



Precast and Tilt-up - What is the Difference?

Over the last 30 years or so the precast industry has gone to great lengths to educate the market about the differences between precast and tilt-up... yet in some circles confusion still seems to reign. Although both products use concrete, they are very different breeds indeed.

What is precast?

Precast concrete is any concrete element which is manufactured in a controlled factory environment, transported to site and then craned into position.

Precast concrete elements are manufactured in state of the art facilities using advanced manufacturing techniques (extending to mixes, placement, vibration and curing), by highly skilled labour, in high quality moulds and with high quality equipment. The result is a high strength, high quality, highly durable and low maintenance product that can last over 100 years and which is available in a myriad of shapes, sizes, finishes and colours. Being manufactured in purpose-built factories brings with it all the benefits of off-site manufacture, such as minimised waste, quality control and incorporation of recycled content. There are benefits on site as well because exact elements are delivered to site (less waste),

construction happens faster and sites are less cluttered, less noisy and safer. Usually locally supplied, precast ensures minimal transportation costs.

Precast concrete manufacturers such as the members of the National Precast Concrete Association usually have a huge investment in plant and equipment and are well funded. They are permanent businesses rather than ephemeral subbies.

What is tilt-up?

Tilt-up refers to the process whereby wall panels are poured adjacent to their final position on a construction site and then tilted into position with a mobile crane.

Tilt-up contractors are too often small operators without financial substance. It's a case of caveat emptor. Tilt-up is all too often made with unskilled labour and limited engineering supervision, and that poses a durability and general quality risk as well as an increased safety risk.

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That being said, using a competent operator, tilt-up can be a perfectly good technique for low-rise work, especially where quality of finish is not a high priority and where appearance can be improved by applied external finishes such as painting, rendering or coating, and the use of landscaping.