

# Formwork. Simple. Smart.

#### **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.

#### Stunning architecture

## Faithfully turning ideas into reality

The tougher the demands placed on formwork, the more impressive is MEVA's demonstration of expert design and on-site implementation. The new campus at the Vienna University of Economics and Business is an architectural tour de force. Four of the six buildings in the complex were constructed using MEVA formwork. Standing as the centrepiece is the Library & Learning Center (LLC), which is open round the clock and, as a communication and information centre, offers far more than a traditional library facility.

The five differently modelled building cores, with inclined walls and rounded angles, were built using a tailored combination of standard and special formwork assemblies. Fair-faced concrete predominates: board-marked finishes alternate with smooth surfaces formed with the alkus all-plastic facing that is fitted as standard for all MEVA systems.

The development and design services for the complex project were provided by MEVA's Engineering department while the co-ordination, logistics and support skills of our on-the-spot colleagues ensured successful implementation.

The remarkable building complex is now open to students from across the globe.

#### **PROJECT DATA**

#### Project

Vienna University of Economics and Business featuring unconventional and challenging geometries .....

- T T

Architects and site management Franz Leski (Senior Site Manager), architect Zaha Hadid Architects (Hamburg) for LLC

#### Contractor

Bauunternehmung Granit, Graz, Austria

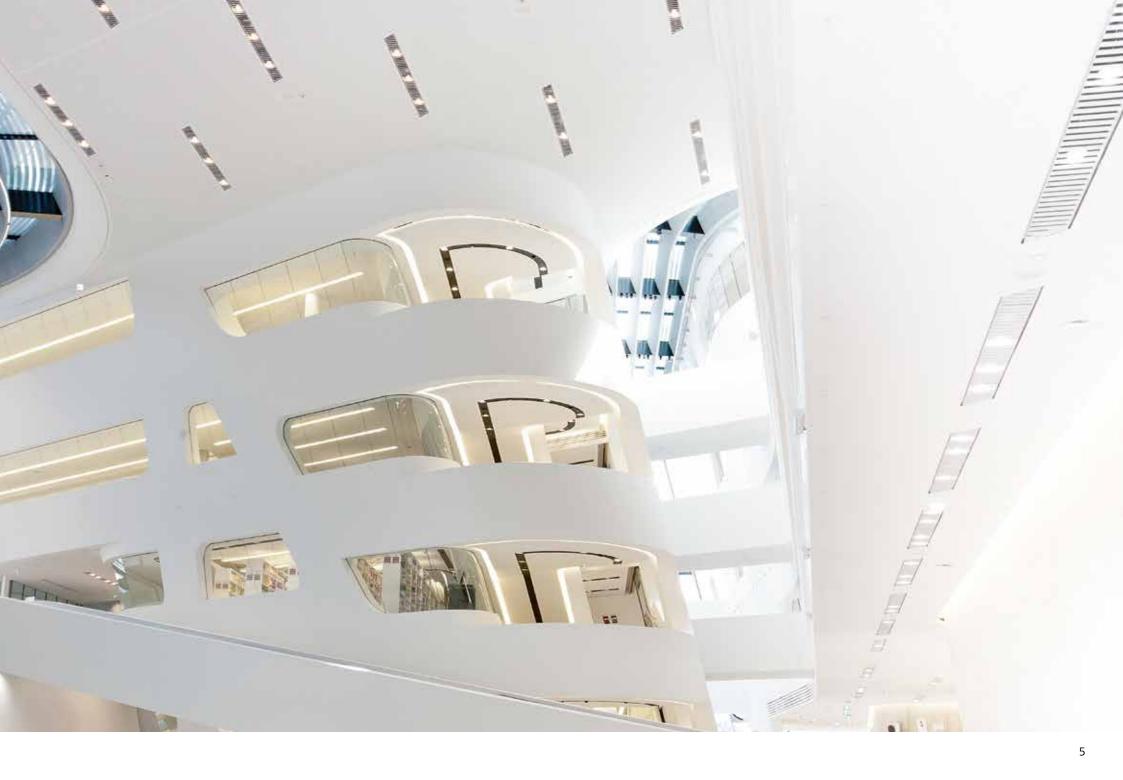
#### MEVA systems

Mammut 350 wall formwork and special units, Circo circular column formwork, MEP shoring tower, MevaFlex slab formwork, Triplex heavy-duty braces, specially designed assemblies

**Engineering and support** MEVA Austria and Germany







#### **Milestones**

# Solutions born of experience

MEVA's technical creativity has moved formwork technology into a whole new dimension. Indeed, innovation has been the company's hallmark since the very start. In 1970, only a year after startup, MEVA used the leading trade show bauma as a platform to unveil a novelty that was to revolutionise the construction industry: the first modular panelised formwork system for crane-independent use. This was the first chapter in a success story which, to this very day, has been shaped by a bold pioneering spirit, perseverance and, above all, a keen instinct for future opportunities and developments in the concreting sector.

Much of what is now standard in the formwork segment can be traced to inventions made in Haiterbach. And now with a string of smart innovations to its name, MEVA is continuing in its role as industry trailblazer.

1971	1977	1981	1992	2000	2003	2006	2007	2013
MEVA panelised formwork First modular panelised formwork system for crane-in- dependent use.	MEVA assembly lock and closed hollow frame profile MEVA inventions that became the global industry standard.	Aluminium wall + slab First hand-set form- work for both walls and slabs.	MevaDec First slab formwork to accommodate three methods within a single system.	<b>alkus</b> First completely wood-free, all-plastic facing.	Mammut 350 Heavy-duty formwork with 100 kN/m <sup>2</sup> load capacity over the full surface, to DIN 18202 (Table 3 Line 7).	StarTec Securit First completely preas- sembled, foldable safety system.	MAC climbing system Crane-independent hy- draulic climbing system.	Radius Circular formwork system for all radii from 250 cm upwards.

I Understanding what the customer really needs and what makes our work safer, easier and more efficient: that has always been my entrepreneurial mission and the driving force behind all innovations at MEVA. II

Gerhard Dingler, MEVA company founder

2016	2017
MT60 Shoring tower system combining speed with in-built safety.	Mammut 2 Choice of t methods th integrated

Mammut XT Choice of three tying methods thanks to flexible integrated combi tie.

### Wall formwork walls packed with ideas

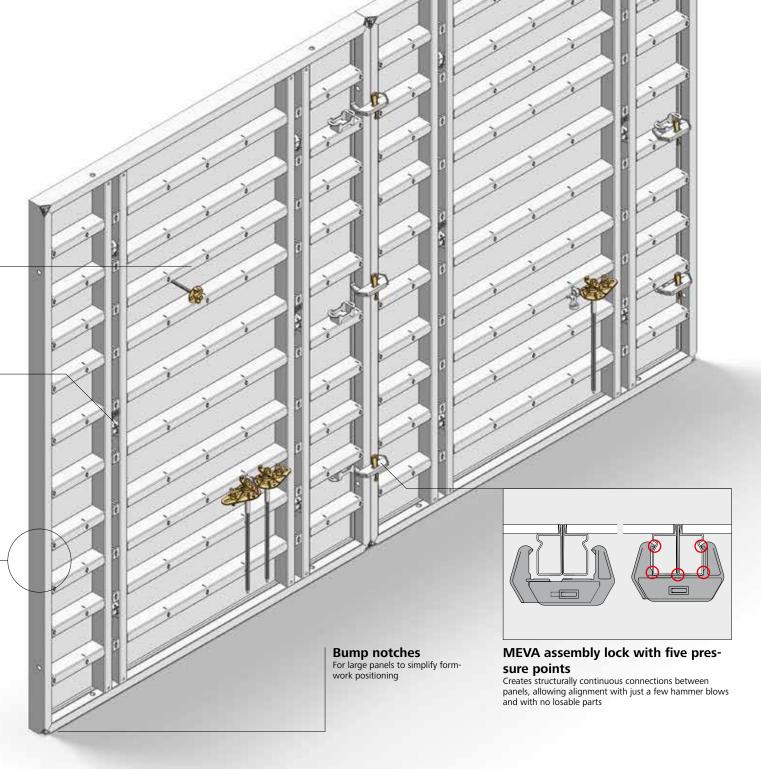
Multi-function profile With welded-in Dywidag nuts for attachment of all acces-sories with a single component: the flange screw

#### Tie hole

With welded-in, conical anchor sleeve for tying panels of inclined formwork (inclination up to max. 8 cm/m or max. 3°, depending on system and tie rod)

Mammut XT allows flexible tying with three options thanks to an integrated combi tie.

Closed hollow frame profile Made from steel: structurally robust, hot-dip galvanised with MEVA finish, making it durable and easy-to-clean Made from aluminium: impact- and scratch-resistant surface, easy-to-clean powder-coated finish



# Climbing technology – systems with in-built safety

Absolute safety coupled with rapid progress on site is a top priority, particularly for tall structures. MEVA offers suitable solutions for all high-rise applications – from time-tested bracket scaffolding to automatic climbing systems – to maximise speed and efficiency when building skywards, even under the most taxing external conditions.

#### MAC automatic climbing system

The MAC automatic system with a full-perimeter protective screen is fitted with a hydraulic climbing mechanism to make it completely crane-independent. With the MAC system, the formwork is "suspended" from beams, thereby facilitating the rapid, unobstructed movement and precise adjustment of panels.

### MGC climbing system and MGS full-perimeter screen system

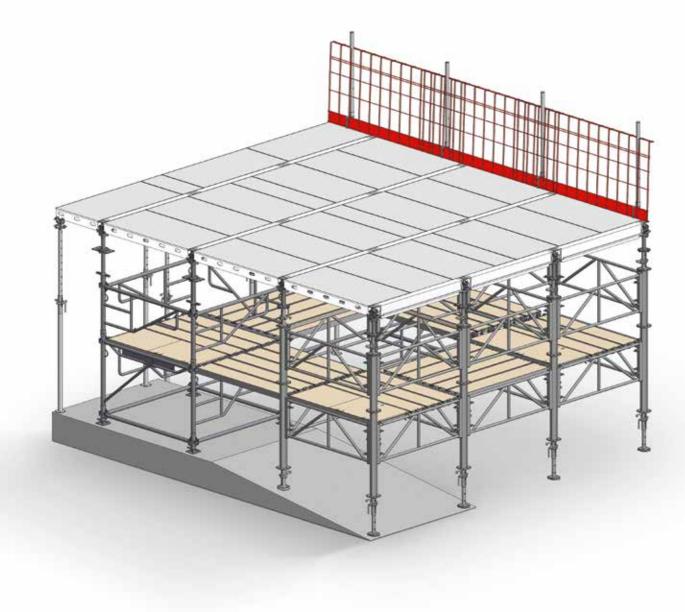
The MGC rail-guided climbing system and the fully compatible MGS full-perimeter guided screen system are used for both crane-assisted and hydraulic climbing, and can flexibly accommodate virtually any floorplan. Moreover, the system modularity considerably simplifies logistics and resource management.



### Slab formwork – a flexible way to work upwards

MevaDec caters for three slab-forming methods (drop-head-beam-panel-method, primary-and-secondary-beam method, and panel method) in a single system that has no fixed grid and allows crane-independent use. The various methods can also be used in combination. Safety is enhanced by means of secondary components, such as safety meshes, guard-railing posts and multi-purpose stop-end accessories. The MevaFlex system offers an alternative where conventional slab formwork is required for versatile, cost-effective application.

The slab formwork is supported by MEVA EuMax props to DIN EN 1065 with load capacities between 20 and 40 kN or the ergonomic MT 60 shoring tower system with integrated ladder access, which vouches for safe working at any height. As a complementary or alternative solution, the modular MEP shoring tower can be used to support formwork for slab heights up to and above 21 m with just two prop types. MEVA's product range thus provides the right answer to all construction demands.



#### Formwork systems full of inspiration

### MEVA quality in every detail

MEVA's product and service portfolio embraces everything that discriminating global customers are entitled to expect from a full-service international provider. Apart from the key role played by regular product innovations, priority is also given to the continuous optimisation of existing solutions and technologies.

In-house research and development pave the way for the steady refinement of all MEVA products to ensure that the entire system range keeps pace with the state of the art. MEVA formwork technology not only addresses the present-day on-site requirements, but is permanently geared to anticipating the future challenges that the construction industry is likely to face.



**alkus all-plastic facing** No water absorption, resistant to swelling and shrinkage. Smooth, robust surface guarantees high-quality concrete finish, even after heavy use.

#### PROJECT DATA

**Project** Burj Khalifa in Dubai with over 160 storeys (828 m) and varying floorplans

**Principal** Emaar Properties (P.J.S.C.) (UAE)

Contractor Joint venture comprising: Samsung Corporation (South Korea), Besix (UAE/Belgium), Arabtec (UAE)

MEVA system MevaDec drop-head-beam-panel method

Engineering and support MEVA Schalungs-Systeme, Haiterbach



### Shooting skywards

# High buildings, low costs

Each of the superlative-defying development projects that are regularly implemented in the United Arab Emirates presents its own new set of demands. Boasting over 160 storeys with varying floorplans, the Burj Khalifa is a prime illustration.

Here, the joint-venture contractor team faced two key challenges: the exceptionally tight timeframe and the specified rate of progress, with a new slab to be cast every three days. MEVA's slab formwork system proved the most convincing of the options available to the project team. Rapid, crane-free formwork assembly and stripping together with the robust alkus all-plastic facing, which requires no re-facing even after hundreds of uses, helped guarantee compliance with the construction programme. MEVA also fielded an on-site service team to vouch for smooth operations.

A sophisticated logistics plan was drawn up to manage the approx. 3,000 m<sup>2</sup> of MevaDec formwork deployed. Despite the complex floorplans, slabs with a total area exceeding 224,808 m<sup>2</sup> – equivalent to some 33 football pitches – were cast within 28 months.



With MevaDec, MEVA supplied all the slab formwork for the project. Over 50,000 m<sup>3</sup> of concrete was cast during the 28-month contract period.





 Internationalisation, digitalisation and changing work processes are dictating the future of our industry. Continuous know-how transfer and support services have thus become a key strategic instrument in meeting the needs of our customers worldwide. //

Florian Dingler, MEVA Managing Director

### Building on the future

## Forward-thinking concreting technology

MEVA's brand promise – "Formwork. Simple. Smart." – expresses the company's clear commitment to making its product solutions even more flexible and intuitive. From the overall construction process on site to the technical specifics at product level, it is a perspective that encompasses far more than just formwork.

Various factors, including the onward march of digitalisation and design networking, shortages of skilled staff and the growing complexity of requirements, have thrown our industry into a state of flux. To meet present and future challenges, MEVA has therefore adopted a strategy combining a high degree of systematisation with easy adaptability in all product segments. The advent of intelligent virtual systems as an integral part of everyday site practice heralds further radical changes in the market. True to its role as industry innovator and pioneer, MEVA uses 2D/3D CAD and BIM technology for the reliable preparation of formwork drawings with detailed material schedules.





### **Futuristic geometry**

# Achieving spectacular goals

The Museum of the Future, with its oval torus, has frequently been described as one of the world's most complex buildings. Its wide diversity of geometries, both above and below ground, necessitated a high degree of individual detailing.

To facilitate collaboration with the project contractor, MEVA, as formwork expert, opted to capitalise on the benefits of building information modelling (BIM) for the design process. The precise and efficient formwork detailing achievable with the 3D model ensured that a maximum number of cost-effective standard solutions were deployed.

The successful use of forward-looking design tools and systems has made the building a global touchstone of innovative construction.





#### PROJECT DATA

### **Project** Museum of the Future

Contractor BAM Higgs & Hill LLC

**Principal** Dubai Future Foundation

**MEVA systems** Mammut 350 MGC climbing system Radius circular formwork MevaDec slab formwork

Completion 2019

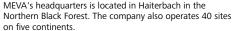
#### On your doorstep

The extra bit of service that makes all the difference The MEVA team is there on the spot wherever and whenever it is needed. Our proximity to customers, both large and small, and close dialogue with users enable us to offer an unbeatable package of services precisely tailored to practical needs.

Our customers also benefit from our in-depth expertise in the field of concrete technology. We are glad to share our knowledge by advising our customers, for example, on mix optimisation, pressure build-up and reduction, and concrete behaviour. Our mid-sized corporate structure and traditional family-company values are something we have in common with many of our customers in Germany. Personal ties, on an equal footing, with customers and professional or trade associations are thus a core element of our corporate culture.

Yet proximity is also useful where a rapid response and a straightforward service are needed. Thanks to the decentralised structure of our technical offices and formwork centres, we can react flexibly to delivery requirements and guarantee the prompt supply of whatever is needed to ensure smooth operations on site.







Our logisticians guarantee short routes, rapid delivery and the prompt return of rental inventory.





Stairway at actuator and valve manufacturer AUMA in Müllheim, Germany: The precise concreting operations were planned on the basis of practicable formwork solutions and the works completed on time to the full satisfaction of the client, architect and contractor.

Bus station in Merseburg, Germany: Optimally shaped, precision-cut and welded alkus facings were used to cast a jointless, 760 m<sup>2</sup>, SB4-grade fair-faced concrete slab.



Special design

## Delivering project success every time

With each project posing its own particular challenges, MEVA always operates on the principle that the end determines the means.

Apart from its proven, top-performing system solutions, MEVA also offers a full range of purpose-designed formwork assemblies that are fabricated in-house. Through special, single-unit and smallrun production, we can flexibly and reliably accommodate any required concrete geometry. In line with project requirements, we deliver efficient steel, wood or composite solutions. Drawing on our design experience and know-how, we creatively combine standard and specially developed formwork assemblies so as to maximise the cost effectiveness of the overall project.





### More than just formwork

## An eye for the bigger picture

At MEVA, we don't just talk about values and social responsibility. We put our words into action – in the company, the region and far beyond. MEVA is engaged in a wide range of activities – whether social, cultural, sporting or sustainability-related. In fact, the company is committed to everything that improves people's lives.

As an employer, we ensure that our workforce takes centre stage. As befits a family-owned business, we cultivate a friendly, personal atmosphere of trust that extends beyond site and national boundaries. We encourage each and every individual to exploit his or her skills and development potential for the benefit of the company as a whole.

This special corporate culture is also experienced by our customers and partners in the course of our day-to-day business. We are MEVA. And it is our shared outlook and convictions that drive us, day in, day out, to achieve that decisive bit more.





"Connect the people" is the collective name for a variety of schemes aimed at enhancing the well-being of MEVA staff, such as providing places in the nearby forest to sit and enjoy nature during break times.





Under the banner "Connect the nature", MEVA also sponsors nature conservation, specifically through the establishment of bee colonies that promote the biodiversity of flora through pollination.. MEVA also creates nesting places for birds.

As part of the "Connect the future" project, MEVA installed a special electric vehicle charging station at the company site in Haiterbach. All the energy is renewably sourced, with some of it supplied directly from solar cells on the station roof.

MEVA supports a wide variety of social projects, such as "Jugend forscht" (a German youth science competition), the ASM e.V. Nagold (an active self-help group bringing together disabled and able-bodied people) and many more. For its longstanding commitment MEVA was presented with the Lea SME Award for Social Responsibility in Baden-Württemberg.



Australia Austria Bahrain Benelux Bolivia Canada Chile Colombia Adelaide Pfaffstätten Riffa Gouda La Paz Toronto Santiago de Chile Bogotá

Denmark

Germany

Hungary

Malaysia

India

Guatemala

French Guiana

France

Køge Sarreguemines Matoury Haiterbach Guatemala City Budapest Mumbai Perak Martinique Morocco Norway Panama Philippines Qatar Saudi Arabia Singapore Ducos Casablanca Oslo Panama City Manila Doha Dammam Singapore Slovenia Switzerland Turkey UAE UK USA Vransko Seon Istanbul Dubai Tamworth Springfield



### From Haiterbach out into the big wide world Global tasks supremely mastered

A 500+ workforce at 40 sites in over 30 countries on five continents – that is MEVA's global reach. Ably represented by subsidiaries and international bases, we are on the spot wherever our customers need us. Yet independent of location, our highly professional, closely networked project teams work together to ensure the rapid, effective on-site deployment of expert personnel to tackle any task, whatever the scale.

We partner our customers in ensuring that, on every site where our products and services are used, consistently high standards of safety and quality are upheld, and high cost effectiveness achieved. We nonetheless realise that different geographical regions bring different market conditions and challenges, and accordingly adapt our product and service offerings so as to maximise customer benefits.

The flexibility and personal supervision made possible by MEVA's strong local presence allow us to deliver the best possible support for all our customers and projects, both large and small.

