

## CATEGORY

### PROVEN TECHNOLOGY CATEGORY : GHTC-INDIA



## PRODUCT / TECHNOLOGY



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Technology Detail

## MACHINERY FOR PRECAST TECHNOLOGY

*Alternate to conventional RCC framed structure with  
bricks/blocks as infill walling material*



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Video

## CONTACT DETAILS

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## BRIEF

Machinery designer & supplier for Precast concrete elements such as slab, wall, column, beam, staircase & internal partition etc. The precast components are manufactured in controlled conditions in plant/casting yard, leading to improved quality, precision & resource efficiency. The components are transported to site, erected & installed with lifting equipment/ crane and assembled together through in-situ jointing/ grouting etc. The company is 62 years old Finland based multi-national company with presence in India since 2007.



## SALIENT FEATURES

- Nearly all components of building work are manufactured in plant/casting yard & the jointing of components is done In-situ leading to reduction in construction time
- The controlled factory environment brings resource optimization, and improved quality, precision & finish
- Helps in keeping neat & clean construction site and dust free environment
- Optimum use of water through recycling
- Use of shuttering & scaffolding materials is minimal
- All weather construction & better site organization
- Thermal barrier is based on thickness of components, provision for insulation may be made for required thermal efficiency
- Suitability for individual /scattered & low to medium height (G+3) houses also.

## ECONOMIC ASPECTS

Large number of modular housing units brings economy in construction. The moulds & other equipment need certain minimum number of repetitions to be economically viable.





## SUSTAINABILITY ASPECTS

- Precast components optimize the use of materials such as steel, cement etc. and hence bring sustainability & lower CO2 emission (Carbon footprint) in building construction.
- The concrete can use industrial by-products such as Fly Ash, Ground granulated blast furnace slag (GGBFS), Micro silica etc. resulting in improved workability & durability, while also conserving natural resources.

## SUITABILITY AND AVAILABILITY

- Can be designed to suit all climatic conditions.
- The technology is available across the country and for all scale of construction.

## LIMITATIONS, IF ANY

- Space for casting yard is required in addition to site for actual construction. The project is not viable if the factory is located far away. Setting up of casting yard requires time in month/(s) depending on project size & delivery schedule
- Site should have space for proper leveraging & functioning of lifting equipment/cranes
- Requires skilled labour & strict supervision
- Plumbing & electrical services need to be pre-planned.

## MARKET LINKAGES

- Available Pan India.





## MAJOR PROJECTS

- Already set up more than 35 plants at various locations across the country.

## CERTIFICATION/INDIAN STANDARD/ ENDORSEMENT

- The overall design of the structure shall be done in accordance with IS 875 (Part 1 to 5), IS 456:2000, IS 1893(Part 1): 2016, IS 13920:2016 and IS 15916:2010, as applicable. Large panels shall be in accordance with the provisions of IS 11447:1985.
- Getting established through use of various Public as well as Private Agencies

