



## MSC 240

The Multi-functional  
Climbing Scaffold



## MSC 240 Climbing Scaffold

# Safety with Speed

Ensuring a high degree of safety and speeding up the construction process are the main priorities when erecting tall buildings. The MSC 240 climbing scaffold ensures efficient and quick climbing even under challenging ambient conditions.

MSC 240 climbing scaffold with a 240 cm wide platform provides all the technical advantages of large- area formwork irrespective of the height of the building, with the same level of safety as at ground level. In addition to climbing, it offers a working platform for rebar fixing, formwork set-up and concrete pouring work.

It can be supplemented with a trailing platform to perform follow-up work.





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## Simply clever

- **Formwork height up to 6 m**
- **Vertical adjuster**
  - Allows 10 cm of vertical adjustment enabling the formwork to be precisely adjusted as per building geometry
- **Horizontal adjuster**
  - Allows +/- 50 mm of fine adjustment of formwork
  - Enables formwork to be tilted back ensuring easy stripping
- **Slide Carriage**
  - Allows formwork to be retracted by a distance of up to 755 mm, providing sufficient space for workers to execute rebar, formwork set-up and box-out work
  - Allows formwork and platform to be moved to the next level by crane as a single unit saving time and labour costs
- **240 cm wide platform with a maximum length of 6 m**
  - For safe and comfortable work at all heights
- **Perimeter protection with guard rail posts**
  - Provides all-round safety for workers



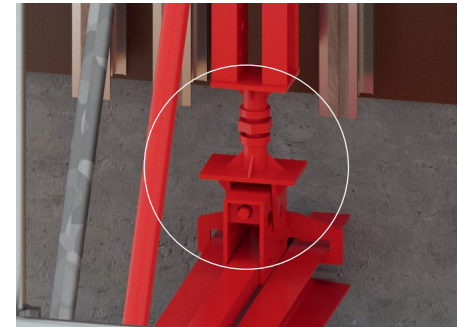
## MSC 240 Climbing Scaffold

# A System full of Ideas

MEVA systems stand out due to a maximum of efficiency, quality and practical details. This also applies to the tried-and-tested MSC 240 climbing scaffold. The MSC 240 bracket frame has provision for fixing either K6 aluminium beams or H20 wooden beams, onto which plywood or planks are screwed or nailed to form a platform. This platform provides workers sufficient space to tie reinforcement, fix box-outs and clean formwork.

Beam clamps anchor the K6 aluminium beams or H20 beams to the main bracket frame. Guard rail posts placed at the perimeter of the platform provide fall protection.

At end platforms where the K6 or H20 beams are under cantilever action, the guard rail post is anchored onto a GRP end support.



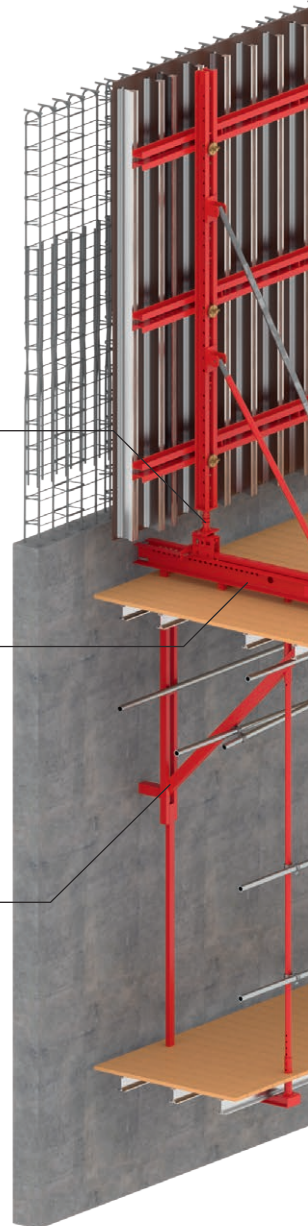
### Vertical and horizontal adjuster

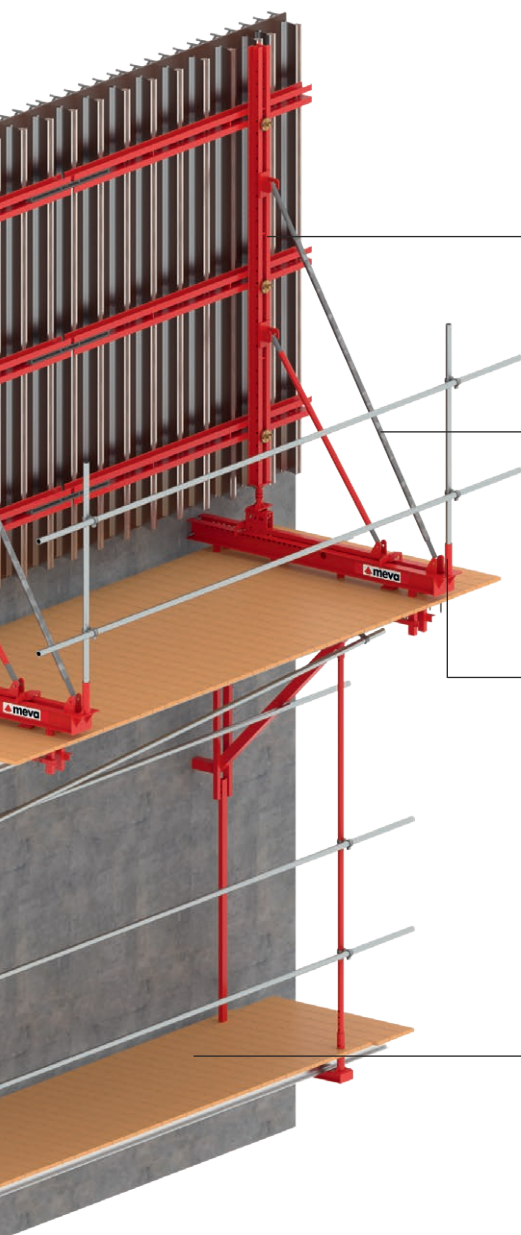
Allows 10 cm of vertical adjustment and fine horizontal adjustments of +/- 50 mm as well as formwork tilting

### Slide carriage

Allows formwork to be retracted by a distance of up to 755 mm, providing sufficient space for workers

### MSC 240 main bracket frame





### Vertical rail

Connects the platform with formwork

### Additional push-pull prop

Required if formwork height exceeds 4.05 m

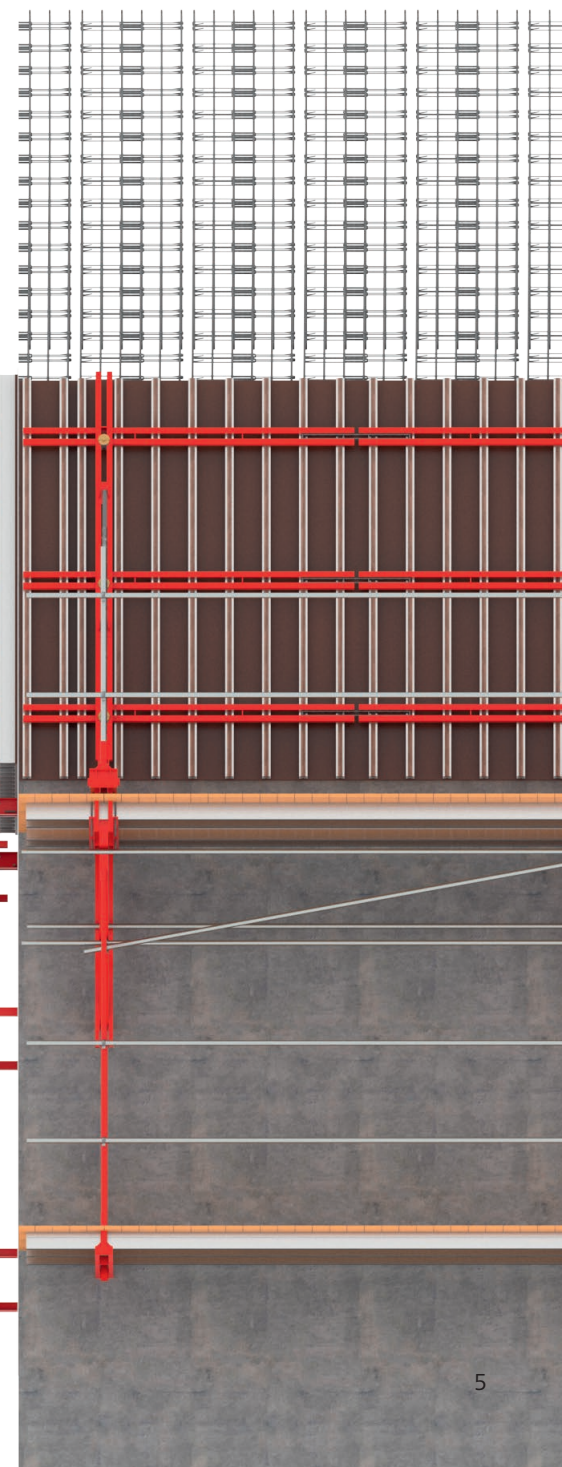
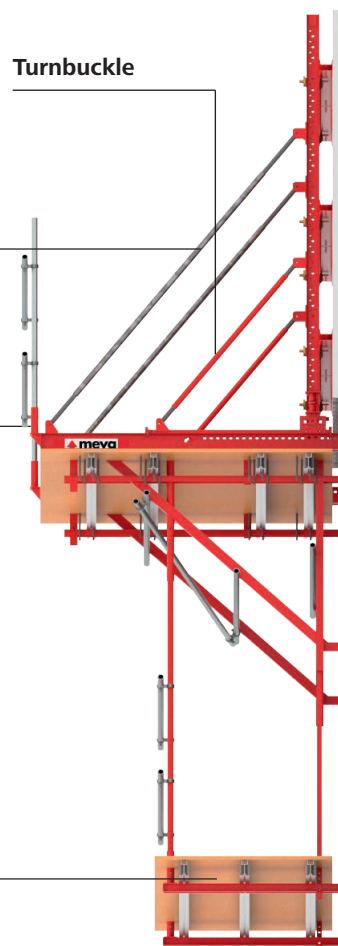
### Guard rail posts

Provides all-round safety for workers

### Secondary platform

With ample space for finishing and follow-up work

### Turnbuckle



## Prioritising Safety

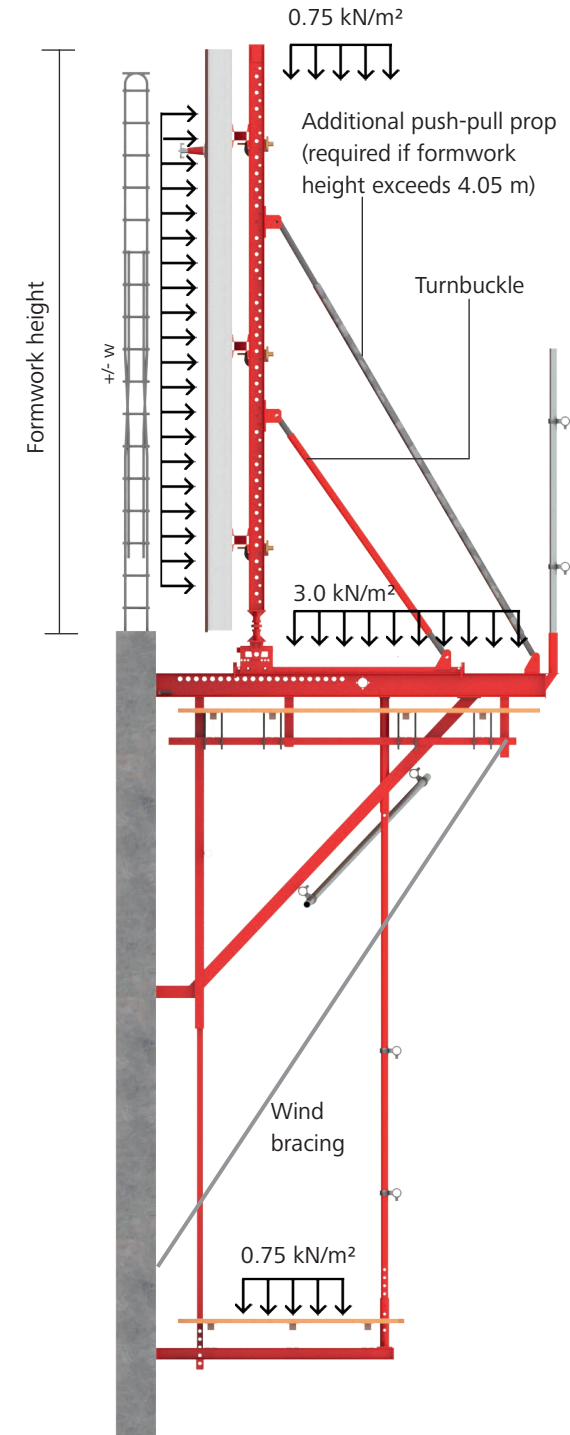
# Anchoring Details

The MSC 240 anchoring system alongside the platform assembly can withstand the following loads, applied simultaneously.

- 0.75 kN/m<sup>2</sup> on the working platform of the wall formwork
- 3.0 kN/m<sup>2</sup> on the main platform
- 0.75 kN/m<sup>2</sup> on the secondary platform

The minimum building part (wall) thickness and installation depth should be followed as per the following details

| Anchoring system details                  | Installation depth (mm) | Building part thickness (mm) |
|---|-------------------------|------------------------------|
| Anchor plate 15/170<br>+ Climbing cone 24 | 210                     | 250                          |
| Anchor plate 15/120<br>+ Climbing cone 24 | 160                     | 200                          |

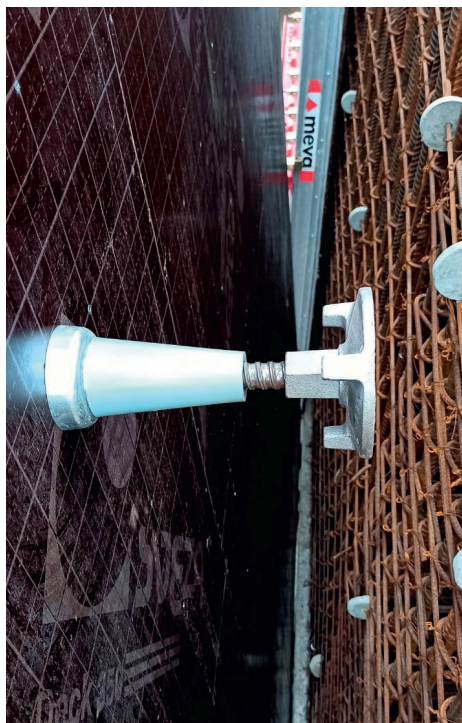




## Prioritising Safety

# Anchoring Details

The MSC 240 climbing scaffold uses anchoring parts, designed and tested for the highest levels of safety.

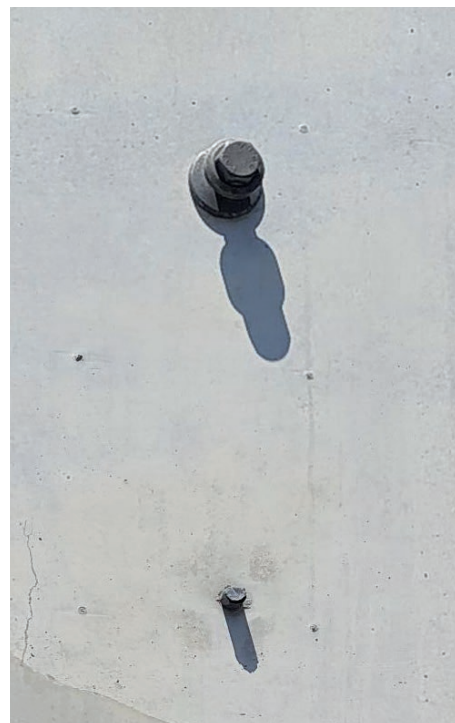


The **climbing cone M24** is a removable component.

The **anchor plate** is embedded in concrete whilst casting, and functions as a consumable.



Whilst pouring concrete, the **positioning disc** is attached to the formwork on one side and to the climbing cone M24 on the other, helping to align it with the anchor plate embedded in the concrete.



The climbing cone M24 holds the **mounting ring M24** on its outer side and the embedded anchor plate on the inner side, helping to transfer loads from the climbing platform to the surrounding concrete.



The MSC 240 main bracket frame rests on the mounting ring M24.

## Multiple Load Combinations

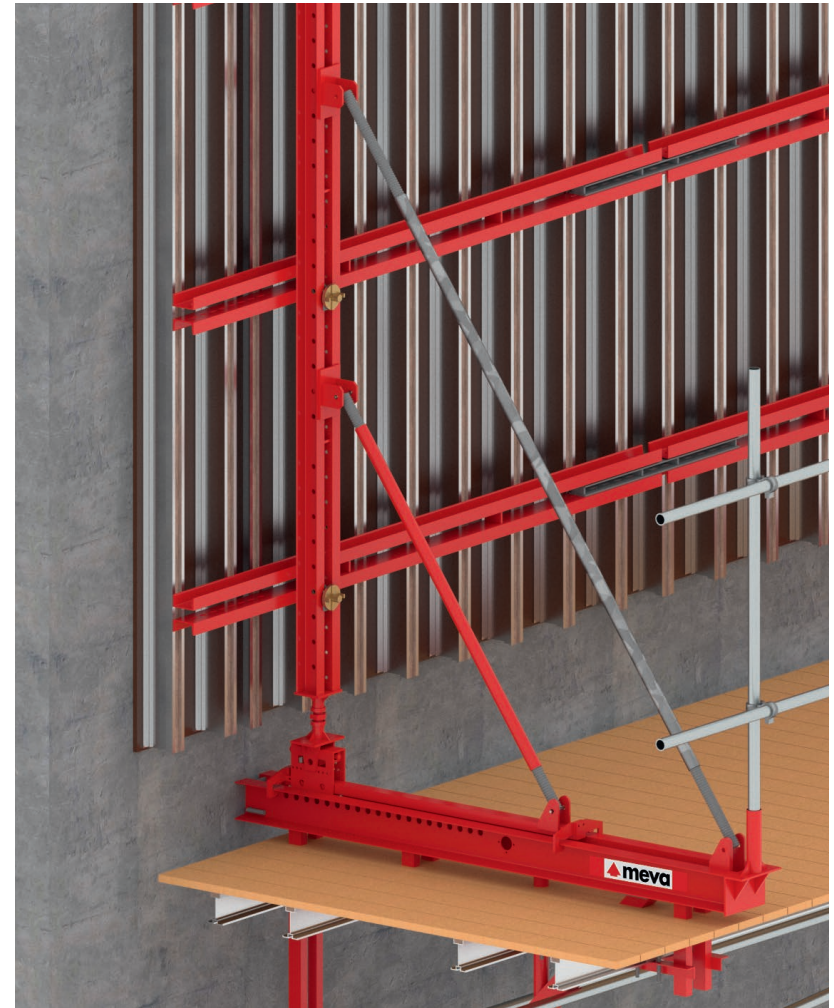
# Flexible Design

The MSC 240 climbing scaffold climbs only after the concrete into which the anchoring system is fixed, attains a minimum compressive strength of 15 N/mm<sup>2</sup>.

Platform length can be determined for various wind speed, formwork height and concrete strength requirements.

### Influence length of MSC 240 bracket

| Wind speed (V)<br>(Km/h)  | Impact pressure (Q)<br>(kN/m <sup>2</sup> ) | Shutter height (m) |     |     |     |     |
|---------------------------|---|--------------------|-----|-----|-----|-----|
|                           |   | 3                  | 3.5 | 4   | 4.2 | 4.5 |
| 25 N/mm concrete strength |   |                    |     |     |     |     |
| 119                       | 0.6   | 3                  | 3   | 3   | 3   | 3   |
| 140                       | 0.8   | 3                  | 3   | 3   | 3   | 2.7 |
| 158                       | 1   | 3                  | 3   | 3   | 2.7 | 2.4 |
| 169                       | 1.1   | 3                  | 3   | 2.7 | 2.4 | 2.1 |
| 180                       | 1.3   | 3                  | 2.7 | 2.4 | 2.1 | 1.8 |
| 15 N/mm concrete strength |   |                    |     |     |     |     |
| 119                       | 0.6   | 3                  | 3   | 3   | 2.7 | 2.7 |
| 140                       | 0.8   | 3                  | 3   | 3   | 2.7 | 2.4 |
| 158                       | 1   | 3                  | 3   | 2.7 | 2.4 | 2.1 |
| 169                       | 1.1   | 2.7                | 2.7 | 2.4 | 2.1 | 1.8 |
| 180                       | 1.3   | 2.4                | 2.4 | 2.1 | 1.8 | 1.5 |





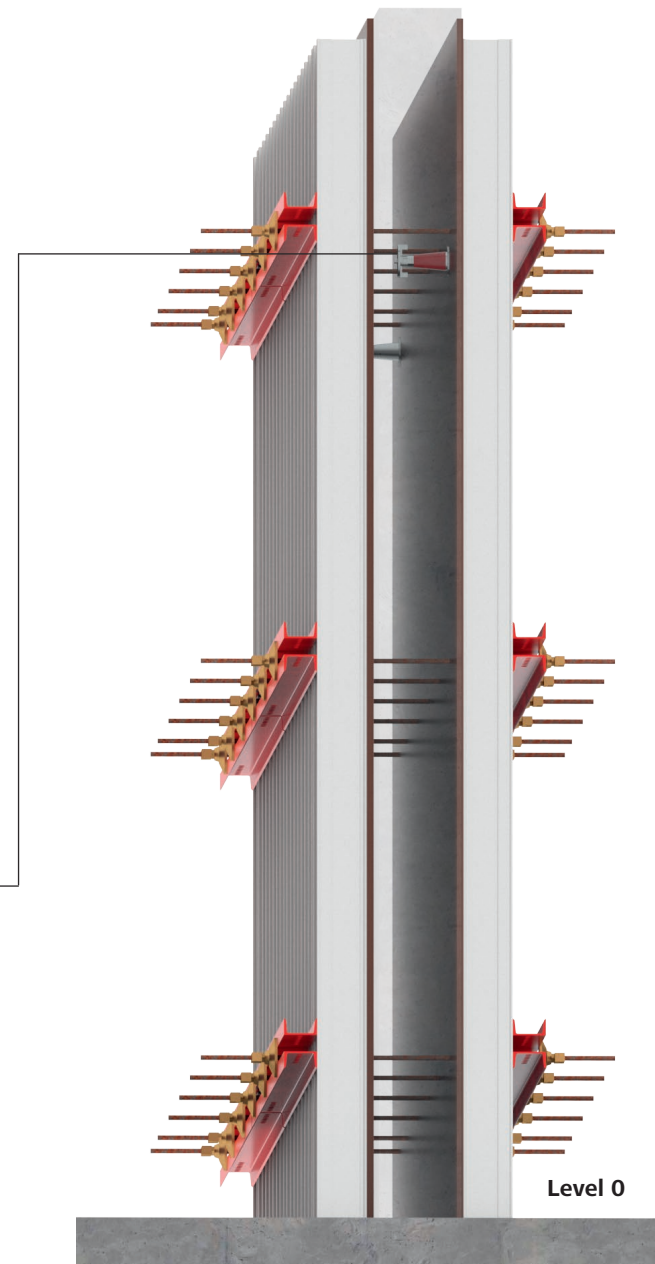
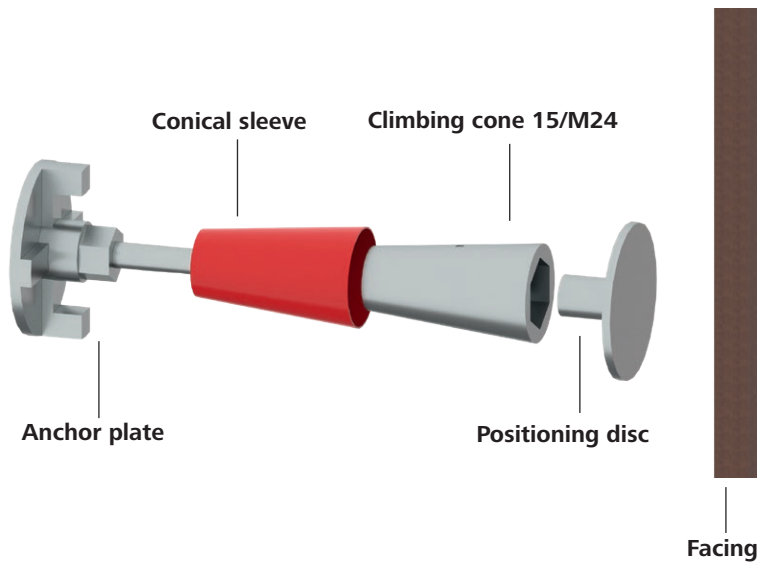
## Rising with Speed and Precision

# Assembly and Climbing

1

Whilst erecting wall at level 0, the anchor plate 15/170 and climbing cone is fixed to the positioning disc. This assembly is attached to the formwork for alignment.

During casting, the anchor plate 15/170 is permanently embedded into the concrete while the climbing cone M24 functions as a removable part.



## Rising with Speed and Precision

# Assembly and Climbing

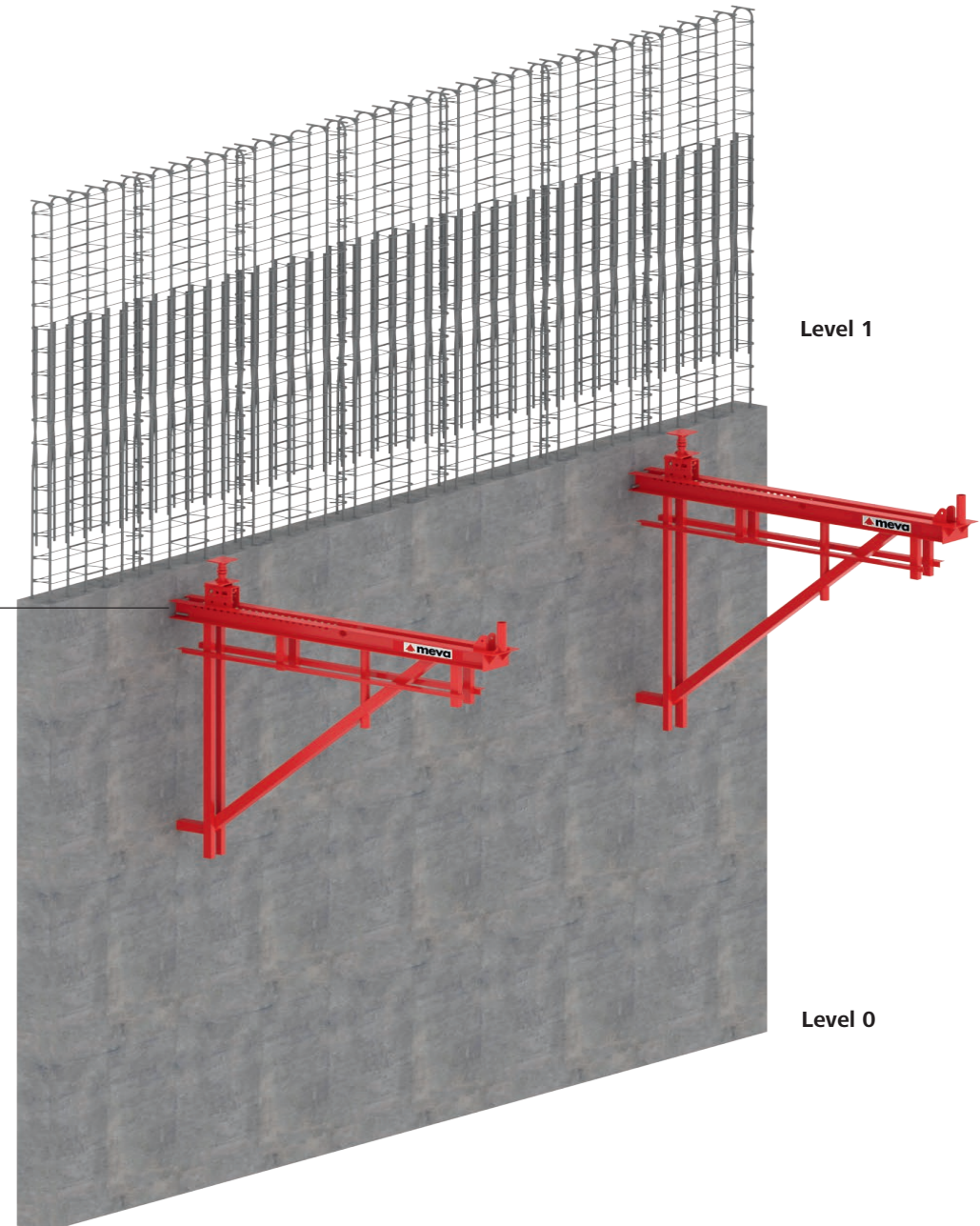
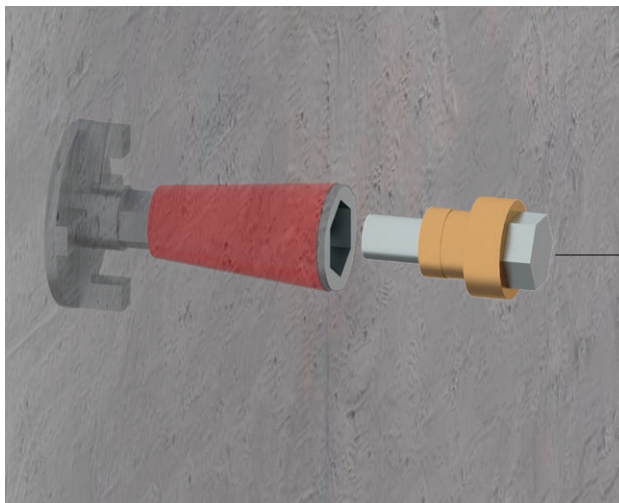
2

Formwork is removed from position after concrete has set.

The positioning disc is removed and the mounting ring M24 is now fixed into the climbing cone M24.

The MSC 240 bracket frame, with the slide carriage and horizontal adjuster fixed to it, is then mounted on the mounting ring M24.

Similarly, the adjacent bracket is also mounted. H20 or K6 aluminium beams are fixed on the bracket frames and covered with plywood to form a platform. Workers can now access the platform to perform rebar work.





## Rising with Speed and Precision

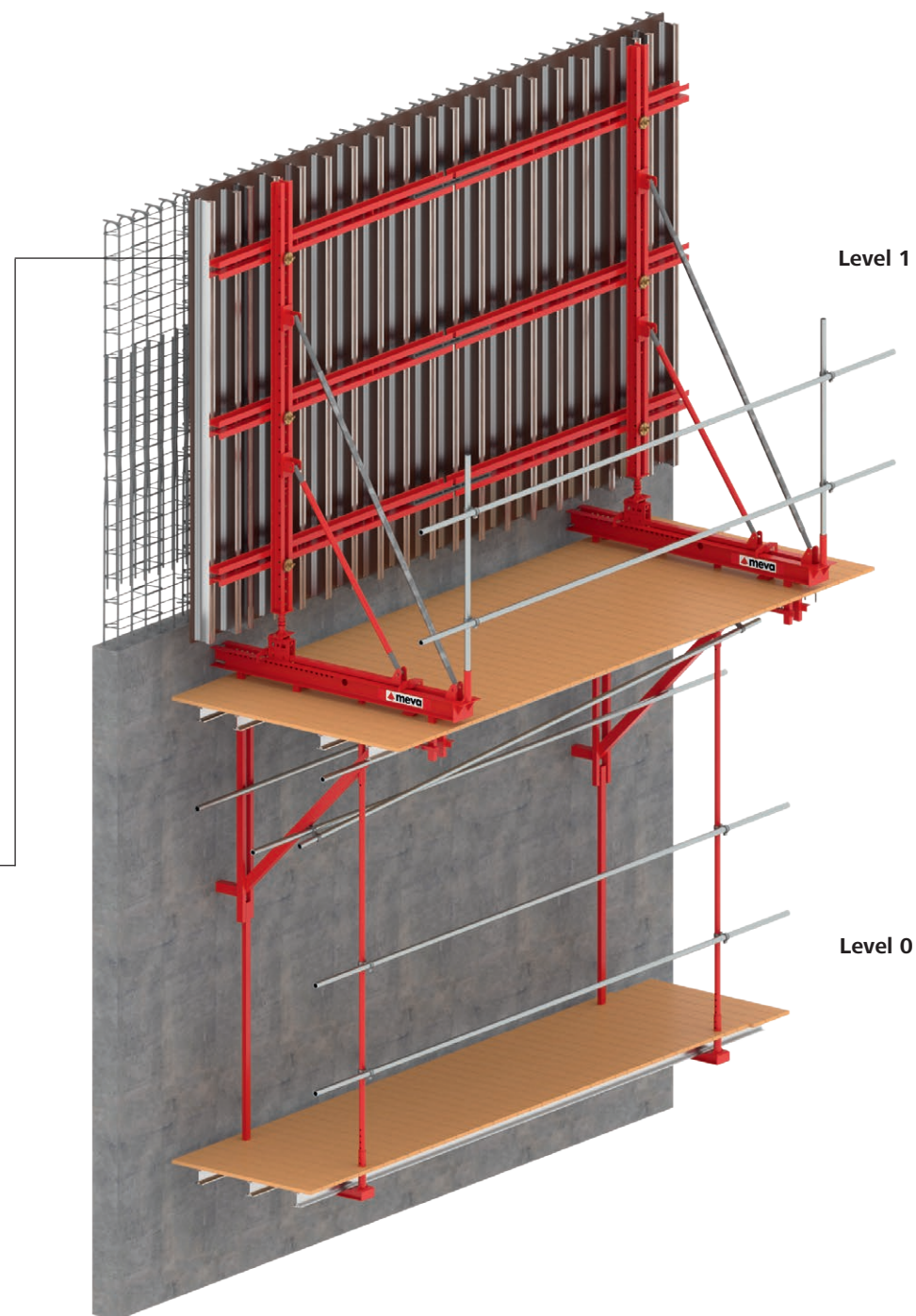
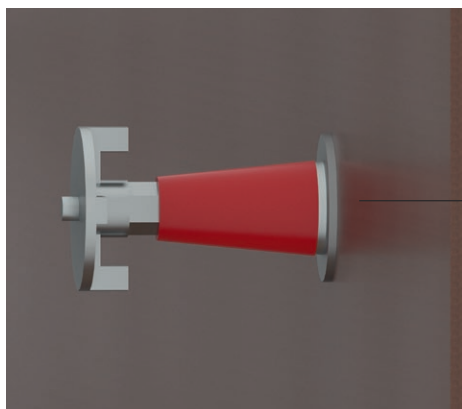
# Assembly and Climbing

3

The vertical rail is connected to formwork by the rail clamp.

The vertical adjuster is also fixed to the vertical rail and this entire assembly is placed and secured to the respective sliding carriages of the two assembled brackets.

A positioning disc is again fixed to the formwork.



## Rising with Speed and Precision

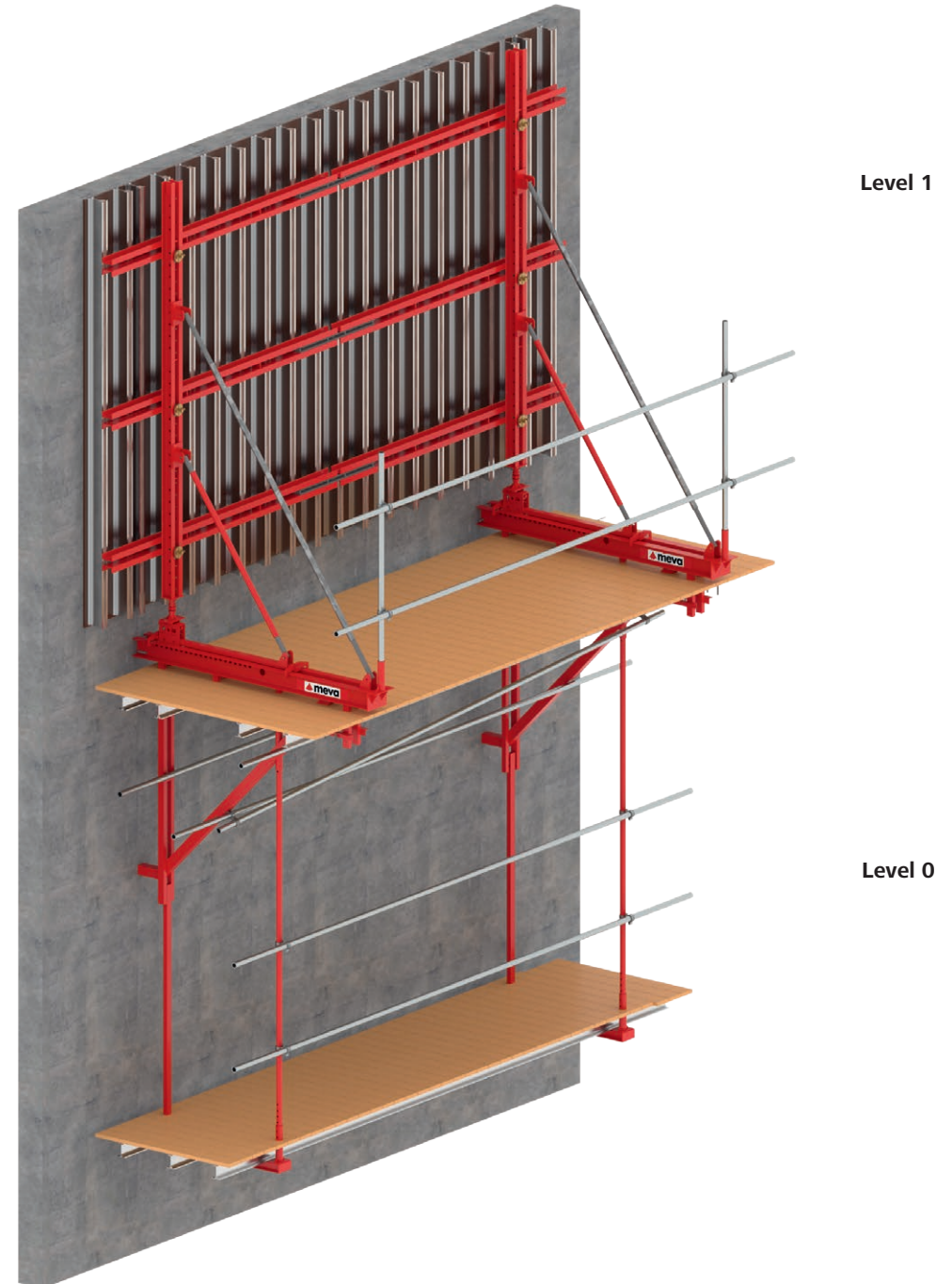
# Assembly and Climbing

4

Formwork is aligned by push pull props and turnbuckles, secured in position with ties.

Fine adjustment is then carried out using vertical and horizontal adjusters.

The next step is to pour the concrete.





## Rising with Speed and Precision

# Assembly and Climbing

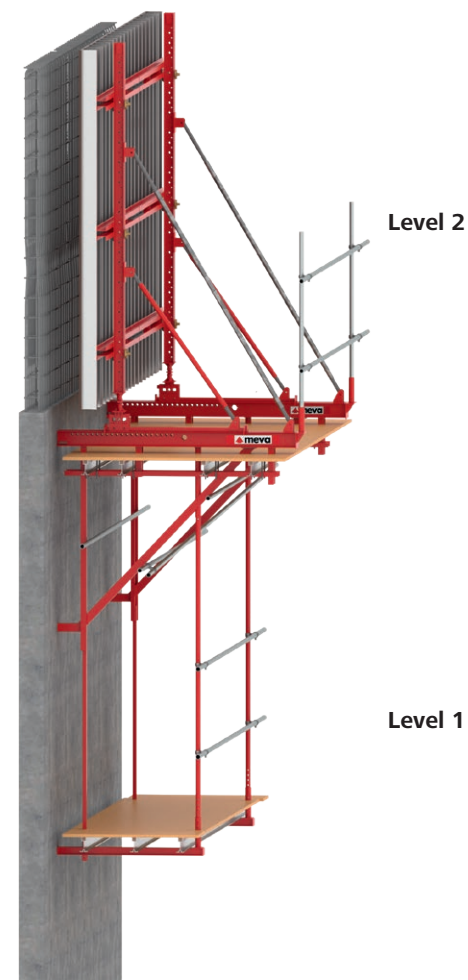
5

Ties are removed, positioning disc is unsecured, and formwork is retracted.



6

A crane lifts the entire assembly including the platform and formwork through anchoring points provided on the main bracket frame and places it on the mounting ring M24 provided at level 1. Similar process repeats until the topmost level is reached.



## Pioneer and trendsetter

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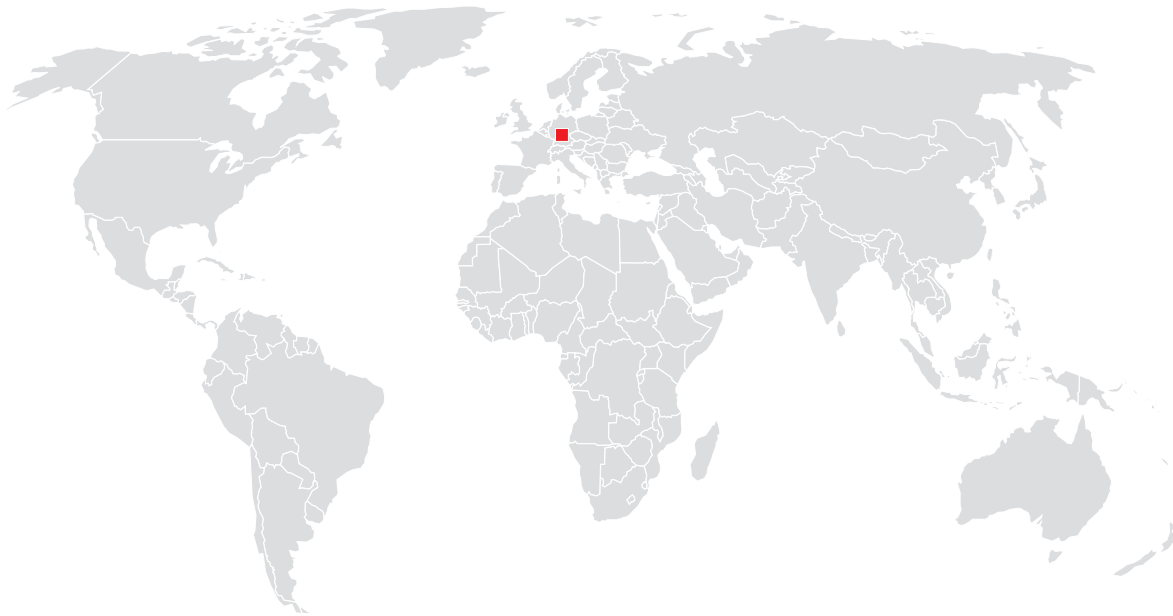
Complex special formwork or economical standard formwork: Our experience and wide range of products make us a service partner with strong consulting skills, even for the sophisticated challenges construction professionals have to master nowadays.



*Formwork.  
Simple. Smart.*

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