

- **Product Name**

Precast Twinwall [180mm – 400mm thick]

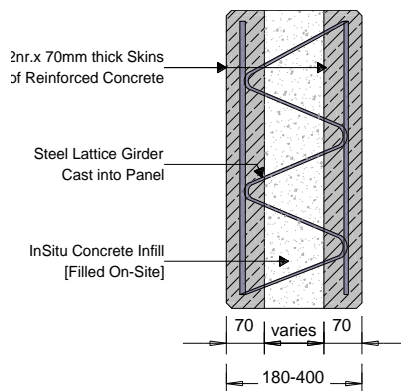


- **Product Description**

The Keegan Precast Ltd. Twinwall system is designed in reinforced concrete. The concrete wall section can replace the blockwork of a traditional wall and can also replace the Insitu concrete in a site poured wall.

All of the necessary reinforcement required for the wall to work in its final case is cast into the wall panels at the manufacturing stage. The wall panel arrives on site as two 70mm concrete panels held together by the central longitudinal girders to provide a gap of not less than 80mm. The gap can increase depending on the size of the girder used in the wall construction. The minimum wall thickness able to be cast as a twin wall is 180mm. [Note: Skin thickness is reduced to 55mm for 180mm Twin walls].

- **Manufacturing**



Single panel sizes will be up to a maximum height of 3.0m and length of 7.0m with larger panels being designed and manufactured on an individual basis. If the height has to be greater than 3.0m the panel can be turned through 90° and the length can then be used for the height required. This will result in more vertical joints being visible as the width cannot be more than 3.0m.

A further limit of the panel size is the maximum bar size able to be placed automatically during the manufacturing process. This is 14mmØ. Designs carried out are therefore subject to this upper limit of bar size. Finished Panels will have a standard steel mold finish of Class C (Paint_ready). All exposed edges have a 10x10mm chamfer.

- **Site Erection**

On site the wall units are lowered over a line of starter bars set into the concrete base slab. Placement of these bars is by the main contractor and must be by agreement with Keegan Quarries Ltd. To ensure the correct placing and aligning of the twinwall a gap of 10mm is detailed between the units in all cases. This joint will remain once the units have been placed and concreted.

All of the horizontal and vertical panel/panel, panel/floor joints will have a steel mesh placed down their center prior to the core being filled with concrete. The core is filled with an approved concrete and will be filled up in meter lifts. The first meter is poured and vibrated to fix the panel to the starter bars. The second meter is then placed. The floor slab loose bars are then placed with the necessary tie bars projecting down into the wall core and then the final meter is placed in conjunction with the floor slab Insitu topping.

- **Product Name**

Twinwall Beam [220mm – 400mm thick]

- **Product Description**

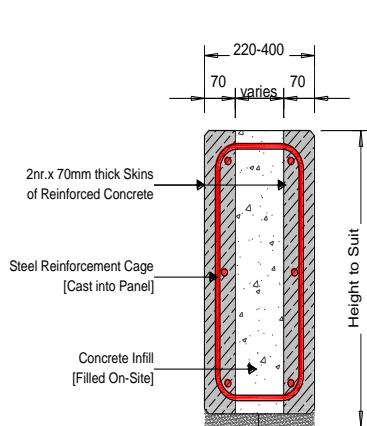
The Keegan Precast Ltd. Twinwall Beam system is designed in reinforced concrete. The concrete beam section can replace the Insitu beam traditionally used to carry loads across clear distances.

All of the necessary reinforcement required for the beam to work in its final case is cast into the wall panels at the manufacturing stage. The beam element arrives on site as two 70mm concrete panels held together by the links of the beam cage to provide a gap of not less than 80mm. The gap can increase depending on the size of the beam required.

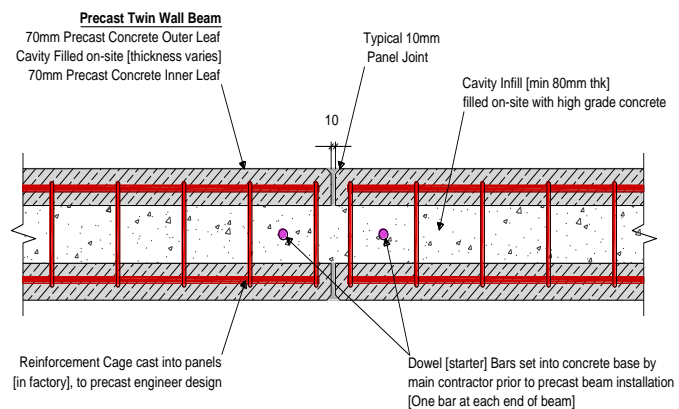


- **Manufacturing**

Single beam lengths can be made, up to a maximum length of 9.0m with longer beams being designed and manufactured on an individual basis. Beam height can vary from approx. 200mm to a maximum of 3.0m. The beam section at this larger height is then considered as a deep beam and designed as such. Beam thicknesses can also vary from a minimum of 220mm to a maximum of 400mm.



Typical Vertical Section thru Beam



Typical End Connection at Conc. Base

A further limit of the panel size is the maximum bar size able to be placed automatically during the manufacturing process. This is 14mmØ. Designs carried out are therefore subject to this upper limit of bar size. Beam elements will have a standard steel mould finish. All exposed edges have a 10x10mm chamfer. In addition to this chamfer and to ensure the correct placing and aligning of the beam unit a gap of 10mm is detailed between the units in all cases. This joint will remain once the units have been placed and concreted.

- **Site Erection**

On site the beam units are lowered over dowel bars set into the concrete base. Placement of these bars is by the main contractor and must be agreed and coordinated with Keegan Precast Ltd. To ensure the correct placing and aligning of the twinwall, a gap of 10mm is detailed between the units in all cases. This joint will remain once the units have been placed and concreted. The core is then filled with an approved high grade concrete and will be filled up in meter lifts. The first meter is poured and vibrated to fix the panel to the dowel bars.