

# SYSTEM 2000

## Slab Formwork



v.20260203

**SAEZ FORMWORKS, S.L.**  
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30570 MURCIA

## SYSTEM 2000



### system characteristics

#### ► Simplicity



#### **ONLY 2 ELEMENTS**

Simple assembly. Faster, more efficient. Hammer as the only tool

#### **SUITABLE SYSTEM**

For all types of horizontal concrete structures. Execution of girder slabs, waffle slabs, solid slabs, etc.

#### **WITHOUT RESHORING**

No need to move props until complete striking. Much of the material can be recovered after 3 days for a new cycle.

#### ► Safety



#### **SAFETY LOCKS**

Braced assembly of the metal elements, facilitating squaring work as well as floor assembly and stripping.

#### **ASSEMBLY FROM THE GROUND**

The metal parts are assembled from the ground.

#### **FIRM BOARD**

Board fitted into a metal structure without nailing. Collective protection, perimeter and opening safety with guardrails and nets under the slab to prevent falls.

## Flexibility and simplicity. The best combination

Recoverable formwork system for waffle slabs with permanent blocks, one-way slabs, and solid slabs.

The System 2000 uses only 2 basic elements (Guides, Beam carriers).

The main advantage of the system is that the beam carriers perform the dual function of assembly elements and backpropping. The profiles are designed for easy removal of the elements.



## system characteristics

### ► Cost-effectiveness



#### **PROFITABLE INVESTMENT**

Most elements can be recovered 72 hours after concreting.

#### **FINISH QUALITY**

The structural elements are designed for daily site use and manufactured from high-strength steel.

#### **SMART DESIGN**

The design of the beam carrier, with its rounded cross-shaped profile, facilitates board stripping.

### ► Robustness



#### **STRONG AND DURABLE**

Galvanized material.

#### **REINFORCEMENT**

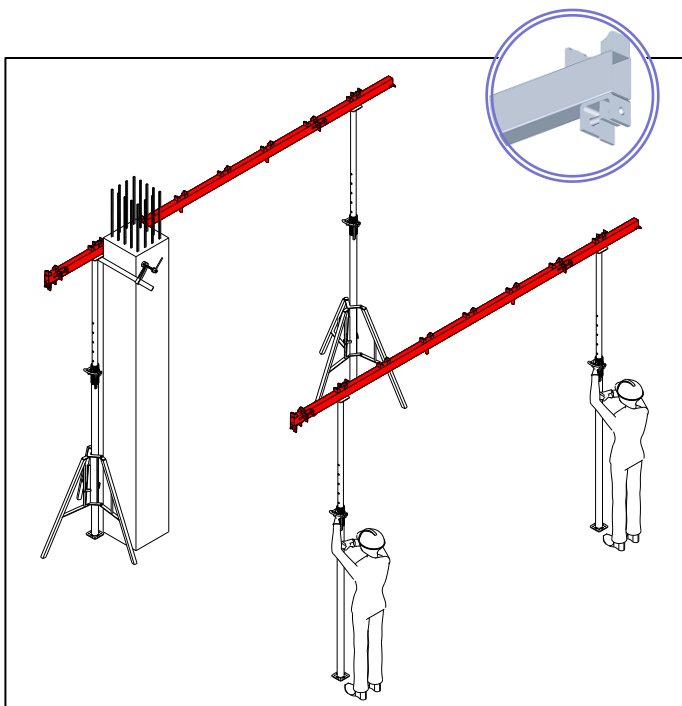
Possibility of reinforcement in areas with high slab load using the capital beam.

#### **VARIOUS BAY WIDTHS**

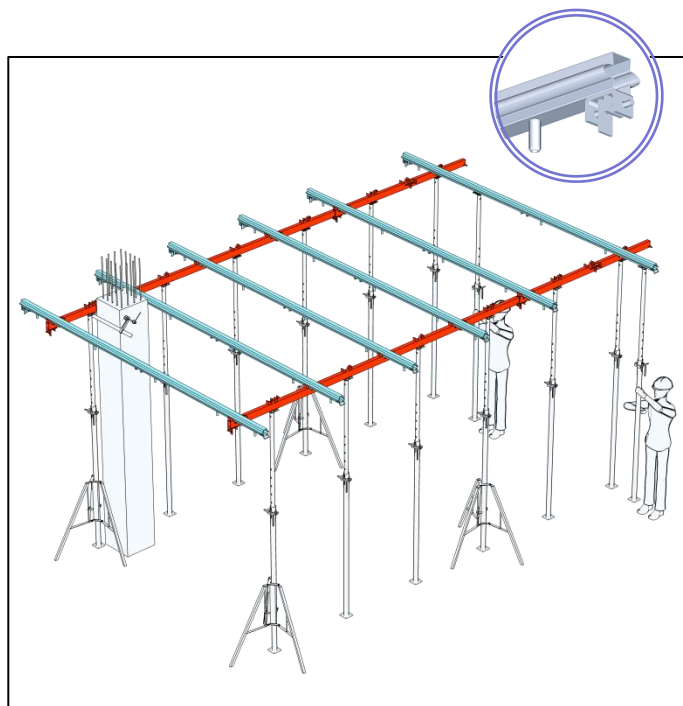
Allows work with different bay widths, which is very useful for avoiding clashes with columns.

## System 2000 assembly

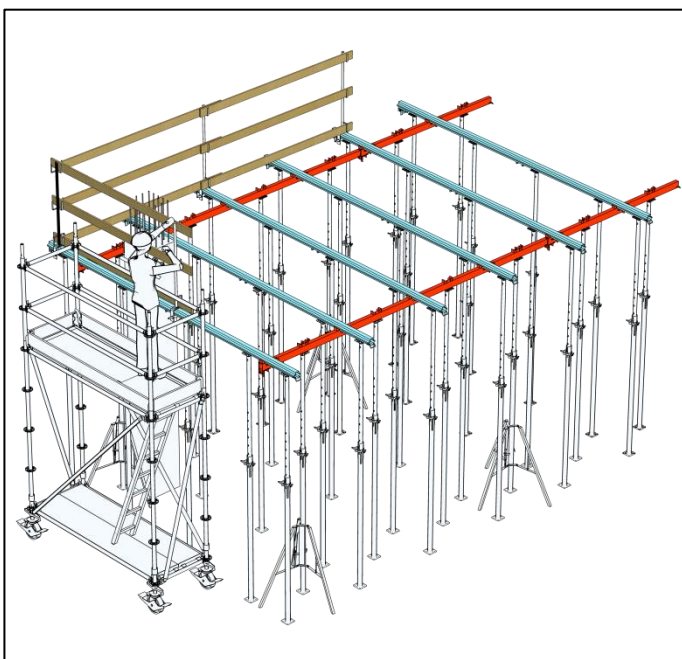
### 01 Positioning the guides and their props



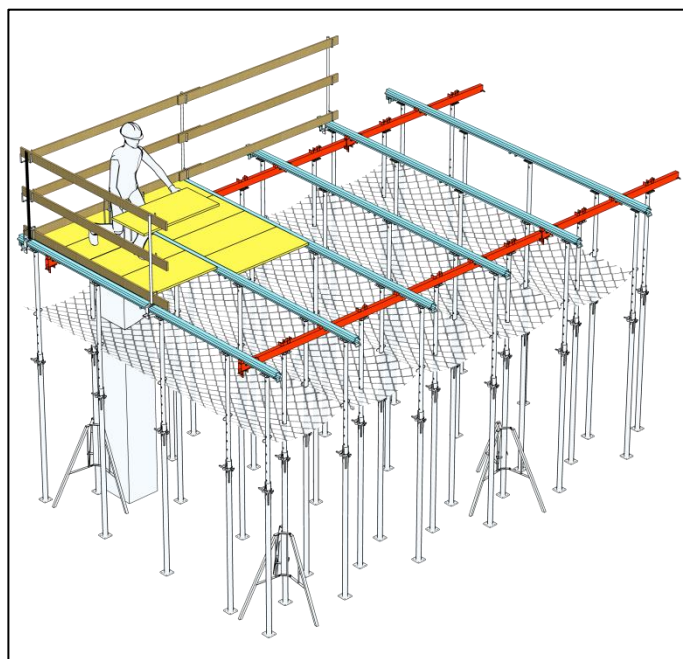
### 02 Positioning the beam carriers on the guides



### 03 Positioning the safety elements



### 04 Positioning the boards



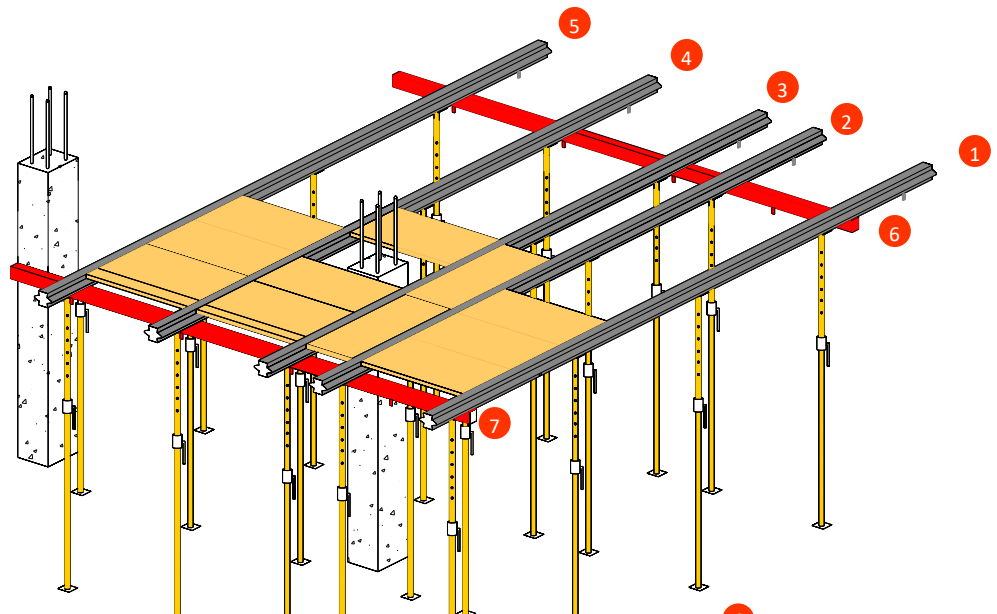
## System 2000 stripping

## first phase

Three days after concreting 80% of the material used for the first floor is recovered. The guides and their props, the beam carriers intermediate elements with their respective props, and the boards.

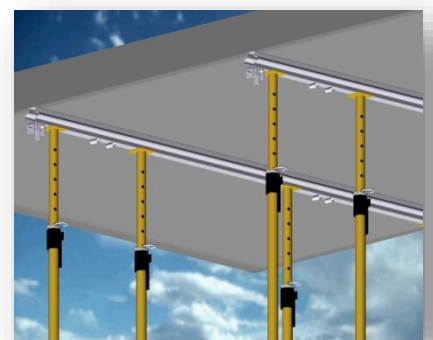
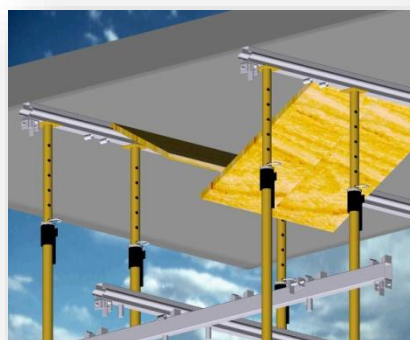
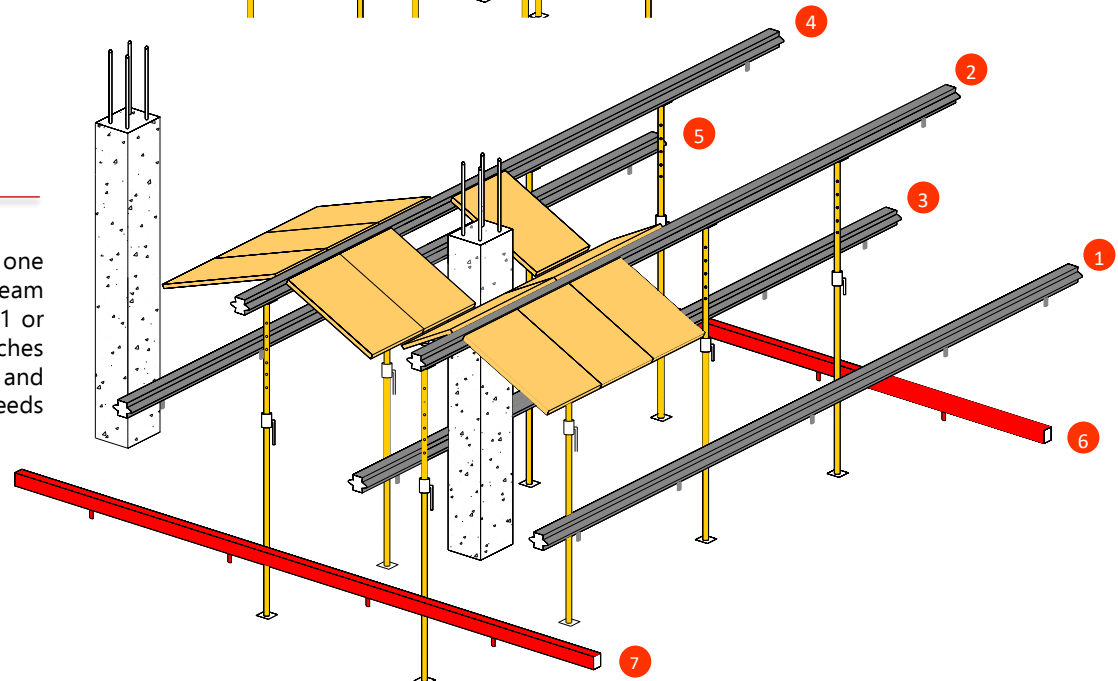
01

02



## second phase

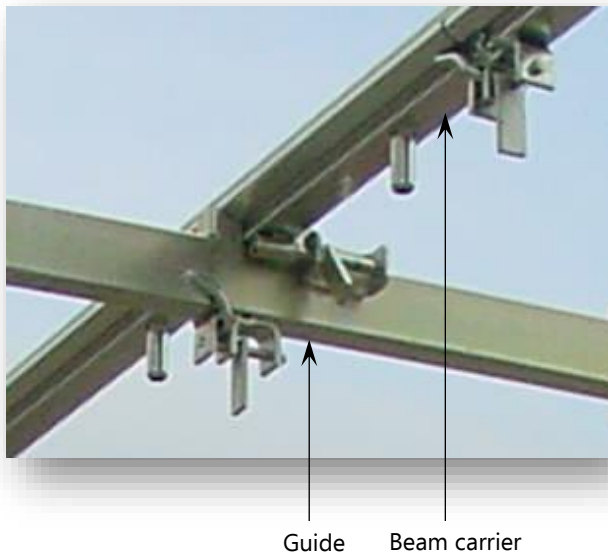
Every two metres, only one continuous line of beam carriers remains until day 21 or 28, when the concrete reaches its characteristic strength and the floor no longer needs reshoring.



## System 2000 Features

### braced connections

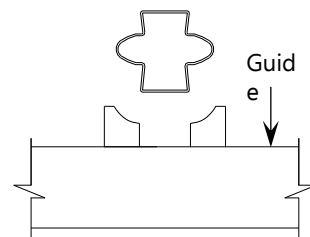
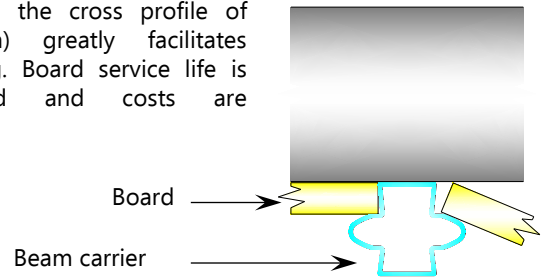
The connections between beam carriers - guides and between beam carriers are made with safety locks, preventing accidental movement of the frame.



### cross profile

#### Caravaca

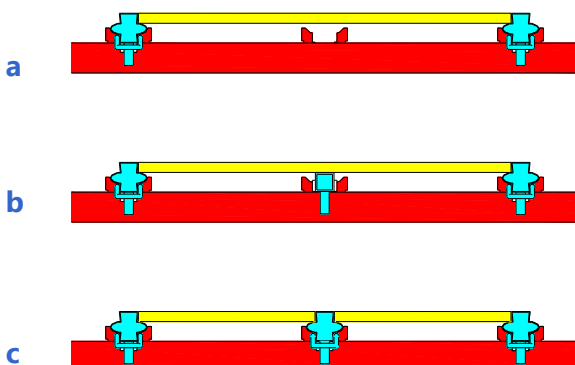
The design of the beam carrier (through the cross profile of Caravaca) greatly facilitates stripping. Board service life is extended and costs are reduced.



The guide seats where the beam carriers are housed have a conical shape, so any defective or twisted profile will be rejected because it cannot be fitted.

### versatility in bay widths

- For 1 m board. For lightweight slabs
- For 1 m board with capital beam reinforcement. For high-load slabs
- For 0.475 m board. For high-load slabs.

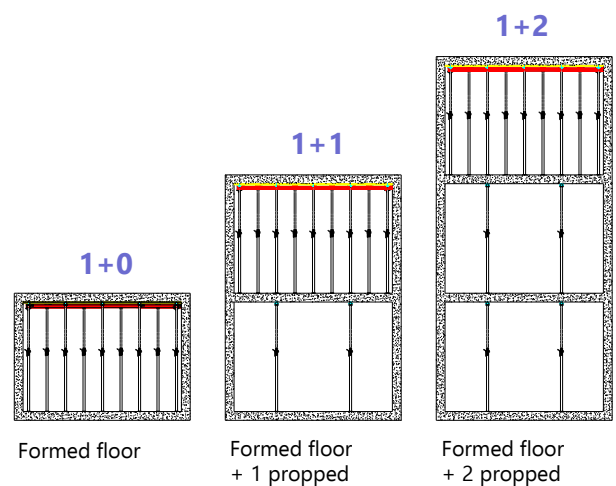


### 1+2 concept

The concept of a complete floor + propped floor is related to recovering 80% of the equipment three days after concreting. The remaining 20% must stay propped until day 21 or 28.

Recommended for projects with mainly vertical progress, concreting complete floors or by joints.

The upper floor is concreted 7/10 days after the lower floor has been concreted.

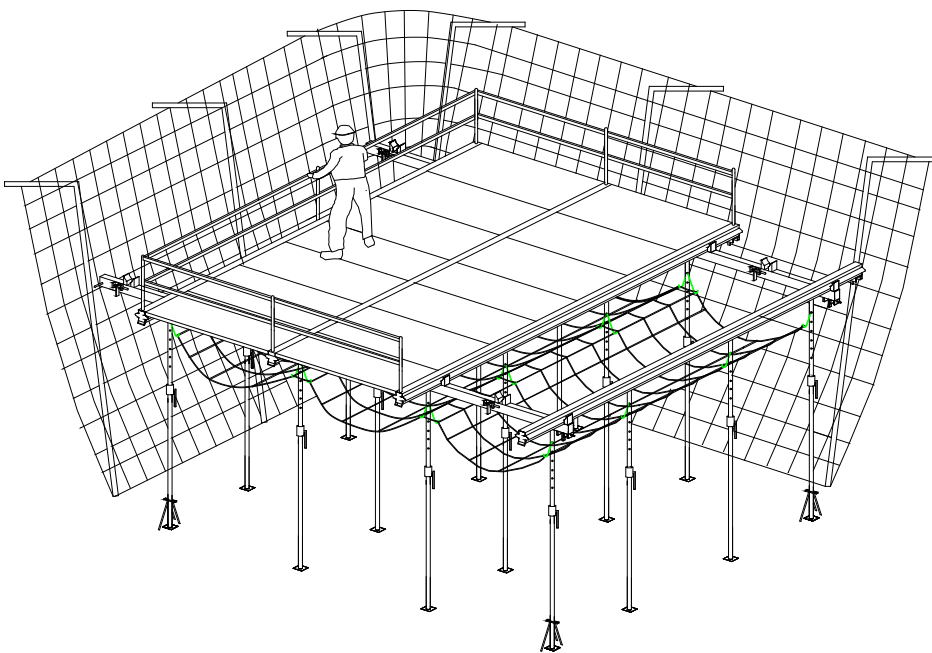


## System 2000 Features

### safety nets

Due to the difficulty of placing scaffolding for installing the boards and the guardrails, the use of safety nets under the slab is used preventively

These nets are placed under the frame, attached to the props with a hook and tied with rings or carabiners.

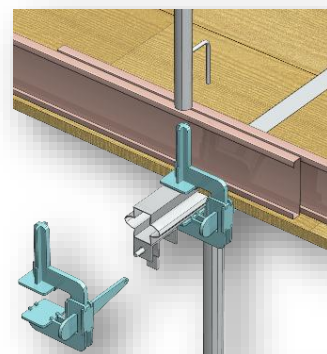
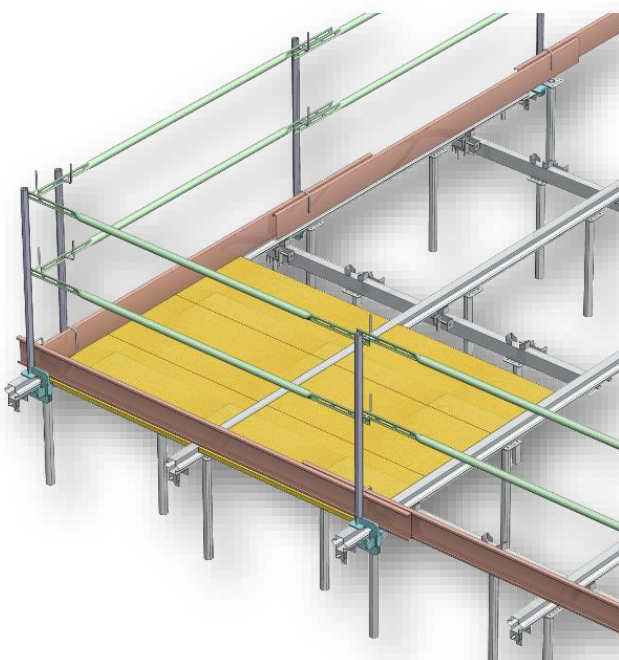


### G support and edge protection

Temporary edge protection system where posts and guardrails are installed. This G support is fixed to the beam carrier.

UNE EN 13374:2013 class A

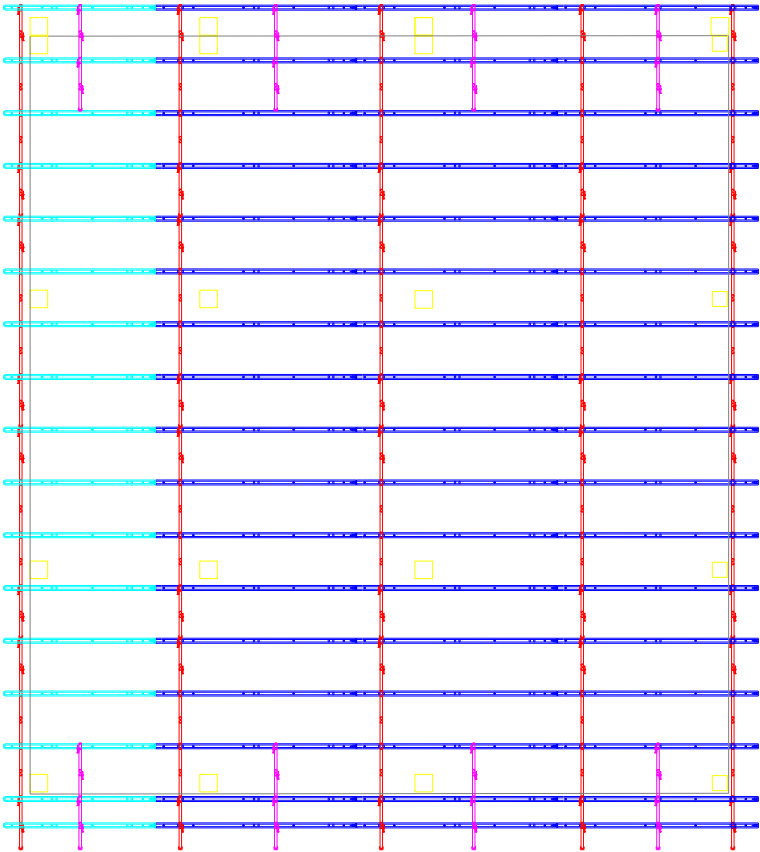
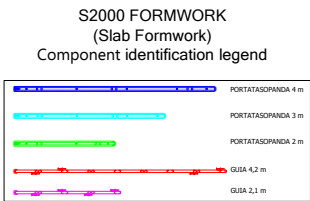
Also used as an external board stop.



System 2000 layout

layout

Before assembly begins, a layout study of the system will be carried out, considering the suitability of the frame.



material requirements

The System 2000 uses few elements per square metre. A standard material count is detailed below.

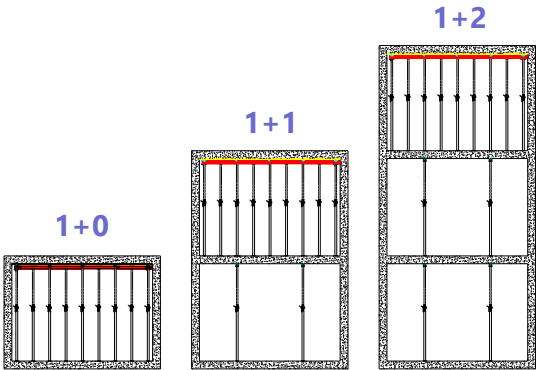
1000 m2

| Guide  | 1+0 | 1+1 | 1+2 |
|--------|-----|-----|-----|
| 4,20 m | 90  | +0  | +0  |
| 2,10 m | 20  | +0  | +0  |

| Beam carrier | 1+0 | 1+1  | 1+2  |
|--------------|-----|------|------|
| 4 m          | 200 | +100 | +100 |
| 3 m          | 50  | +25  | +25  |
| 2 m          | 20  | +10  | +10  |

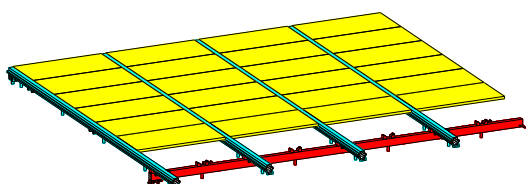
| Board   | 1+0  | 1+1 | 1+2 |
|---------|------|-----|-----|
| 1x0,5 m | 2000 | +0  | +0  |

| Prop | 1+0  | 1+1 | 1+2 |
|------|------|-----|-----|
| Prop | 1400 | 500 | 500 |



## Allowable loads of System 2000

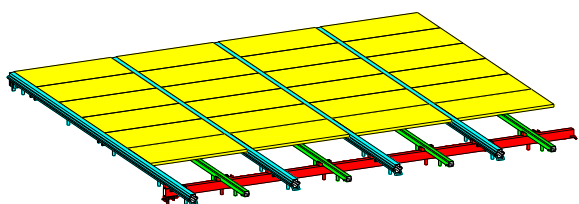
### standard 1 m



**Board 1m. Beam carriers a 1m.**

|                                  |     |     |     |     |     |     |     |     |     |
|----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Self-weight (kg/m <sup>2</sup> ) | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 |
| Live loads (kg/m <sup>2</sup> )  | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| Spacing Beam carrier. (m)        | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| Prop load (kg)                   | 420 | 472 | 525 | 577 | 630 | 682 | 735 | 787 | 840 |

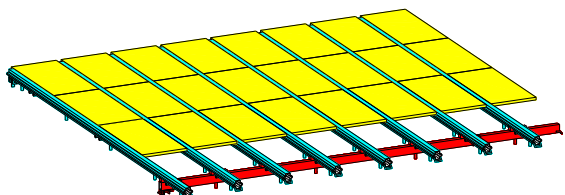
### with capital beam



**Board 1m. Beam carriers and beams at 0.5 m.**

|                                   |     |     |     |      |      |      |      |      |
|-----------------------------------|-----|-----|-----|------|------|------|------|------|
| Self-weight (kg/m <sup>2</sup> )  | 650 | 750 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 |
| Live loads (kg/m <sup>2</sup> )   | 150 | 150 | 150 | 150  | 150  | 150  | 150  | 150  |
| Spacing Beam carrier. – Beam. (m) | 0,5 | 0,5 | 0,5 | 0,5  | 0,5  | 0,5  | 0,5  | 0,5  |
| Prop load (kg)                    | 420 | 472 | 550 | 605  | 656  | 710  | 762  | 815  |

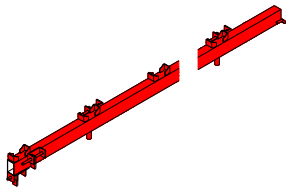
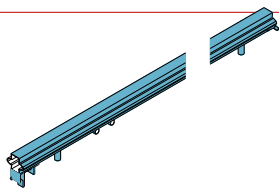
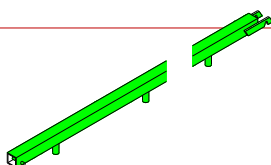
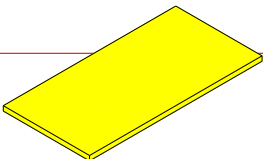
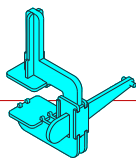
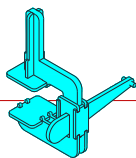
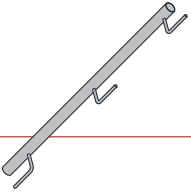
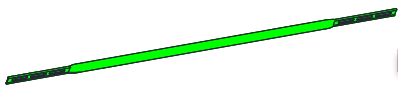
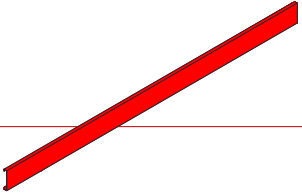
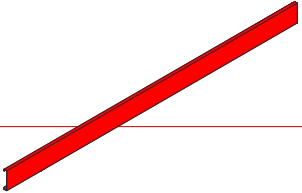
### reinforced 0.475 m



**Board 0,475m. Beam carriers a 0,5m.**

|                                  |     |     |     |      |      |      |      |      |
|----------------------------------|-----|-----|-----|------|------|------|------|------|
| Self-weight (kg/m <sup>2</sup> ) | 650 | 800 | 950 | 1100 | 1300 | 1400 | 1600 | 1800 |
| Live loads (kg/m <sup>2</sup> )  | 150 | 150 | 150 | 150  | 150  | 150  | 200  | 200  |
| Spacing Beam carrier. (m)        | 0,5 | 0,5 | 0,5 | 0,5  | 0,5  | 0,5  | 0,5  | 0,5  |
| Prop load (kg)                   | 420 | 500 | 577 | 656  | 762  | 815  | 945  | 1050 |

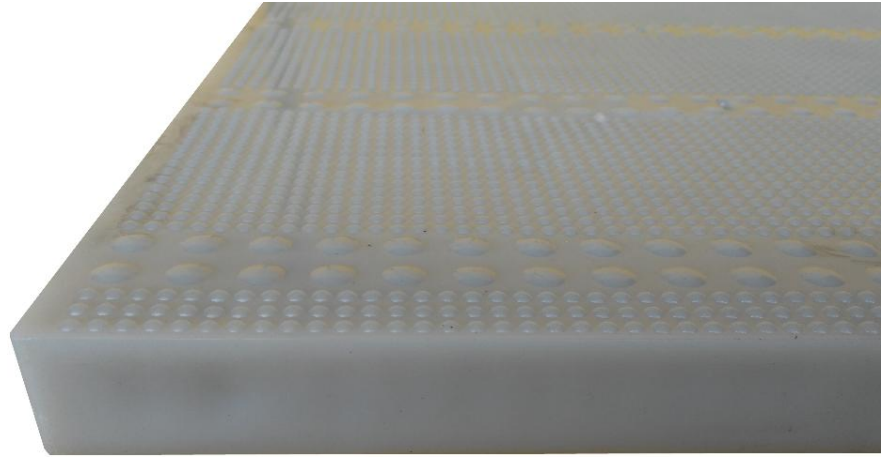
## System 2000 elements

|                                                                                                                                                                            |                           |                      |                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------|-----------------------------------------------------------------------------------------------------|
|                                                                                           | GUIDE 4.20 and 2.10 m     |                      |                                                                                                     |
|                                                                                                                                                                            | DIMENSIONS (mm)           | WEIGHT (kg)          | DESCRIPTION                                                                                         |
|                                                                                                                                                                            | 4200<br>2100              | 22,2<br>13,0         | They level the beam carriers and are used to assemble the frame                                     |
|                                                                                           | BEAM CARRIER 4, 3 and 2 m |                      |                                                                                                     |
|                                                                                                                                                                            | DIMENSIONS (mm)           | WEIGHT (kg)          | DESCRIPTION                                                                                         |
|                                                                                                                                                                            | 4000<br>3000<br>2000      | 25,0<br>19,0<br>13,0 | Elements resistant elements that support the boards and concrete load until 3 days after concreting |
|                                                                                          | BEAM CAPITAL 4, 3 and 2 m |                      |                                                                                                     |
|                                                                                                                                                                            | DIMENSIONS (mm)           | WEIGHT (kg)          | DESCRIPTION                                                                                         |
|                                                                                                                                                                            | 4000<br>3000<br>2000      | 18,2<br>14,0<br>9,5  | Elements intermediate resistant elements that reinforce the board and the frame.                    |
| <br> | BOARD 1x0.5 m             |                      |                                                                                                     |
|                                                                                                                                                                            | DIMENSIONS (mm)           | WEIGHT (kg)          | DESCRIPTION                                                                                         |
|                                                                                                                                                                            | 1000x500<br>1000x500 PVC  | 6,2<br>8,3           | Recoverable formwork surface made of timber three-ply structure or PVC 27 mm thick.                 |
| <br> | SUPPORT G                 |                      |                                                                                                     |
|                                                                                                                                                                            | DIMENSIONS (mm)           | WEIGHT (kg)          | DESCRIPTION                                                                                         |
|                                                                                                                                                                            | 270x200                   | 3,4                  | Accessory for edge protection system and external board stop.<br>UNE EN 13374:2013 clase A          |
|                                                                                         | 1 m POST                  |                      |                                                                                                     |
|                                                                                                                                                                            | DIMENSIONS (mm)           | WEIGHT (kg)          | DESCRIPTION                                                                                         |
|                                                                                                                                                                            | 1000x110                  | 1,75                 | Accessory for edge protection system.<br>UNE EN 13374:2013 clase A                                  |
|                                                                                         | 2 m GUARDRAIL             |                      |                                                                                                     |
|                                                                                                                                                                            | DIMENSIONS (mm)           | WEIGHT (kg)          | DESCRIPTION                                                                                         |
|                                                                                                                                                                            | 2200x40                   | 2,7                  | Accessory for edge protection system.<br>UNE EN 13374:2013 clase A                                  |
|                                                                                         | 2.5 m TOE BOARD           |                      |                                                                                                     |
|                                                                                                                                                                            | DIMENSIONS (mm)           | WEIGHT (kg)          | DESCRIPTION                                                                                         |
|                                                                                                                                                                            | 2500x150                  | 6,5                  | Accessory for edge protection system.<br>UNE EN 13374:2013 clase A                                  |

## PP board 1000x500

### characteristics

The SAEZ 1 m PP board is a highly versatile plastic panel suitable for many end uses. The panel is lightweight yet very strong and rigid, making it perfect for structural uses and load-bearing slab applications. Its non-slip surface provides high safety for work at height.



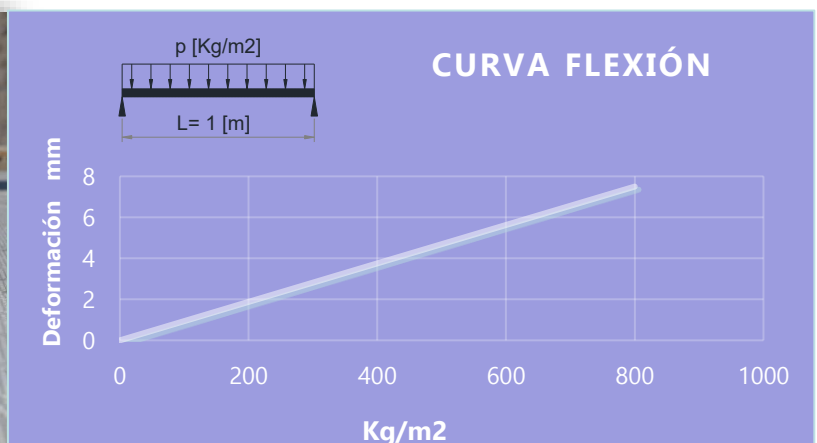
### strength

The board contains internal metal profiles that minimise deflection and achieve minimal deformation.

### durability

The plastic contains an anti-UV additive that provides long-term durability. Thanks to the quality of the manufacturing system and its design, the board can be reused for at least 300 cycles.

|                    |                                                                                                                              |                |
|--------------------|------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Product</b>     | PP board 1 m                                                                                                                 |                |
| <b>Material</b>    | Special polypropylene. Density = 0.8989 g/cm <sup>3</sup> .<br>Melt flow index 1.9 g/10 min at 230 °C and 2.16 N             |                |
| <b>Dimensions</b>  | Length                                                                                                                       | 1000 mm ± 1 mm |
|                    | Width                                                                                                                        | 500 mm ± 1 mm  |
|                    | Thickness                                                                                                                    | 27 mm          |
| <b>Weight</b>      | 8.26 kg/unit                                                                                                                 |                |
| <b>Suitability</b> | Helps improve site costs. With the same number of boards, a greater number of cycles can be formed                           |                |
| <b>Safety</b>      | Non-slip surface. Board dimensional stability and measurement accuracy.                                                      |                |
| <b>Service</b>     | Transport logistics adapted to the specific needs of construction.                                                           |                |
| <b>Storage</b>     | Boards must be stored horizontally and raised off the floor using a suitable support system that keeps them completely flat. |                |



**Board Three-ply 1000x500x27****20 uses**

Service Life

**12% ±2%**

Optimum Moisture

**6 kg/unit**

Average Weight

**MELAMINE**

Superior Protection

**1 Structure Three-ply 27 mm**

9 mm cross layers that guarantee superior structural strength.

**2 Perfect Fit**

High-precision calibration for a professional finish with no misalignment.

**3 Melamine Coating**

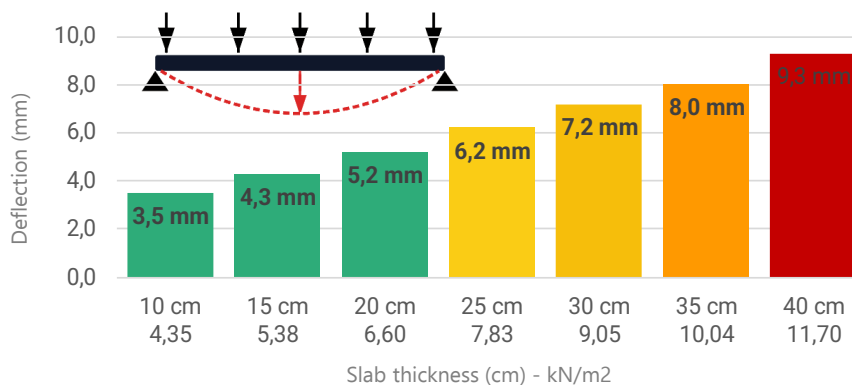
Protection that ensures easy stripping and an excellent concrete finish



- ✓ **Premium surface:** Exposed concrete, extremely smooth.
- ✓ **Water-repellent sealing:** Minimum moisture absorption.
- ✓ **Service life:** 15-25 uses (depending on use and maintenance).

**PROPERTIES**

|                                     |                 |
|-------------------------------------|-----------------|
| Length (mm)                         | 1000            |
| Width (mm)                          | 500             |
| Thickness (mm)                      | 27              |
| Weight (kg)                         | 6,0             |
| R (N/mm <sup>2</sup> ) Longitudinal | 40              |
| E (MPa) Longitudinal                | 10000           |
| Wood type                           | Pine            |
| Moisture                            | 12% ±2%         |
| Surface Protection                  | Melamine        |
| Edge sealing                        | Water-repellent |

**Deflection as a function of load. Board Simply supported. Span = 1 m**

**Technical Note:** Load calculated at 12% moisture. At fibre saturation, mechanical capacity can be reduced by 30%.