

THE DB POST

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A note from the CEO

Dear Esteemed Customer,

We hope this communiqué finds you in the best of health and spirits. We would like to take this opportunity to update you on the major happenings with respect to your project.

As this newsletter reaches you, the first slab above the podium level has been completed. This facilitates the installation of the Doka Automatic Climbing System (ACS), the work on which has already commenced. The ACS was received from Doka GmbH in Austria, and is the same formwork system that was used to construct the tallest building in the world, the Burj Khalifa, in Dubai. This advanced formwork system will allow us to achieve a slab cycle of under ten days. We have also completed the foundations of Tower C.

True to the spirit of innovation, and at the cutting edge of the industry, we have developed and will be using Magnesium Oxide (MgO) wall partitions for the first time in India in this project. Details and benefits of the Doka ACS and Magnesium Oxide wall partitions have been illustrated in this issue of The DB Post.

DB Crown is one of the few projects in South Mumbai that can boast of having the required statutory approvals for unhindered construction. With projects in the city getting stuck for various reasons, like 'want of further height', 'handover of public amenities', 'lack or misuse of FSI', you can rest assured that the ongoing construction at DB Crown will not be impacted for want of approvals.

Our upcoming initiatives

As you may be aware, we have re-launched the project and the sales activity surrounding DB Crown has also commenced in earnest. It gives us immense pleasure to state that the re-launch was extremely successful.

Our company has also been working towards some very interesting and innovative post-handover initiatives at the DB Crown project. To begin with, we are close to finalising a few strategic tie-ups with some of the best service providers in the world, in order to enhance your experience as a DB Crown buyer. These are from the perspective of facility management, food and beverage, and design and convenience. We have also designed the city's finest club house and amenity area, and we shall be executing them in due course. You will be hearing from us soon with respect to these.

We thank you for your sustained faith in us and assure you that we are committed to making every single one of our projects a landmark that our buyers can be proud of. We are committed to delivering you the finest homes Mumbai has to offer. Indeed, with DB Crown, we are leaving no stone unturned and no avenue unexplored to ensure the project enhances and redefines urban living in Mumbai.

You are free to drop in any time at the DB Crown sales pavilion to watch us working on your home. And, needless to say, should you have any queries, please feel free to call upon us and we will be more than happy to address them.

Thank you,



Vipul Bansal
CEO, DB Realty

What's gone into the construction of DB Crown since November 2014.

- 1,677 metric tonnes of steel
- 31,076 square metres of shuttering material
- 9,262 cubic metres of concrete
- 1,306,366 labour and staff hours

To add some perspective, the quantum of material used in DB Crown is enough to have completed a regular 40 storey structure.

DB Crown: A bird's eye view



DB Crown is amongst DB Realty's most prestigious high-rise projects. It has been a challenge that has tested our skills and capabilities and has brought out the best in the team. The project has exposed us to the latest construction and building technology used across the globe today. From formwork systems to plant and machinery, we are using only the finest of materials and technologies at DB Crown. We intend to make the most of these excellent systems and our learning and experiences to ensure that the project is an absolute success. Once completed, we expect that DB Crown will not only stand as an inspiration for all other projects in the city, but will also be an embodiment of our commitment and hard work.

Scaling the heights of excellence



The Automatic Climbing System (ACS) used in the execution of DB Crown comes with a plethora of benefits. Crunched time-lines, absolute precision, and impeccable quality and consistency are just a few of the benefits of using the ACS. This system is best suited to the construction of high-rise buildings. Its hydraulic cylinder base technology will be used to lift the shuttering panels, with no crane assistance. The ACS not only has a much higher load-bearing capacity than conventional systems, it also allows for uninterrupted work when wind speeds are above 70 km/h. This will alleviate delays which are typically seen in Mumbai's gusty monsoon. It also allows easier casting of heavy load sections without upsetting the project schedule. Simply put, the ACS drastically reduces the manpower, time and resource requirements for construction, when compared with other regular technologies.

A new frontier in innovation

We have begun with the installation of the Doka ACS (Automatic Climbing System) for our core walls.

Doka is an international producer and supplier of prefabricated formwork used in concrete pouring. It is a branch of the UmdaschAG (JSC) based in Amstetten, Austria with a worldwide workforce of approx. 5970, with 160 branches in 70 countries, including India.

As one of the leading formwork experts in the construction industry, Doka believes in innovating new technologies in formwork systems for speed and safety in construction.

After fixing all the platform levels, the ACS will climb automatically by using hydraulic power packs and cylinders with the help of climbing profiles.

In the ACS, there are four level platforms.

+1 level:

Outer: For concreting and rebar fixing

Inner: For keeping loads, concreting and rebar fixing

0 level: For fixing and removing of shutter panels and main working platforms

-1 level: For operating hydraulic power packs

-2 level: For finishing and removing of shoes



Some more advantages of the ACS

- Installation of onsite weighing bridge to improve site logistics
- Vertical stacking yards to expedite work
- Strategically planned layout of concrete pipeline minimises the bends and pumping distance (sloping line for 12 metre drop)
- An assured slab cycle of less than 10 days

Technology goes a level higher

The Jump lift provides safer means of vertical transportation during construction and fitting-out phases. This technology enables operations in all weather conditions while also minimising impact on the surrounding area. It allows a fast change-over to a permanent lift and a higher speed of travel than the conventional construction lift. All stages of construction can benefit from the Jump lift. With an assurance of better accessibility of locations, elimination of rework, cutting down of lift shaft scaffolding cost and time, and a good finish, this is one technology that's here to stay.

Superior work. Super-fast delivery.



Brick work and block walls are partition systems from the days of yore. The Magnesium Oxide (MgO) wall partition systems have replaced bricks and blocks as the standard wall partition system used, the world over. The MgO wall partition leaps and bounds ahead of such outdated systems. It allows for the saving of substantial man-hours and machinery. Most importantly, installing the MgO partition system is a dry process. It needs no water to cure, making it environmentally sustainable and a much more hygienic process on the construction site.

The MgO partition is light-weight, but extremely strong. It is environmentally friendly and performs extremely well in terms of thermal and sound insulation. It is fire-resistant and allows for speedy and efficient construction.

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- With a melting point of around 2800°C, thermal conductivity less than 0.013W/mK and a 4 hour fire rating, MgO walls help reduce the energy consumption costs.
 - This is a naturally sound acoustic material with a sound penetration loss of about 48-52dB.
 - Pests, moulds or termites cannot destroy this material.
 - With a moisture distortion rate of 0.34%, it doesn't retain water or moisture within.
 - This is a complete green building material with no asbestos.

Expert talk



Daya Raj
Site Engineer
DB Realty

Q1. Which technology has been used in the construction of this project?

ACS (Automatic Climbing System), Doka-CB 150F, booplacer, batching plant and Mivan System are the technologies that have been majorly used in this project.

Q2. How does the ACS technology help in construction?

The Automatic Climbing System (ACS) is a crane independent climbing formwork for structures of any shape and height. With its all-hydraulic equipment, a large number of climbing units can be repositioned at the same time. The ACS can be used for typical floors.

Q3. What is the Doka-CB 150F?

The Doka-CB 150F works in the same way as the ACS but it is operated manually. CB 150F stands for Climbing Bracket 150 Foldable. It uses a tower crane to lift the shuttering system. This system is used for podium works.

Q1. How do you think this project is different from other projects?

DB Crown is a large scale project and also amongst the biggest in the city. We have one of the largest podiums, and three 260 metre tall buildings which require micro-level planning. There is a lot of new technology being used for DB Crown just so construction will be faster and more efficient but the project will also be very 'green' in terms of compliance with various environmental standards.

Q2. What are the measures taken to ensure safety of the workers? How do you ensure the measures are enforced at all times?

Safety of workers is of utmost importance to us so the following check-list of safety measures is stringently adhered to.

- All workers have an induction before entering the construction site and are informed about the safety rules and regulations on site.
- Each worker is given safety belts, safety helmets, safety shoes and a reflective jacket when on site.
- All the edges and lift pits are barricaded with hard fencing and catch net on every floor.
- Workers are to avoid going to any areas with insufficient lighting as there may be some dangerous places which have not been fenced off.
- Vigilance has to be maintained all the time and workers have to watch out for moving cranes, hooks or other lifting equipment.
- Before use of any electrical installation or tool, the condition of the electrical cables must be checked.
- Dragging electric cables on the ground or allowing the cables to come in contact with water has to be avoided at all cost.
- Electrical tools are installed with an earth leakage circuit breaker.
- Chemicals have to be handled and used with utmost care.



Girija Nayak
Sr. Civil Engineer
Larsen & Toubro Pvt. Ltd.

“With the help of this technologies we may complete the project way before the completion date.”

Personal safety of workers is our responsibility. So we insist that the following rules and regulations be followed.

- Wear protective equipment.
- Do not drink or take drugs while working on site.
- Pay attention to personal hygiene.
- Do not engage in any leisure activities in the workplace.
- Report to your supervisor immediately if you notice any unsafe condition.

Q1. What is a batching plant?

A batching plant is used to mix the concrete at 56 cubic metres per hour. It helps in increasing the speed of work, productivity and overall efficiency. Furthermore, most other sites rely on concrete mixers supplying their requirements. By having a batching plant on site we are not only able to closely monitor quality but also avoid delays or inefficiencies related to using external suppliers for our concrete requirements.

Q2. What is a concrete boomer?

Once the concrete is dispatched from the plant, the boomer helps to pour the concrete at the required position. It can pour concrete at any level and helps reduce manpower of up to 800 labourers.

Q3. What is a Mivan System?

Mivan is an aluminium formwork system that can be operated even by unskilled labourers. Mivan technology is suitable for constructing a large number of houses in a short span of time using room size forms to construct walls and slabs in one continuous pour of concrete. Early removal of forms can be achieved by hot air curing or by curing compounds to hasten the process of construction.

Along with these technologies, we are using two hammer-head tower cranes, steel cutting and threading machines, and three Jump lifts at the site.

Safety Month January:
Larsen & Toubro celebrates Safety Month every year in January to motivate the workers/staff. There are activities like painting, slogan writing, safety quiz and poster contests, and the winners are awarded with certificates and gifts.



Neeraj Kumar
General Manager
Projects-DB Realty

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