

NATIONAL PRECAST

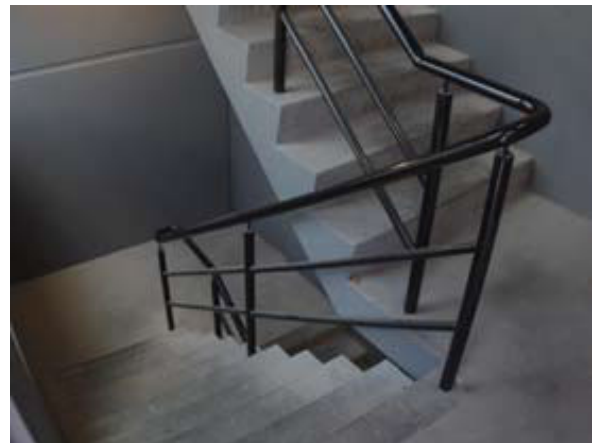
CONCRETE ASSOCIATION AUSTRALIA

The Precast Industry - From Humble Beginnings...

The first known use was in 1904 for Sydney Harbour's Bradleys Head lighthouse which is still in use today. This was followed by many other marine structures, including precast sea walls and pontoons. What is thought to have been the first application of precast formwork was in Jones Bay wharf in 1915. The piers here were over 15 metres long, and pipes were used as formwork for insitu concrete piers. In 1910, the centrifugal spun reinforced concrete pipe – a world-first – was invented by two brothers, WR Hume and EJ Hume, who took out world patents on it. The process and practice of pipe spinning was widely adopted throughout Australia, Europe, Asia and the Americas.

The explosion in demand after World War II saw high rise public housing being constructed in precast, primarily in Melbourne and Sydney. This activity extended to the 1970s in precast loadbearing panel construction up to 30 storeys, as well as in detached dwellings. Prestressed concrete bridges were also in demand across the country with an early example at Tenthill Creek near Gatton, in Queensland. As commercial development proceeded, the precast industry expanded to supply architectural precast cladding to offices and university buildings. Cladding and framing in precast has been a major feature of construction ever since and

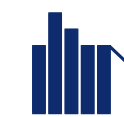
precast flooring products enjoy wide acceptance in all States.



Box Hill Medical Centre, Vic



Azure Apartments Mount Pleasant, WA



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making precast easy

Why has precast been chosen in these instances?

The benefits of using precast have been long known by architects and engineers, as well as by property developers and construction companies. These groups are increasingly enjoying the design freedom, simplicity and cost savings associated with using precast. As a consequence, precast is increasingly being demanded as the material of first choice in construction by the decision makers.

Project time savings of up to 30% are indeed not something to be overlooked. Off-site manufacture under controlled factory conditions means that problems associated with lack of site space, noise, wet weather and waste disposal are no longer issues for the constructor. Quality tested, precast components ensure a high quality and durable product with a high level of dimensional accuracy, which in turn provides for quick, easy erection.

Minimal propping for flooring allows subsequent trades earlier access and minimises safety issues.

With more and more designers adopting the methodology, incorporation of precast concrete into a project can be straight-forward. Early involvement with the precaster is important to achieve the best outcomes. Once delivered to site, a crane will be required to erect the precast components – something that should always be considered in the planning process. Competent, experienced precast erectors operate throughout Australia to service the precast concrete industry.



Campus Living, Qld



Casino Towers, QLD



Emphraim Island Residential, QLD