

# CRANES AND LIFTING PARTNERS WITH THE NATIONAL PRECAST ASSOCIATION

In an exciting development, Cranes and Lifting magazine and the National Precast Association will be entering into a 'media partnership'.



"The crane industry has an integral role to play in precast installation and it's important we work together to raise the bar through appropriate standards and work practices. We are delighted to partner with Cranes and Lifting magazine as a way of sharing information with the crane industry."

Cranes and Lifting magazine recognises the important role the National Precast Association holds within the construction sector, with almost every precast concrete construction project involving cranes in one way or another.

"We are thrilled to be partnering with the precast industry. The crane industry works very closely with precast concrete manufacturers, especially on major infrastructure projects and it makes total sense to reflect the activities of the association and its members in the magazine," said business development manager, Emily Schlegel.

With the relationship, members of the association will receive a copy of Cranes and Lifting and the weekly newsletter, with regular editorial contributions featuring association news and member

## THE NATIONAL PRECAST ASSOCIATION

is the only industry body representing precast concrete manufacturers. Since it was established in 1990, it has grown to become the peak body for the Australian precast concrete industry.

Membership comprises precast manufacturers of all capabilities, across all states, as well as product and service suppliers, industry professionals, tertiary institutions and allied organisations. As it works to support, unite, grow and develop the industry through national conferences, webinars, publications, representation and a raft of valuable resources, National

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Precast is the go-to for anything precast.

"National Precast has become an inclusive and active group of industry members, who bring valued expertise and work vigorously to continue the remarkable growth of precast and represent its interests," says CEO Sarah Bachmann.

projects in both

"The overarching aim of the relationship is to create more awareness of the challenges facing both the precast industry and the crane sector and help develop more communication and understanding between the two industry groups," said Emily. ●



## PRECAST CONCRETE HAS BEEN CHOSEN AS THE

construction method of choice in Victoria's first Tier IV datacentre, located in the Melbourne suburb of Tullamarine. Boasting an expansive floor area of 11,000m<sup>2</sup> the NextDC M2 Datacentre is set to significantly increase computing capacity for NextDC in both Australia and abroad.

National Precast Master Precaster Hollow Core Concrete was engaged by project builder Kapitol Group to supply a set of long-span load-bearing beams to make the \$85 million project a reality. The innovative long span precast concrete beams reduce the requirements of vertical structure, and in turn frees the data center's floorplates. A carefully designed system of super tee beams maximises server rack density by relocating vertical members to the building's edges. Each load-bearing beam was designed to withstand a 15kPa (1.5 tonne/m<sup>2</sup>) load over a 20-metre clear-span.

As precast concrete is manufactured offsite in a factory-controlled environment, Hollow Core Concrete, like all National Precast Master Precasters, was able to deliver a consistently high-quality finish throughout all precast elements across the project. Furthermore, the offsite manufacturing process greatly reduces congestion of trades and materials' delivers on the construction site.

The \$85 million Next DC M2 project has been predicted to provide 300 new employment opportunities in both the Melbourne region and throughout the broader supply chain, this achievement has been driven by an innovative use of precast concrete. ●



**PROJECT:** NextDC M2 Tier IV Datacentre  
**LOCATION:** Tullamarine, Victoria  
**MASTER PRECASTER:** Hollow Core Concrete  
**CLIENT:** NextDC  
**BUILDER:** Kapitol Group

# INNOVATING TO IMPROVE SAFETY

One National Precast Industry Partner is bringing innovation to the table. It's a new panel connection system and it promises to improve safety while making precast installation even more cost effective and speedy.

**ACCORDING TO NATIONAL PRECAST'S CEO** Sarah Bachmann, Partner Hagane Systems set out to overcome not only working-from-heights challenges during precast installation, but to also reduce the need for patching, hiring time for plant and props, and site welding traditional cast-in plates - which are commonly used in the industry.

Traditional panel connections using cast-in plates require plates to be cast-in during the manufacturing process, at precise locations, so that when erected on site, the two plates marry. Threaded bolts are then used to connect the 'stitch plate' to the two cast-in plates, connections are welded and voids are patched. The panel joint is then able to be caulked.

Precast already offers construction a massive opportunity to improve productivity and efficiency, and Bachmann says this new system could be a game changer.

"Awareness is key and anything that can improve safety and speed of construction is something we need to help promote."

## WHAT IS THE NEW SYSTEM?

As with traditional cast-in plates, Hagane panel connectors are also cast-in during manufacture. The difference is that these connectors are always located in the top corner of panels, which minimises installation difficulties.

During installation, grout tubes are filled with specified non-shrink grout, then pins are aligned as the connector is dropped into place. According to the company, the connection takes two minutes instead of the traditional forty-five to ninety minutes needed for

traditional connectors. No welding or patching are needed.

## IMPRESSIVE RESULTS

Sarah says Hagane's new system has the potential to increase the number of connections an installer can install up to one hundred in a day!

"That's an impressive productivity improvement," she said.

Extensively tested - with test results readily available - the new system provides engineers with client solutions that are structurally sound, cost effective and efficient.

## HAPPY CUSTOMERS

Director at Matrix Consulting Engineers Ray Buttigieg, says the system offers clients a way to save money and reduce construction time.

"After grasping the engineering concepts behind the system, which closely resemble our current design methods, it becomes relatively easy to present our clients the benefits and then impact it can have on their panel projects. Our team will be introducing and implementing Hagane panel connectors to all of our clients as 'the new normal' when it comes to future projects," he remarks.

Meanwhile, Sebastian Canzoneri, Director at C3 Construction Group, says that the system has allowed his company to save money on plant and labour, with installers connecting panels in minutes, while eliminating welding and patching.

"And now our finished panels look cleaner than ever before," he comments.

The Hagane Systems team will be travelling the country over the next couple of months to meet with builders, engineers and precasters to further discuss the systems, and offering complimentary re-designs for those who are interested in using the system on their next panel project.

For more information on when they are in your state, email Steven Adamic directly on [steve@hagane.com.au](mailto:steve@hagane.com.au).



**HAGANE SYSTEMS**

PC1.01

PC3.02

PT1.01

**THE FUTURE OF CONCRETE PANEL CONNECTION**

[WWW.HAGANE.COM.AU](http://WWW.HAGANE.COM.AU)

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