MAC
Automatic Climbing System
MAC: Automatic Climbing
Fast, Precise and Safe

MAC stands for automatic, crane-independent climbing technology in high-rise construction. In combination with the guided screens system MGS for subsequent slab works, MAC is a high-profile safety solution with worker safety guaranteed by its completely closed housing on every working platform. MAC is distinguished by extreme safety requirements and resistance to very high wind velocities, proven on landmark high-rise projects such as the City of Dreams, Macau, the Roche Tower in Switzerland and the World One Hotel in Singapore.

**MAC combines safety and speed with precise adjustment.**
The system’s inner and outer formwork comprises pre-assembled panels. A three-way adjustment allows for a completely independent adjustment of the panels in each direction, ensuring greatest possible accuracy. The suspended panels can be moved and adjusted by hand.

**Fast cycles: steel concrete works + 1 day**
The lift of 4 m takes only about 60 minutes. This results in fast cycles with a „steel concrete works plus one day“ schedule, the system can be operated by small teams. The MAC’s long-stroke and heavy-duty hydraulic system is equipped with safety features such as a non-return ratchet that locks on each cylinder and avoids hazards during the lifting process.

**MAC Project profile**
- Shafts and cores in high-rise construction
- Combined climbing of shafts and walls, following up with the guided screens system MGS for subsequent slab works.
- Great heights and high wind velocities.
- Strict safety specifications.
- Ambitious building schedules.
The hydraulic lift system is simple to operate with only small building teams.

The hotel tower City of Dreams in Macau, China, designed by internationally renowned architect Zaha Hadid climbing on schedule to the day. The completely enclosed working platform is visible.
System benefits

- Crane-independent climbing, no crane time and capacity required.
- Independent of weather conditions.
- Parallel works for tight scheduling.
- Fast work flow: concrete works plus one day per level.
- Top level is free of climbing gantries: improved safety, better utilisation of space.
- Manually retractable facing shutters: easy, fast opening of formwork by hand and without special tools.
- 3-way adjustment of shutters for top accurate setting.
- High-performance hydraulic ram enables 4 m lift (20 t per cylinder) for one pour cycle per level, fast work progress.
- Safety valve on each cylinder for safe hydraulic lift operation.
- Pockets for climbing beams can be re-used: cost effective.
- Climbing beam rests in concrete that has already set: added safety feature.
- Working platform with safety access: safe, comfortable access area for workers and material.
- Completely enclosed working platform for worker safety, sight and weather protection.
MEVA Automatic Climbing

References

Projects with MEVA automatic climbing MAC:
- WINX The Riverside Tower, Frankfurt, Germany, BAM International
- Roche Tower, Basel, Switzerland, Marti Bauunternehmen
- City of Dreams, Macau, China, Bouygues/Dragages
- Ardmore Park, Singapore, Dragages Bouygues Batimat International
- The Al Manara Tower, Dubai, United Arab Emirates, Al Nekhreh Contracting Co. LLC
- Burswood Tower, Perth, Australia, Crown Construction (Pty) Ltd.
- Maze Tower, Dubai, United Arab Emirates, Al Rostamani Pegel
- Capital Square Tower, Perth, Australia, Brookfield Multiplex
- King Square 4, Perth, Australia, ProBuild
- Grass Tower, Quezon City, Philippines, Megawide Construction Corporation
- The International Quarter, Stratford, Great Britain, Byrne Bros. Limited
- Al Attar Tower, Dubai, United Arab Emirates, Al Far'a’a Construction
- 50th Finder’s Street, Adelaide, Australia, Yuncken Hansen
Family owned and managed in the second generation, MEVA is based in Haiterbach in Germany’s Black Forest region. The formwork manufacturer is represented through 40 locations on 5 continents.

MEVA has been a pioneer and innovator in formwork since 1970. Many MEVA inventions have become standard in the industry: modular panelised formwork systems, the multifunction profile, the formwork clamp and the closed hollow profile. MEVA offers a comprehensive product range for every building project and any contractor from small to large, from foundation to high rise and from hand-set formwork all the way to fully automatic climbing systems.