Climbing Systems
Safety with System
Ensuring a high degree of safety and speeding up the construction process are the main priorities when erecting very tall buildings. MEVA offers ideal solutions ranging from classic climbing scaffolds to the automatic climbing system for all high-rise construction projects in order to ensure efficient and quick climbing even under challenging ambient conditions.

**MEVA climbing systems**

**Automatic, precise, quick and safe**

**KLK 230**

**Climbing scaffold**

The KLK 230 climbing scaffold is firmly attached to the wall formwork to form a craneable climbing unit. The climbing scaffold, which is specifically adapted to suit the building, thus serves as a barrier-free working scaffold.

- Optionally available with slide carriage to provide sufficient space to perform forming and boxout work.
- It can also be used flexibly for polygonal building layouts.
- The high load-bearing capacity of the brackets make very large scaffolding units possible.
MGC-H
Rail-guided climbing system

The MGS-H rail-guided climbing system climbs as a unit and consists of wall formwork and working platforms. Hydraulically or by crane.

- The climbing unit is permanently connected to the building and thus guarantees safe climbing at all heights.
- Optionally available with slide carriage to provide sufficient space to perform forming and boxout work
- Safe and efficient solution

MGS-H
Rail-guided screen system

The MGS-H rail-guided screen system provides all-round enclosure of the slab edges in the upper storeys and climbs hydraulically or by crane.

- Rapid assembly; can be optionally delivered as a preassembled unit
- It can be used flexibly with and without working platform
- The MGS-H protects against falls from heights, falling objects and the effects of weather
- Increases the productivity when working at great heights

MAC
Automatic climbing system

The system climbs hydraulically as a unit and is crane-independent.

- Cost-efficient, as the formwork can be moved quickly as a single unit
- Flexibly adaptable due to modular system
- Deployable in all weathers due to all-round enclosure
- Ensures safe work, also for the tasks performed below the climbing unit
- Simple access due to integrated ladders
KLK 230 climbing scaffold

Safe and flexible

The multifunctional climbing scaffold

The KLK 230 climbing scaffold with a 2.30 m 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.

The KLK 230 can be used as climbing formwork and as a working platform for rebar, formwork set-up and concrete-pouring work. It can be easily supplemented with a trailing platform in order to perform follow-up work.

The KLK 230 climbing scaffold is firmly attached to the wall formwork to form a craneable climbing unit. The formwork clamping fixture allows both the height (up to 23 cm) and the inclination of the formwork to be finely adjusted in order to precisely adapt it to the geometry of the building.

The formwork can be moved back by 70 cm using a slide carriage, creating sufficient space to perform cleaning and boxout work comfortably.

The KLK 230 climbing scaffold consists of climbing brackets, wall struts, planking and handrails.
Simply smart

- Formwork height up to 7.25 m
- Loading of the KLK platform up to 6 kN/m² (DIN 4420)
- Climbing scaffold with formwork support
  - Quick and safe attachment of the formwork to the KLK 230 with the tried-and-tested MEVA assembly lock
- Climbing scaffold with formwork clamping fixture
  - Formwork can be tilted back to allow work to be carried out; this simplifies stripping
  - Formwork clamping fixture with 23 centimetres of vertical adjustment enables the formwork to be precisely adjusted to suit the building geometry
- Climbing scaffold with slide carriage
  - Simple relocation of the formwork (travel distance of 70 cm)
  - Comfortable working area for formwork set-up and boxout work
  - Barrier-free work
  - Climbing scaffold and formwork can be relocated as a single unit
- Working scaffold with a 2.30 m deep platform
  - Safe and comfortable work at all heights
- The side protection net on the handrail protects against falling objects
The rail-guided MGC-H climbing system

Safe work at all heights

Rail-guided lifting using hydraulics or by crane

The rail-guided MGC-H climbing system (MEVA Guided Climbing) climbs as a unit and consists of wall formwork and working platforms. Hydraulically or by crane.

Safe and efficient assembly on the ground
Thanks to the MGC-H’s clever design, the units – including guide rail and ladder extensions, trailing platforms and other components – can be assembled safely and in a time-saving manner under simple assembly conditions on the ground.

Extensions and trailing platforms installed from below
When the climbing unit has been installed on the building, the extensions, trailing platforms and access ladders are also installed from below. This increases the safety of the system and the efficiency during assembly.

MGC-H and wall formwork – always a safe unit
The MGC-H and the wall formwork always form a single unit. The use of guide rails ensures that it remains firmly anchored to the building even under windy conditions – during both the construction phase and the climbing phase (hydraulically or by crane). It is possible to work ergonomically at all times thanks to cleverly designed components such as weight-optimised hydraulic cylinders, the mobile hydraulic unit as well as the lightweight MGC-H guide shoe.
Even complex geometries with differently sized and offset structural elements can be mastered smoothly using the MGC-H guided climbing system.

Firmly attached to the building at all times, during both the construction phase and the climbing phase.

Simply smart

- Lifting process using hydraulics or by crane
  - Provides for flexibility and efficiency
- Free positioning of the guide rails up to 4.50 m
  - Width covers a wide range of standard applications
- High degree of safety
  - Fully integrated access ladders with safety cages
- Safe and efficient preassembly on the ground
- Delivery of preassembled transportable components possible
- Safe work in all weathers increases the productivity
- Ergonomic work thanks to weight-optimised components among other things
- All-in-one-solution
  - MGC-H in conjunction with MGS-H provides for optimum safety and efficient construction processes
- Even complex geometries with differently sized and offset structural elements can be mastered smoothly using the MGC-H guided climbing system.
The rail-guided MGS-H screen system

All-round protection at all heights

Rail-guided climbing, hydraulically or by crane.

The rail-guided MGS-H screen system (MEVA Guided Screens) provides all-round enclosure of the slab edges in the upper storeys and climbs hydraulically or by crane.

MEVA’s guided screen system (MGS-H) encloses entire storeys of a building, especially during high-rise construction, irrespective of the height of the building. Maximum safety is guaranteed for the personnel during all phases of the work. Work can be performed in almost all weather conditions. The MGS-H remains connected to the building during the entire construction period, and can be attached to either the slab or the wall.

The MGS-H allows the sizes of the units to be chosen freely and perfectly adapted to suit the shape of the building. Even large-format units can be climbed quickly and safety in one lift. The screening is completely closed, optionally with cladding sheet (perforated or unperforated) or with various fabrics.

Safe and quick assembly
The MGS-H is safely and efficiently assembled on the ground or delivered completely preassembled to the construction site in order to avoid situations where time and space are critical.

Ergonomics
Besides safety, the focus is on ergonomics: weight-optimised hydraulic cylinders, a mobile hydraulic unit and the lightweight MGS-H guide shoe weighing only 20 kg make the assembly work easier.

Simply smart

→ System with individual units
   - Flexible adaptation to the floor plan and the geometry
   - Free positioning of the guide rails
   - Economical solution for almost all buildings due to flexible widths

→ Safe and time-saving preassembly
   - On the ground
   - Delivery of preassembled components possible

→ Ergonomic work thanks to weight-optimised components

→ All-in-one-solution
   - MGS-H in conjunction with MGC-H or MAC provides for optimum safety and efficient construction processes
Lifting process using hydraulics or by crane – high degree of flexibility and efficiency

Maximum flexibility and simplified suspension through folding mechanism and adjustable guide shoe

Firmly attached to the building at all times to protect it against the wind, during both the construction phase and the climbing phase

Maximum safety due to the completely enclosed building
MAC automatic climbing system

Automatic climbing at great heights

Self-climbing, safe, quick, precise

The MAC automatic climbing system (MEVA Automatic Climbing) is the preferred solution for very tall buildings and when the strictest requirements are placed on safety. Together with the wall formwork, the MAC climbs as a fully enclosed unit without the use of a crane and thus ensures a maximum of work safety. The MAC has proven its worth during a great many high-rise construction projects such as the two highest office buildings in Switzerland, the Roche Tower buildings 1 and 2; the tallest building on the Indian subcontinent, the Palais Royale in Mumbai; or the One World Hotel in Singapore.

Safety, precision and speed
MAC combines safety and speed with precision. The complete unit can be raised by 4.5 m in only about 60 minutes and can be performed by small teams. In addition, the high-performance hydraulic system is protected by non-return valves in every cylinder.

Preassembly
Large parts of the MAC system can be preassembled upon request so that assembly at the construction site can be completed rapidly and efficiently.

Platform 1
provides a comfortable working area and sufficient storage space. In addition, the platform allows concrete placing booms to be integrated.
Simply smart

→ **Crane-independent**
  - Guarantees speed and efficiency, especially at great heights
  - Crane is available for other tasks

→ **Climbing process**
  - Tried-and-tested technology; improved efficiency; shorter construction time

→ **High degree of safety**
  - Safe access thanks to integrated platforms and ladders

→ **High-performance hydraulic system of the MAC automatic climbing system allows a stroke of 4.5 metres (20 t per cylinder)**
  - The 4.5 m lifting process takes only about 60 minutes
  - Climbs as a single unit

→ **Just one day needs to be planned in for stripping, climbing and setting up the formwork. Depending on the duration of the boxout work, 4 days per cycle have already been achieved on numerous occasions.**

→ **Additional trailing platforms for other tasks can make the use of an additional access system superfluous.**

→ **Completely covered and closed working platform**
  - Protection against the effects of weather as well as comfortable working conditions, screening to block the outside view and also provide privacy protection
  - Construction schedule independent of the weather
  - Enables work to be performed independently on wall and slab

→ **All-in-one-solution**
  - MAC in conjunction with MGS-H for optimum safety and efficient construction process
MAC automatic climbing system

Safe and efficient

Combinable with all wall formwork systems

MEVA’s MAC automatic climbing system (MEVA Automatic Climbing) climbs as a single unit. This simplifies the construction process and increases the safety compared to climbing systems in which every platform climbs individually. The completely covered and closed unit provides protection against the weather as well as comfortable working conditions. Work on wall and slab can be performed independently of each other. This increases the productivity and thus ensures rapid progress of the construction work.

The MAC’s clever design enables the formwork to be adapted quickly and easily to the building’s geometry. In addition, entire gangs can be moved in a single operation, resulting in a significant time saving whenever the formwork is set up or stripped.

Depending on the requirements, all MEVA wall formwork systems as well as the customer’s own formwork can be used in the MAC.
High-performance hydraulic system of the MAC automatic climbing system allows a stroke of 4.5 metres (20 t per cylinder).

The fully enclosed, automatic hydraulic climbing system can be operated easily and quickly by small teams.

The wall formwork panels are suspended, can be moved back manually, and allow the formwork to be opened quickly and easily.

The bearing pockets are removed from the trailing platform and reused during the next climbing stage. This reduces the material costs, as no lost build-in parts are left over in the concrete.

The top deck of the MAC is free of jacking masts, thus ensuring an optimum level of safety, a minimum risk of accidents and more storage space.

The 3-way adjustment allows for utmost precision. The suspended formwork can be moved and adjusted manually in three directions and can thus be quickly and easily adapted to suit the geometry of the building.

High-performance hydraulic system of the MAC automatic climbing system allows a stroke of 4.5 metres (20 t per cylinder).
Pioneer and trendsetter

More with MEVA

Formwork. Simple. Smart.

A lot of things that are now considered to be standard in the formwork industry were developed by MEVA in Haiterbach. As a trendsetter for the entire industry, we work day in and day out with great élan to make formwork even safer, more efficient and easier to use for the end user. For us, the excellent quality of our products and technology is a matter of course.

We are independent, family-run and committed to the values of a medium-sized company in everything we do. That is why our customers may rightly expect not only technologically superior products but also comprehensive, personal commitment to projects all around the world.

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.
You can rely on us wherever you are.

With 40 offices on 5 continents, we are on the spot wherever you need us.