Just like an anthem

The new office building in the Old Port district of Marseilles

Long since the national anthem of France, from 2018 onward La Marseillaise will also be the name of a new office tower in the city of Marseilles. Formwork engineering from Doka scored convincingly on this build by meeting ultra-high requirements for infrastructure and safety and by assisting progress with short assembly times and fast cycles.

Marseilles - the foundation stone for construction of the new Tour la Marseillaise office highrise was laid on 17th December 2014 in the presence of project architect Jean Nouvel. The new building was designed to rise 135 metres into the sky above the city, offering ample space for new offices on a total floor area of 35,000 m² on 31 storeys. More than 65,000 m³ of concrete and 6000 metric tons of steel reinforcement are going into construction of this architecturally distinctive office tower.

One of the four making up the Arenc Quays ensemble (along with Balthazar, H99, and Horizon Tower), it is part of the skyline of Marseilles and a hallmark of the Euroméditerranée project, currently the biggest urban redevelopment scheme in all of Europe. For Doka, after the Tour CMA the Tour la Marseillaise is the second highrise project in the Marseilles Old Port district, and it too is being built in cooperation with VINCI Construction France. Working closely with the highrise specialists at headquarters in Amstetten, the Doka France branch developed a practical formwork and safety concept adapted to the tight construction schedule and the customer's high safety requirements. All this was necessary for the Tour la Marseillaise build. "Doka pre-assembled the formwork, so at the start of the project we had already saved about 3000 man-hours of work", asserts Florent Portalier, Construction Manager of Vinci Construction France. After three years of construction, the office highrise is due for completion in the 2nd quarter of 2018.

Building core climbs in 3 sections

A peculiarity of this project is the division of the building core into three sections (A, B, C). So for this build Doka automatic climbing formwork SKE50 plus and SKE100 plus are in use. This combination was chosen specifically to meet the very high safety standards and ensure compliance with the speedy cycles dictated by the construction schedule. In a 5-day cycle, one floor is fully concreted every week in all three sections.

The Automatic climbing formwork SKE100 plus has rising working platforms. In other words the formwork operations and the reinforcing operations are decoupled, so work proceeds on a number of different levels at once. All these jobs proceed in parallel, so progress on the build is faster and construction time is shorter. And the SKE100 plus system has plenty of setdown space for reinforcing materials, so the site crew has everything ready to hand. Space in the

small-celled shaft groups is cramped. So other versions of SKE plus are also used: the shaft and mast systems of this product family are purpose-built to facilitate work where space is very much at a premium. To avoid the effort and outlay that would be involved in changing the sheeting, about 900 m² in all, Xface sheets are used. The number of use cycles they allow is enormous and they invariably satisfy the high fair-faced concrete requirements.

Special safety concept for this build

Lack of space, wind speeds up to 213 km/h and the dictates of ultra-high safety standards pose major challenges for the site crew. They also demand the utmost from the formwork solution and require the implementation of special protective measures. Doka met the challenges posed by this project by developing a special safety concept that reserves an automatic climbing scaffold for the concrete placing booms and incorporates special solutions for the access routes between the individual sections. Safety on the job is always a top priority, so on this build suspended stair towers are mounted between the individual floors. Integrated into the formwork scaffold, they ensure safe entry and exit and optimize working access routing. There are also horizontal safety barriers with hinged and folding doors between the individual platforms, securing the transitions from one platform to another. They also make access to the platform levels in the different build phases safe at all times.

In short

Project:	Tour la Marseillaise
Location:	Marseilles, France
Type of structure:	Office building
Architect:	Jean Nouvel
Project owner:	Groupe *Constructa*
Construction work by:	VINCI Construction France
Start of construction:	March 2015
Scheduled completion:	2nd quarter of 2018
Number of storeys:	31
Formwork technology:	Products: SKE 50 plus working platform, SKE 50 plus shaft system, SKE 50 plus mast system, SKE 100 plus working platforms, SKE 100 plus shaft system, SKE 100 plus mast system, SKE 100 plus CPB, Xface sheet Services: Project-based concepts for infrastructure and safety, pre- assembly of the formwork products (SKE 50, SKE 100) in Amstetten
Formwork planning:	Doka France, Doka Mexico (assembly drawings), Global Expertise Center Highrise, Doka Headquarters

About Doka:
Doka is a world leader in developing, manufacturing and distributing formwork technology for use in all fields of the construction sector. With more than 160 sales and logistics facilities in over 70 countries, the Doka Group has a highly efficient distribution network which ensures that equipment and technical support are provided swiftly and professionally. An enterprise forming part of the Umdasch Group, the Doka Group employs a worldwide workforce of more than 6,000.

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Graphics material


Doka_2016_10_Tour la Marseillaise_01.jpg

Topping out at 135 metres, the Tour la Marseillaise will be another architectural highlight in the skyline of Marseilles.


Doka_2016_10_Tour la Marseillaise_02.jpg

The building core is divided into three sections and is being built with Automatic climbing formwork SKE100 plus and SKE50 plus. The entire outside of a section can be climbed in a single operation with hydraulic cylinders and no apertures are opened up during climbing.