KIRTANLAL

Specialist Supplier of Scaffolding & Formwork Systems

ISO 9001 : 2015 QRS CERTIFICATION

ISO 14001 : 2015 QRS CERTIFICATION

ISO 45001 : 2018 QRS CERTIFICATION

www.kirtanlal.ae/scaffolding

KIRTANLAL

Introduction

Kirtanlal Group of companies has over 53 years of experience in providing solutions to the Energy, Construction and Engineering industries in India, the Middle East, Africa and North America. Since establishment of the Head Office in Dubai, UAE in 2007, we have developed a wide network of fully resourced and integrated offices and facilities in key markets, which continues to expand and evolve, ensuring that delivery, documentation, communication and service meet customers' requirements.

Our strengths lie in our long-standing relationships with our customers and suppliers, coupled with strong financial resources. The Group maintains a stock of over US$ 35 million of raw material and finished goods at its various facilities.

Chairman's Message

Over the years, we have grown and diversified from a supply agency to a group of companies whose new frontiers of business include,

- Manufacture of Oilfield and Automotive Components
- Design & supply of Scaffolding & Formwork systems

We have pledged to create value for all our stakeholders by continually enhancing our business practices, operational processes and the quality of our products and services with the support and dedication of our professional management and qualified technical teams. We strive to meet the ever-changing demands of the markets and serve our business partners efficiently.

Vision & Mission

Our mission is to achieve client satisfaction through the efficient execution of projects, ensuring conformity to delivery, cost and quality requirements.

This commitment to customer satisfaction shall be exercised by utilising proven process techniques for the control of all activities, economic use of resources and minimizing the possibilities of non-conformities.

January 2021

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SCAFFOLDING AND FORMWORK SYSTEMS DIVISION

Overview

The Scaffolding & Formwork Systems Division was established in 2016. Over the short span of less than 5 years, we have developed into a strong and reliable supplier of Scaffolding and Formwork solutions, servicing construction projects from our warehouses in Dubai (JAFZA), Sharjah (Madam) and Oman (Barka), supported by our sales and design teams in Dubai, Muscat and Pune (India).

Our wide range of access and support products portfolio can meet the requirements of the entire spectrum of the construction industry. We offer a full design and supply service along with on-site training for safe operation of our equipment. We work actively with reputed inspection agencies who provide safety certifications for our installed equipment.

With safety and quality being our driving ambition, we continue to develop into a major provider of specialist scaffolding and formwork services in the GCC region.

QHSE Policy

Our management prioritizes Quality, Health, Safety and Environment Protection as key focus areas for our business. To achieve this, we monitor our performance against measurable objectives.

We strive to meet the aims of this policy by developing and implementing management programs in accordance with the requirements of **ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018.**

"Delivering Substantial value by optimal use of Resource, Technology & Talent"

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SCAFFOLDING AND FORMWORK SYSTEMS DIVISION

Products

» KT-Lok System Scaffold (Access and Support)

» KT-Rapid Panel System

» KT-Wall Panel System (Handset)

» KT-Table Flying Form System

» KT-Lok System Staircase

» KT-Props - DIN Certification

» KT-Column Formwork (Aluminium Beams and Steel Walers)

» KT-Wall Formwork (Aluminium Beams and Steel KT-Soldiers)

» KT-Aluminium Beams - KS 150 (Single) and KT 150 (Twin)

» Scaffold Tubes, Ladders and Fittings

» Scaffold Boards, LVL/Whitewood/Steel Battens

» Formwork Ties, Anchors and Accessories

» Aluminium Towers

Typical Projects

» Multi Storey Buidings

» Residential & Commercial Developments

» Stadium Seating

» Piers

» Bridges / Tunnel

» Water Dam

» Water Reservoir

» Oil, Gas and Petrochemical

» Industrial Maintenance

» Electrical Substations

» Hospitals

Our Valued Clients

Al Zahra Scaffolding TR Sole Proprietorship LLC

Kirtanlal Metal Products Co. LLC

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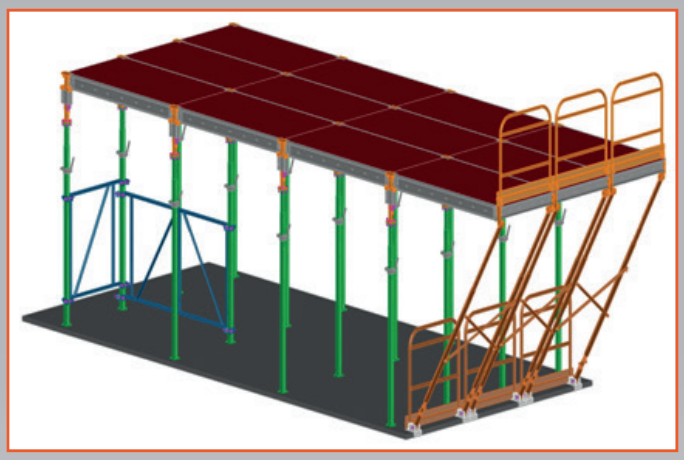
KT-RAPID PANEL SYSTEM

KT-Rapid Panel system is a high octane, high performance engineered modular panel shoring system. This panel system offers more erection, stripping and financial satisfaction than can ever be expected from a conventional shoring system. The honed prop with its integrated drop-head puts you in control and helps to ensure confident erection and ease of stripping, while back-propping remains undisturbed. This advantage results in a high rate of production. The system is also designed to withstand wind loads.



The rigid construction of the panel enhances handling and durability. The automatic wind lock design of the panel and prop prevents tipping during erection. The inner rod of the Assembly/Disassembly Tool (ADT) has holes to adopt a locking pin for adjustment. The ADT Pin is inserted into the hole in the inside strut of the panel. Once the tool is inserted, the panel is rotated (lifted) into the horizontal position which supports the panel until the prop is installed.

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KT-RAPID PANEL SYSTEM

KT-Rapid Panel system is very effective for achieving a 3-4 day slab cycle for a typical project. This system is an engineered modular panel shoring system which offers faster erection and stripping time than conventional shoring system. The panels are automatically wind locked during assembly which is very important at heights. The number of components is the lowest as compared to other systems which is essential when working at great heights.

Some of the key features are :-

- *The system can be easily expanded and reduced for changing slab heights and areas.*
- *System panels can be removed without disturbing props or concrete.*
- *The two main components, Panel & Prop automatically interlock against wind load, this is a very important factor when using slab decking in areas prone to high winds.*
- *System can be eretcted in any type of building or parking garage.*

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KT-RAPID PANEL SYSTEM

Cantilever Post

Drop Beam Assembly

Internal Beam Assembly

Telescopic Beam

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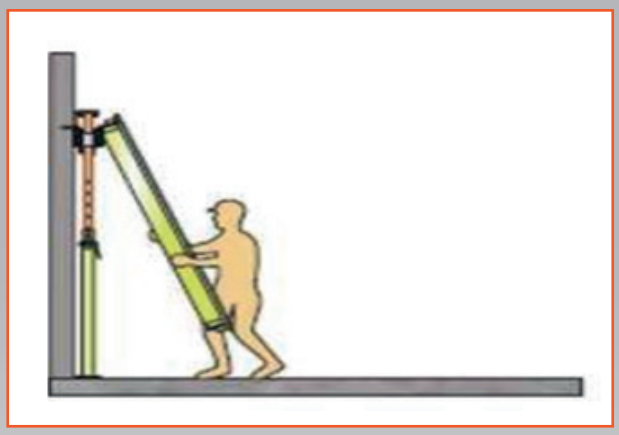
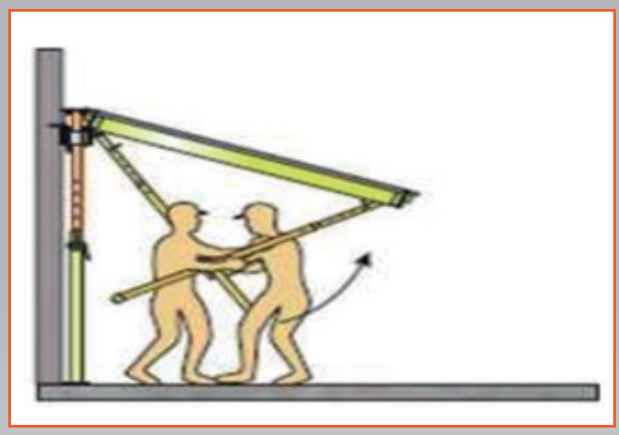
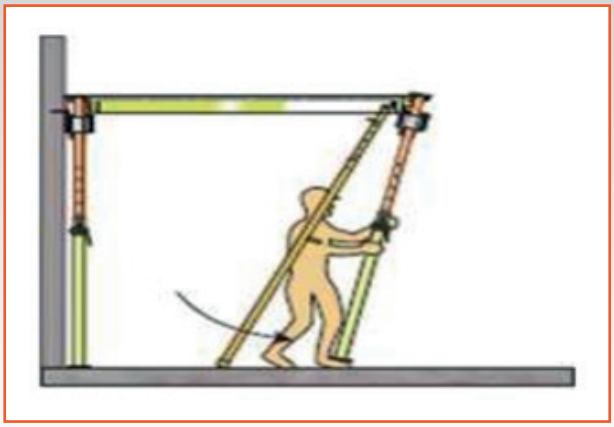
KT-RAPID PANEL SYSTEM
Safe, Fast, Efficient



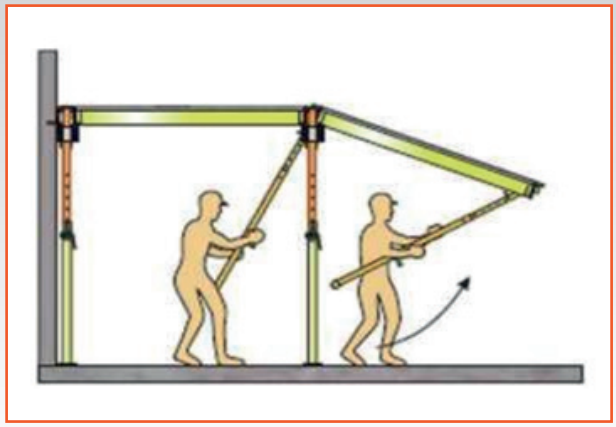
Step 1
The Panel is hung onto the Prop.



Step 2
The Panel is rotated (lifted) to The Horizontal Position and Supported with the ADT.



Step 3
Next the Prop is slipped into position, locking into and supporting the Panel.



Step 4
Erection continues by repeating steps 1, 2 and 3

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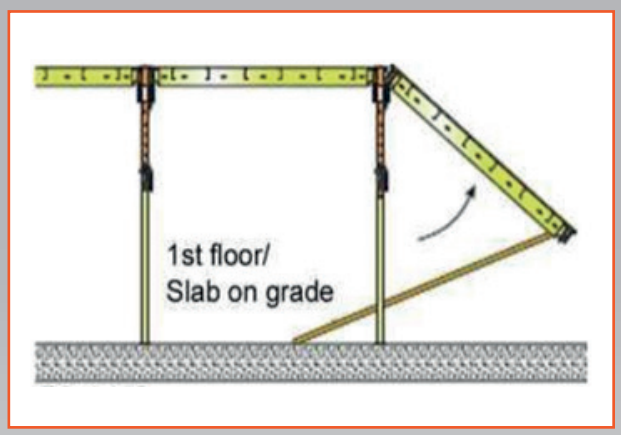
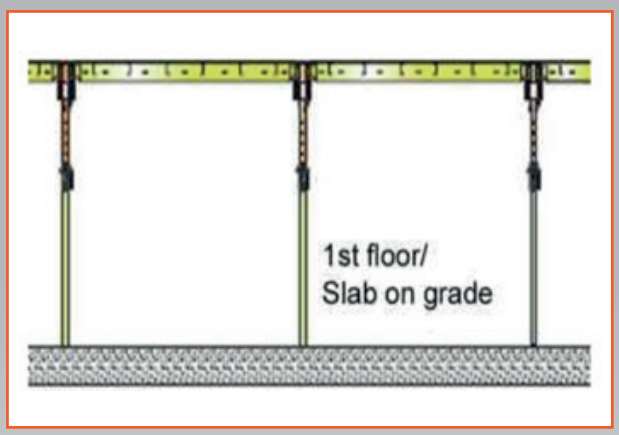
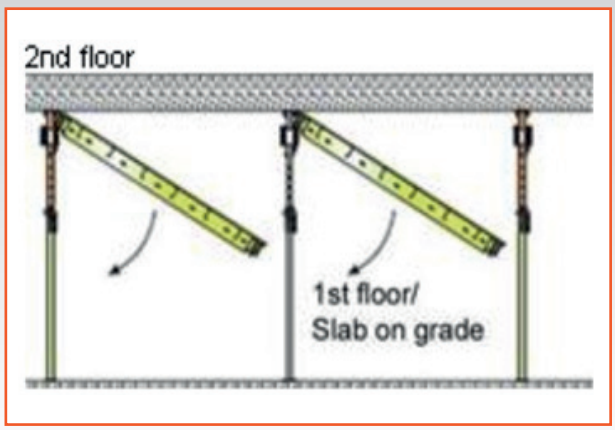
KT-RAPID PANEL SYSTEM
Shoring, Back Shoring & Reshoring



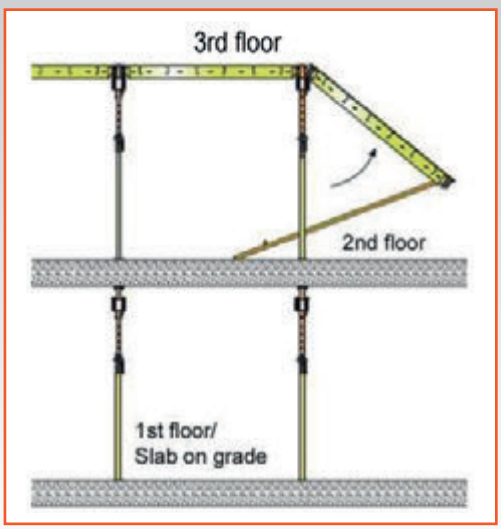
Step 1
Erect KT-Rapid Panel System from floor slab.



Step 2
Shoring complete, pour second floor



Step 3
Once concrete reaches sufficient strength remove Panels. Leave Props undisturbed.



Step 4
Erect third floor with additional Props. Leave Backprops undisturbed

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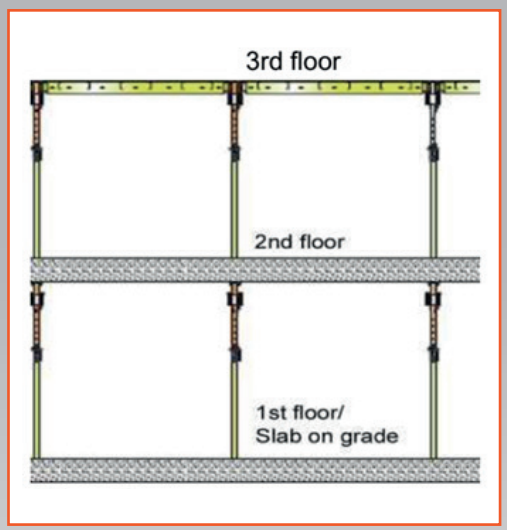
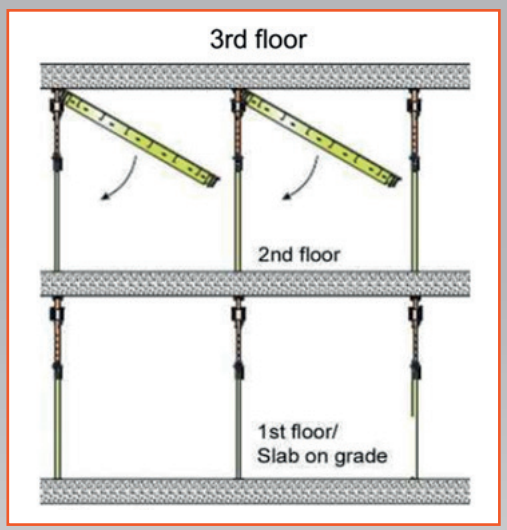
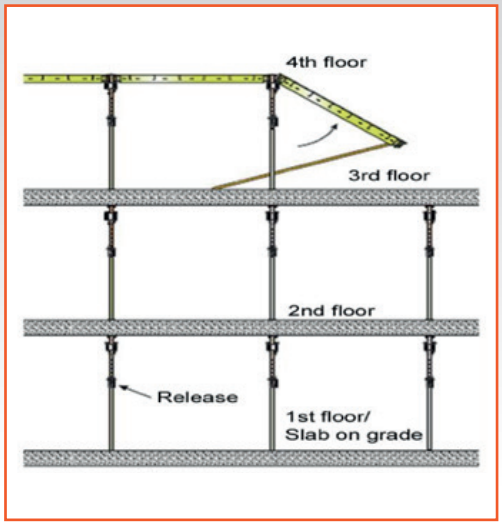
KT-RAPID PANEL SYSTEM
Shoring, Back Shoring & Reshoring



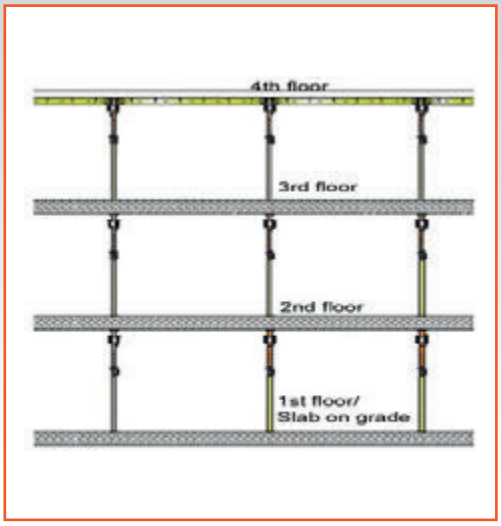
Step 5
Shoring for third floor complete, pour third floor



Step 6
Once concrete reaches sufficient strength remove Panels from under third floor. Leave Props undisturbed.



Step 7
Erect fourth floor



Step 8
Shoring for fourth floor complete. Pour fourth floor.

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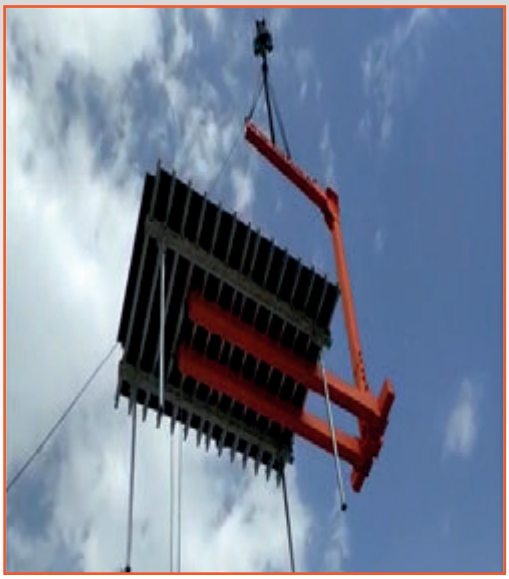
KT-TABLE FLYING FORM SYSTEM

'C' Hook

Pier Head Support Shutter

This is a highly mobile system of formwork and shoring for multi-story buildings.
Fully adjustable, it features a table constructed of Euro Props and Aluminium Beams.
The table is flown with the aid of the 'C' Hook which enables the table to be removed and relocated on to the next slab level in approximately 10-15 minutes. Movement of the tables to the edge of the building is achieved using the adjustable trolley which is manually operated on castors for ease of use.
This system reduces erection time and labour costs.

'C' Hook



Trolley

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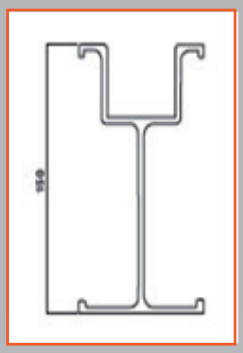
KT-ALUMINIUM BEAMS

KS 150 (Single Web Beam)

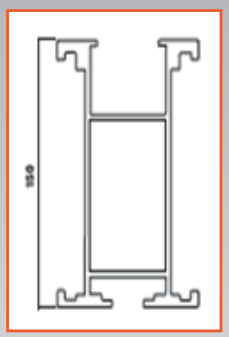
Equally suitable as a waler for wall formwork with both steel backing walers as well as steel soldiers.
In addition, this beam is also used as a secondary beam for slab soffit support.
Timber insert included.



Properties KS 150	
E	70000 N/mm²
Area	11.87 cm²
Ixx	369.34 cm⁴
Zxx	48.88 cm²
Allowable bending stress	103.13 N/mm²
Perm. Bending mement	5.04 KNm
Perm. Sheer Force	74.19 KN
Weight	3.21 Kg/m
Yeild Stress	250 N/mm²

KT 150 (Twin Web Beam)

This beam has been designed with twin webs to increase both stiffness and strength. Generally used as a primary beam on slab soffit support. It is capable of covering wider spans and heavier loads.
Timber insert included.



Properties KS 150	
E	70000 N/mm²
Area	18.61 cm²
Ixx	571.80 cm⁴
Zxx	75.19 cm²
Allowable bending stress	103.13 N/mm²
Perm. Bending mement	7.76KNm
Perm. Sheer Force	116.31 KN
Weight	5.03 Kg/m
Yeild Stress	250 N/mm²

Aluminium Beams With KT-Props

Aluminium Beams With KT-Lok

Universal Clamp

Used to secure Aluminium Beams together along their length without the need to drill holes

Guardpost

Used to fix safety handrail to the external sides of formwork, standard tube and fittings can be used as well as timber scaffold boards and toe boards

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Kirtanlal Metal Products Co. LLC

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KT-EURO PROPS (ADJUSTABLE)

KT-Euro Props

KT-Europrops provide flexible, yet economical method of support when used in conjunction with a primary and secondary aluminium beam. The prop is supported at the base by a tripod to ensure stability during the safe erection and dismantle procedure.
Support heights from 2.50m to 5.50m can be achieved whilst attaining a safe working load of 20kN per prop at maximum extension.

All KT-Europrops are manufactured with a galvanised finish ensuring longer life-span of the product as well as a professional appearance when in use.
Adjustment of the prop is made by a handle and screwthread arrangement. When the final height is achieved a locking pin is placed through the prop collar to complete the process.

KT-Euro Prop Available Sizes

EURO PROPS

MEDIUM DUTY PROP
EN 1065 CERTIFIED: 20kN at maximum extended height

Code No.	Closed Height	Extended Height	Weight in Kgs
BD-25	1.47	2.50	14.0
CD030	1.17	3.00	17.7
CD035	1.97	3.50	20.4
CD040	2.22	4.00	25.4
CD045	2.48	4.50	30.5
CD055	2.98	5.50	37.5

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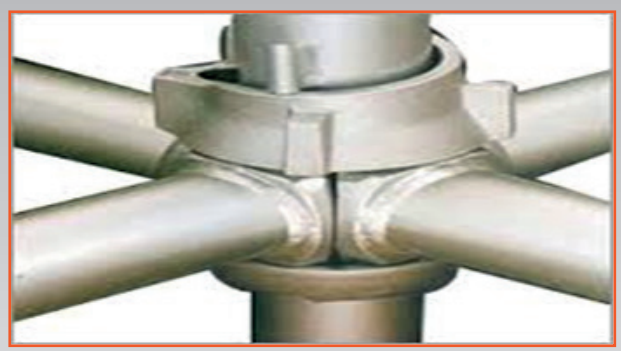
KT-LOK SCAFFOLDING SYSTEM

KT-Lok is a multi-purpose scaffold system which is used for both support and access scaffolding solutions.

The horizontal and vertical components are locked into position with a single hammer blow which secures the top and bottom cups to all component giving a rigid and extremely strong node point fixing.



All KT-Lok components are finished with a galvanised coating giving a longer lifetime expectancy of the product which also has a more professional appearance when in use.

KT-Lok Standards are manufactured using grade 50C steel which is capable of carrying a vertical leg loading up to 74kN, based on certain design criteria and leg loading calculations.

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Kirtanlal Metal Products Co. LLC

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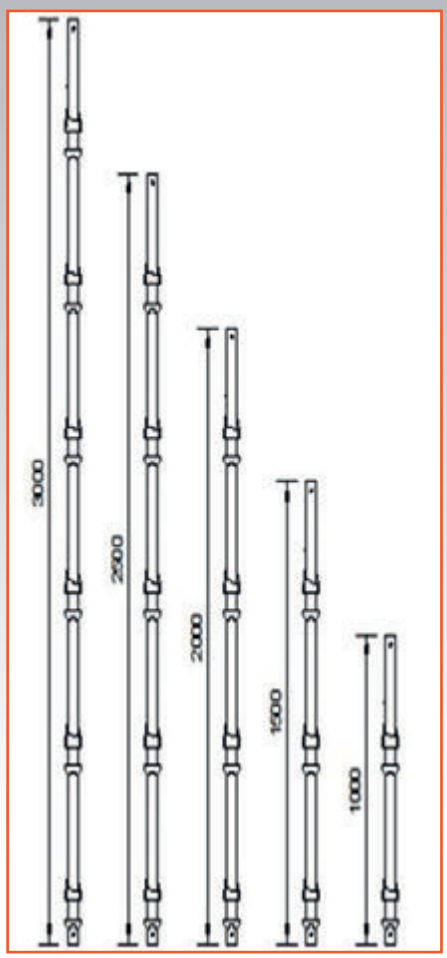
KT-LOK SCAFFOLDING SYSTEM

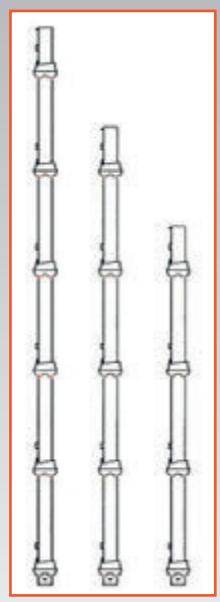
Access Standards

KT-Lok Standard 1.0m Spigotless
KT-Lok Standard 1.5m Spigotless
KT-Lok Standard 2.0m Spigotless
KT-Lok Standard 2.5m Spigotless
KT-Lok Standard 3.0m Spigotless

Support Standard

KT-Lok Standard 1.3m Spigotless
KT-Lok Standard 1.8m Spigotless
KT-Lok Standard 2.3m Spigotless



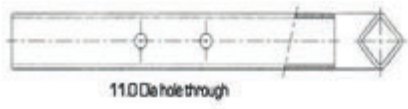


LENGTH MTRS	2.3M	1.8M	1.3M
WEIGHT KGS	11.80	10.60	7.34

Loose Spigot c/w Nut & Bolt

The Spigot pin is used to join standards together vertically. It is held in place with a nut & bolt

KT-Lok Loose Spigot c/w Nut & Bolt.



LENGTH MTRS	3.0M	2.5M	2.0M	1.5M	1.0M
WEIGHT KGS	10.60	13.94	11.28	8.70	5.96

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KT-LOK SCAFFOLDING SYSTEM

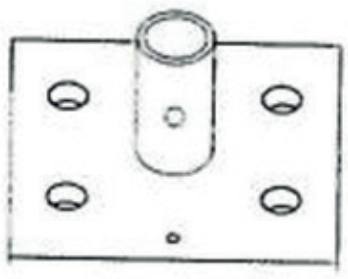
Ledgers

All Ledgers incorporate symmetrical forged blade ends making assembly and dismantle quick and simple, allowing complete interchangeability of components. All ledgers locate into the top and bottom cup of the standards.

KT-Lok Ledger Sizes	Kg
2.5Mtr KT-Lok Ledger	9.52
1.8Mtr KT-Lok Ledger	7.03
1.6Mtr KT-Lok Ledger	6.21
1.5Mtr KT-Lok Ledger	5.89
1.3Mtr KT-Lok Ledger	4.95
1.2Mtr KT-Lok Ledger	4.76
1.0Mtr KT-Lok Ledger	4.57
0.9Mtr KT-Lok Ledger	3.43
0.6Mtr KT-Lok Ledger	2.23

Socket Base

KT-Lok Socket Base



Universal Jack

KT-Lok 860mm Universal Jack.
The Universal Jack has an adjustable 660mm thread which can accommodate ground level variation.

SWL = 75 Kn

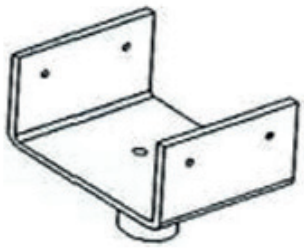
Access Base Jack

KT-Lok 660mm Base Jack

SWL = 40 Kn

Fixed Forkhead

KT-Lok 150 x 170 Fixed Forkhead
KT-Lok 170 x 200 Fixed Forkhead



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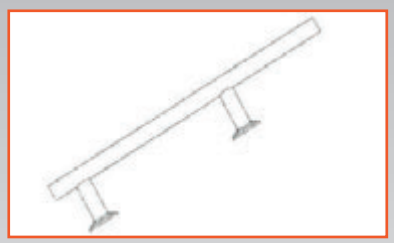
KT-LOK SCAFFOLDING SYSTEM

Beam Brackets

KT-Lok Beam Bracket 1.0m
KT-Lok Beam Bracket 1.5m

The Beam Bracket is designed to support drop beams within the concrete slab. The bracket accommodates an adjustable jack with forkhead to enable beams to span from one bracket to another. This distributes the load back to the surrounding KT-Lok system.



Cantilever Frame

KT-Lok Cantilver "A" Frame 1.0m
KT-Lok Cantilver "A" Frame 1.5m

The Cantilever Frame provides support to the access and support of the edge of the slab. The frames interlock with the KT-Lok system and accept adjustable jacks in 3 locations 1.2m, 1.25m & 1.3m. Available in 1.0m and 1.5m lift heights.

Swivel Face Braces

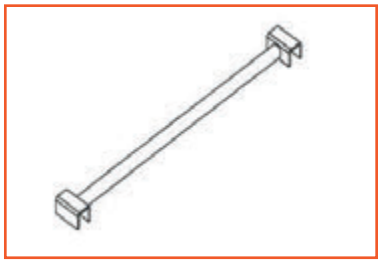
KT-Lok Swivel Face Brace 2.5 x 2.0m
KT-Lok Swivel Face Brace 2.5 x 1.5m
KT-Lok Swivel Face Brace 1.8 x 2.0m
KT-Lok Swivel Face Brace 1.8 x 1.5m

The Swivel Face Brace has swiveling end plates to allow corner to corner bracing between node points for both access scaffold bracing and staircase tower handrails.

Intermediate Transom

KT-Lok Intermediate Transom 1.3m
KT-Lok Intermediate Transom 1.8m
KT-Lok Intermediate Transom 2.5m

The Intermediate Transom is used to support scaffold boards midway between bays. The Transom having a locking device at one end to prevent the unit from sliding along the KT-Lok Ledger.



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KT-LOK SCAFFOLDING SYSTEM
General Component Loading Information

Standard Loading

Internal Standards

Main Lift (m)	Vertical Load
1.00 m	57.0 kN
1.50 m	45.0 kN
2.00 m	33.0 kN
2.50 m	23.0 kN

External Standards

	Bay Length (mm) - Vertical Load, kN				
Lift (m)	600	900	1200	1800	2500
1.0 m	57.0kN	57.0kN	57.0kN	57.0kN	57.0kN
1.5 m	45.0kN	45.5kN	43.5kN	43.0kN	42.5kN
2.0 m	33.0kN	31.5kN	30.5kN	29.0kN	28.5kN

Benefits And Cost Saving

Benefits :-

- *Larger Support Grids*
- *Less Equipment*
- *Faster Erection & Dismantle Rates*
- *Greater Site Progress*
- *Less Transport*
- *Impressive when erected on site*

Cost Savings :-

- *Less Material Required (Rental, Movement, Storage)*
- *Less Manpower*
- *Less Transport*

Universal Jack Loading

Vertical axial load up to 57kN.

The loadings will vary according to the horizontal loads taken into account and the actual extension of the jack required

860mm Universal Jack

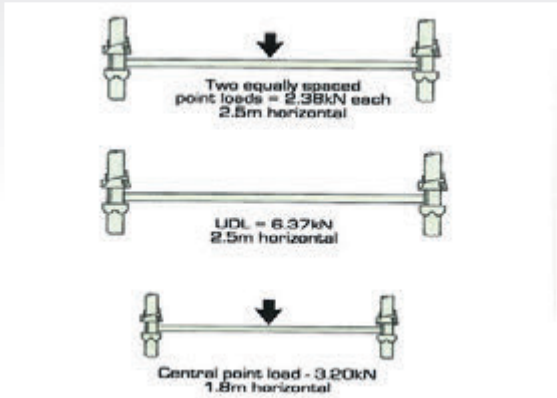
Permissible Loads on verticals
(In falsework structures only)

The tables below show the permissible loads per vertical for falsework structures incorporating suitable bracing. The values apply regardless of the type of formwork supported. However, permissible loads can be influenced by a number of factors. If in doubt, reference should be made to the Kirtanlal Design office

Ledger Loading

Permissible Loads on base components

Permissible loads on the various components are shown in the diagrams



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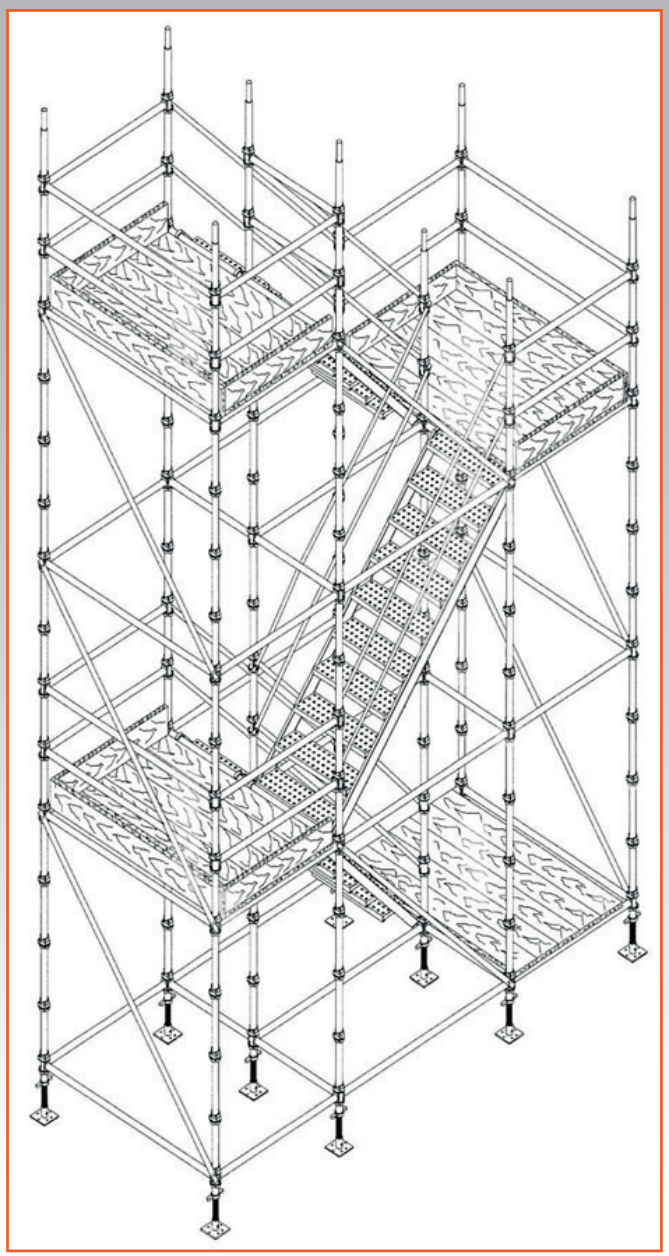
KT-LOK SCAFFOLDING SYSTEM
10 Leg KT-Lok Staircase Tower

The KT-Lok Staircase is assembled based on a 10 leg grid to give additional stability. The system has a maximum allowable height of 53m.

Greater heights can be achieved but require specific design.



10 Leg KT-Lok Staircase Tower

Plain Area :	2.5m x 5.1m
Landing Platforms :	1.3m x 2.5m
Stair width :	1.0m
Lift Heights :	1.5m and 2.0m
Stair units :	Steel
Max height :	53m

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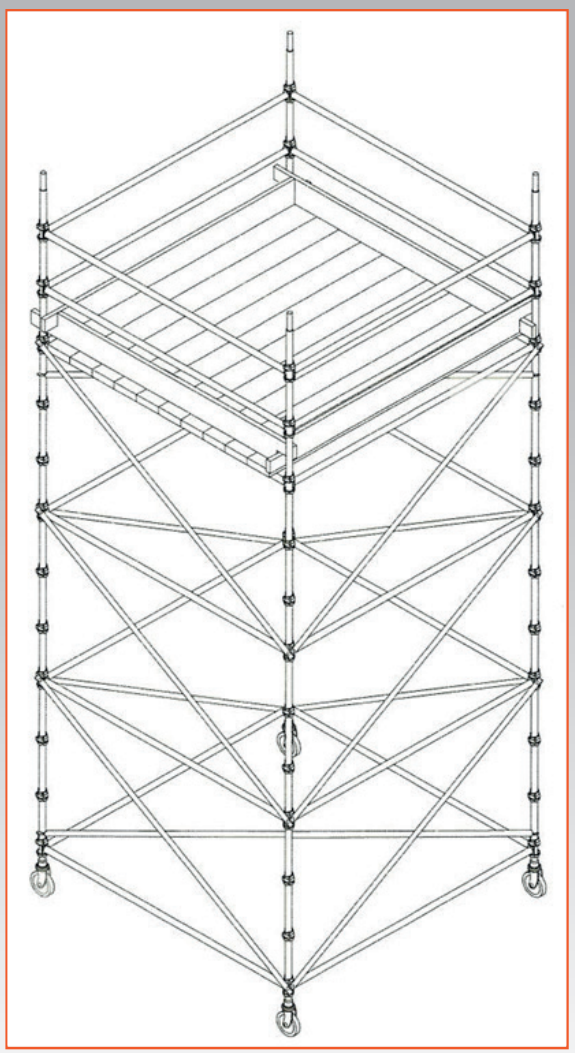
KT-LOK SCAFFOLDING SYSTEM
Mobile Tower

The versatile nature of the KT-Lok system ensures that it can be easily adapted to form mobile access towers in a variety of plan sizes up to 2.5m x 2.5m square, using standard access components with scaffold boards in conjunction with KT-Lok castor wheels.

Standard plan and swivel face braces ensure the maximum SWL on all KT-Lok towers in 10kN (UDL).

Used externally free-standing towers must not exceed 3 times the smallest base dimension.

Used internally free-standing towers must not exceed 3.5 times the smallest base dimension.



Castor Wheels

KT-Lok Castor Wheel Neoprene c/w Foot Brake

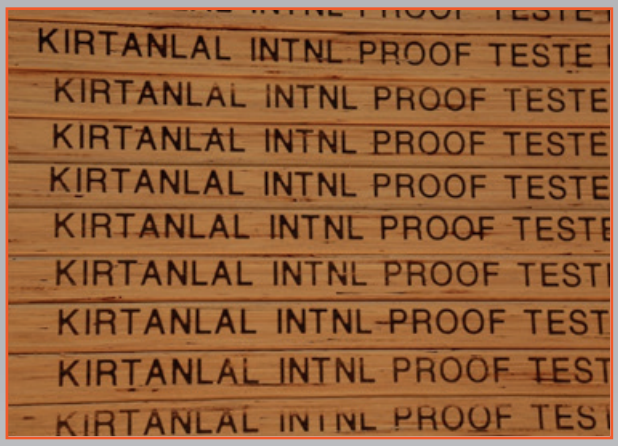
SWL of Castor Wheel is 820Kg

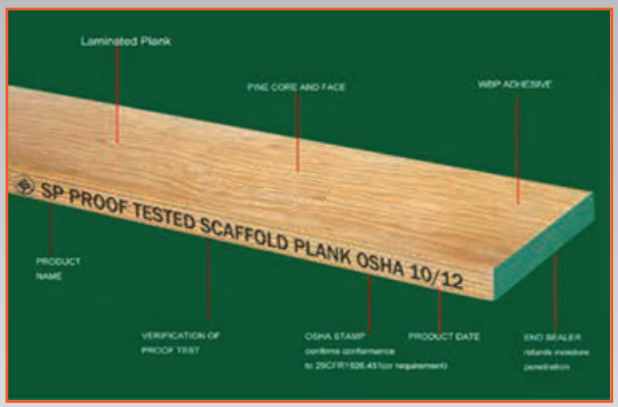
Safety Information

- Castor wheels must be sucured to the tower and locked to prevent rolling
- Towers must not be moved whilst supporting men or materials

KIRTANLAL

SCAFFOLDING BOARDS





LVL Laminated Board

The LVL Scaffold Board is an engineered wood product designed specifically for use as a scaffold board. It is created by permanently bonding individual veneers together. Using waterproof adhesive, heat and applied pressure, with the grain in each layer of veneer running parallel to the veneer in the next layer. The unique process by which it is manufactured dispenses the inherent defects formed in solid lumber. Natural characteristics such as knots and wane are rearranged to maximize strength and minimize warpping and splits. Manufactured to OSHA specification.

European Whitewood Board

European whitewood scaffolding boards are designed and tested to comply with BS 2482 (British Standard). The Scaffold Boards are protected at each end by a steel board band to prevent splitting during use.

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KT-GALVANISED STEEL SCAFFOLD BOARD

Steel Boards are 38mm height and 225mm wide. They incorporate a non-skid perforated surface for slip resistance in poor weather.

Mainly used for On-shore & Offshire Sites.

Non-Flammable

Standard Sizes: *4.0M, 3.0M, 2.0M, 1.5M*

KIRTANLAL

SCAFFOLDING TUBES

Manufactured to EN39 - 2001
BS EN 12811 - 2

Scaffold tubes are available with a diameter of 48.30mm x 3.20mm wall thickness. All tubes are galvanised in accordance with EN ISO 1461 : 1999

1.0m Scaffold Tube Galvanised 3.20mm Thick
1.5m Scaffold Tube Galvanised 3.20mm Thick
2.0m Scaffold Tube Galvanised 3.20mm Thick
2.5m Scaffold Tube Galvanised 3.20mm Thick
3.0m Scaffold Tube Galvanised 3.20mm Thick
3.5m Scaffold Tube Galvanised 3.20mm Thick
4.5m Scaffold Tube Galvanised 3.20mm Thick
5.0m Scaffold Tube Galvanised 3.20mm Thick
5.5m Scaffold Tube Galvanised 3.20mm Thick
6.0m Scaffold Tube Galvanised 3.20mm Thick

All the above Tubes lengths are also available in black steel as well as 4.00mm wall thicknesses

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SCAFFOLDING FITTINGS

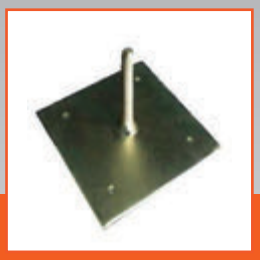

Drop Forged Double Coupler


Drop Forged Swivel Coupler


Single Coupler (Putlog)


Putlog Coupler


Gravlock Girder Coupler


Plain Base Plate


Board Retaining Coupler


DH Brace Coupler


Sleeve Coupler (Pressed)


Pressed Joint Pin


Pressed Double Coupler


Pressed Swivel Coupler


Supa Tie


HKD Ring Bolt with Insert


T-bolt and Washer


Pressed Single Coupler

Al Zahra Scaffolding TR Sole Proprietorship LLC

Kirtanlal Metal Products Co. LLC

www.kirtanlal.ae/scaffolding

KIRTANLAL

SCAFFOLDING ACCESSORIES

Leather Scaffold Belt (Black)

Double Spanner Holder

Leather Tape Holder (Black)

Magnetic Spirit Level

Leather Spirit Level Holder (Black)

7/16” Swing Over Spanner

Podger Spanner

Scaffold Hammer

Ratchet Spanner 21mm

Al Zahra Scaffolding TR Sole Proprietorship LLC

Kirtanlal Metal Products Co. LLC

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KT-WALL FORMWORK

Double Sided Wall Formwork

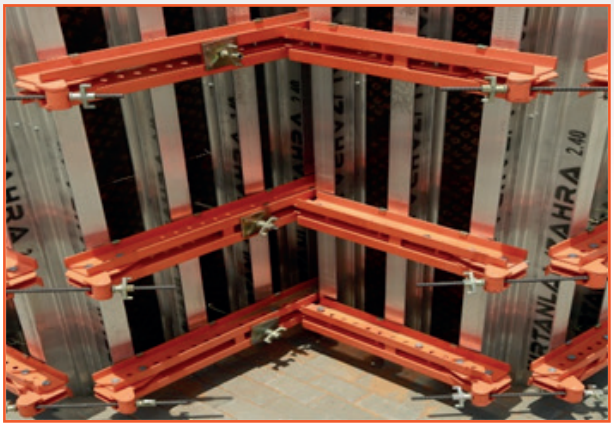
Double sided wall formwork system provides an economical, yet versatile solution using Aluminium Beams with steel KT-Walers as backing support to transfer loads across the systems. Heavy duty tie system is supplied with 15mm threaded tie bar with a SWL of 95kN. Plate washers and wing nuts secure the panel system into place.

Shear Wall Formwork

Shear walls are supported with the same formwork system as the double sided wall components. The system incorporates a 90° corner tie waler which secures the tie system on opposite corners of the formwork shutter. Standard props are used for vertical alignment in both directions.

External Corner Tie Detail

Internal Corner Tie Detail



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KT-WALL FORMWORK

Single Sided Wall Formwork

On a single sided shutter application. KT-Soldiers are secured as a bracing diagonal component with threaded adjustment at the top and bottom of the shutter. A bottom soldier is fixed to the base slab to prevent uplift during pouring. Hop-up brackets can be attached to the KT-Soldier offering a safe and practical solution to give access for pouring concrete.

Core Wall Formwork

KT-Soldiers are fixed at the required centers and KS-150 Aluminium Beams are secured horizontally with universal clamps.
KT-Soldiers can be bolted end to end to provide taller shutter heights, a lifting bracket is bolted to the top of the soldier to enable crane movement.

Vertical KS-150 Aluminium Beams are supported by horizontal KT-Walers to form a double sided shutter for core wall (lift shaft) walls. The internal wall shutter is supported with an internal landing platform which is raised up to the next pour level by crane. Vertical alignment is provided by standard adjustable props.

KIRTANLAL

KT-SPECIAL STEEL FABRICATION

Circular Column Shutter

Pier Head Support Shutter

Pier Head Support Shutter

Circular Column Shutter

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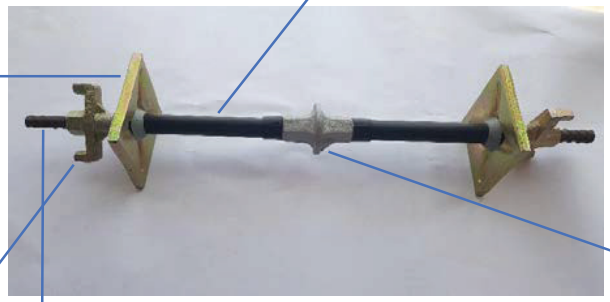
HEAVY DUTY TIE EQUIPMENTS

Plastic sleeving acts as a spacer and allows the recovery of the tie rod by preventing contact with the concrete. cones are fitted on either end of the sleeve to allow the hole in the concrete to be made good.



Washer Plate
Profiled Heavy Duty Washer Plate supplied in plated finish

120mm x 120mm x 10mm
Weight 1.10 Kg

Water Barrier
Cast-in tie rod connector which prevents water seepage due to its central disc

Weight 0.60 Kg

Tie Nut
Cast Wing Nut with lever arm action for all load bearing applications
Su[illegible]our

Weight 0.30 Kg

Tie Rod

High tensile tie rod with self cleaning fast action coarse thread supplied in 6.00m lengths and 15mm dia, in self colour.

Weight	Diameter	Ultimate Load
Kg / Mtr	mm	Kn
0.67	15	90

Connector
Tie rod connector (Joint Nut) supplied in plated finish

Length 106mm
Weight 0.60 Kg

KIRTANLAL


Madam Yard


Barka Yard

Jafza Yard

KIRTANLAL

Contact Us

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