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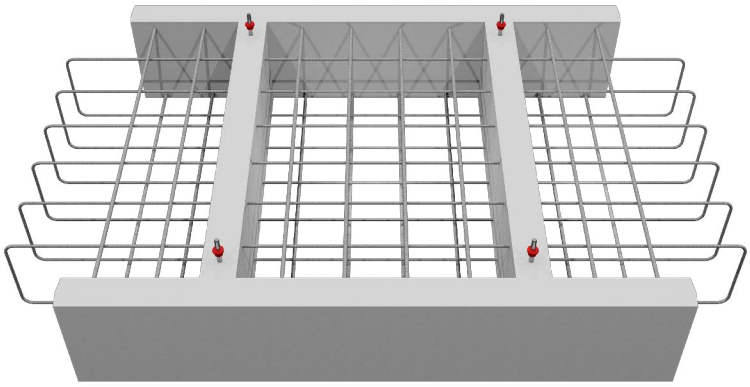
Precast Strip Foundation for precast walls

Precast Strip foundation

The precast foundation is a reinforced concrete element made up of a tied rebar beam cage incorporated within a semi-precast concrete element which acts as formwork. The geometric dimensions and the steel area are established through static calculations elaborated according to the distributed of loads N, Mx, Tx, My, Ty and the pt pressure admissible on the terrain. The horizontal rebars, jet out from the two internal precast walls, are necessary to join all the precast foundations one another.

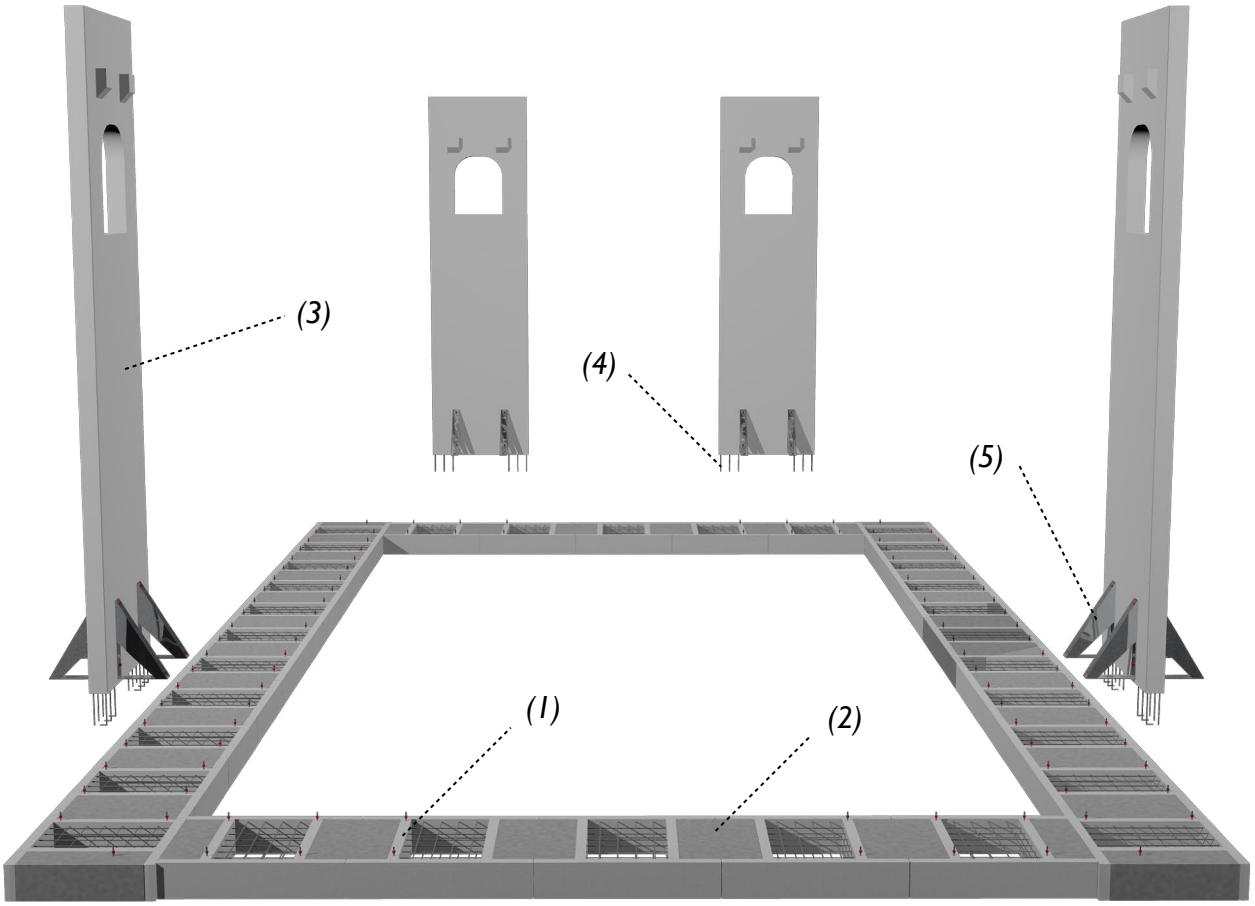


Dimensions

The Precast Foundation" can be produced in different forms and dimensions to satisfy every design and structural need.

Assembly

During the assembly process, the precast foundations (1) are placed directly on the ground, which has previously been prepared. The first casting of the concrete (2) is necessary in order to join the precast foundations one another (3) and create a fixed continuous footing.
The connection between the precast foundations is made by overlapping the rebars jetting out horizontally from the precast elements.
When the concrete of the first casting is set the precast walls (3) are mounted on the foundations and the bent rebars jutting out from their bases (4) are inserted inside the Foundation elements. A second casting of concrete embeds the walls' rebars inside the precast foundations. The work is completed with the removal of all adjustment devices (5).



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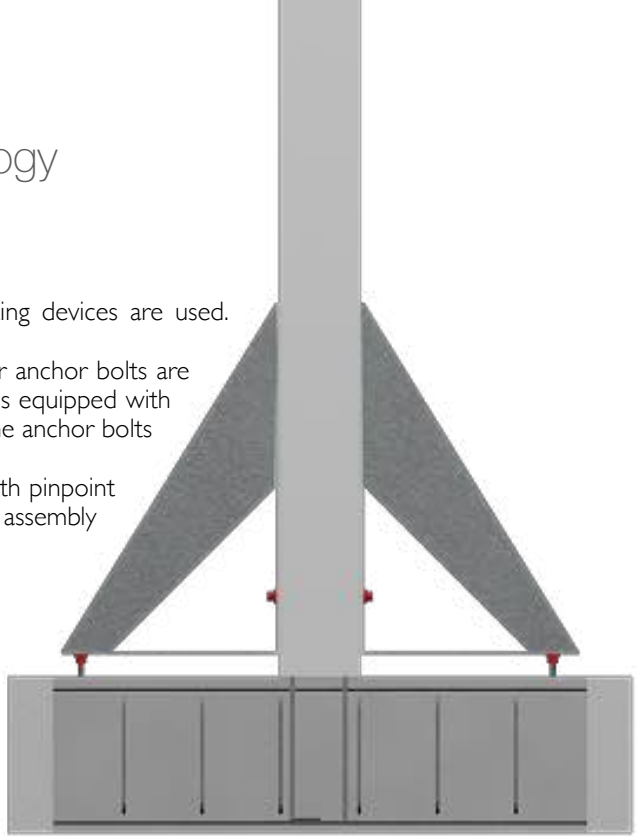
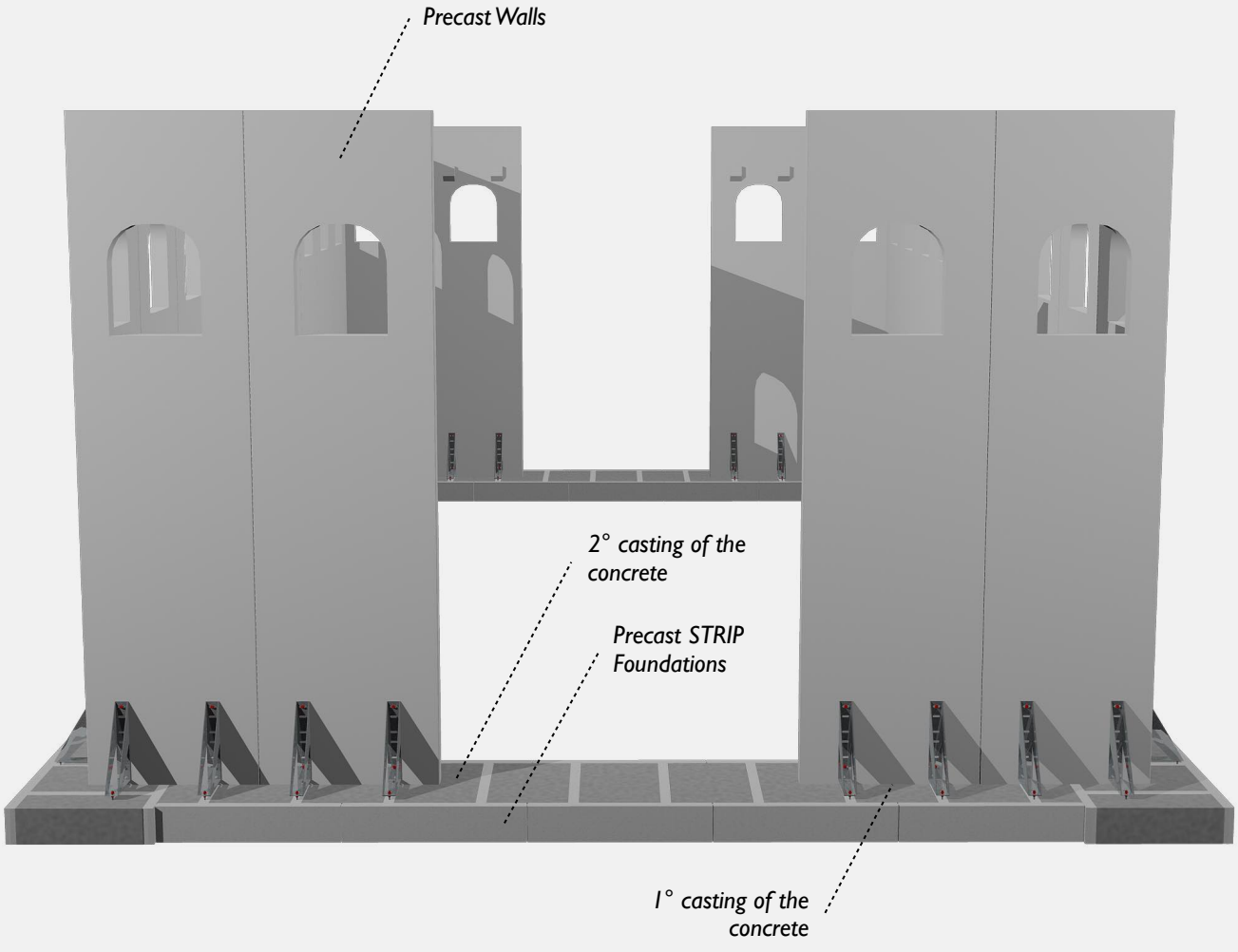
For the assembly and alignment of the precast wall, adjusting devices are used. These allow an easy, fast and precise installation.
During the production phase of the Precast Foundation, four anchor bolts are left within the central concrete walls, while the precast wall is equipped with eight threaded couplers. The adjusting devices are fixed to the anchor bolts using nuts and to the precast wall using bolts.
This system not only allows the precast wall to be aligned with pinpoint precision, but also eliminates any use of braces during the assembly phase.



The four adjusting devices will be dimensioned in relation to the weight and other strains to which the precast wall is subject and are used merely for assembling the elements.
When the second part of the concrete inside of the precast foundation is set, all the adjusting devices are removed.



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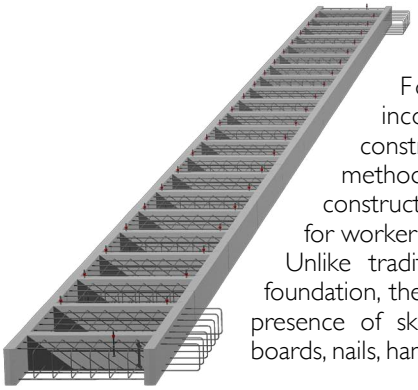
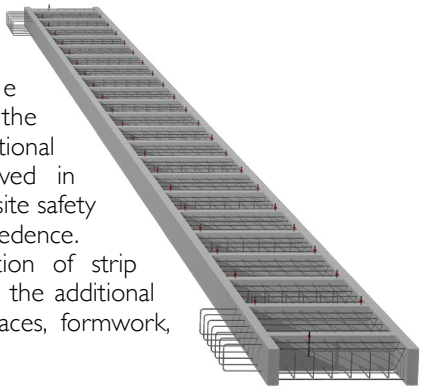


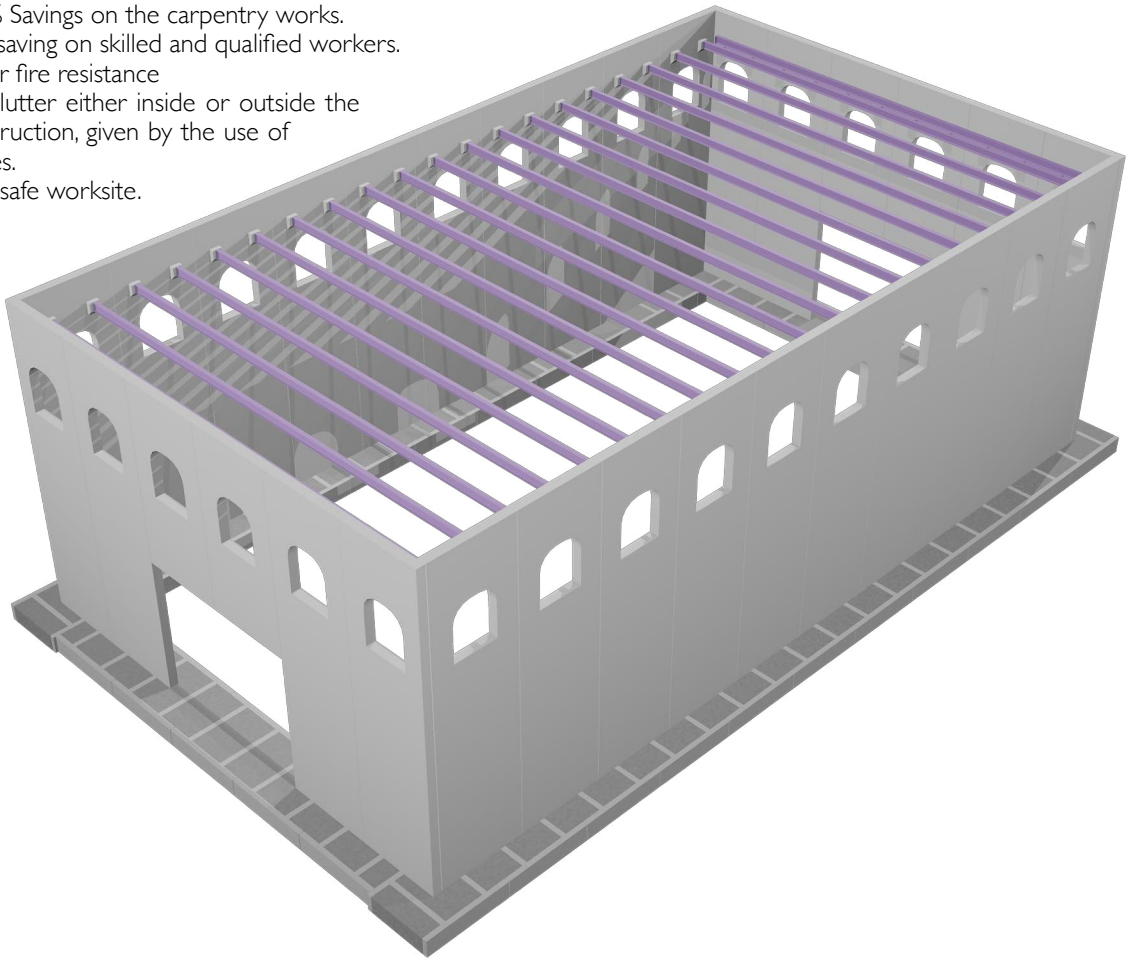
Conclusions

The use of the Precast strip Foundation eliminates all those inconveniences that crop up during the construction of foundation using the traditional method, aiming to halve the costs involved in constructing a foundation structure, greater job-site safety for workers and a turnaround speed without precedence. Unlike traditional system used in the construction of strip foundation, the use of our product does not require the additional presence of skilled workers and auxiliary tools (braces, formwork, boards, nails, hammers, pincers, shears, etc.).



ADVANTAGES COMPARED TO THE CURRENT SYSTEM

1) 50% savings on the time and cost necessary for the assembly of the precast walls.
2) Savings on the purchase or rent the braces.
3) Savings on the concrete necessary to fixate braces to the ground.
4) Savings on the placement, fixing and disassembly of the braces.
5) Savings on the wasted concrete when, in order to speed the construction time, the formworks for carpentry works are not used.
6) Pinpoint precision during the assembly of the precast walls.
7) 100% Savings on the carpentry works.
8) 50% saving on skilled and qualified workers.
9) Better fire resistance
10) No clutter either inside or outside the construction, given by the use of braces.
11) Very safe worksite.



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