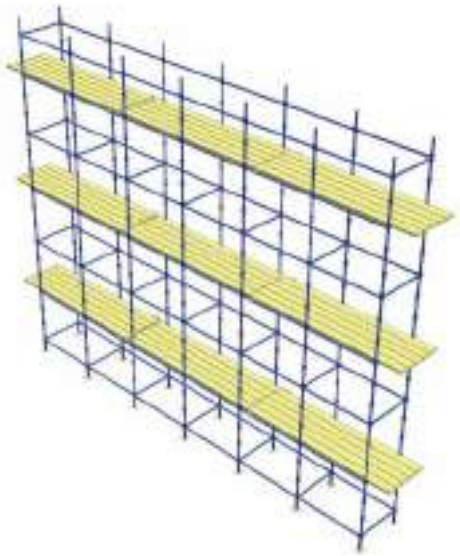
Cuplock Falsework Application

(Support Structures)
Cuplock Falsework system is suitable for support structures applications through the following:
High standard load capacity.
Range of components that gives the system capability to tackle virtually any support application.
Formwork support wide range grid variations that can be created to suit the loading requirements and any structure types and heights.
Ability to use different types of main and secondary beams with Cuplock.
(Timber – Aluminum – Steel)



Scaffolding application

Cuplock Scaffolding Application
Cuplock scaffolding system is multipurpose steel scaffold for general access and supporting vertical loads through the following:
Safe working loads on platforms will vary between 0.75kN and 3kN per square meter depending on the configuration of the scaffold.
Cuplock scaffolding meet the requirements of the international standard for health and safety.
Cuplock scaffolding is compatible with any scaffolding accessories (stairs, boards, wheels, tie…).
All components are designed to be light weight and easily assembled.
Cuplock constructs and maintains an installation that can seriously affect the life acceptance and efficiency of the finished installation.



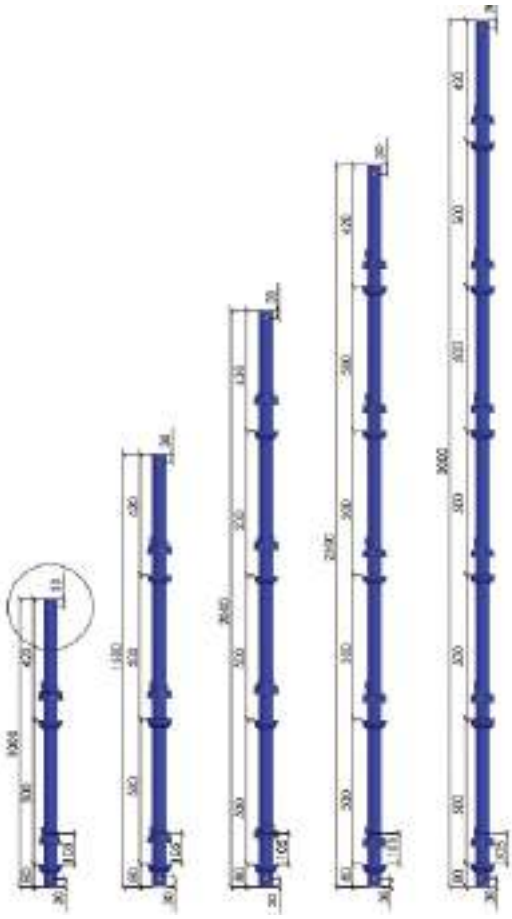
Early striking application

Cuplock Early Striking Applicatioin
(Supporting Floor Slabs)
Cuplock Early Striking System is suitable for support floor slabs through the following:
High loading capacity for standard, decking beams and infill.
Suitable for any type of floor slabs.
All components are manufactured to a very close tolerance.
All components are engineered to be light weight and easily assembled.
Early Striking save time and cost through a technique where by the formwork is removed 3 to 4 days after pouring a slab.

Standard Components

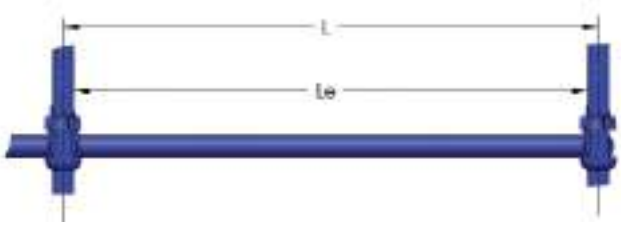
Cuplock Standards

Cuplock Standards are introduced in five basic sizes (1000 mm, 1500 mm, 3000 mm, 2500 mm, and 3000 mm) lengths.
Cuplock Standards are manufactured from 48.3 mm O.D. Tube with 3mm and 3.2mm thickness.
The lower cups are welded to standard at 500mm intervals.
The upper cups (movable cups) are used to locking up to 4 ledgers at one node.
The lowest bottom cup is welded at 80mm from the bottom end of the standard and the highest bottom cup is welded at 420 from the upper end of the standard.



Cuplock Ledgers

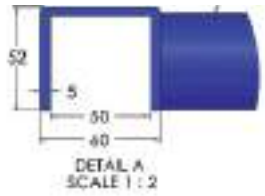
Cuplock Ledgers are used as the main horizontal connecting members for Cuplock system.
Cuplock Ledgers are introduced in large varieties to meet the requirements.
Cuplock Ledgers are manufactured from 48.3 mm O.D. Tube with 3mm and 3.2mm thickness.
Cuplock Ledger ends are formed with circular profile and welded to ledger tube.
Cuplock Ledger ends meet with the bottom cup of the Standard and locked in place by the upper cup. (Corresponding lock)

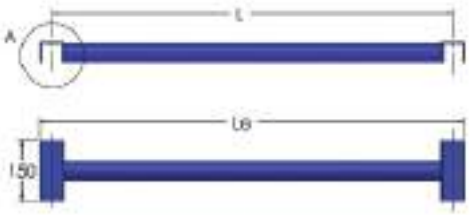


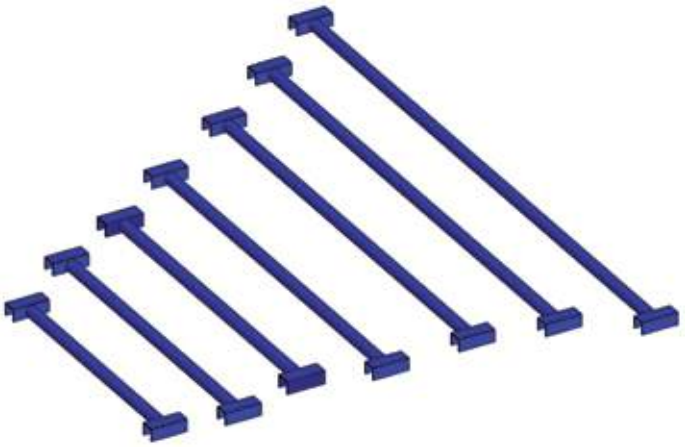
Accessories Components

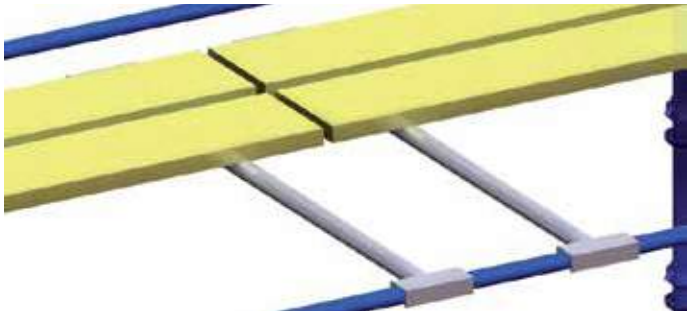
Intermediate Transoms

Cuplock Intermediate Transoms are introduced in 7 sizes to fit design and site requirements.
Cuplock Intermediate Transoms are manufactured from 48.3mm O.D. Tube with 3mm thickness.
Cuplock Intermediate Transoms provide intermediate support to scaffold boards.





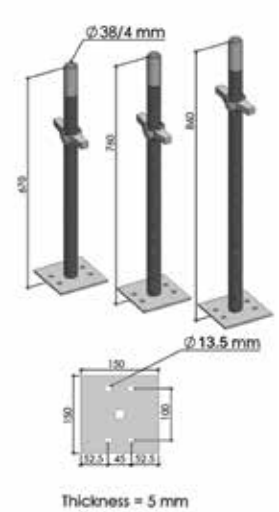




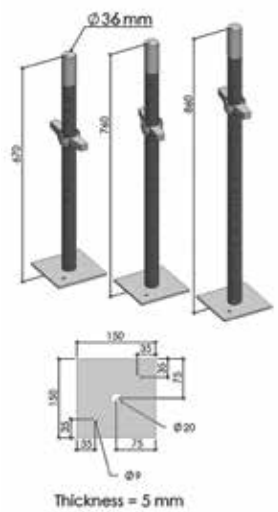
Adjustable Base Jacks

Adjustable Base Jacks are made of steel plate, screw jack and steel handle.
Adjustable Base Jacks available in two types (Hollow and solid).
Adjustable Base Jacks provide method of adjustment for Cuplock structure. It fits directly into the Cuplock Standard.

Adjustable Base Jacks Hollow Type B



Adjustable Base Jacks Solid

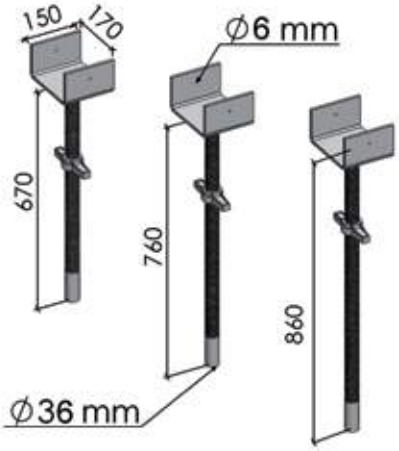


Standard Components

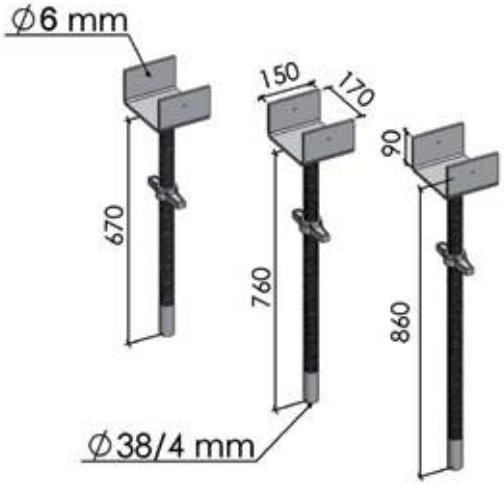
Adjustable U Head jacks

Adjustable U-Head Jacks are made of a “U” shaped steel plate, screw jack and steel handle.
Adjustable U-Head Jacks are available in two types (Hollow and solid).
Adjustable U-Head Jacks are providing support for primary beams (traditional timber, steel, H20 beam and aluminum beam).
Adjustable U-Head Jacks are inserting into the top of the cuplock standards.

Adjustable U-head Jacks Solid



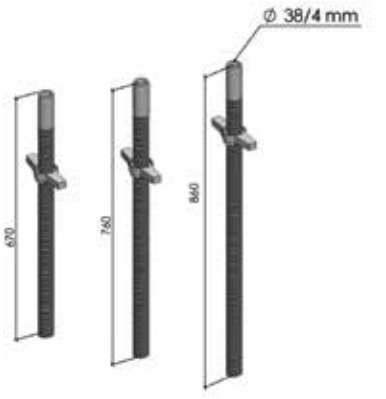
Adjustable U-head Jacks Hollow



Adjustable Universal Jacks

Adjustable Universal Jacks are made of a screw jack and steel handle.
Adjustable Universal Jacks are available in two types (Hollow and solid)
Adjustable Universal Jacks are inserted into the top of the cuplock standards.
Adjustable Universal Jacks are providing method of adjustment of Cuplock structure by the socket base.

Adjustable Universal Jacks Hollow

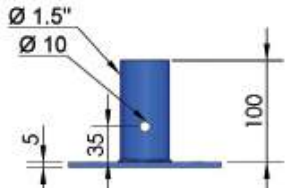


Adjustable Universal Jacks Solid

Standard Components

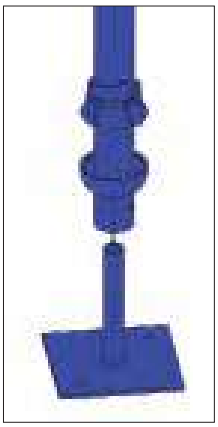
Socket base

The Socket Base is used in combination with the Adjustable Universal Jack and is drilled to permit the insertion of a securing bolt if required.



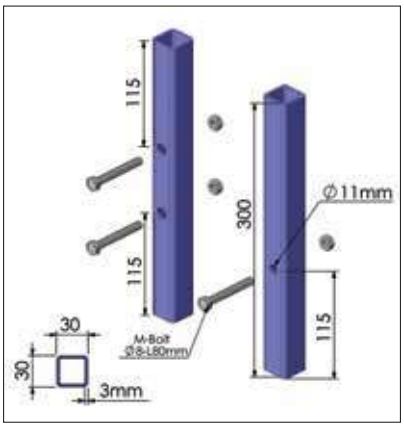
Base plate

Base Plate provides a flat support for Cuplock structure.
Base Plate uses as simple support for Cuplock structure in case of no need adjusting level.



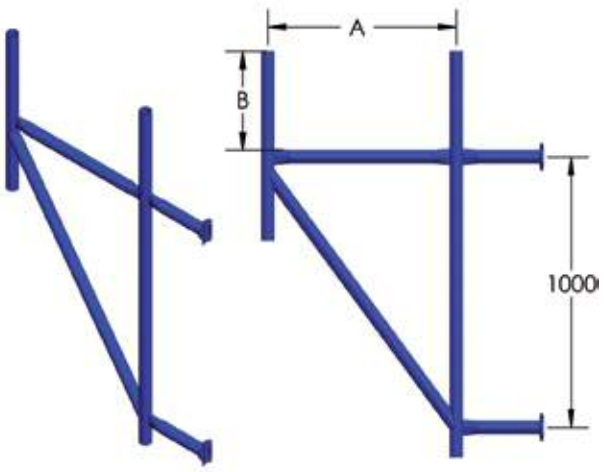
Square Spigot

Used to join one Cuplock Standard to another coaxially. Bolt is placed transversely through the spigot and Cuplock Standard to prevent the spigot from pulling out of standard.



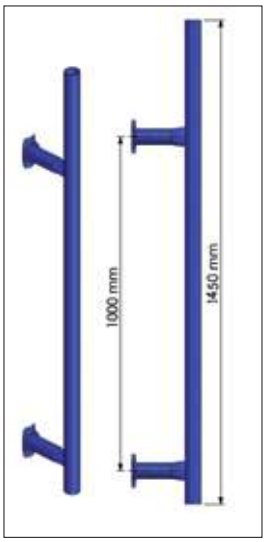
Double Cantilevers

To provide vertical support for edge beams of slab and transfer the applied load to Cuplock Standard.
Double Cantilever have two blade ends connected to standard to ensure the fixed connection with Cuplock vertical strandard.



Beam bracket

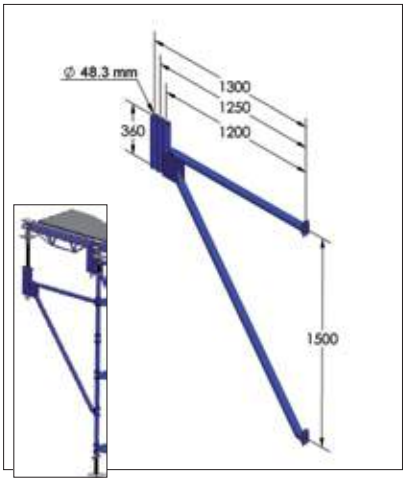
To provide vertical support for internal beams of slab and transfer the applied load to Cuplock Standard.
Beam Bracket have two blade ends connected to standard.



Standard Components

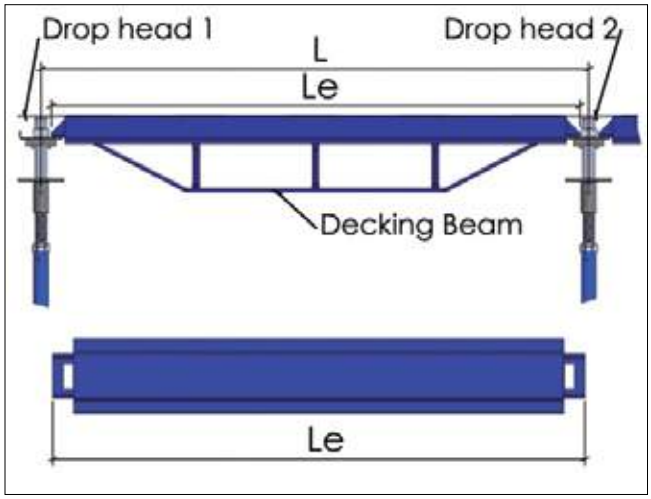
Cantilever frame

Used to provide vertical support for decking beams or formwork at edge of slab.
Cantilever Frames have two blade ends connected to standard Cantilever Frame accept Jacks in three positions, suitable for dimensions of 1200 mm, 1250 mm and 1300 mm.



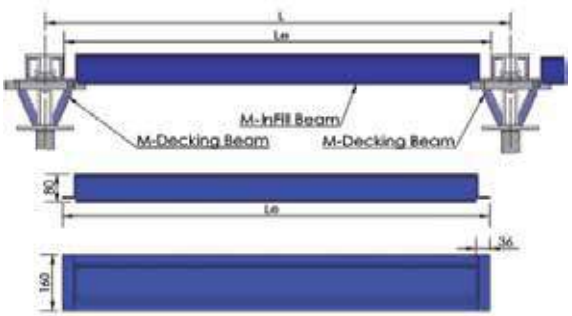
Decking Beams

Decking Beams including 100mm wide top flange which provide support for Infill beams.
Decking Beams available in three sizes 1200mm, 1800mm and 2500mm.
Decking Beams span between Dropheads and run in one direction only.



Infill Beams

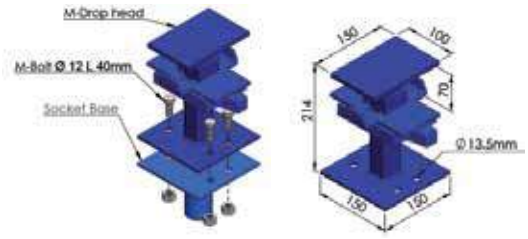
Infill Beams span between Decking Beams to provide skeletal support for plywood.
Infill Beams available in four sizes 1000mm, 1250mm, 1600 and 1800mm.



Standard Components

Drop Head

Drop Head is supported on Cuplock Standard by Adjustable Jacks.
Drop Head provides striking technique for Cuplock structure. (Discussed in technical data)
Drop Head provides support for Decking beams.

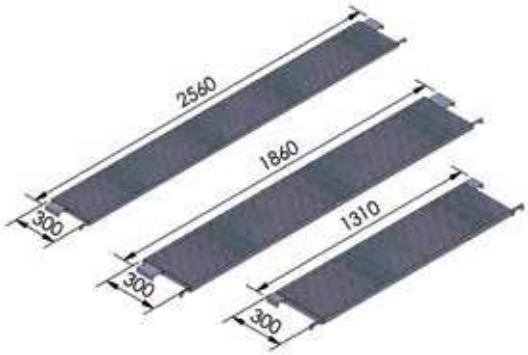


Cuplock stair case

The Cuplock Staircase Tower is mainly built up of standard Cuplock components to improve site access and more effective movement of persons and rapid erection due to a small number of components.

Steel planks

Steel platform for scaffolding.
Steel Plank lengths are available in 3 lengths suitable for Cuplcok Ledger.



Castor wheel

Provide movements to the Cuplock Towers from different places

Type A

Type B

Standard Components

H20 Beams

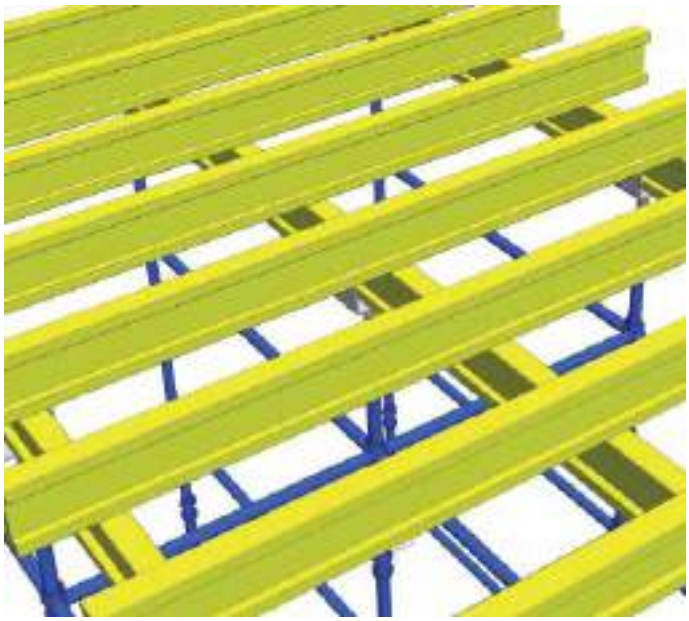
The H20 Formwrok Timber Beam is a solid I-beam used for concrete formwork construction.

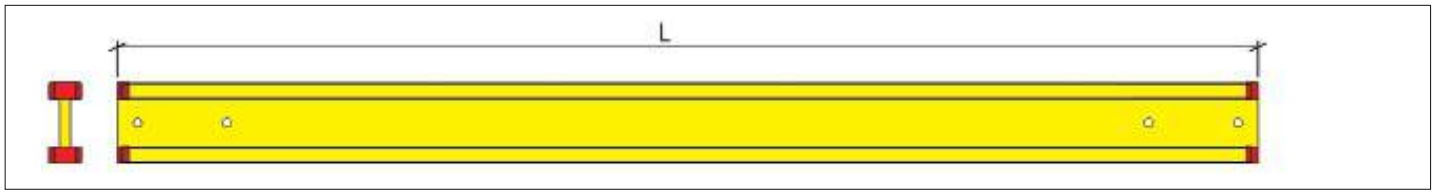
The height of beam is 200mm and available in different standard lengths.

The webs made of 3 ply laminated solid wood panels ensuring use in all climate zone.

The chords are made of superior quality smoothly surfaced and slightly chamfered.

H20 Beams are used as primary and secondary beams for Cuplock FalseWork applications.





Aluminum Beam

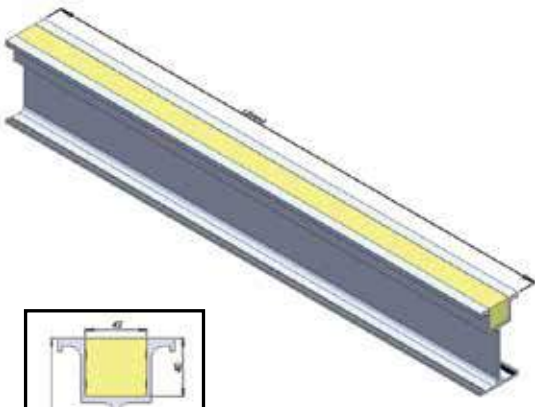
Aluminum Beams combine the benefits of strength, lightness and easy handling with consistency ,versatility and exceptional durabilty

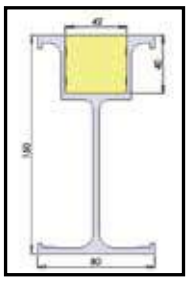
Aluminum Beams manufactured from high grade alloy (ALLOY 6082) . Available in two standard section .

1- Single web light

TECHNICAL SPECIFICATIONS

1. Permissible bending moment (M) = 0.77 (t.m)
2. Permissible shear force (t) = 4.00 t
3. Section modulus (z)= 51.70 cm^3
4. Geometrical moment on inertia (I)= 389.70 cm^4





Standard Components

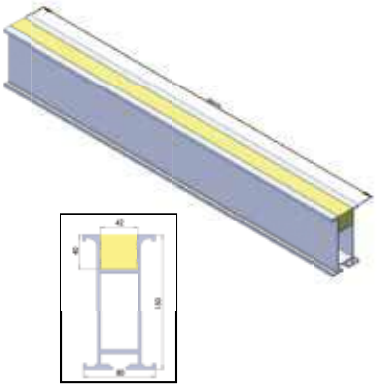
Aluminum Beam

2- Single web Heavy

TECHNICAL SPECIFICATIONS

1. Permissible bending moment (M) = 0.86 (t.m)
2. Permissible shear force (t) = 4.70 t
3. Section modulus (z)= 57.89 cm^3
4. Geometrical moment on inertia (I)= 469.66 cm^4

3- Double web



TECHNICAL SPECIFICATIONS

1. Permissible bending moment (M) = 0.98 (t.m)
2. Permissible shear force (t) = 8.00 t
3. Section modulus (z)= 65.82 cm^3
4. Geometrical moment on inertia (I)= 460.7 cm^4

Standard Components

Scaffolding FIttings

Scaffold couplers are essentially the fundamental component that is used to assemble tube-and-coupler scaffolding. This basic fitting is designed to join two scaffold tubes that can be used to create a diverse range of scaffolding structures.

1- Forged Double Coupler

2- Forged Swivel Coupler

3- Pressed Double Coupler

4- Pressed Swivel Coupler

5-External Sleeve Coupler

6- Expanding Joint Pin

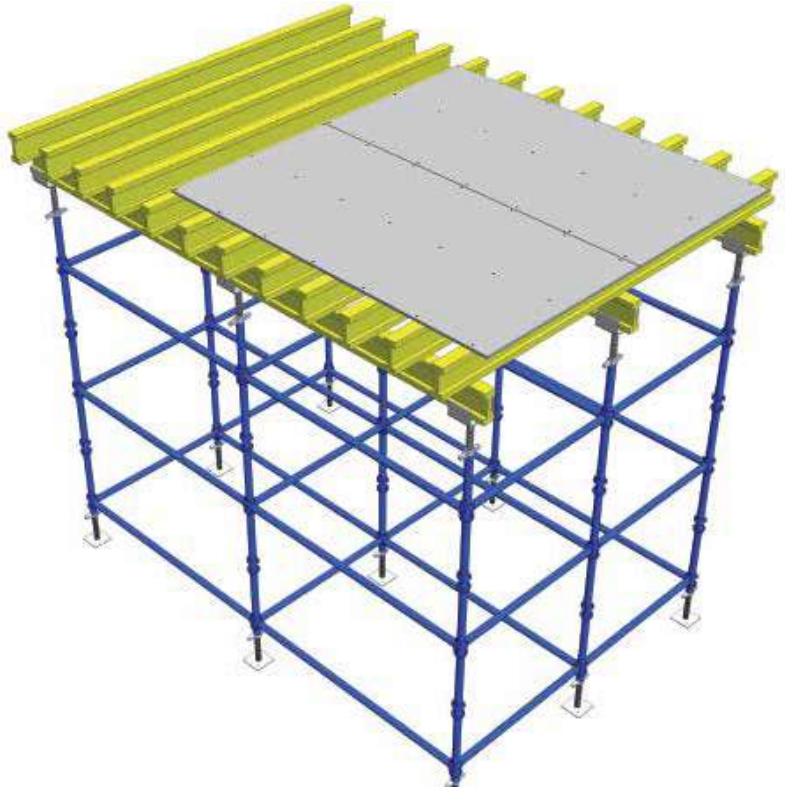
7- Forged Putlog Coupler

8- Gravlock Girder Clamp

Sketch Applications

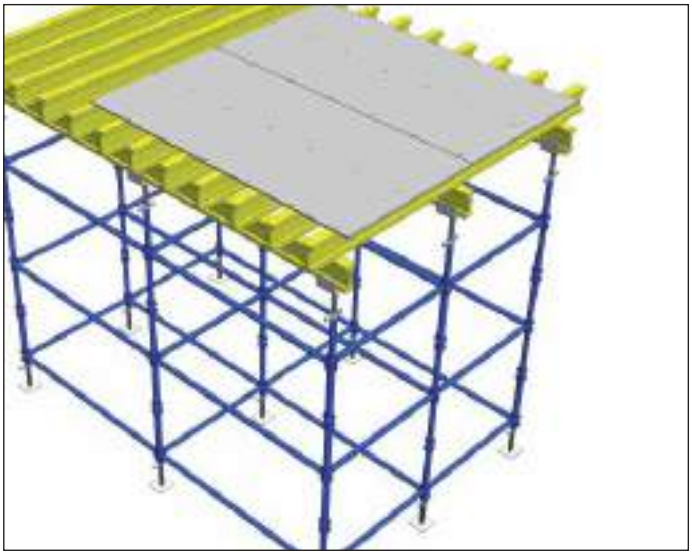
Cuplock FalseWork

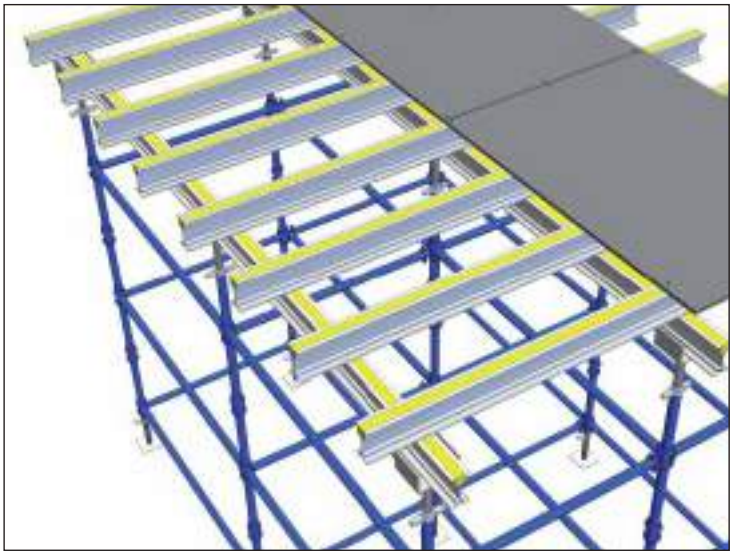
is a new way of shoring and support the concrete slabs in record time with less labor required rather than the traditional method of shoaring and support. Cuplock Falsework use different types of primary and secondary beams as needed allowing the possibility of using existing material in the sets.



Primary : H20 Beam
Secondary: H20 beam

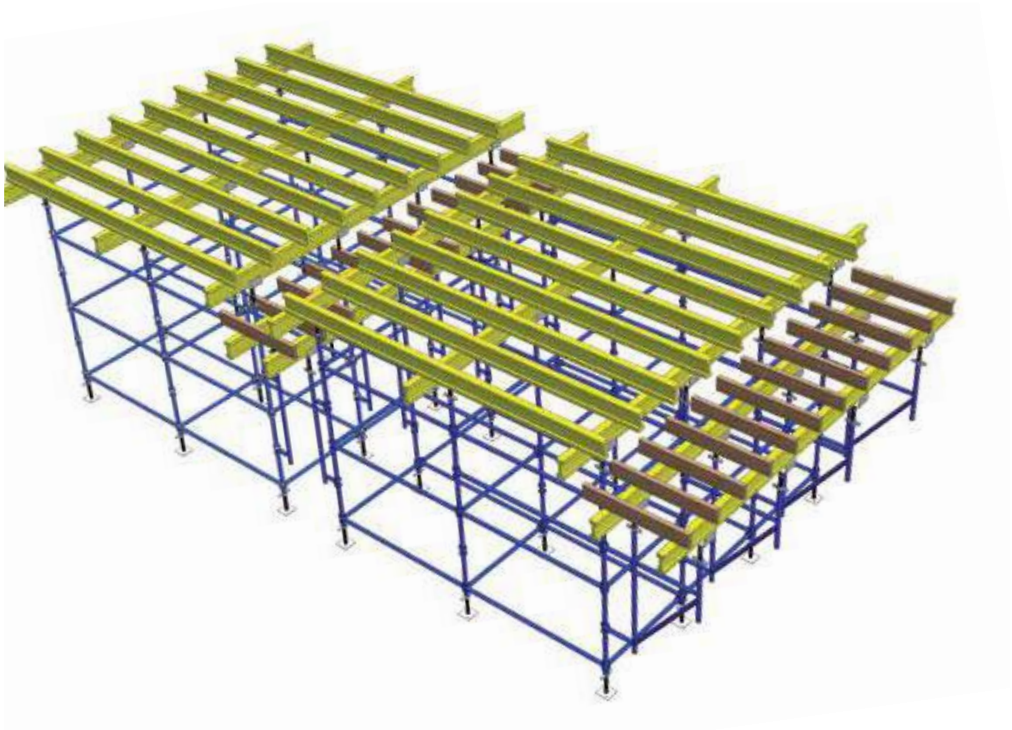
Primary : Aluminum Beam
Secondary : Aluminum Beam



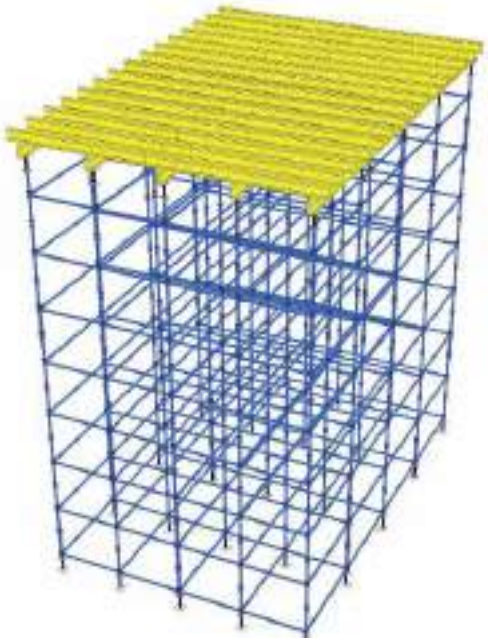


Sketch Applications

Another application of Cuplock Falsework used to shuttering beams of slab floor by using Double Cantilevers for outer beam brackets for inner beams.

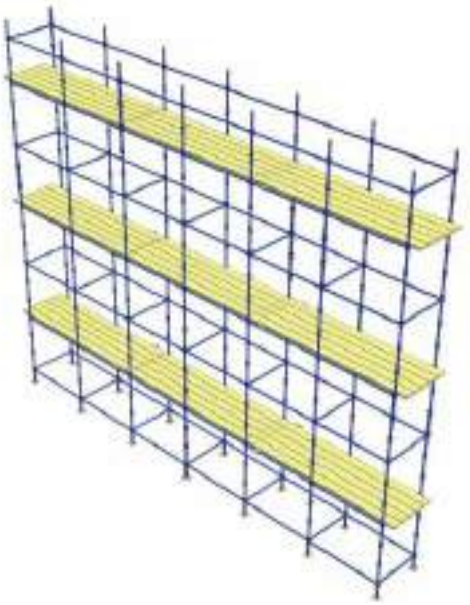


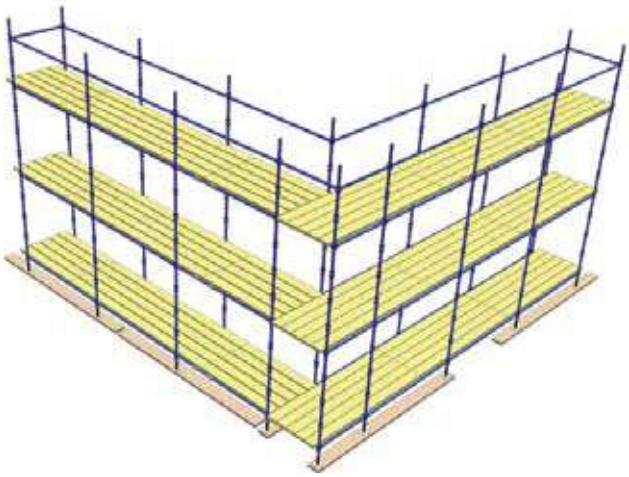
Another application of Cuplock Falsework used to support and shuttering the concrete slabs with different heights and levels according to requires.

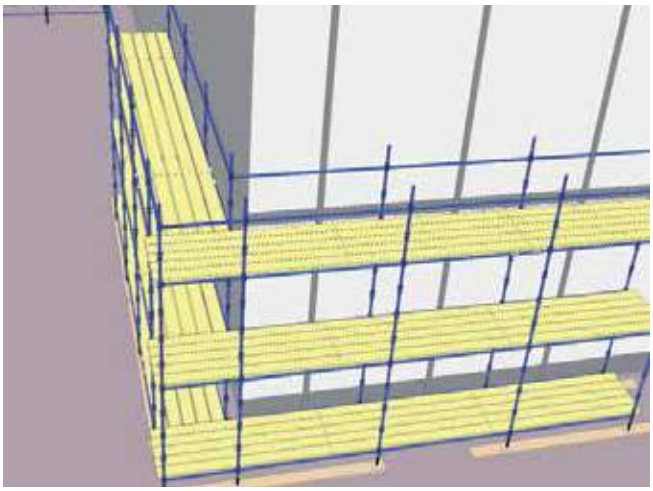


Sketch Applications

Cuplock Scaffold Is Defined As Any Temporary Elevated Work Platform And Its Supporting Structure (Including Points Of Anchorage) Used For Supporting Employees Or Materials Or Both.
Note That There Are Three Main Points To The Definition: It Is Elevated, It Is Temporary, And It Supports Either Personnel Or Materials Or Both.§



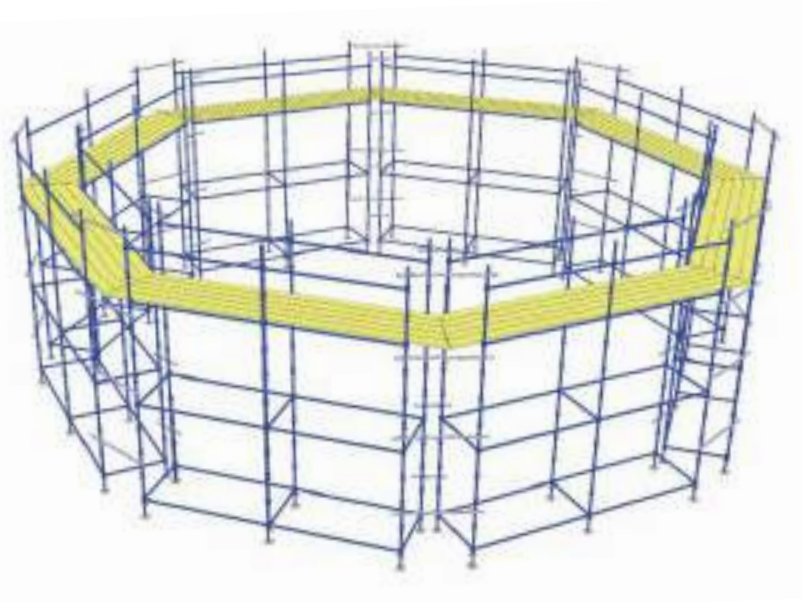




Cuplock Scaffolding: Square Or Rectangle Application

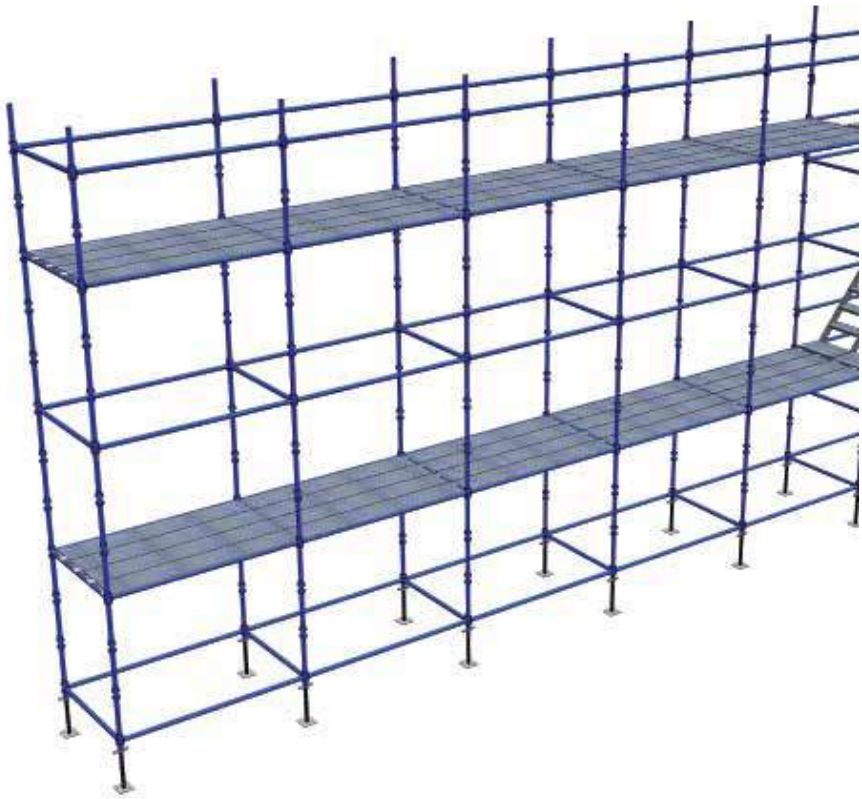
Sketch Applications

Cuplock Scaffolding: Circular Application



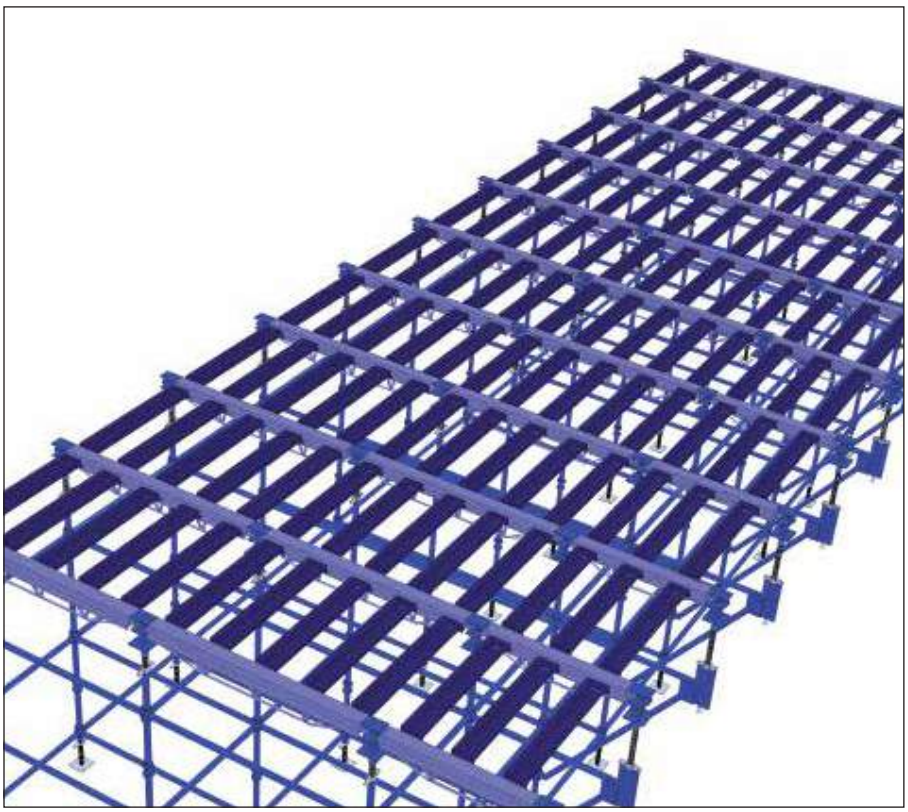
Staircase Tower

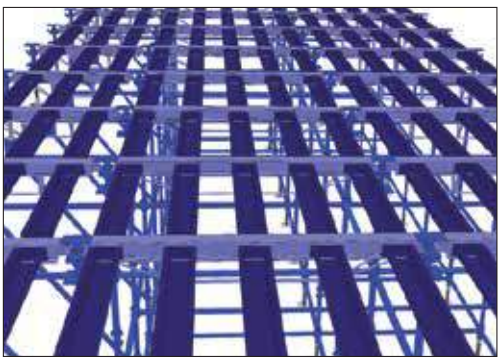
Cuplock Scaffolding : Staircase and Steel Planks



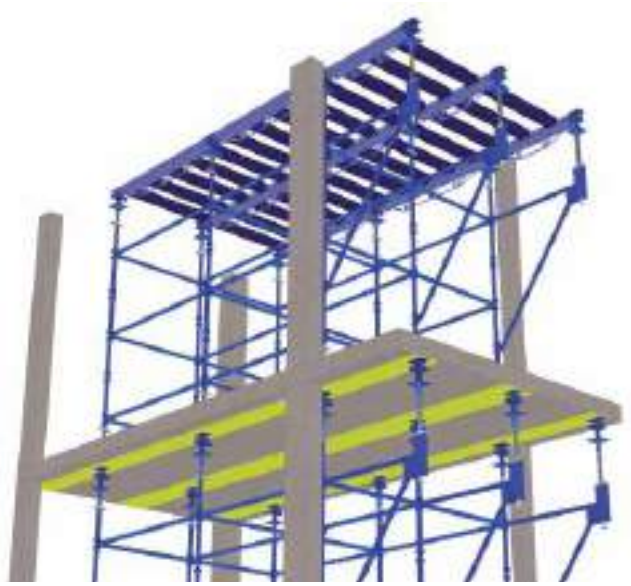
Sketch Applications

Cuplock Early striking it's the newest and fastest way for shoring and supporting the concrete slab with Early Striking techniques to reduce the project completion time.





Cuplock Early Striking technique allow dismantling Infill, Decking beams and Plywood without dismantling of standard which provide shoring for concreted slabs.
Using the dismantled Infill, Decking and Plywood to start working at the upper slab.



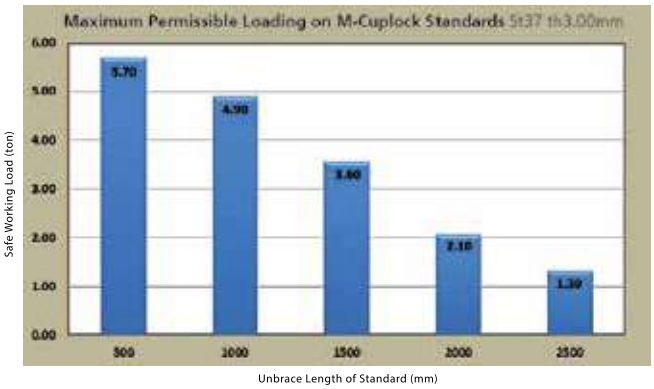
Technical Data

Cuplock Standard safe working load

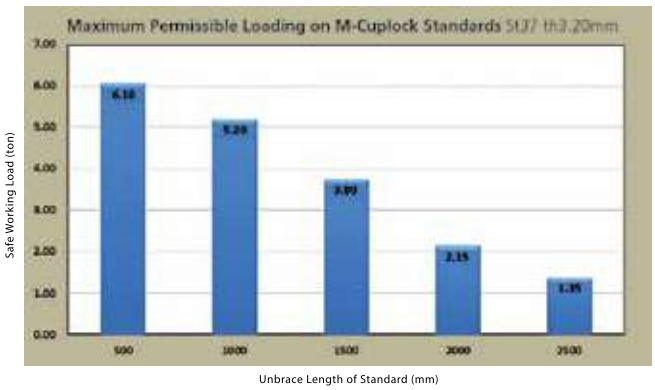
Maximum permissible loading on Cuplock Standard depends on the unbraced of standard (Lift distance) and the maximum bay size. The following graphs shown the Maximum permissible load on the Cuplock Standard with different steel grades and wall thickness of tubes.

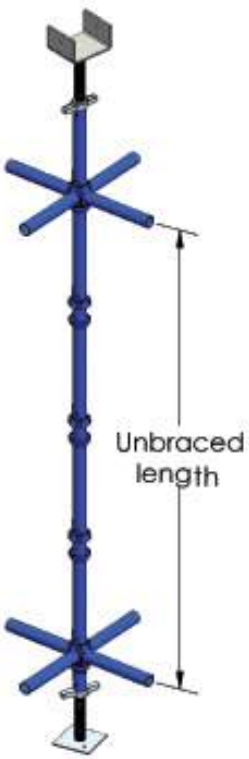
Maximum permissible loading on Cuplock Standard depends on the unbraced of standard (Lift distance) and the maximum bay size. The following graphs shown the Maximum permissible load on the Cuplock Standard with different steel grades and wall thickness of tubes.

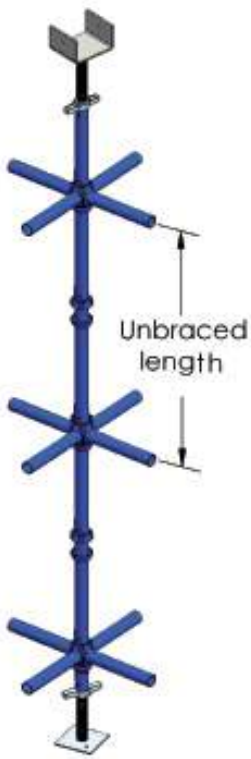
A- For tubes 48.3mm dia, Thk 3mm and steel 37



B- For tubes 48.3mm dia, Thk 3.2mm and steel 37





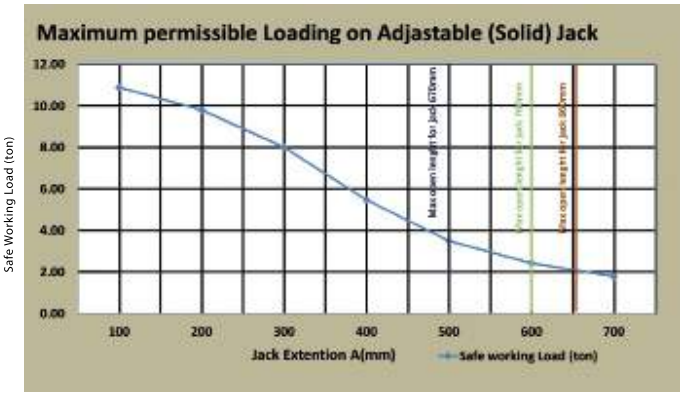


Technical Data

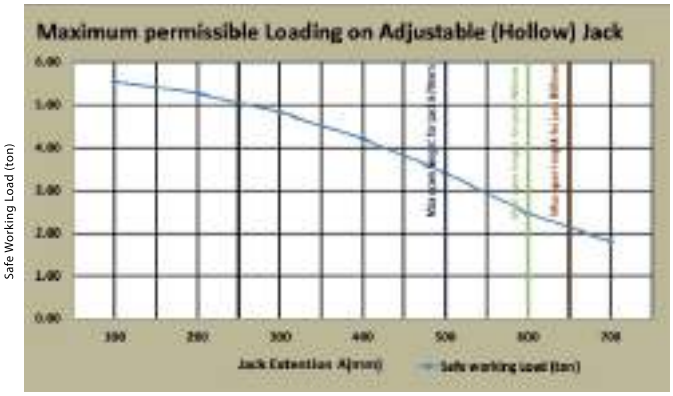
Adjustable Jacks Safe Working Load

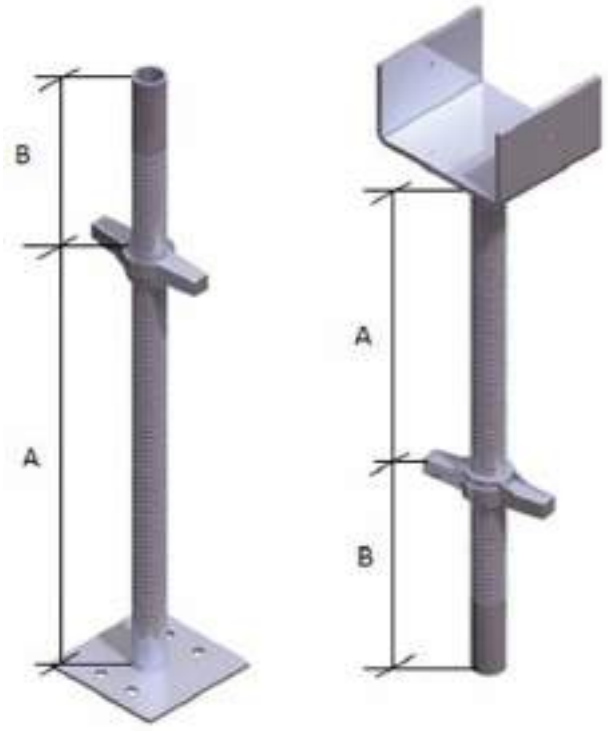
Maximum permissible loading on adjustable jack depends on Jack extension (A)
The following graphs showing the maximum permissible load on Adjustable Jack Solid and Adjustable Jack Hollow.

A - Maximum permissible loading on Adjustable Solid Jack



B- Maximum permissible loading on Adjustable Hollow Jack





The distance (B) at least 1/3 (A) B ≥ 1/3 A

Max open length for jack 760mm

Max open length for jack 860mm

Max open length for jack 860mm

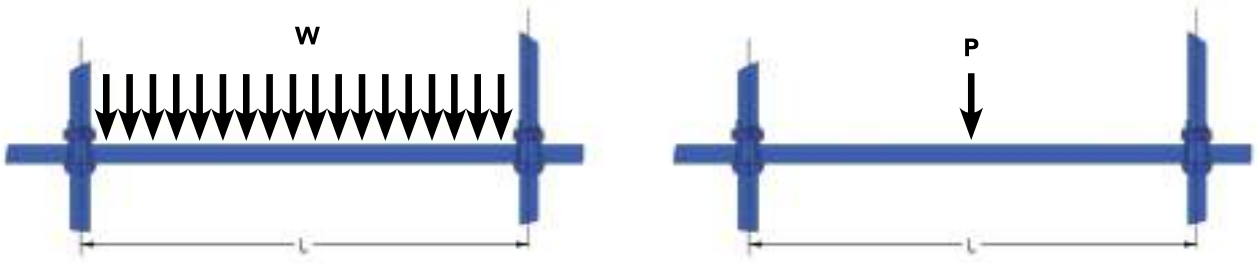
These graphs give maximum permissible load for the Adjustable Jack which are erected plumb and loaded concentrically by main beam.

These graphs shown the max extension length of Adjustable Jacks as following.

Technical Data

Cuplock Ledger Safe Working Load

The following table and figures show the safe working load on Cuplock Ledger.



W: uniform load on Cuplock ledger.
P: point load on Cuplock ledger.

	Product	Nominal length	W (KN/m)	P (KN)
1	Cuplock ledger, 1250 mm	1250	4.68	15.00
2	Cuplock ledger, 1800 mm	1800	4.00	9.00
3	Cuplock ledger, 2500 mm	2500	2.40	6.00

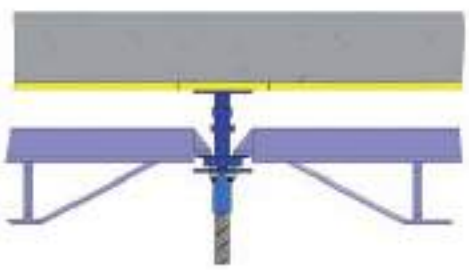
Technical Data of Cuplock Early Striking Technique

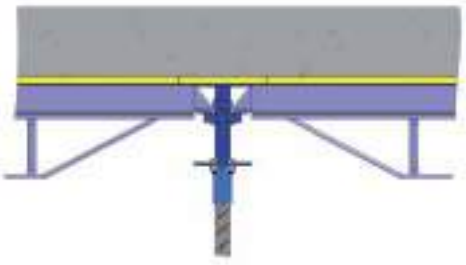
The Technique of Early Striking

Cuplock Early Striking application allow to remove formwork after 3 to 4 days of pouring a slab, but Cuplock supporting structure (Cuplock Standard) still remains until the concrete is strong enough to support its own weight over its full span.

Concrete generally takes 28 days to attain its full strength. Most codes and standards will only permit the complete support to be removed after about 10 to 14 days, according to environment temperature and cube strength tests.

Traditional Falsework techniques need 10 to 14 days of pouring cycle but Cuplock Early Striking provide facility to reduce the cycle time.





Down Position

Up Position

Drop Head considered the main part to apply Early Stricking technique.

Drop Head allow to dismantling decking and Infill beams and supporting the slab with cuplock supporting structure.

Drop Head moved form up position to down position by striking Drop Head wedge by hammer hit; allows the beams to drop about 115mm only giving sufficient clearance for the removal of Infills.

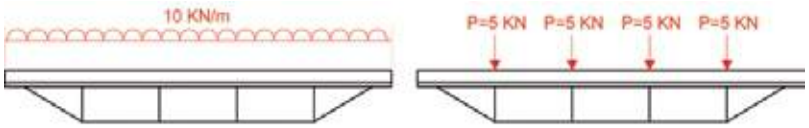
Technical Data

Decking Beams Safe Working Loads

The following figures show Decking Beam Safe Working Load with different lengths.

Safe Working Loads shown as uniform load and point load.

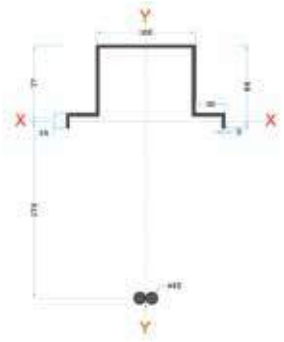
Decking beam 2.5 m



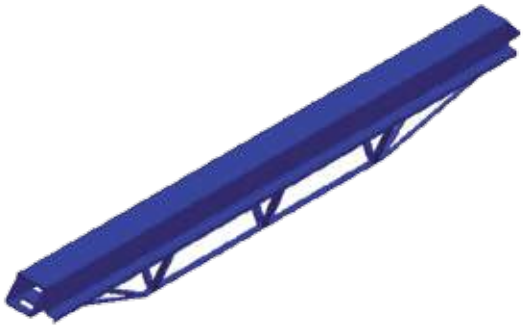
Decking beam 1.8 m

Decking beam 1.2 m

Point Load (P) = 2 (Reaction Of Infill Beam)



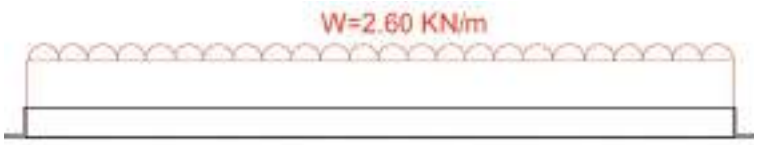
Section at mid span of Decking beam



Infill Beams Safe Working Loads

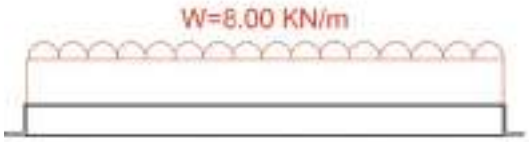
The following fingers shown Infill beams Safe Working Load

Infill beam 1.80 m

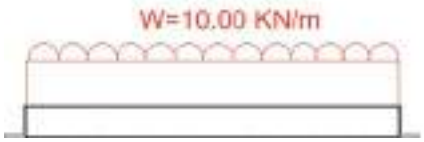


Infill beam 1.60 m

Infill beam 1.25 m



Infill beam 1.00 m



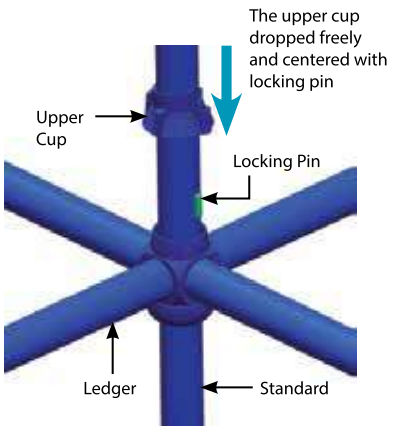
Line Load (W) = Slab Load X Spacing Between Infill Beam

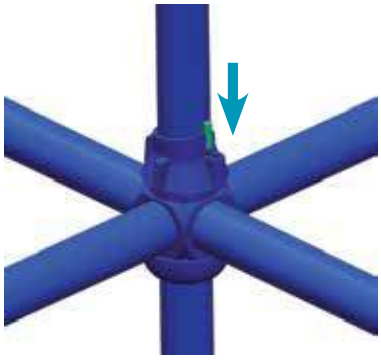
Section at mid span of Infill beam

Technical Data

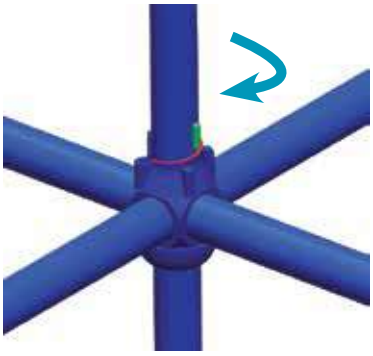
Simple Method of Component Connection

Blade ends of horizontal members (Ledgers) are located in the bottom cup. The upper cup is then slid down over the top of the blades and is rotated until it engages the locking pin.





The upper cup passed from the locking pin



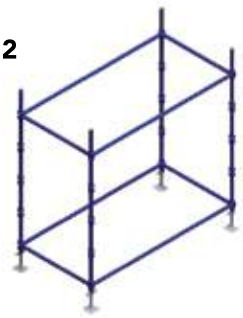
The upper cup rotated by one hit of hammer to fit with locking pin, the fitting depend on the upper cuplock spiral.

Cup Lock Scaffolding Assembly

1

The first four Adjustable Bases are placed in position, then two Standards are placed over two of the bases.
A Ledger is then connected to the lowest bottom cup on the Standards joining the two Standards together.

2

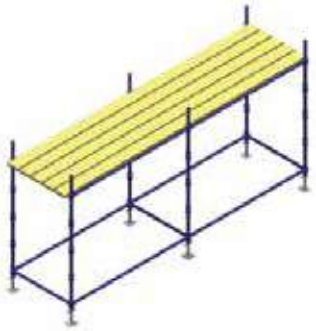


Add third and fourth standards and ledgers in similar manner.

3

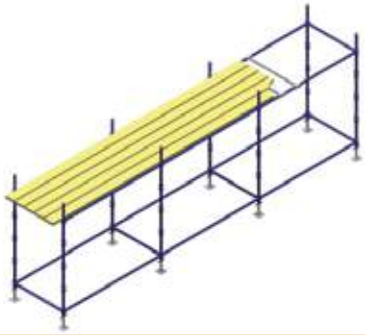
After adding the last Standard insert the Adjustable Jack with Drop Head into the Standard.

4



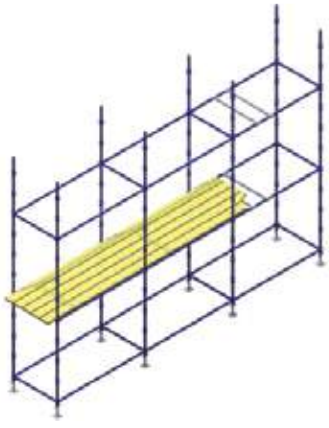
Finally, add planks in longitudinal direction.

5

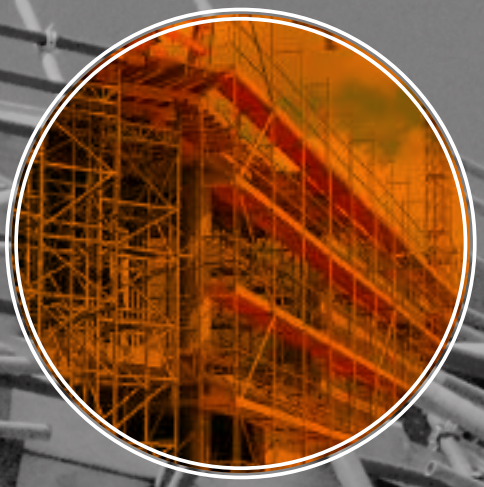


Repeat the second step with longitudinal direction and add a transom to support planks if needed.

6



Repeat the previous steps in longitudinal and vertical directions and adding tie points to fixing scaffold structure.



الابـــداع المستقل

INDEPENDENT INNOVATION

Projects

Cuplock Projects

Cuplock Projects

Cuplock Projects

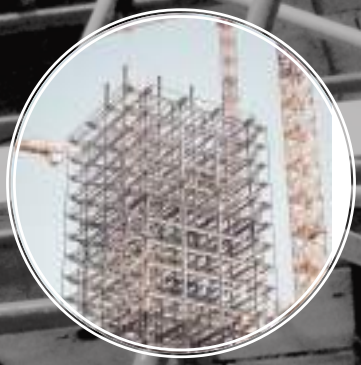
Cuplock Projects

Cuplock Projects

Cuplock Projects

Cuplock Projects

Cuplock Projects

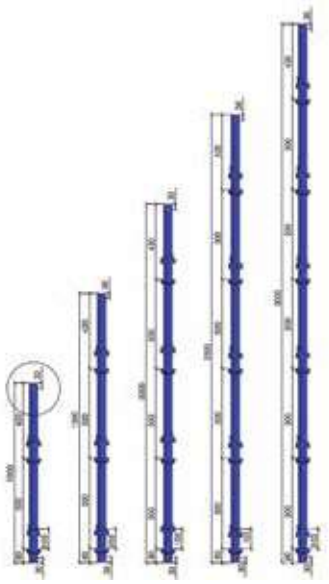


الابـــداع المستقل
INDEPENDENT INNOVATION

Components

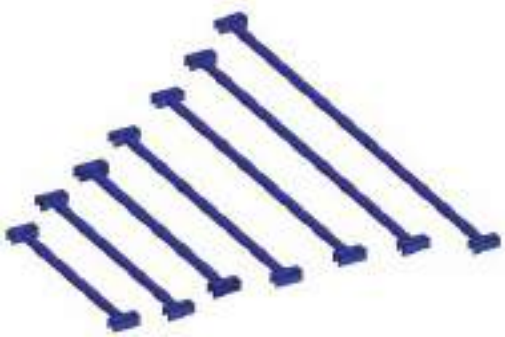
Components

Cuplock standards	Weight Kg	Code No
Cuplock Standard Thk. 3.20mm		
cuplock Standard 100 cm	4.90	B001020020070
cuplock Standard 150 cm	7.15	B001020020060
cuplock Standard 200 cm	9.80	B001020020050
cuplock Standard 250 cm	11.90	B001020020030
cuplock Standard 300 cm	14.30	B001020020010
Cuplock Standard Thk. 3.00mm		
cuplock Standard 100 cm	4.59	B001010020070
cuplock Standard 150 cm	6.70	B001010020060
cuplock Standard 200 cm	9.18	B001010020050
cuplock Standard 250 cm	11.15	B001010020030
cuplock Standard 300 cm	13.40	B001010020010
Cuplock Standard Thk. 3.2 mm		
EN-10219 100 cm	5.70	B001080020070
EN-10219 150 cm	8.35	B001080020060
EN-10219 200 cm	10.16	B001080020050
EN-10219 250 cm	13.90	B001080020030
EN-10219 300 cm	16.70	B001080020010



Cuplock Ledgers Thk 3.00mm	Weight Kg	Code No
Cuplock Ledger 250cm	8.30	B001030020010
Cuplock Ledger 180cm	6.80	B001030020030
Cuplock Ledger 160cm	6.05	B001030020040
Cuplock Ledger 130cm	5.05	B001030020060
Cuplock Ledger 125cm	4.35	B001030020070
Cuplock Ledger 120cm	4.05	B001030020080
Cuplock Ledger 100cm	3.50	B001030020090
Cuplock Ledger 90cm	3.00	B001030020100
Cuplock Ledger 60cm	2.35	B001040020110

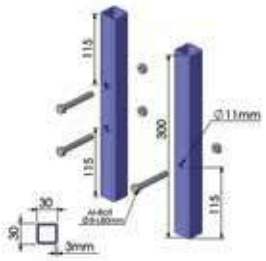
Cuplock Intermediate Transoms	Weight Kg	Code No
250cm	9.50	B001050020010
210cm	7.30	B001050020020
180cm	6.90	B001050020030
160cm	6.20	B001050020040
130cm	5.20	B001050020050
125cm	4.80	B001050020060
100cm	4.10	B001050020070



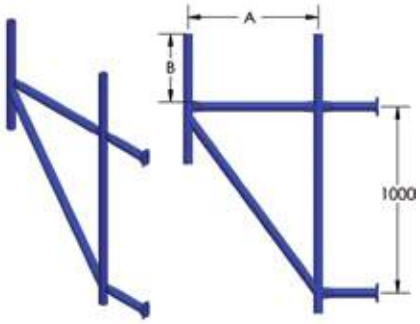
Components

	Weight Kg	Code No
Base Plate	1.00	B008040020010

Square spigot	Weight Kg	Code No
Cup lock Spigot 30 cm	0.70	B001070020010

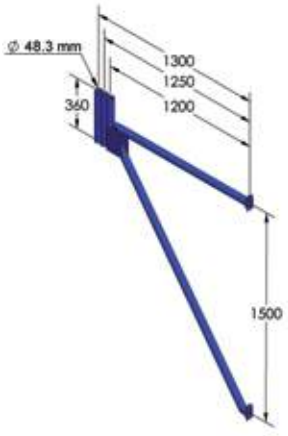


Double Cantilevers	Weight Kg	Code No
700/390mm	10.95	B001070020040
700/600mm	11.50	B001070020050



Beam Bracket	Weight Kg	Code No
Beam Bracket 100cm	6.45	B001070020030

	Weight Kg	Code No
Cantilever Frame	16.20	B001070020020



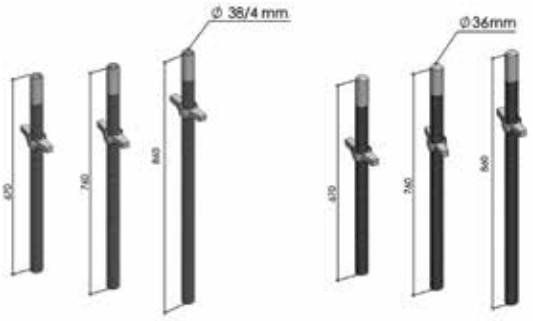
Components

Adjustable Base Jacks Hollow Ø 38/4mm	Weight Kg	Code No
670mm	3.54	B007010080040
760mm	3.85	B007010080050
860mm	4.20	B007010080060

Adjustable Base Jacks Solid Ø 36	Weight Kg	Code No
670mm	6.00	B007020080050
760mm	6.65	B007020080060
860mm	7.36	B007020080070

Adjustable Universal Jacks	Weight Kg	Code No
670mm	2.00	B007020080100
760mm	2.25	B007010080110
860mm	2.50	B007010080120

Adjustable Universal Jacks Solid Ø 36	Weight Kg	Code No
670mm	5.25	B007210080110
760mm	5.85	B007210080120
860mm	6.55	B007210080130



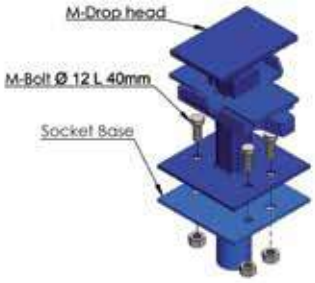
Castor wheel	Weight Kg	Code No
Castor Wheel 8 inch	5.35 kg	B306080000010
Castor Wheel 8 inch heavy	8.20 kg	B306080000020

Components

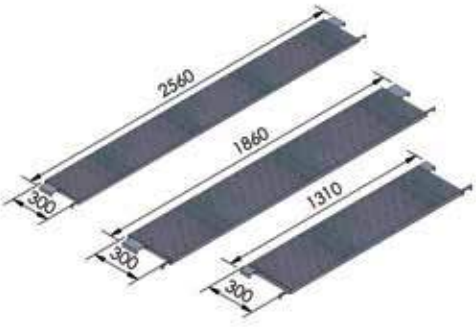
Decking Beams	Weight Kg	Code No
Decking Beam 2500mm	29.00	B005010020010
Decking Beam 1800mm	21.00	B005010020020
Decking Beam 1200mm	14.00	B005010020030

Infill Beams	Weight Kg	Code No
Infill Beam 1800mm	8.75	B005020020010
Infill Beam 1600mm	7.90	B005020020020
Infill Beam 1250mm	5.95	B005020020030
Infill Beam 1000mm	4.95	B005020020040

Drop Head	Weight Kg	Code No
Sok Base For Dorp Head	4.90	B006010080010
	1.25	B006010080020

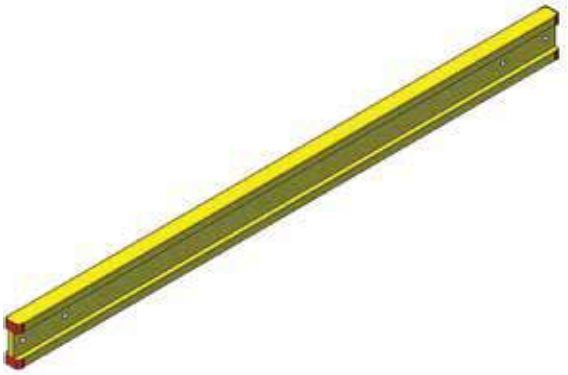


Steel Plank	Weight Kg	Code No
Steel Plank 2500mm	27.50	B008010020010
Steel Plank 1800mm	23.20	B008010020020
Steel Plank 1250mm	14.70	B008010020030

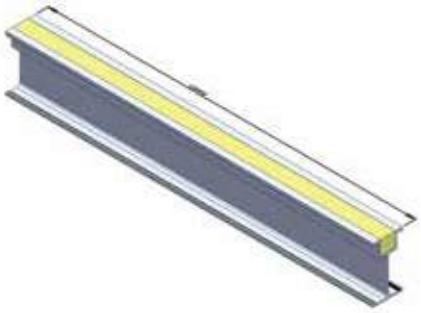


Components

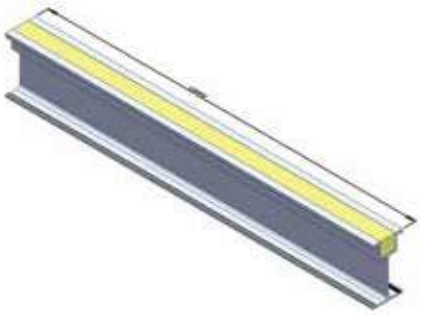
H20 Beam	Weight Kg	Code No
L 1900 mm	8.74	B201020001900
L 2450 mm	11.27	B201020002450
L 2900 mm	13.34	B201020002900
L 3900 mm	17.94	B201020003900
L 4900 mm	22.54	B201020004900
L 5900 mm	27.14	B201020005900



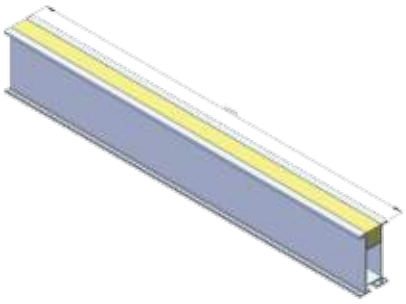
Aluminum Beam Single Web	Weight Kg	Code No
A.B.S 1000 mm	3.2	B402000010000
A.B.S 2000 mm	6.25	B402000020000
A.B.S 3000 mm	9.78	B402000030000
A.B.S 4000 mm	13.04	B402000040000
A.B.S 5000 mm	16.30	B402000050000



Aluminum Beam Heavy	Weight Kg	Code No
A.B.H 1000 mm	4.25	B402000010000
A.B.H 2000 mm	8.50	B402000020000
A.B.H 3000 mm	12.75	B402000030000
A.B.H 4000 mm	17.00	B402000040000
A.B.H 5000 mm	21.25	B402000050000



Aluminum Beam Double Web	Weight Kg	Code No
A.B.D 1000 mm	4.49	B40300001000
A.B.D 2000 mm	8.98	B40300002000
A.B.D 3000 mm	13.47	B40300003000
A.B.D 4000 mm	17.96	B40300004000
A.B.D 5000 mm	22.45	B40300005000



Components

Tube	Weight Kg	Code No
Scaffolding Tube Thk. 3mm		
Scaffolding Tube 1000 mm	3.43	B008020020060
Scaffolding Tube 2000 mm	6.86	B008020020050
Scaffolding Tube 3000 mm	10.29	B008020020040
Scaffolding Tube 4000 mm	13.72	B008020020030
Scaffolding Tube 5000 mm	17.15	B008020020020
Scaffolding Tube 6000 mm	20.58	B008020020010
Scaffolding Tube Thk. 3.2mm		
Scaffolding Tube 1000 mm	3.43	B008020020120
Scaffolding Tube 2000 mm	6.86	B008020020110
Scaffolding Tube 3000 mm	10.29	B008020020100
Scaffolding Tube 4000 mm	13.72	B008020020090
Scaffolding Tube 5000 mm	17.15	B008020020080
Scaffolding Tube 6000 mm	2058	B008020020070

Shorbrace Coupler	Weight Kg	Code No
	1.59	B002030020020

Forged Double Coupler	Weight Kg	Code No
Ø 48.3 x Ø 48.3	0.98	B301020000010

Forged Swivel Coupler	Weight Kg	Code No
Ø 48.3 x Ø 60.2	1.17	B301020000030
Ø 60.2 x Ø 60.2	1.60	B301020000040

Pressed Double Coupler	Weight Kg	Code No
Ø 48.3 x Ø 60.2	0.910	B301020000090

Pressed Swivel Coupler	Weight Kg	Code No
Ø 48.3 x Ø 60.2	1.5	B301020000070

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