



MEETING THE BUILDING
METHODS EVOLUTION IN CONCRETE.
The importance of versatility.

Prensoland



Since 1.959, PRENSOLAND has been manufacturing machinery and equipment specially designed for the production of both precast and pre-stressed concrete elements, such as blocks or paving stones and beams or hollow core slabs.

More than 1.000 Customers all around the world appreciate the versatility and the consistent return of the investment with us.

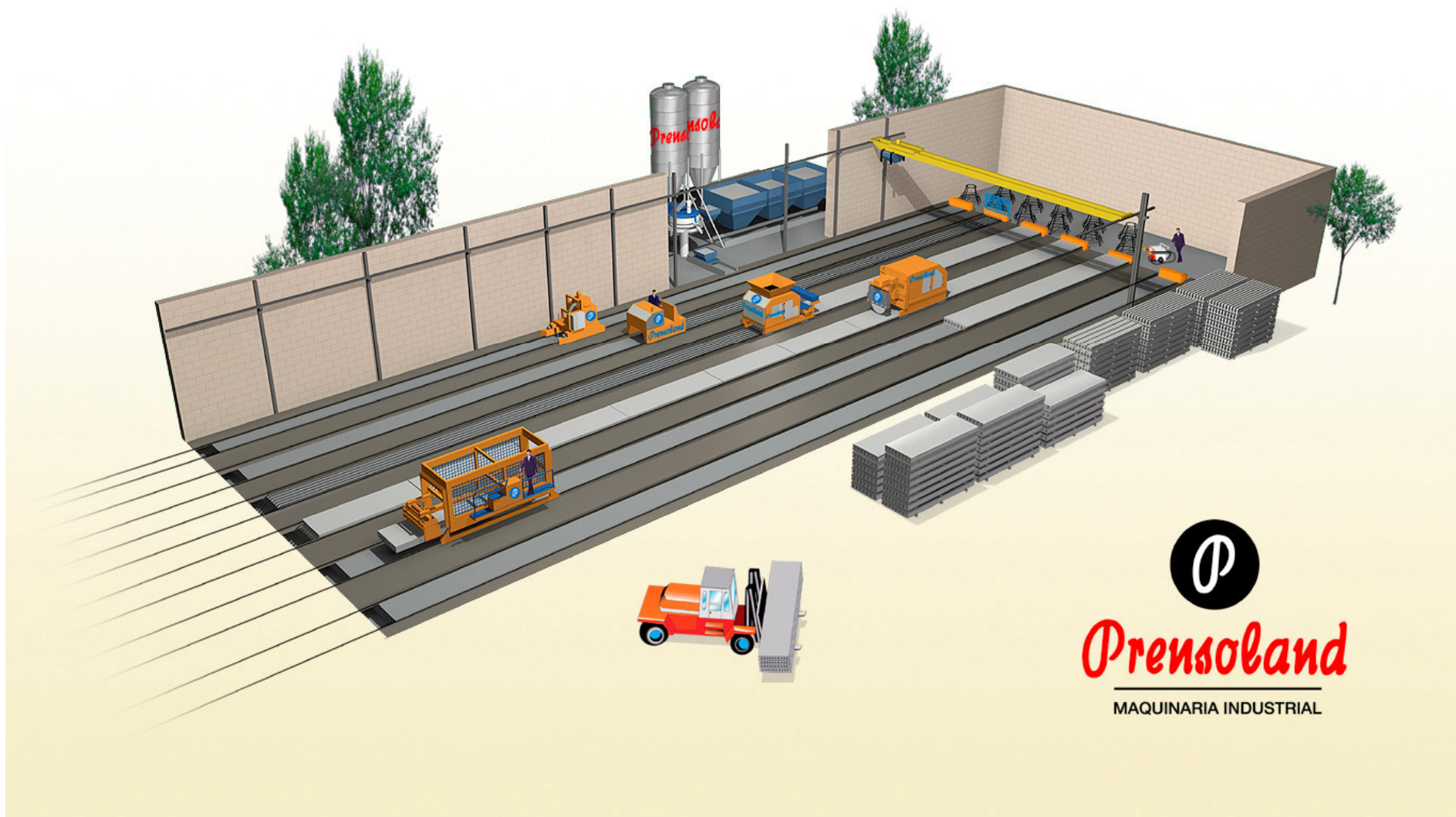
PRENSOLAND lines evolution hand to hand with the market: **COMPACTA** for blocks, bricks, pavers and **TENSYLAND** for continuous molding machines.

The constant research makes our machinery to be at the forefront of the new technologies.

PRENSOLAND S.A.

TENSYLAND Machines for making Pre-stressed Hollow core / Solid Slabs and Beams of Concrete.

COMPACTA Machines for making Hollow/Solid Concrete Blocks, Interlocking Pavers, Curbstones & many more Concrete Profiles.




Prensoland
MAQUINARIA INDUSTRIAL

Equipment at site: aspect of a production plant.



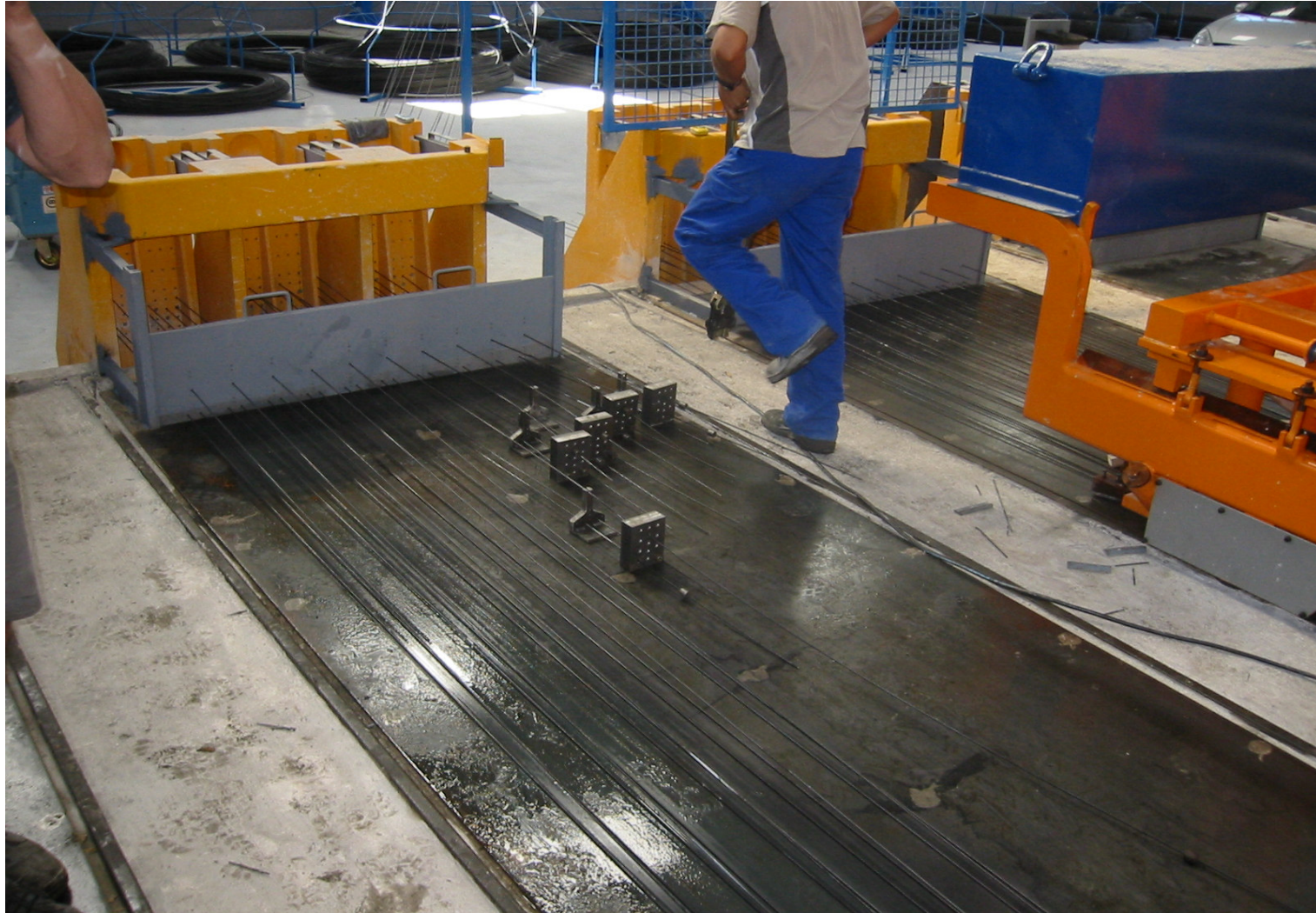
Casting Bed Abutments: active **pre-stressing** end.



Wire Coils set-up at the end of the casting beds



Wires Pulling on cleaned and oil sprayed beds.



Passive End of Bed Abutments: **PRENSOLAND's** design.



End of Bed: **optimised** casting distance.



TENSYLAND Casting Machine

Up to 3 meters / minute.



Casting of Slabs: gravity and vibration extrusion.



Casting of **Beams**: 8, 9 or 10 across the bed.



Production of **filigree slab**.

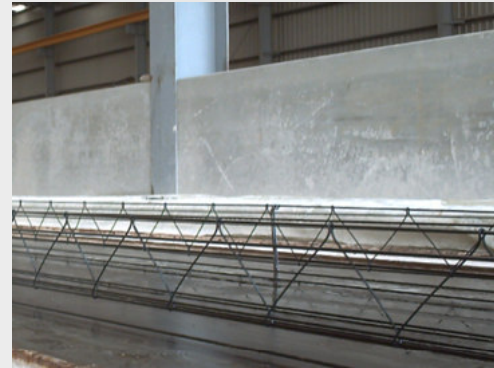


Antiseismic requirements: **insertion of stirrups.**

Solid slab with pattern on top side for increased bonding.



Wire pulling with additional reinforcement prior to casting.



The stirrup inserting machine follows the casting.



Insertion until 30 mm. from the casting bed surface.

Continuous casting of Beams with **Exposed Wires**.



Hollow Core Slab with Exposed Wires.



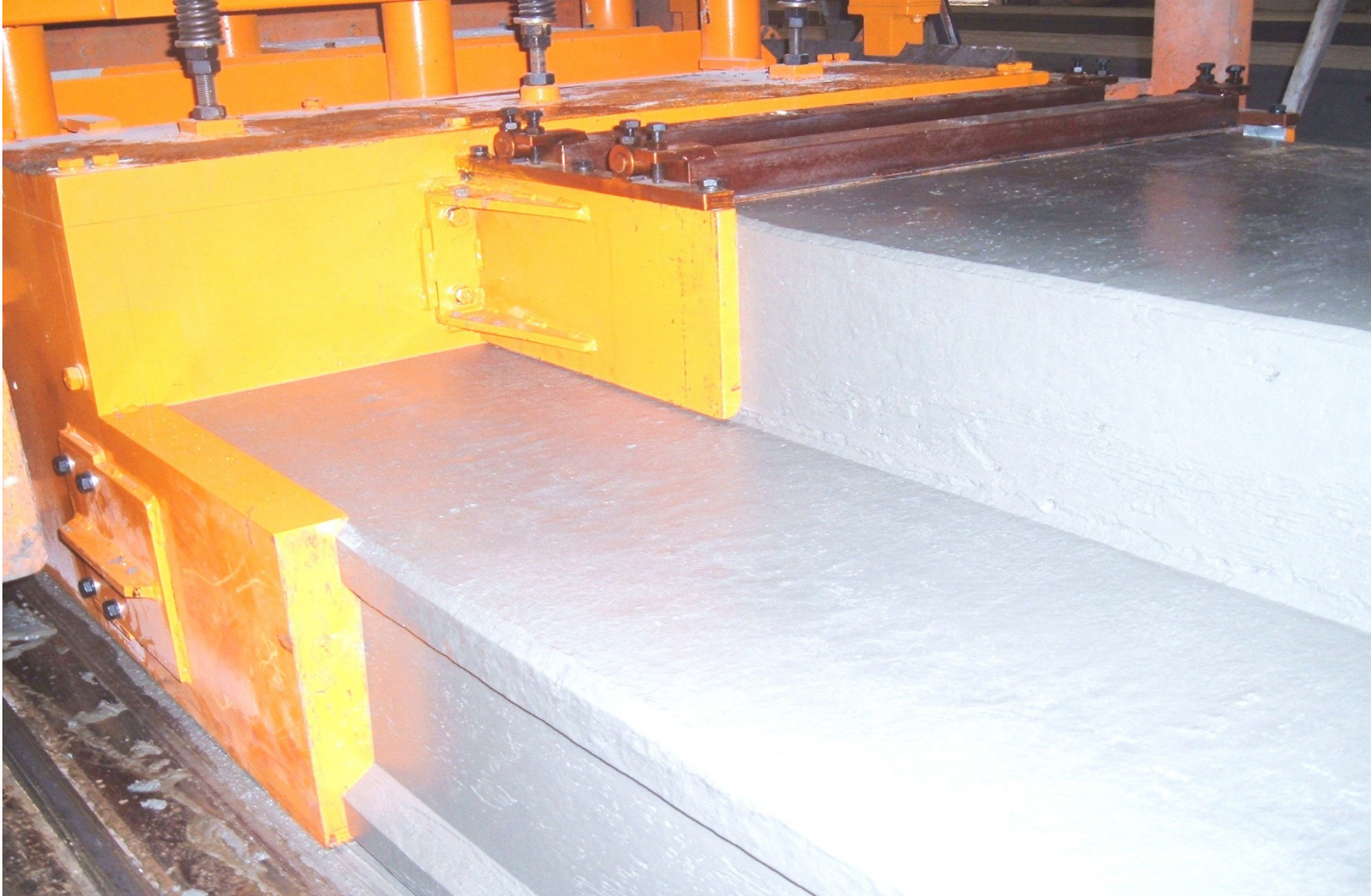
Insertion of **Metal Stirrups**;
anti-seismic application oriented.



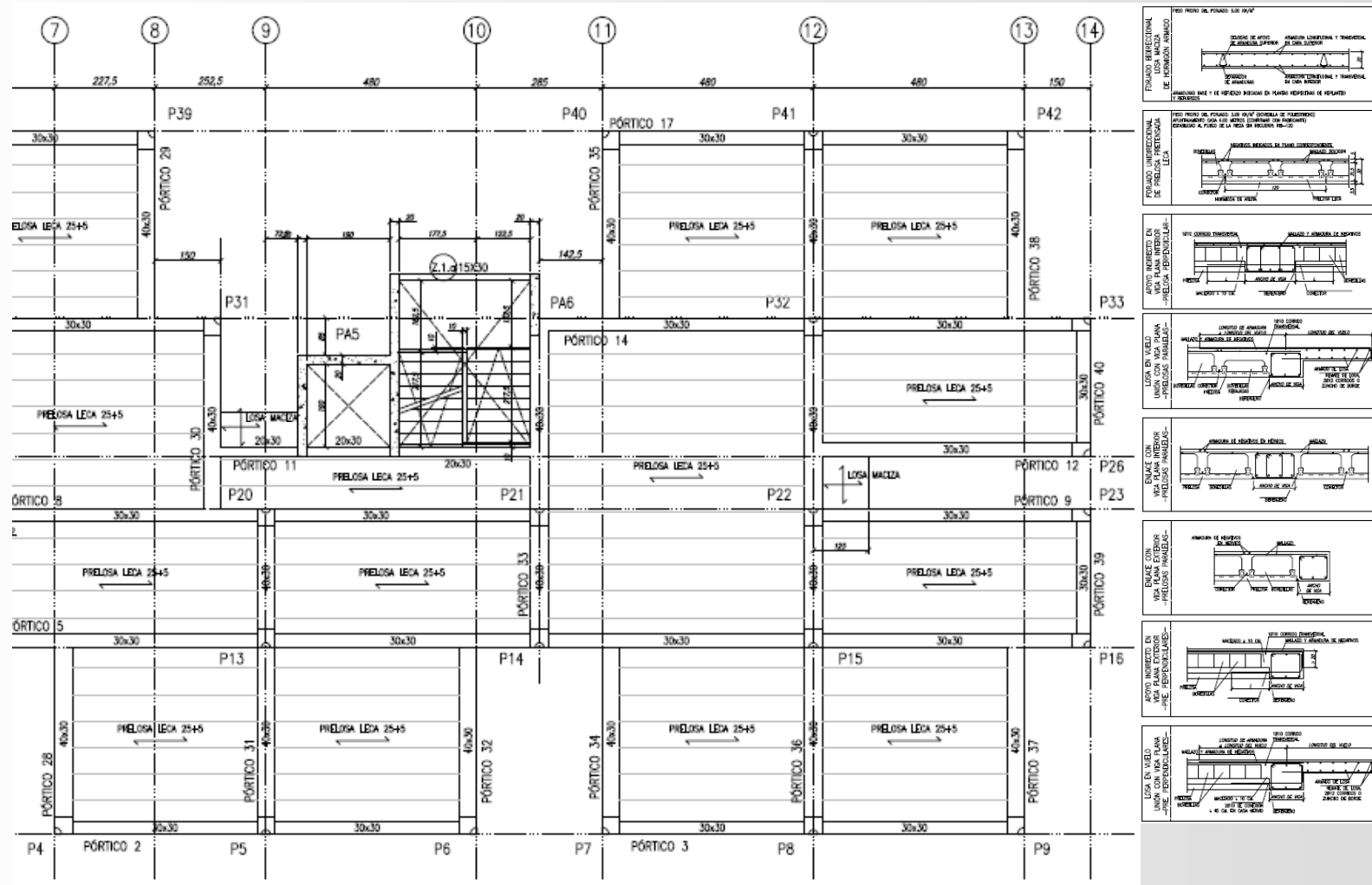
Insulated Slabs



Casting Port Slabs



Advanced building methods: the **Pre-slab** example.



Multi Angle Saw





Stacker



Clamps for Handling Slabs and Beams



Slab for Ports



Added value in the use of pre-cast & pre-stressed elements.

Structural behaviour: anti-seismic requirements from the concrete elements

- Addition of stirrups.
- Exposed wires.
- Increased anchoring strength between elements, to the shuttering and to the compression layer.
- Scalability of the building methods.

Cost wise:

- Higher efficiency of the labour employed.
- Light elevation means required.
- Reduced energy contain.
- Optimised use of raw material.

Confort:

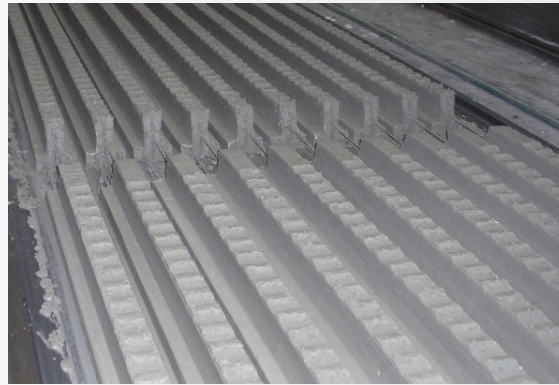
- Excellent joinery between pre-stressed concrete elements.
- Nice surface finishing.
- Neat assembly.
- Thermal & noise protection.

Versatility:

- Modular executions for different uses.

Antiseismic requirements: exposed wires & engraving

Increased anchoring effect
to the compression layer.



Side bonding.



Non-stop casting
with exposed wires.



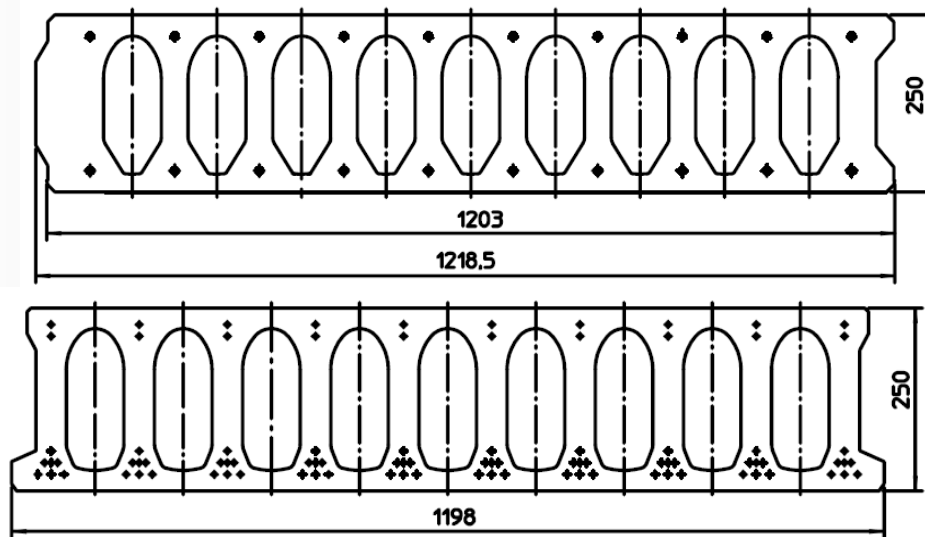
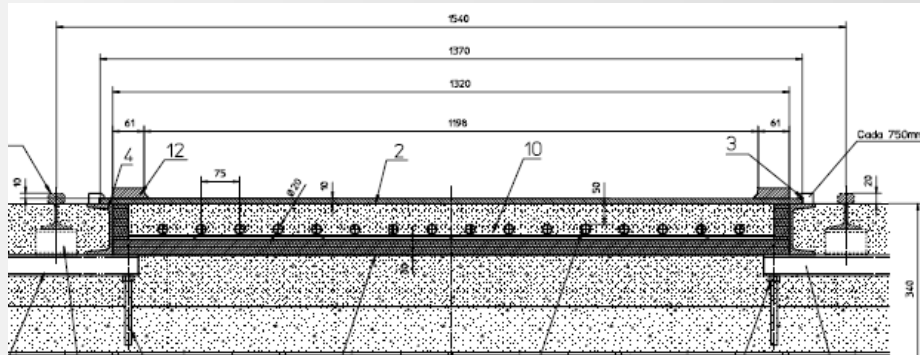
Structural slab.

Precise casting with **side bevelled ruler** for exact width.

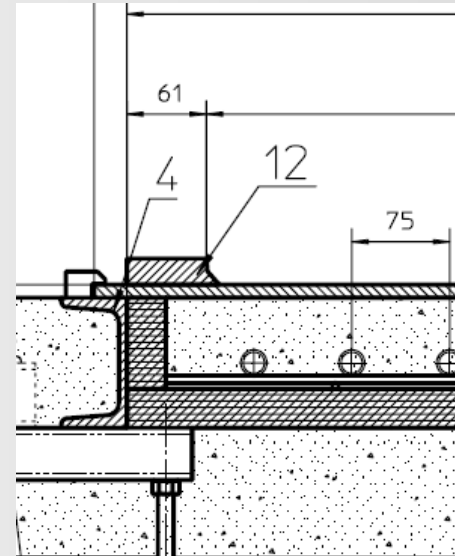
Set up of the casting
beds L= 120 -180 m.



Cross section of a casting bed with side
bevelled ruler.

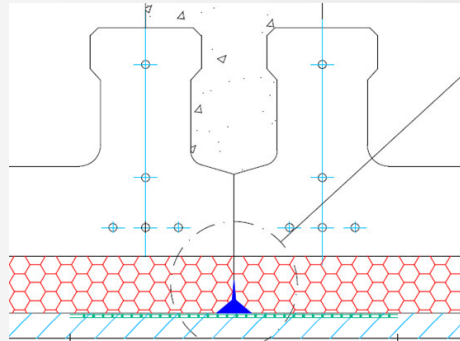


Wall slab (up) and structural slab (down).



Precise casting for excellent **joinery**

Matching of consecutive pre-slabs and joinery.



PRENSOLAND casting machine for pre-slabs



Site assembly with optional insulation.



Inside look after finish application: plastering or paint.

Cost efficiency: nice looking surface, and neat assembly.

High building speed,
structural.



Low labour contain &
light elevation means.



Tensyland equipment.



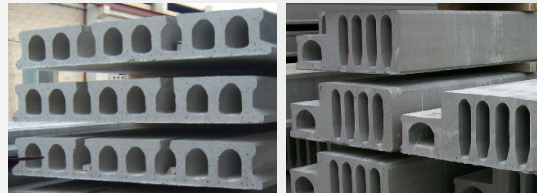
High building speed, walls.

Tensyland: **versatility** with quick mold substitution

Mold for standings.



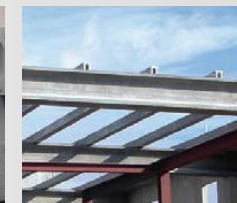
Slab design integration
for its final application.



Accompassing the new methods.



Pre-slab (filigree slab).

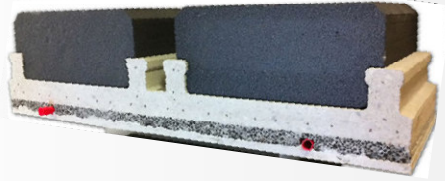


Hollow core beam.

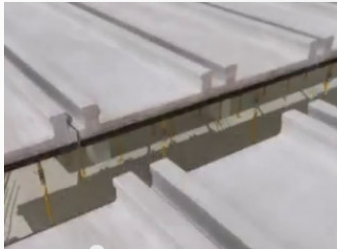


Residential housing: the use of the Pre-slab.

G+ rule: 'one person's roof is another one's floor'



- Noise & thermal insulation
- Concrete slab.
- 'Arlite' layer bond to the concrete, w/ pipe & wire.
- Plastering & finish.



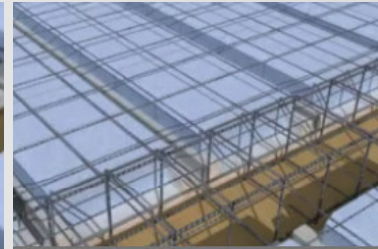
High carpeting rate.



Light cranes & hoists.



Noise & thermal proof.



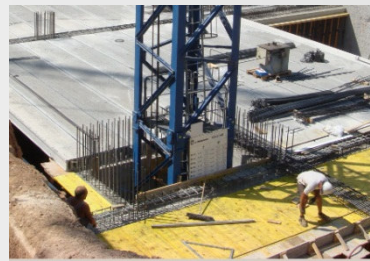
Structural solution.



Self-construction.



Neat building method.



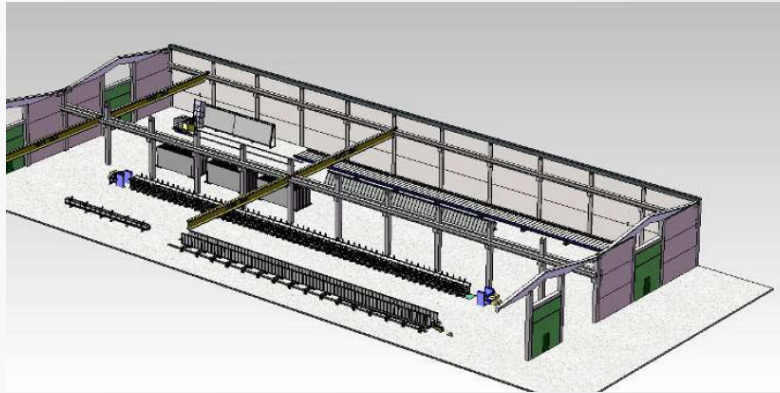
Well organised site.



Low labour demand.

Circulating molds: set-up & production of pilars, beams, reinforced walls and stairs.

MOLDTECH



Lay-out: tilting tables for walls and molds for reinforced elements.



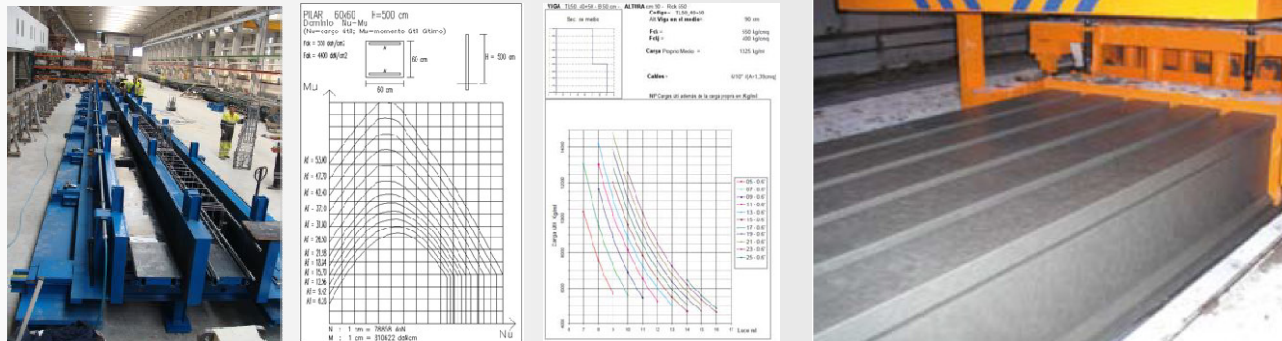
Tilting table for finished walls. Mold for stairs.

Profile mold casting: reinforced or pre-stressed*.

MOLDTECH



Example: 12 m. manufactured column with double 50 x 50 bracket.



Vibrated mold:
Reinforced pilars or beams.

Continuous casting of pre-stressed beams. (*)

Molds for Reinforced Beams and Columns



Tilting tables



Pre-Stress Beds for Delta Beams



Conclusions:

- The **versatility** in the production enhances a favourable acceptance of the pre-stressed elements in modern building methods.
- The pre-stressed elements must bring **added value** features which satisfy the market specific demands, instead of the market adapting to the available elements.
- Introducing the pre-stressed elements in India must result in cost efficient building, confort and environment improvement.
- The **migration** to precast must be accomplished in a sustainable scale-up to the global benefit of the society.

PRENSOLAND thanks you for your
attention.