

QUALITY ECONOMY RELIABILITY



SCAFFOLDING FORM WORK EQUIPMENTS

PRODUCT CATALOG

www.tejus.co.in





QUALITY, ECONOMY & RELIABILITY







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We at TEJUS have a Educational approach in marketing scaffolding to contractors.



01



Tips on buying Scaffolding & Accessories. To check the manufacturing process, confirm all quality parameters. (Pipe cutting, Roll Threading, Drilling, Welding & Painting.) Once compulsory visit the manufacturing plant to check the machinery & process engineering. Traders / Re-sellers market their low quality product in comparison of reputed manufacturer cost. Do not fall prey to cost competition pay the re-seller his worth. (Overheads of Re-seller are as good as zero as compared to manufacturer) Check for all GST Returns of suppliers as maximum Re-seller going door to door are defaulting & later t he buyer is in major problem as he has to pay again. Scaffolding can never be bought on Rate competition but by quality competition. (Rates can be matched by not quality)





TEJUS Centering & Construction Equipment Pvt. Ltd. is a company Established in Year 1998, which specializes in manufacturing and marketing of a wide range of Steel Scaffolding material & Construction Equipment throughout Maharashtra.

TEJUS by their resource and understanding of the needs of construction industry are therefore able to supply wide a range of reliable top quality scaffoldings which incorporate many well proven and latest cost effective innovations used by all the leading construction companies.



Er. H.S. Anand Founder Director

Mission

At TEJUS our mission is to provide the Best Quality Scaffolding and Construction Equipments at most economical Cost.

Our mission is to reach 100% customer satisfaction level in all aspects of Quality, after sales services and on time Deliveries.

Our mission is to reach each and every Customer from the Top Construction infra structural company to layman who uses Construction Equipment & Scaffolding Products.

Our mission is to market our quality product by creating awareness among contractors and educating them about all technical parameters of our products. Our commitment to customers is to manufacture good quality product at economical cost and provide reliable services at all times.

SINCE 1998

ECONOMY RE





Our Message

Always buy good quality equipments & scaffolding material directly from manufacturer, Please beware of sub standard products being marketed at retail counters by shop keepers or Commission agents going site to site who have no knowledge of the product and no manufacturing setup.

Our message to all Builders and Contractor is to pay the product its worth not more than that after going through all technical parameters of products and also shall check the manufacturing practices being followed by the company marketing specific product ie, Equipments & Scaffolding products.

Manufacturers : At TEJUS we undertake designing and manufacturing of tailor-made formwork to suit specific individual requirements. Our services include closed interaction with client during different stages of tendering, planning and execution. The provision of detailed estimate, technical drawings, along with quotation can be provided if so required. We look forward to valuable suggestions and comments from our patrons. Where ever possible we shall try to incorporate the same for up gradation and improvement.

At TEJUS we manufacture light construction equipments which are extensively used by contractors in all major construction projects.

We market our equipments by POWER Brand.

Equipments manufactured by TEJUS under Power Brand are very cost effective and also have superior quality & features as compared to other available manufacturers.

Contracts : At TEJUS we are also into execution of RCC work for Commercial / Industrial / Residential Projects. We execute with latest system Form Work and in most mechanised way.

Hiring: At Tejus we are into Hiring of Steel Scaffolding on large scale Props/Spans/Cuplock System & H-Frames.

Retail: At TEJUS we are inporters of High class light construction equipments from Germany / Spain. We also have a wide range of Scaffolding Acessories and testings equipments.



Inderpal S. Gandhi Managing Director







Mahender Sagalgile B.E. Mechanical

Our Visions

To become the leading SCAFFOLDING MANUFATURER AND FORMWORK COMPANY, while delivering products that consistently exceed international standards and provide exceptional customer satisfaction, To continually deliver excellent value & innovative construction solutions to meet our clients' requirements. Using modern principles and sophisticated technologies, TCCEPL envisions being the primary preference at all times both nationally and globally, for their renowned excellence, quality, performance and reliability in all types of construction PROJECTS.

Quality, Economy & Reliability...





SCAFFOLDING & EQUIPMENTS



1997

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Following best Manufacturing Practices











































TEDU

Quality Economy Reliability...









































Premium Range



These are made of 40 mm NB inner pipe which moves telescopically in the outer pipe of 50 mm NB.

The tubes conform to IS : 1161, YST 210 Grade of medium class. Outer 60.3 mm OD and Inner 48.3 mm OD, Beyond 3.6 m height, inner tube is to be braced in both directions after the threaded end of outer tube by Double Couplers. Heavy Duty Cast Iron malleable Nuts are used. They are available in Stirrup Head, Flat plates or Beam head. Beam head is a separate attachment.

Size and Load Table

Size	Height	Height	Safe Axial	Safe Axial
	Closed	Extended	Load	Load
	Mtrs.	Mtrs.	Closed Kgs.	Extended Kgs
on	1.10	1.75	3500	3000
1N	1.50	2.75	3200	2300
2N	2.00	3.25	3000	2200
ЗN	2.00	3.75	2900	2000
4N	3.00	4.50	2300	1150



Note : Each Prop manufactured at our works is checked through proper Go - No Go gauges as per drawing specification to maintain product quality in volumetric production



These are made out of outer 65 NB, ø76 mm OD and 50 NB 60.3 mm OD inner pipe as per IS standards.

Specially designed for Heavy loads. Widely used in infrastructure products.

Roll Threaded Outers

Roll Threaded cuter is a recent innovation in scaffolding industry. Which has replace cut-thread process. In rolled threading method excess material is pressed in the pipe thus preventing wastage of material. There by increasing its load taking capacity. These are made from 50NB tubes of special grade as per IS standards.







Beam U-Head Bottom

Hot

Also

Available

on

HIRE

Paint Finish

Available in Both Premium & Commercial Quality

Production Capacity Per Month - 10,000 / 12,000 Nos.

Jumbo Prop



Adjustable Telescopic SPAN



Also Available on HIRE Hot Dip Galvanised Finish

Specifications - Assembled by two members that is Outer & Inner

Outer - Manufactured from 2mm HRC sheet (Section), 65 x 6mm MS Flat, 10mm Round Bar, 65x8mm Corner Angle and Double M20 Nut bolting provision.

Extra stiffener of 35x5mm ISA is welded from Inside for more strength & durability.

Inner - Manufactured from 2mm HRC sheet (Section), 40x5mm 'T', 10mm Round Bar and 65x8mm Corner Angle

Painting - Complete Span is dip painted and oven dried

Size & Load Table

Range	Min	Max
ESO / ESI	1750	2750
SO/ ESI	2350	3450
SO / SI	2450	4150
SO / LI	3050	4750
LO / SI	3150	4950
LO / LI	3150	5550

Light Duty Box Type SPAN

Manufactured from sq tube, outer 50x50mm and Inner 40x40mm 3mm Thick





Production Capacity Per Month - 3,000 Nos.





Angle Centering Plates

Fabricated from 2/ 1.6 mm thick sheet & 30/35/25 x 30/35/25 x 5/4/3 mm angle. Wide range of sizes available.

As per buyers specifications. Different options available. Adjusters are also made to fill up odd shapes. (Gabdi Plates) Columns / beams sides also available of 230 x 2500 mm or any specified size.









IMP Note : Buy Plates always at Per Kg. basis to avoid getting Cheated by traders and resellers.

Production Capacity Per Month - 8,000 Nos.



H-FRAME SCAFFOLDING



H-Frames with Monkey Ladder



Ideal as access scaffolding and support centering. Consists of welded frames with two verticals with sockets welded to them & two 40 N.B. horizontals. Frames manufactured in heights of 2000, 1250 and 1000 mm and width1800mm, 12500mm & 1000mm.

Scissor type cross bracing secured to frames through the pins welded to frames and locked in position by gravity locks.

Cross bracings manufactured are of heavy duty angles.

Types of Frames

Also vailable on HIRE

Walk Thru, Ladder type and other frames also available in all specification. These are sturdy welded frames with two verticals and two horizontals connections done by scissor cross braces through welded pins and locked by spring clips/Gravity lock pins.

Manufactured as per International Standards, with latest Gravity Locks & Co2 Welding

H-Frame for Tower Hoist / Lift Machine

Manufactured from 40/32 NB tubes specification followed are standard as per the winch of the hoist. Size 2000 mm height and 2000 mm width, ladder is given as per order. These H-Frames come in set of 40/30 m height.Heavy duty angular cross bracing are made to maintain distance of 2000 mm between two frames.







Cross Bracing



Rounded Machine Punch Corner

Heavy Duty Angle Type Cross Bracing

Heavy Duty Cross Bracings made from ISA 35 x 35 x 4mm / 40 x 40 x 4mm Corners are pressed on Hydraulic Power Press, also Corners are Round Punched for Safe Handling without any injury as Sharp Corners may cause injury to Labour while Climbing or Assembly of Frames. Cross Bracings are riveted at Centre for more Rigidness & Strength.

(IMP Note - Avoid using Pipe Cross Bracing)





L & T Type Access Scaffolding







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Strong Landing

Anti Skid Steps

Heavy Duty Jack for Adjustment Extra Support for Landing

Locking for Safety



Cuplock Starcase Tower (Speciality for Metro Projects)



The staircase have been designed by us in accordance with the specification confirming to the I.S. 800- 1984. It can take 3.28 kN/m2 uniform pressure up to 21 m height.



H-Frame Tower









This is a multi purpose system which is used for plastering, supporting structures, for lift machine (Hoist) etc. This system can be erected for straight, circular and also curved structures. This system has horizontal and vertical members. Horizontal members is locked to vertical members by cups provided on it. The cups on the vertical members are of malleable cast iron and pipes used are of 40 NB pipe, forged blades are welded on both corners.

Horizontals: Horizontals have identical forged blade ends with minimum of projection to avoid damage. Each component locates in the cup joints on the vertical.

Specification :

Product Code	Length c/c	Weight
T905	2.0 m	6.8 kg
T906	1.2 m	4.0 kg
T907	1.5 m	5.0 kg

Note : Pipe as per BS 4360 N.B.M.S.Pipe OD 48.3 mm, Wall thickness 2.9 mm, Weight 3.25 Kg/m forged blade grade '2' on other side. As per requirement Horizontals are tailor made.

Spigots: 200/300 mm long for making vertical connections.

These spigots are drilled with Two Holes to receive locking pins / Nut Bolting.

Specification :

	Product Code	Length c/c	Weight
ſ	T914	0.3 m	0.8 kg

Note: 3 mm thick 38 OD pipe.

Verticals : Vertical are provided in four basic sizes with cup joints welded at 500 mm, intervals. The captive top cups are of malleable casting to endure rough site handling, and welded bottom cups are pressed from high-quality steel.

Specification :

Product Code	Length	Weight
T901	3.0 m	14.97 kg
T902	2.5 m	1297 kg
T903	2.0 m	10.00 kg
T904	1.5 m	7.4 kg

Note: Pipe as per BS 4360 N.B.M.S.Pipe OD 48.3 mm, Wall thickness 2.9 mm, Weight 3.25 Kg/m forged blade grade '2' on other side. As per requirement Verticals are tailor made.









Premium Quality

Adjustable Stirrup Head / Base Plates /

Universal Jack - These are manufactured by process of Thread Rolling either on solid bar 32/36 mm or Hollow pipe 38mm Dia 4mm Thick.

These are available with a 'U' head 70x110x70 mm OR Base Plate 150x150x6mm OR also available without any attachment ie, universal Jack.

These are available in different length 350/450/650 long or can also be made to order as required, These are used for final height adjustment of scaffolding at top or bottom.

Top Cup - Malleable cast iron 3 lug./ 4 lug.

Bottom cup - Made out of 4 mm press metal.

Ledger Blade : Manufactured of forged special steel





Production Capacity Per Month - 200 Tons.

PIPE & COUPLERS





Ready Stock - 300 Tons Approx.



ROUND COLUMNS







Manufactured in different Diameters and Height along with Starters We design round columns as per their dimension and then accordingly use the raw material ie, ISA, Sheet etc.



we can manufacture Round Columns from dia 300 mm to dia 3600mm

Tailor made Products









Pull Push Props -

Ideal for Support of Centering Formwork of retaining walls along with wallers by using props Top/Bottom attachments

Available in Size as per requirement



Most Effective for support of columns & Retaining walls



WALLER CLAMPS

Waller Locks







These are the latest and most effective solution for maintaining better line level of bigger column sizes Manufactured in Square Tube or ISMC in Different Sizes



New light weight and heavy load bearings capacity









Only Manufacturers In Pune





Shikanja

Ideally suited for a wide range of column size and can be used with both steel or timber shuttering. These clamps have no loose parts. These are manufactured from 40x5/8 mm MS flat and are available in sizes of 2 ft., 21/2 ft., 3 ft. and 4 ft.

Approx Weight :

2ft - 1.45 Kg. 2.5ft - 1.7 Kg. 3ft - 1.95 Kg. 4ft - 2.4 Kg.

Note : Special sizes available on order

Important Tip : Always buy shikanja on Per Kg. basis not per no basis.

Production capacity per month - 15,000 / 18,000 nos.

Plastering Plank

Made from 20 x 20 x 1.5mm thick Square Tube or 25 x 25 x 1.5mm thick Square Tube Complete Plank is Co2 Welded for more Durability & High Quality Welding Strength. Dip painted with one coat of enamel paint.

Regular Size : 0.3 x 2.5/3 mtr. long



2.5 / 3 mtr. Long



M.S. WALL FORM WORK



Our Wallform system includes of plates welded from 45 x 45 x 5 mm slotted angle , holes at 50 mm c/c.

Stiffeners of MS Flat and top sheet 2.5 mm thick HRC.

Sheet - is welded to angle frame using the process of Bullet welding for better finish and strength.

Soldier of same material specification commonly 100 x 2500 mm in height.

Wallform Accessories

These includes Single Clips for 40 NB tubes support, Double clips for channel support, bridge clips, wedge clips / forged nut bolts for interlocking of plates, tie rods, cones etc.

Note : Size and specification of the system can also be altered specially as per customer requirement i.e. tailor made.











Available in M.S. and Aluminum 'F' Profile

LIGHT WEIGHT KOREAN TECHNOLOGY





PLYFORM[®] is a latest technology in which plywood is used in combination with special steel profile section Frame. This system is very extensively used in major Countries throughout Asia & Europe. Plyform Pannels are lighter in weight as compared to regular MS Wallform System.

In shuttering plywood is always preferred in comparison to MS Plate due to a superior finish & MS Angle Plate are preferred due to its long life & durability . So Plyform is a combination of both.

Plyform is a very versatile system & can be used for Column, Retaining Walls, Lift duct etc. Plyform is much more economical in comparision to conventional MS Wallform & also Aluminum Formwork

Pannels

Plyform Frame is made from special steel section which is light in weight & is made to order. 12mm good Quality plywood is riveted using Aluminum Rivet. Fixing of Plywood to pannel is optional can also be fixed on site by the contractor.



Ply Form Pannels

Ply Form Pannels

H-20 BEAM FORM WORK





Dimensions	H20 protect	Iolerances
Beam height (mm)	200	+ / - 2mm
Chord height (mm)	40	- 1,5%
Chord width (mm)	80	- 1,5%
Web thickness (mm)	30	+ / - 0,5mm

Technical specifications	H20 protect
Permissible modulus M (kNm)	5,0
Permissible shearing force Q (kN)	11,0
Section modulus ¹) W _x (cm ³)	462
Geometrical moment of inertia ¹) J _x (cm ⁴)	4618













🛪 Forkhead

H-20 Pannels are very Extensively used for Slab form / Columns / Retaining walls. We manufacture complete range of H-20 Accessories as shown

Description of H-20 Beams -

Chords :	Made of carefully selected class S10 spruce wood according to DIN 4074 planed & chamfered with approx. 4 mm
Webs :	3-ply solid wood panel, laminated, with mainly vertical growth rings
Wood types :	spruce / fir, permitted mixture of wood species
Glueing :	3-ply solid wood panel BFU 100, (AW 100) according to standard O-Norm B 3023 finger-joints between chords and webs
Wood moisture : Weight : Surface protection	approx. 12% 5 kg / linear meter : waterproofed colour impregnation





Certification according to EN 13377 from CEN, European Committee for Standardization

Auditing agency

ZAG Laibach, National building and Civil engineering Institute, EEC Nr. 89/106

Advantages

Break-proofed, rounded full protection cap from special plastic to protect the beam ending from split-off



🔌 Tripod

Forkhead 🗡





Introducing our patented designs of safety clamps.



Safety Nett Clamps

Building Antifall Nett installation now days is most important parameter for developers/ Contractors on construction sites or rather it is compulsory. We have specially designed clamps for clamping safety Nett in different site conditions. The clamps have been designed keeping in to mind all load factors and easy installation.



Benefits of Nett Clamps

- 1. Ensures safety without affecting brickwork or internal work can be installed at the first slab itself.
- 2. Safety Nets of 6 meters can be used hence covering more area and avoids net wastage.
- 3. Net clamp are designed in 35 Degree angle hence reducing the chances of fatal accidents as compared to conventional way of net installation.
- 4. Safety nets can be uninstalled till the completion of work hence safety of plastering and painting labour is also taken care of.
- 5. Highly recommended solution for Aluminium type form work.









SAFETY TIPS

Now days the construction activities are going completely mechanised and fast we must have safety check parameters to avoid any accident on site.

The most important parameters of safety check on site as recommended by us are.

- 1. Check the scaffolding material props/Cup lock system / frame scaffolding all must be maintained and in working condition.
- 2. Is the scaffolding or shoring material braced well by properly using pipes and couplers for height above 3 m.
- **3.** Is the entire outer side of the slab covered with life line or hard barraction, is barraction there in staircase and all ducts and the openings of lift have to be covered.
- **4.** Are all the labours using P.P. material (shoes, Jackets, Belts, & Helmets.)
- 5. Mobile services to all must be banned on Upper levels of Building.
- 6. Safety Nett to be installed at fixed Intervals by proper brackets.
- 7. First aid Box is mandatory on every floor.
- **8.** Electric sockets and points to be framed in a proper Electric pannel Box.

We undertake all safety turnkey work on site. Safety Nett Installation / Hard Barraction / Staircase safety / Covering all ducts and lift openings / First aid Box / Electric Box / Scaffolding Brackets on outer or Building.




















Made to Order product of Formwork

Light weight panels in combination of Aluminum "F" Profile with Plywood/Polypropylene sheet



Tailor made buckets made to stack Fromwork accessories while de shuttering



Specially designed **Cantilever Plat Forms** / Tables for lifting of slab Formwork



Cantilever Plat Forms





Specially designed Formwork for column 750x750x3000 mm, M35 Grade of concrete. M.S. Sq Tube and Plastic 18mm sheet light weight man held Formwork.





Tailor Made Columns Form Work as per drawings













MADE to ORDER





MADE to ORDER





Round Column & Starter













Scaffolding Hardware & ACCESSORIES





Hardware & Accessories





Power is a brand of construction equipment manufactured by Tejus Centering & Const. Equip (P) Ltd.

The equipments manufactured by TCCEPL stands for out-standing quality and have a robust design and are user friendly.

All the POWER Brand equipments have special features as compared to any other equipment in the specific segment available in market.

Power Construction Equipment stand out for their quality & performance.











1/2 Bag Tilting Type Mixer



Jack for Adjustment



Heavy Duty Drum



Electric Starter

Description	
Drum Capacity.	92 lit.
Motor	2 HP I-Phase Electric
Drum Speed.	20 RPM
Self Wt.	300 Kg Approx.
Over All Dimensions.	L -1800 W- 940 H -1500



Steering Wheel



Sleek Pulley Cover



1/2 Bag Portable Type Mixer



PCM (PORTABLE)

Description	
Drum Capacity.	92 lit.
Motor	2 HP I-Phase Electric
Drum Speed.	20 RPM
Self Wt.	250 Kg Approx.
Over All Dimensions.	L -2100 W- 900 H -1200



Motor Cover



Heavy Drum Cone



handle for Manual use



MS Wheel for on site movement







for Anchoring



Wire Rope - Break Assembly



Lifting Hook



Buckets- 150 / 300kg



Break Lever



Mirror arrangement

Description	
Lifting Height	150 ft
Boom Projection from Counter load box	2080 mm
Boom Heigt from Ground Level	1850 mm
Winch	Frection Roller Drive
Prime Mover	2 hp Single phase Crompton motor
RPM	2800
Wire Rope Thickness	10 mm (usha martin)
Buckt Size (lxwxh) - mm	650 x 650 x 460 mm
Bucket Volume	90 ltr
Overall Dimention (lxwxh)	1600 x 700 x 100 mm



Mini Krane - 300 Kg





Technical Specification

Specification	Weigh Batcher Scale Type
Capacity	250 kg each for Sand & Metal (2 Hooper Bins)
Chassis	Heavy Duty Robust Chassis
Weighing System	Fine adjustment of 0/50 kgs with jockey & Pan Weight of 20 kgs, 50 kgs, 100 kgs
Transmission	Mechanical Heavy Duty M.s wheel - 4nos



Bin cover operating Lever



Calibrated Weight Scale



Towing

MS Wheels



Quality beyond Imagination









Paint - Grey anti corrosive Epoxy premier from inside and lemon yellow Paint from outside. We do not use Red oxide but use higher quality anti corrosive primer to suit the purpose



Hand Grips - Superior Quality automobiles grade rubber hand grip and anti skid M.S. Grip on base are provided.

Axle & Heavy Duty Tyre - 6mm flange used, seamless pipe for hub and double 'Z' 6202 / 6210 bearings used for long life and durability of the working of trolley. Complete Axle is Blackodised / Powder coated to avoid corrosion / rust due to bad site conditions . Fitted with 350mm dia Tyre of 4 ply, heavy duty Rim and standard tube. Air Pressure of 30PSI to be maintained.



Trolley Tub - Manufactured from 1.5mm thick CRC Sheet specially CO2 welded for more strength extra stiffeners of 25 x 3 mm used on corners.

Pipe Trolley Chassis - Manufactured from 200D CRC Tube (Automobile Grade) line alignment of chassis well maintained and bending done on automatic pipe bender.

Angle Trolley Chassis - Specially designed with a upward bend to keep safe distance from ground level at the time of Use

Buy Original POWER Trolley from authorised Company Dealer





 \square

Introduction

Aluminum is one of the preferred materials for concrete forming pannels and concrete shoring products today.

At TEJUS we have tried to introduce a combination of ply and aluminium profile known by ALUPLEX pannels which can be used for Slab panels / Retaining wall / lift corewall & columns in combination of varying pannel sizes.

ALUPLEX pannels are very user friendly and most important they are light in weight and give more number of reapetations as compared to conventional form work.

The finish of concrete is very supprior







ALUPLEX



ALUPLEX Pannels for Concrete Slab

- ALUPLEX pannels with complete range of their accessories are the best of its kind light weight system for slab casting.
- Accessories include Crown, Tripod, Props, Pipes, Couplers & Crown lock pin
- Erection of pannel can be started directly from corner and sides.
- Specially designed filler section is part of system for filling balance odd gaps of slab (Gabdi)
- ▶ The most important part of ALUPLEX pannels is birch plywood with plastic overlay
- ▶ We also Supply Pannels with polypropylene Glass fibre sheets for maximum repetitions



SLAB Pannels



In Production

Filler Beam Assembly





Deflection Vs Slab Thickness		Thickness of Slab Concrete		Ref Length	L/325		Remark		
		200mm	300mm	450mm	Ker Length	200mm	300mm	450mm	Kelliark
Alu Pannel	Deflection Along Length (1.8m Member)	1.84 mm	2.76 mm	4.14 mm	1800 mm	33%	49.90%	74.86%	OK upto 450 mm thk slab
1800 x 900mm	Deflection Across Length (0.9m Member)	0.14 mm	0.216 mm	0.32 mm	900 mm	5%	8.00%	12.00%	OK upto 450 mm thk slab

Note :

1) Above deflection calculation shown for Primary members of Alu Panels

2) We can pour concrete up to 450mm thk safely on Alu Panel, But Below Supporting system has to be designed as per slab Thk & Height of floor

Aluminium Pannles Available in different sizes - 1800 x 900 / 1800 x 600 / 600 x 900 Weight : 19.0 kg / 14.00 kg / 8.0 kg



Adjustabel Prop For supporting of slab pannles from bottom Weight : 2 x 2-18 kg







Crown Lock Pin For locking crown in prop inner at top **Weight** : 0.042 kg



Crown Head To connnect 4 pannles while Decking slab Weight : 1.75 kg



Operating Sticks For handling of aluminium pannles while errections & deshuttering **Weight** : 4.05 kg



Filler Beam For filling odd sizes/gaps of slab Size : 1.8 M Weight : 5.35 kg.







Aluminium I Beam & Clamps for RCC Beam Formwork / Slab Formwork



RCC Beam casting using Aluminum "I" Beams

Aluminium Beams

Aluminium Beams have many advantages over M.S Beams / Sq. Tubes/ H-20 Beams. These Beams are made from high grade structural alloy which has greater strength than any other material. It is very quick to use being light in weight. They are more efficient as the "T" bolt attachment helps in fast alignment. The provision of wood insert allows for nailing or screwing down plywood decking and making these beams more versatile to use over all these beams are more economical and safe as compared to others alternatives.





Advantages

- Improved productivity
- Environmental protection and energy saving
- Minimum labour required
- Reduces construction cycle time
- Most versatile systems
- Less wastage of plywood
- Very high resale value(scrap value)

These Beams can be used in shuttering of RCC Beams/ Slab Decking.

These aluminium Beams can be used along with some standard shoring material For RCC Slab – Adjustable props / Swivel coupler / Tripod / U- head / 'T' Bolt Assembly For RCC Beams - Adjustable Props / Beams Clamps



IMP Note: Our design team shall work on all load calculations as per your RCC drawings and suggest the spacing of Aluminium Beams (Ledger & Joist) for Slab



SLAB THICKNESS (mm)	IMPOSED LOAD (Kpa)	JOIST SPACING (mm)	LEDGER SPACING (mm)	PROPS SPACING (mm)
100	9.47	610	2000	1400
150	11.15	488	2000	1350
180	12.16	488	2000	1300
200	12.83	488	2000	1250
250	14.51	488	2000	1200
280	15.52	488	1800	1150
300	16.19	406	1800	1100
350	17.87	406	1800	1000
400	19.55	406	1600	1000

Spacing Tabulation (for 140-H-beam)

- Imposed Load is 1.4 DL + 1.7 LL, where LL is 50 Psf + 25 Psf Impact load.

• The suggested ledger and props spacing may vary depending on the length of Josit and floor height

• Floor height considered in this analysis is 3.6 meters and length of Joist is 3.9 to 4.5 meters.



 Retaining Wall / Fix & Adjustable Columns / Lift Corewall Shuttering















Panels are available in variable sizes and width Height- 3000, 2400, 1500 and 1200 mm

Width-900, 750, 600, 300 mm

Comparison of ALUPLEX pannels with conventional shuttering system.

ALUPLEX Pannels are very multi functional and the most important is they are light weight and can be used without a Tower Crane.

These pannels can take a pressure of 50 KN to 70 KN wet concrete pressure.

This panels can be fitted with either 18mm breach plywood with plastic overlay or 18mm wood polymer composite or 18mm poly propene sheet.

All these sheets are resistant against chemical and weathring away avoiding deformation and hence extending the ALUFLEX life

The pannels are available also in powder coating finish as per clients requirement.



Multi Purpose Panels



Fixed Panels



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Working Platform Used by labour to stand and do concreting Weight : 18.5 kg

Outer corner : For connecting two pannels at 90 degree from outer periphery of shuttering Size: 2.4m Weight : 19.5 kg



Wedge Lock To inter lock two pannels Weight : 1.1 kg

Waller Assembly : For supporting the pannels and helps maintaing line allignment and holds pannels in position while concreting Size: 0.7 / 1.2m/1.5m Wt : 9.8 kg Per mtr



Tie Rod Assembly : it is part of waller assembly it plays important role in fixing the wallers with pannels Weight : 1.45 kg Grade : EN8

Top Prop Shoe For conneting of prop inner to pannels Weight: 2.4 kg

Bottom Prop Shoe : To anchor prop outer to Ground level Weight : 4.3 kg

Adjustable Props : For Diognal support to pannels Size: $1.5 \times 1.5 \text{ m} / 1 \text{ m} \times 1 \text{m}$ $1.0 \times 1.0 \text{ to } 1.5 \times$ Weight : 1.5 - 22.5 kg

Inner Corner : To connect two pannels at 90 Degree on inner side of shuttering Size : 2.4 m Weight : with ply 23.0 kg Size : 300 x 300 x 2400





Crane Hook For lifting of pannels on site with tower crane Weight : 6.0 kg



Multi Purpose Fastners Assembly : For Inter locking two pannels in varying positions Weight : 1.25 kg





Tie Rod Bush : To close the holes in ply which are not in use Weight : 0.003 kg

Waller lock : It locks waller with pannels Weight : 0.65 kg



PVC Cone For tie rods **Weight** : 0.003 kg



Water Stopper: As water barrier in concrete structure Weight : 0.400 kg

4

Right Angle Clamps : used to lock pannels at right angle (90 degree) Weight : 6.650 kg







Aluplex Pannels for Formwork of Column



Combine plate Assembly

Tie Rod Assembly

Bottom Prop Shoe





Crane Hook



PVC Pipe



Tie rod Bush



Aluplex Pannels for Lift Corewall Shuttering







Waller lock

Plastic Cone

Right Angle Clamp

Water stopper



YEARS



















ALUPLEX

ALUMINIUM FORM WORK





Aluminium Light weight Shoring System



This is a very easy to handle (erection) light weight shoring system. As compared to available staging systems like Cuplock / H-frame Aluminium Frame have zero maintainace, less damages are caused while handling on site as it is very light in weight











Aluminium Formwork Supporting System



- Vertical Member is a hollow Aluminium pipe of 70mm OD and 62mm ID. Horizontal Member is an aluminium rectangular section of 32mm width and 57mm depth and 3mm thickness.
- The inclined members are 2.5mm thick of 30x30mm square section
- Brace lock system for holding cross bracing in place. Distance between the verticals is 1.2m. Distance betweenthe horizontals is 600mm.

These frames could be 1.8 m or 2.4 m height at present. (Later , any required heights can be added to the stock)

Extension Tube

- Extension tube can be used between Screw jack and Frame Leg to adjust available frame heights for the different floor heights. Using extension tubes will reduce the number of frames required considerably.
- Extension tube is Made up from alloy Aluminum with 60mm OD & 5.5 mm thickness.
- Standard length of Extension Tube is @ 1220 mm

Base Screw and Top Screw Jack

The Screw Jacks are machined from shedule 80/48mm OD & 5mm thick complete Jack is roll threaded so has much higher load bearing capacities. Base plates are SG Iron casting and top head is fabricated from 6mm HR sheet and ISA 35x35x5mm Thick

Note : To save time always set the adjusting nut higher than finish height before installing it in the frame leg or Extension Tube. It is always easier to lower than to raise for final setting





Factory Production Pictures



H-Frame Joint Pin



Made from 50 NB Tube, 2mm thick machined on CNC for proper fittment.

Used to connect two frames which are to be placed one above another to increase the staging height.





Manufactured from EN8 grade 12 mm Dia Round bar.

It is used for locking two Hframes after inserting joint pin

Cross Bracing





Manufactured form 260 D, 2.5 mm Thick high precision CR Tube.

Cross Bracing are available in different combination of Lengths therefore distance between two H-frames can be varied by the sizes of cross bracings.

Sr	X(mm)	Y(mm)	Z(mm)	Weight
01	2200	610	2283	4.88 kg
02	2200	1220	2515	5.38 kg
03	1800	610	1900	4.1 kg
04	1800	1220	2174	4.65 kg
05	2700	610	2768	5.92 kg
06	2700	1220	2963	6.34 kg
07	1500	610	1619	3.5 kg
08	1500	1220	1933	4.13 kg

Brace-Lock Assembly

Manufactured from Dia 14 mm High tensile Round Bar. Cross Bracing are locked in this assembly it can be detached as it has threading on the other end.



T Head Bolt & Beam Locking Clamp

These are M12 x 60mm Bolts with 'T' head and has a special Aluminium profile section for locking. This assembly is used to connect primary & secondary "I' beam in table form system.




Lateral & Diognal Bracing

- 1. When height of H-frame table exceeds by 4m then it is must to provide lateral bracing to tower of H-frames
- 2. Specially designed swivel coupler ($50~{\rm mm}$ x $70{\rm mm}$) is used to brace vertical leg of H-frames with $48~{\rm mm}$ OD ERW MS pipe
- 3. Never connect bracing pipe with Horizontal member of H-frames.
- 4. If possible Horizontal Bracing shall be anchored/ Tied up to adjacent permanent structure like column/ Beams etc. to ensure good stability.









Load testing on Vertical Members of H-frames :

H-frames vertical pipe 70 mm OD and 1.2 m in length is tested and easily takes a load of 7.6 mt. for 1 mm lateral deflection. So in H-frame we have braced vertical pipe with horizontal support @610mm hence forth the load taking capacity of frames goes up to 12 mt.

Tower load taking capacity depends upon the extended length of screw jack and extension tube opening at top and bottom.





H Frame Tower Capacity with Screw Jack & Extension Tubes

Aluminium H-Frame Table Form System Parts

Extension Combination		Safe Load	
Ext Tube open	2 Screw Jack	Max Extension	1220mm Extension Tube + Screw Jack Extended 305mm
mm	mm		
200	600	800 mm	5474 kg
350	600	950 mm	5058 kg
500	600	1100 mm	4432 kg
660	600	1260 mm	4170 kg
800	600	1400 mm	3910 kg



IMP Note: - Total calculations and layouts shall be provided by our design team receiving your RCC Drawings.



What you should know before Erection

- Know your floor to floor height.
- Know the height of frames available.
- Know the length of screw jacks available.
- Know the length of extension tubes available.
- Know the length of your primary and secondary beams. Check if the section shown (width and depth of the beam section) in the formwork drawing is available on your site.
- What is the arrangement shown in the formwork drawing.
- Mark the beam supporting grid on the base slab.
- Note the areas requiring any special treatment. Note elements at different levels.
- Start the erection in the given sequence.



Working procedure for the System

- 1. Calculate how much the screw (base screw and top screw) need be opened. This depends on Floor to Floor height, slab thickness, plywood thickness, depth of primary and secondary beams, no. of frames required one on top of the other (as per the available heights of frames), no. of extension tubes of known lengths. Overlap between screw jack and extension tube and extension tube and frame leg also needs to be considered..
- 2. Mark the points on the base slab where exactly the verticals should be placed..
- 3. First place the screw jack (4 nos) as per the frame dimension and the distance between the frames as per the design.
- 4. Open the 4 screws equally, slightly higher than the required length.. It is easier to lower the screws than raise, for an adjustment. Lowering or raising should also be done equally on all screws. Base of extension tube or frame should be at the same level. This will also ensure the plumb of the vertical members.
- If the extension tube is to be inserted over the base screw at its lower end and has the frame leg coming over it at its upper end, the extension tube should be connected with the Extension U Clip . The Extension U Clip should pass through two holes of the extension tube . It should not happen that the one arm of Extension U Clip passes through only one hole of the extension tube and one arm passes through a hole of Frame Leg.
 - Erect the first level of frames , with extension tube and pin in place.
 - If another level of frames is to be added, a coupling pin has to be inserted in the lower frame leg and the upper frame leg comes from above and rest perfectly on the bearing clip of the coupling pin.
 - The Extension U Clip should also pass through the two holes of the coupling pin .

Site Mock up Pictore of Aluminum Table Formwork (3.6m X 5.8 m)

Site Mock up Photo of Aluminium Table Formwork

Site Photo of Aluminium Table Formwork System







3

Erection of Tables for 1st 8.1m ht. slab After Assembling









Concrete Casting of 8.1m height Slab



8.1 m PT Slab Shuttering Using Aluminium Table Formwork



8.1 m PT Slab Shuttering Using Aluminium Table Formwork



Working Platform for Table Shifting

Minor Adjustment of Table using Roller Jack



Table Shifted in Next Pour





Aluminium Saddle Beam

Saddle Beam are used for Beam & Slab support By Single tower

I 165 Beam is clamped to vertical members of H-Frame to transfer load the RCC beam load is on I 165 beam and slab is rested on vertical members of H-Frame..

Saddle Beams are made up from lengths 1220mm with High Strength Aluminium Alloy, With brackets attached to each to transfer load of beam on Vertical Leg.







Precautions

- When an extension tube is used, please check the unsupported length of that portion of the vertical. Check the load carrying capacity for that unsupported length. If it turns out unsafe use rigid bracing to reduce the length.
- While placing the secondary and primary beams, ensure the symmetry of loading. Do not have imbalanced loading.
- Use the extension U pins at connection of frames or connection of extension tubes and frames.
- Ensure plumb of vertical members, throughout the length of the composite member.
- Ensure the locking of Brace lock for cross bracing.
- Do not exceed the allowed open length of screws.

- When the design shows a cantilever end, please do not support the cantilever end, instead, ensure that it acts like a cantilever.
- When 2 beams cross over on a stirrup head, please ensure the adequate overlap and ensure proper bearing for both thebeams.
- When the system is used to make table forms which will be rolled out and lifted to the next floor after DE shuttering, please connect the verticals of the trestles with pipe- coupler bracing so that all members in the system maintain their positions and shapes with respect to each other.



On site pictures of working of light weight Shoring System







On site pictures of System in Use

VEAR















Modular Labour Camp

We Specialize in Manufacturing of Modular Labour Camp. These are manufactured from specially designed Light Weight Sections and Sandwich Pannels. These Camps are assembled on site and can be shifted as required time to time. These camps are made to order as per customer requirement.











Working Sheet Date :



Working Sheet

Date :



ACHIEVEMENTS



EVENTS...















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