

New plant to introduce advanced construction technologies to the Gulf
Faster project completion with buildings going up four floors at a time

Introducing new technologies

Sembawang forges alliance in the Middle East

Brandon Lye

Assistant Vice President, Marketing & Business Development, Sembawang

Sembawang Engineers & Constructors, one of Asia's largest and most renowned construction companies, has forged an alliance with Capital Industries and Investments (CII), a private equity firm to form the first company to introduce integrated Pre Cast Construction in GCC.

The new joint venture, known as Sembawang Pre Cast Systems LLC, will see the entry of advanced construction technologies for

faster and more efficient project completion.

While Pre Cast systems involve standard industry construction elements such as columns, beams and walls, being manufactured offsite and then installed onsite, Integrated Pre Cast systems go a step further and create combinations of these 'building blocks', which are custom designed for particular projects, and incorporated into the structure as one, such as a column-beam-wall combination.

An equal partnership between its founders, it will introduce for the first time in the region, an integrated

and custom-configured total solution technology for Pre Cast Concrete components and facilitate the unique ability to erect four storeys at a time.

Construction work on a new 624,000 ft² Pre Cast manufacturing plant in Dubai Industrial City is due to begin shortly, and is expected to be completed by October this year. 75 per cent of the plant area will be used in the first phase, which will initially run at 50 per cent capacity, with 200 m³ output per day custom-made for each project. The facility will enable architectural projects in the region to be built using advanced integrated Pre Cast systems.



Construction work on a new 624,000 ft² Pre Cast manufacturing plant in Dubai Industrial City is due to begin shortly

These have been widely used in Asian countries such as Singapore to enable rapid project completion and to address a pressing demand for urban development, limited resources and land area.

‘Sembawang Pre Cast Systems will make a significant change in the landscape of the Gulf construction industry,’ commented Sheikh Sultan Bin Saud Al Qassemi, Chairman of Capital Industries and Investments and of the newly-formed Sembawang Pre Cast Systems. ‘Architects and contractors, whether working on buildings, tunnels or lightrail systems, can now take construction processes to a much more sophisticated level and for the first time in the region, apply an integrated approach to the use of Pre Cast technology.’

This technology developed by Sembawang Engineers & Constructors has the unique ability to erect four storeys at a time instead of the current one-storey approach being adopted in the region. This reduces project construction time, by up to 40 per cent. In addition, the advanced technology coupled with Sembawang’s technical expertise,

can also significantly help in improving the quality of tunnel lining processes.

‘The advantage of integrated Pre Cast Systems is that they allow for swift erection of buildings with better quality and cost control,’ explained Alwyn Keith Bowden, President of Sembawang Engineers & Constructors.

Faster implementation and on-time project completion are not the only advantages that come integrated with this technology. With production taking place offsite in the controlled environment of a plant, the system offers improved cost control, quality control, safety standards, as well as lower dependence on an on-site workforce. It enables a more environment-friendly way of working, with cleaner sites and more space available. Integrated Pre Cast Systems are also a practical and less disruptive way of adding space extensions to existing buildings, with the possibility of attaching complete rooms and balconies to building exteriors.

This is an important milestone for Sembawang. The combination of its years of technical expertise and CII’s knowledge of the regional construction market will bring these advantages to the region.

With a multitude of urban development and infrastructure projects underway in the Middle East, this progressive approach to construction will serve better the ambitious deadlines set for projects locally and across the region. ♦