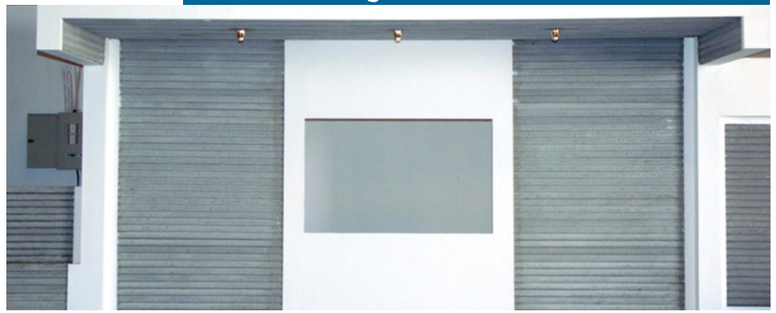
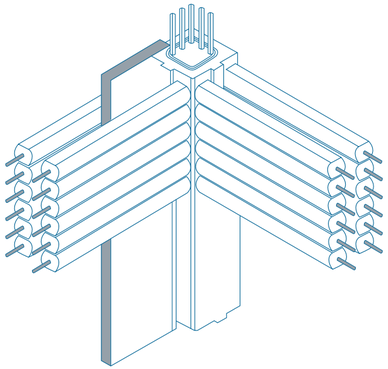
Main Advantages



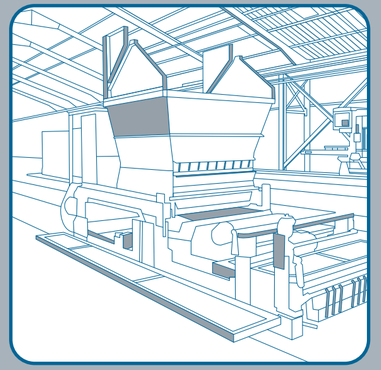
Locrete presents a standard solution for the construction of walls and structural slabs spanning up to six metres.

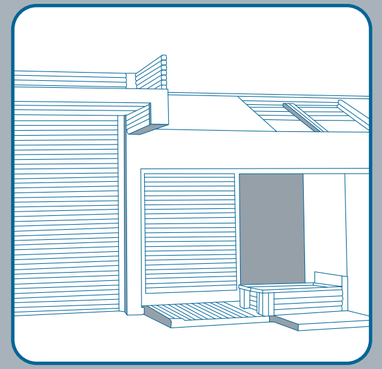


The same elements are used in the construction of slabs and external and internal walls.

While Locrete shares with other pre-cast, pre-stressed concrete products structural sturdiness, durability, fire resistance, sound, water and heat insulation qualities, its value added advantages include:

- Sustainability through the use of long-life material that requires low maintenance and repairs.
- Affordability through reducing the cost of labour, plant and equipment and the optimal use of material with minimal waste.
- Locrete eliminates slab shuttering material, steel bending and site installation which reduces the need for skilled labourers such as carpenters, steel fixers and masons.
- Availability through the use of locally-sourced readily available materials.
- Constructability through simplifying the construction method, the standardization of technology and the minimal use of heavy equipment.





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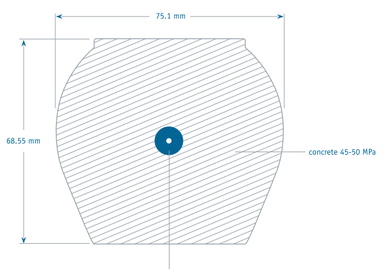
locrete

The Locrete Concept

- Locrete is an innovative, patent protected building system for the construction of reinforced concrete walls and slabs.
- The system consists of pre-cast, prestressed concrete elements that have a unified cross section and variable length that spans up to six metres.
- The Locrete elements form a load bearing wall when stacked horizontally along their planar surfaces and form suspended slabs when stacked side by side with a layer of plain concrete added on top.
- Locrete presents a substantial improvement in quality of structure, major savings in construction cost, time, equipment and labour. The system-particular characteristics make Locrete a preferred solution especially for projects with repetitive nature and modular form.

locrete element



Physical Characteristics

The Locrete element has two circular sides and flat top and bottom surfaces. Locrete elements have a constant cross section area and variable length spanning up to six metres. The elements weigh ten kilograms per metre run.

Each element is reinforced with a pre-stressed 7 mm nominal size steel strand laid in the centre of gravity along the length of the element.

The cross section configuration allows concrete and steel to structurally perform in an optimal manner.

locrete facility

Locrete is produced in a typical pre-cast fabrication facility. Once produced, the elements are cut to the required lengths, specified in the design drawings, tagged, palletized,strapped and transported to the building site ready for construction.

Each element is reinforced with a pre-stressed 7mm nominal size steel strand laid in the centre of gravity along the length of the element. Locrete is produced in a typical pre-cast fabrication facility that consists partly of the following components:

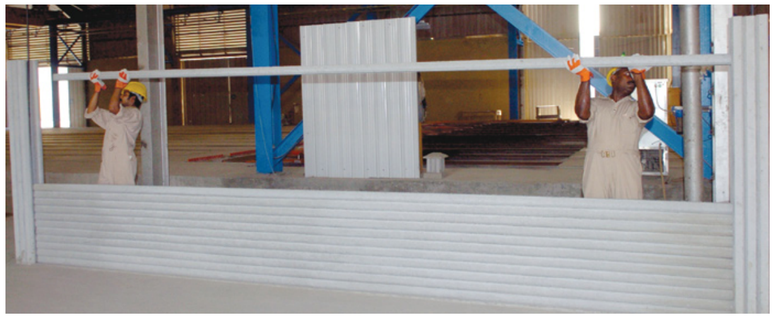
- Concrete batching plant
- Railing, Gantry Crane and bucket
- Reinforced concrete casting beds
- Tensioning and de-tensioning abutments and jacks
- Specially designed Locrete casting machine

Locrete Applications

Locrete is used for many purposes in the building industry. Some common applications are:

- Load bearing walls and structural slabs
- Retaining walls
- Highway noise barriers and fences
- Boundary walls
- Planters and plant supporting posts
- Closures for warehouses
- Excavation shoring panels
- Tunneling sides and roofs
- Pavements

locrete space



Locrete elements are used to build ground beams, load bearing walls and suspended beams and slabs.

Walls can be single layer or double skin to allow a cavity for placing insulation material in external walls or installing service networks in internal walls. The double walls are mostly used in countries with extreme weather conditions, while the single layer walls are used in internal partitions.

The cast-on-site edge and corner columns act as jointing material to the Locrete elements in the walls and beams. The outer layer of the external walls acts as the framing shutter for casting the topping on the slab elements.

The cast-on-site columns are standard size built by means of metal or plastic formwork that is designed and fabricated for multiple use in various projects.

The slab elements are suspended on two opposite inner walls or on Locrete beams. Variable thickness of plain concrete is cast on the slab elements to form a solid slab that can, at six metres span, take 250kg dead load and 250kg live load, other than its own weight.