

The Climbtrac System **from**

ISCHEBECK[®]

TITAN



- Efficient construction saves time and money
- Enhanced safety on site
- Reduces downtime caused by adverse weather

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Climbtrac is a vertical track based system, which enables contractors to move a working platform, together with necessary formwork, up the face of a building without the need to disconnect and reconnect the system to the structure itself.

Suitable for use on vertical surfaces, such as lift shafts, stair walls, columns and external perimeter walls, Climbtrac has been designed to allow for the safe crane lifting of platforms together with wall forms, whilst remaining captive on the concrete structure during lifting operations.



Climbtrac comprises a pair of triangular frames, with guide wheels and catching devices for support, which run up a vertical track of two steel beams bolted in sections to the building's wall by means of a cone and bolt arrangement (cones are recovered as work progresses, whilst the bolts remain cast into the final structure).

Platform support channels are connected to the frames to support the working deck and shutter rolling equipment. This equipment consists of levelling brackets and wheels which run on two guide tracks located on the deck to allow the shutter to be rolled to and from the face of the structure being formed.

Safety screens connected to the rear and side of the platform with HT bolts complete the system.

During construction, the Climbtrac system is lifted vertically along its track by crane. When one storey is complete, the shutters are simply rolled back from the concrete face, new track sections are fitted and the system hoisted to the next storey. Track sections can either be left in place for removal at a later stage of the project or removed from the platform and passed through trapdoors for use on subsequent levels as construction progresses.

Climbtrac not only offers the potential for time and cost savings through more efficient working methods, but also makes a significant contribution towards safety as it obviates the need for potentially dangerous manoeuvring of the formwork system from the building during construction.

“Climbtrac is the most efficient and safest climbing system available.”*



- **System fixed to structure throughout construction period**

Rapid, positive relocation of platform as structure progresses - no more 'hit and miss' crane operations

Quicker, more efficient construction

Enhanced site safety

Reduces downtime caused by adverse weather

- **High, full mesh screens**

Greater protection for workers on platform

Safer working site

- **Major components re-usable**

Economic and efficient construction

Versatility in application

- **Ladder access cage**

Safer access to and egress from work areas

- **Shutter guide track**

Purpose made rolling equipment improves work efficiency

- **Purchase or hire**

Choice of schemes to fit project and budget requirements



*Ray Klane, managing director, Southgate Formwork Contractors.

Climbtrac Components

1. Frame

The frame consists of a triangular structure having guide wheels and load catching device for support

2. Track

The vertical steel track is bolted directly to the wall. It holds the Climbtrac frame securely to the face of the structure and facilitates positive alignment and vertical travel of the system during construction

3. Platform Support Channels

These are members to support the deck and the shutter rolling equipment

4. Lifting Lugs

The lifting lugs are bolted to the platform support channels over each support frame

5. Bracing

Bracing is both horizontal and diagonal and is fitted between each end frame

6. Screens

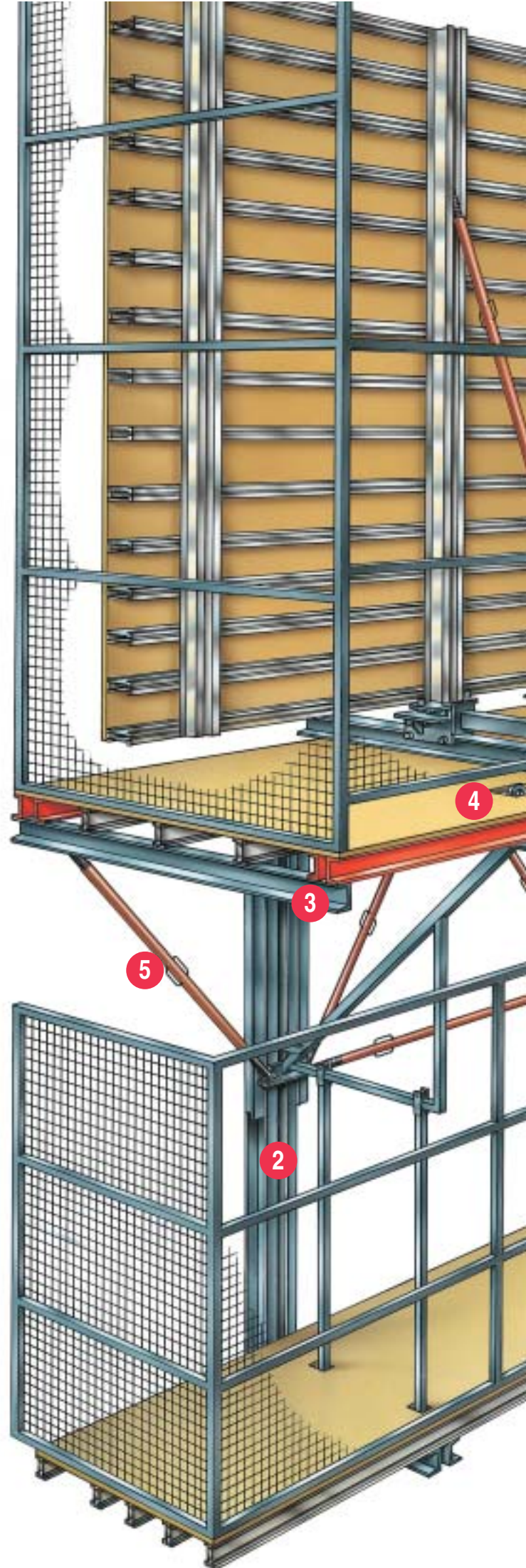
The safety screens are 3000mm high at the rear of the platform and 4000mm high at each end of any platform. The screens are attached to the platform by 16mm dia. HT bolts.

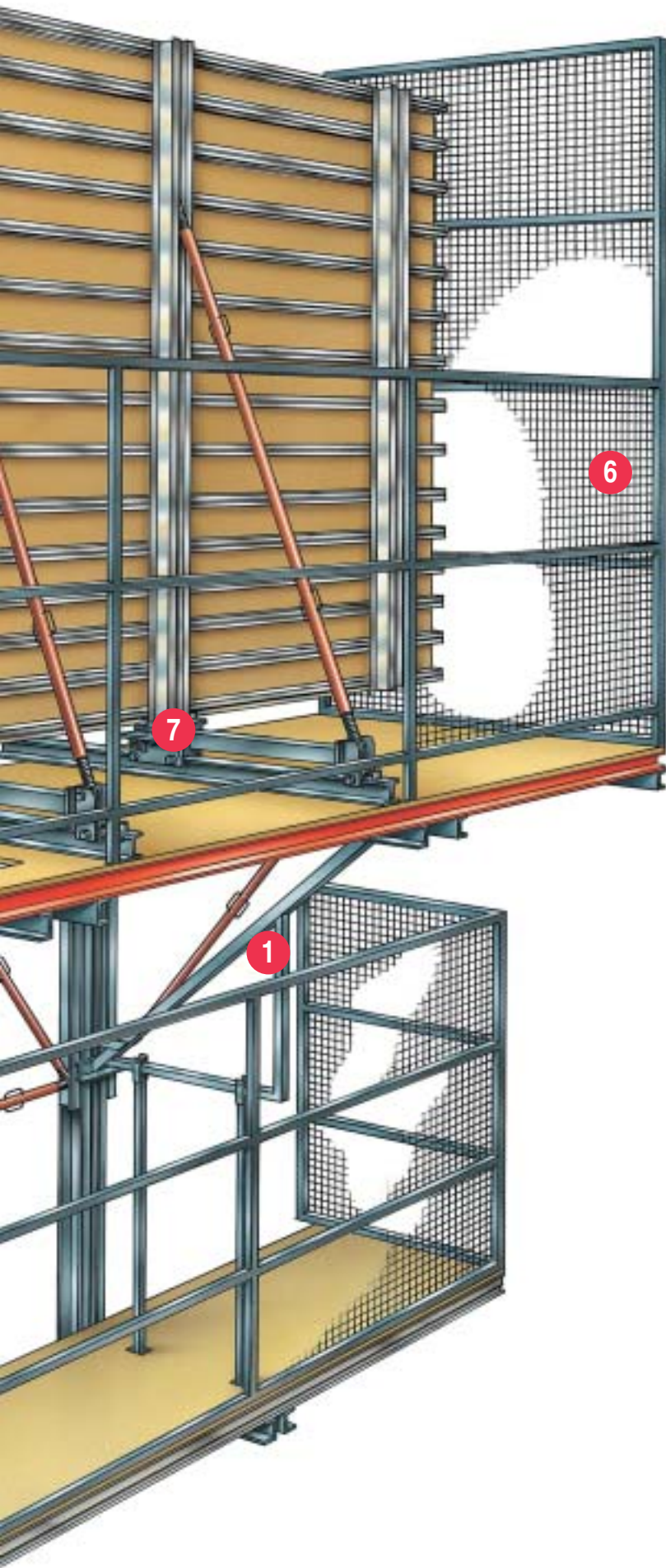


7. Shutter Guide Track

The shutters are mounted on shutter rolling equipment which runs on 2 tracks per platform. The shutters can be rolled back from the face by up to 700mm to facilitate cleaning and steel fixing.

Shutter Rolling Equipment comprises special levelling brackets and wheels to allow movement of the shutters. They are fitted with mechanical stops and locking bolts to prevent movement when not in use.





Track Fixing

Cones

The cones are used together with cast in bolts to secure the system to the wall. There are 2 cones and bolts per track section per floor level. The cones are recoverable but the bolts are a lost item.



Cone Removal Tool.

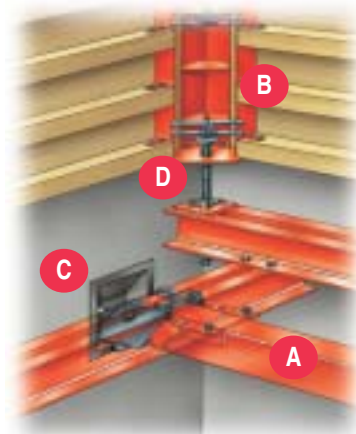
This tool allows the removal of the cones from the cast in bolts and this operation is carried out after removal of the track.



Internal Climbrac

There is a separate Climbrac support system for internal wall comprising:

- A - Supporting Frames
- B - Corner Panels
- C - Pocket Formers
- D - Levelling Jacks

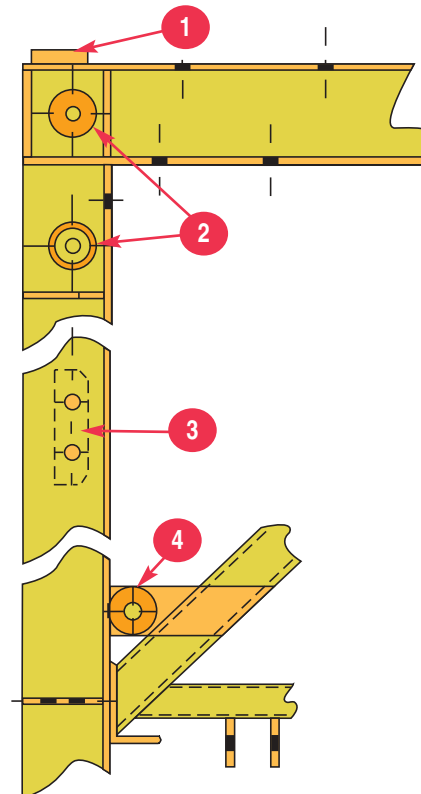


Good Working Practice

- All personnel, including crane operative, to read and familiarise themselves with the Method Statement.
- Track fixing and pocket forming should be checked and signed off before any concrete is poured.
- Track fixed to the structure to be checked before loading up.
- Each platform type assembly to be checked and signed off before installation.
- Check the platform has been installed properly before fitting shutters.
- Ensure the shutters have been assembled to match the drawings.
- Fit the shutters.
- Check access and hole covers, fit toe boards, etc.



Safety Features



1. Main Arrestor Plates and Debris Plough

2. Guide wheels at top (4 No.)

To prevent platform moving away from track

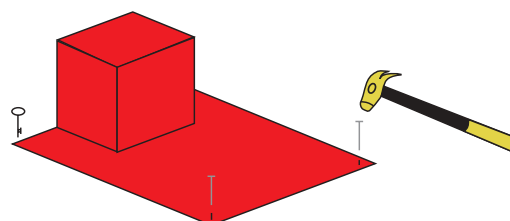
3. Secondary arrestor plates

In the event of an overlift & prevent platform moving away from track

4. Bottom guidewheels (2 No.)

to give smooth lift run on track flange

Safety covers nailed to plywood deck over track and hole at track location



Working Loads

Platform Typical Configuration Lifting is up to 5.5 Tonne per Lift which includes dead load plus allowance for live load and drag.

Dead Load consists of

1. Platform self weight including Deck Materials plus
2. Shutters, Push Pull Props and Formwork Hardware items plus
3. Tools including boxes.

For all other loads, Ischebeck Titan must be notified prior to application for approval.

Live Load consists of

1. Drag,
2. Bounce on Crane

Wind Loading during Lifting operation.

There is no limitation on lifting if the crane has not been shut down due to adverse weather conditions.

Lifting Eye and Cone Capacity

Lifting Eye Capacity

Front ~ 3 Tonne SWL
Rear ~ 2 Tonne SWL

Cone Capacity

294 KN proof load tested
Working Load at 6:1 F of S = 49 KN.
Note: 2 Cones per Track/per Frame.
4 Cones per Platform.

Concrete Strength for Lifting ~ 13 N/mm²

Shutter Track Rolling Gear Locked off as per instruction ~ 12.5 KN @ 2:1 Factor of Safety per Roller Assembly.



Working Deck Allowable Loads

Reinforcing ~ 500kg in front of Shutter near wall.
2.5kN/m² over remainder of Deck.

No Materials to be on the Platform when lifting unless designed for specifically, check method statement for this information.

Suspended Platforms Internal ~ 2.5kN/m².
Suspended Platforms External ~ 1.5kN/m².
All other Decks to be subject to Engineers' approval.



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Ischebeck Titan Group

Founded in Germany over 120 years ago, Ischebeck is renowned internationally for its aluminium formwork and false work systems, trench support systems and ground engineering products.

Ischebeck Titan (Middle East) LLC

The company operates from headquarters located at Ajman, near Dubai, an ideal location from which to serve the United Arab Emirates and the entire Middle East region.



Product Availability

Substantial stocks of equipment are available ex-stock from our strategically located distribution site at Ajman, assuring a prompt response to most requirements. Products are available for both hire and outright purchase.

Technical Support

We will participate in concept stage development. Providing input on applications, production rates, budget design and costings. Active for on site support, particularly for new users. We can provide guidance on industry special european and national standards.



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