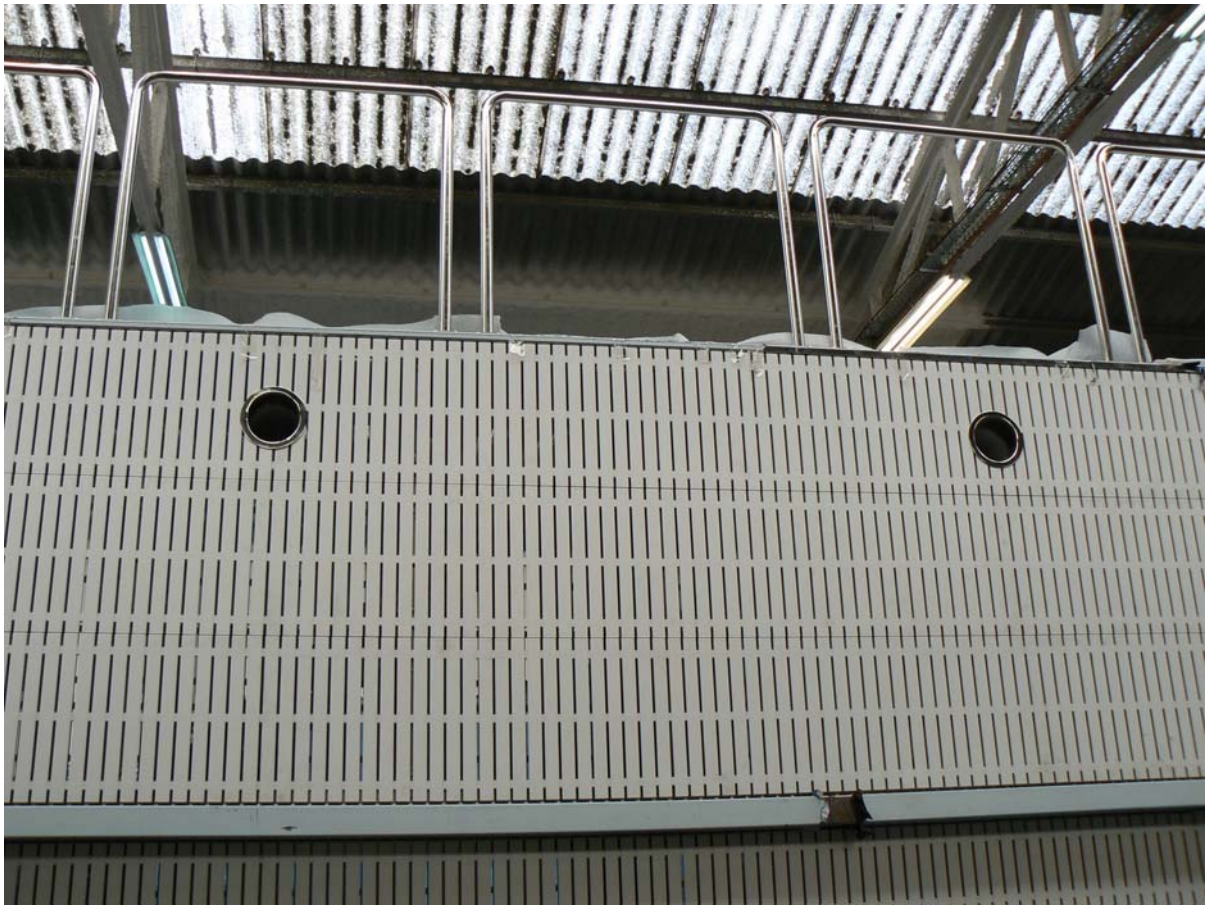
USER MANUAL

USE AND MAINTENANCE

MOVEABLE POOL BULKHEAD

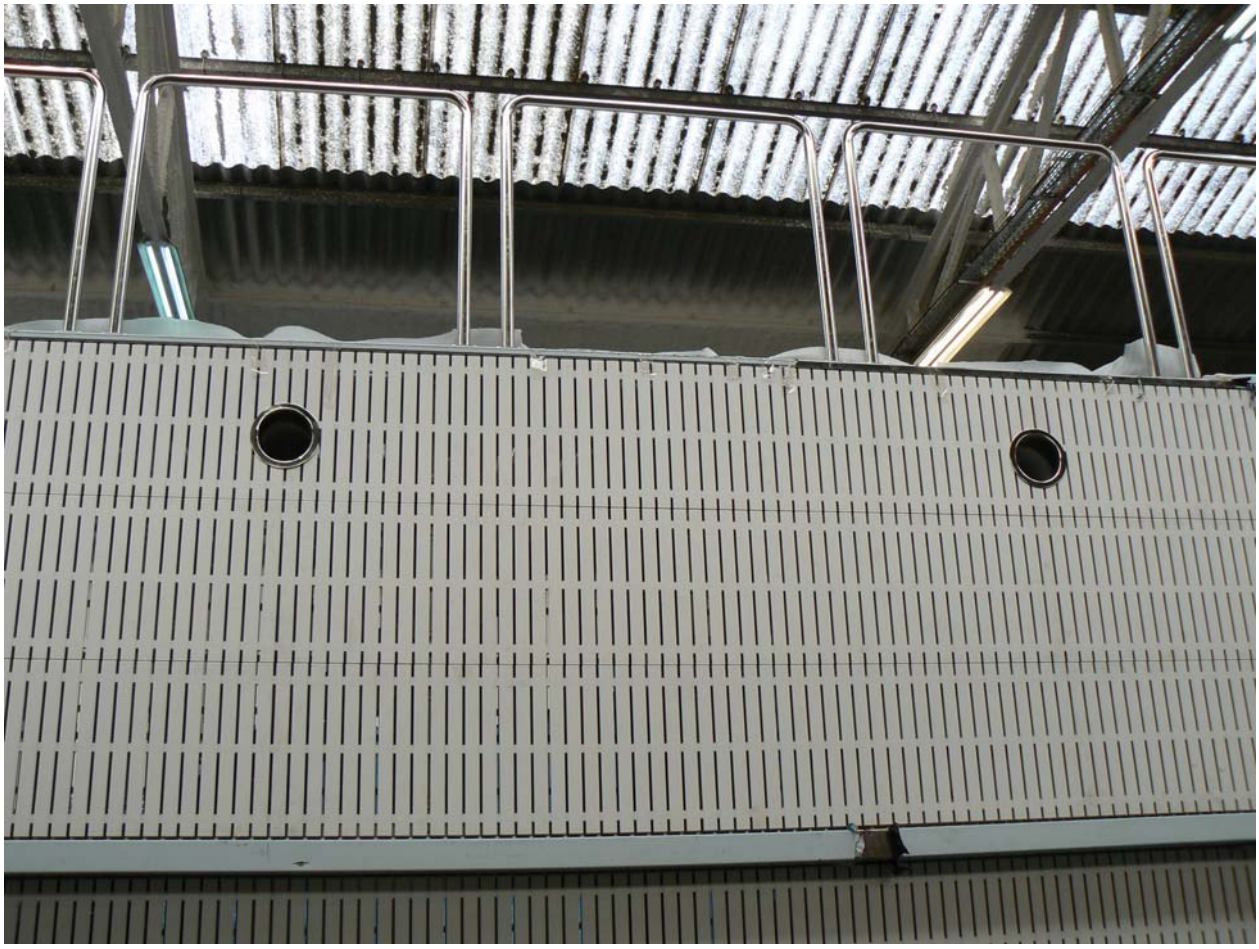
This manual, in accordance with Directive D 2006/42/CE of 17 May 2006, is aimed at personnel responsible for the use and maintenance of the machine.



PRODEN Projectes i Serveis Integrals d'Enginyeria Pg. dels Pins, 51-53 local 51D 08980 Sant Feliu of Llobregat
Tel: 93 685 58 13 Fax: 93 685 69 70 e-mail: proden@teleline.es

MOVEABLE POOL BULKHEAD

MANUFACTURER:	METALAST S.A.U
ADDRESS:	Pg. SANLLEHY, 25 08213 POLINYÀ (BARCELONA)
TEL.:	93 713 18 55
MODEL:	PMA0106
YEAR OF MANUFACTURER:	DECEMBER 2006



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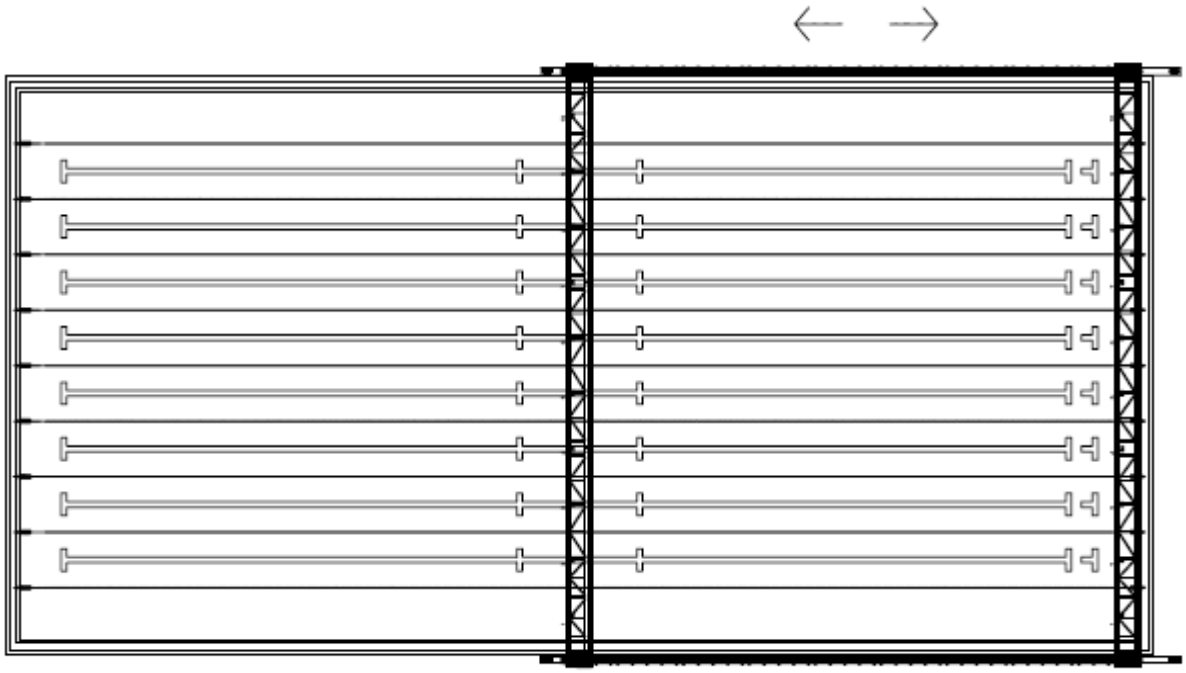
1. Normal use of the machine and other uses to which it can be put

The MOVEABLE POOL BULKHEAD is designed to move a moveable bulkhead along a pool with the aim of increasing or decreasing its length to 25 or 50 m.



No alternative use is intended other than that for which the machine has been designed.

The machine is designed for use by a single person.

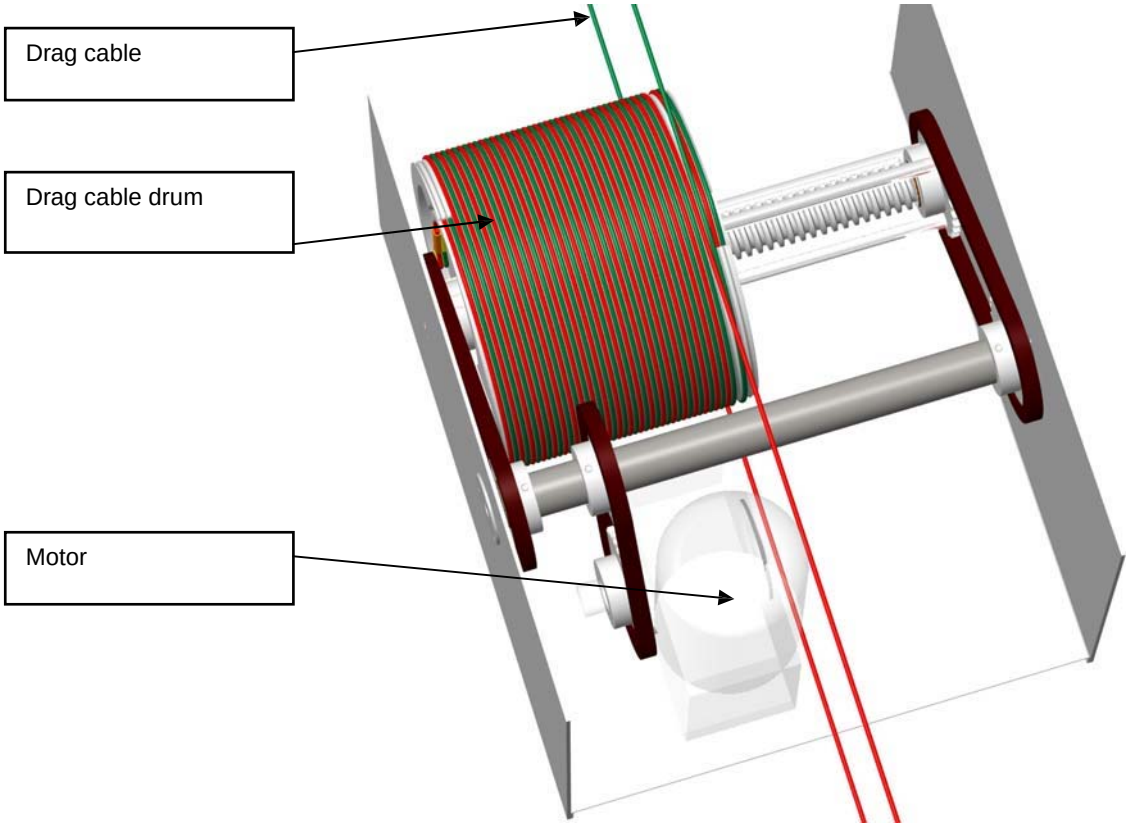
2. Commissioning

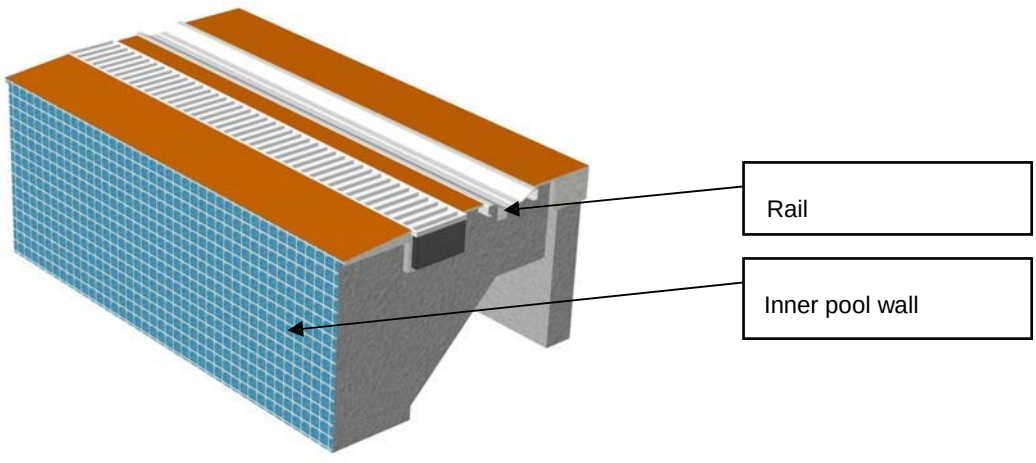
The commissioning will be carried out by the company METALAST, S.A.U which promises to leave the machine in operation and to provide essential initial training to the personnel who are going to be using it.

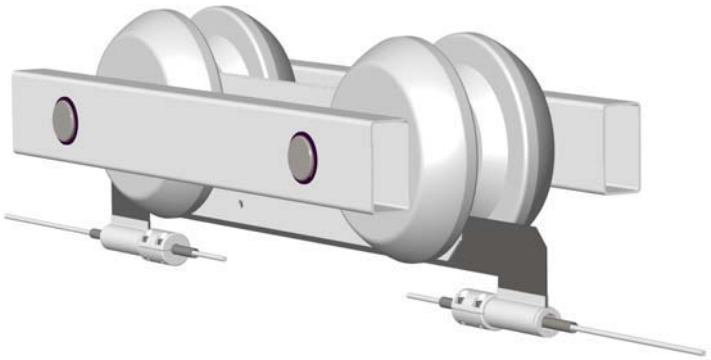
3. The workstation

The function of this machine is to move a drag cable drum using the motion of an electric motor and using axles and transmission belts. The drag cable is responsible for moving the bulkhead along tracks and thereby varying the length of the pool from 50 to 25 m.

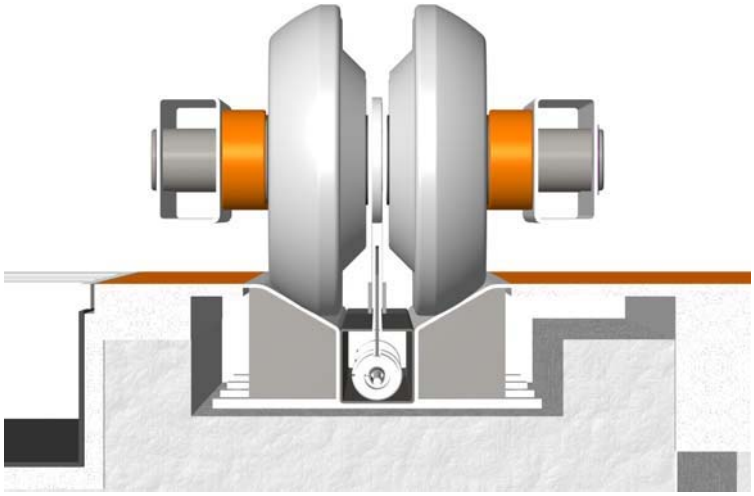
The worker needs to be located in the area surrounding the pool in order to ensure that there are no people in the vicinity of the trajectory of the bulkhead.



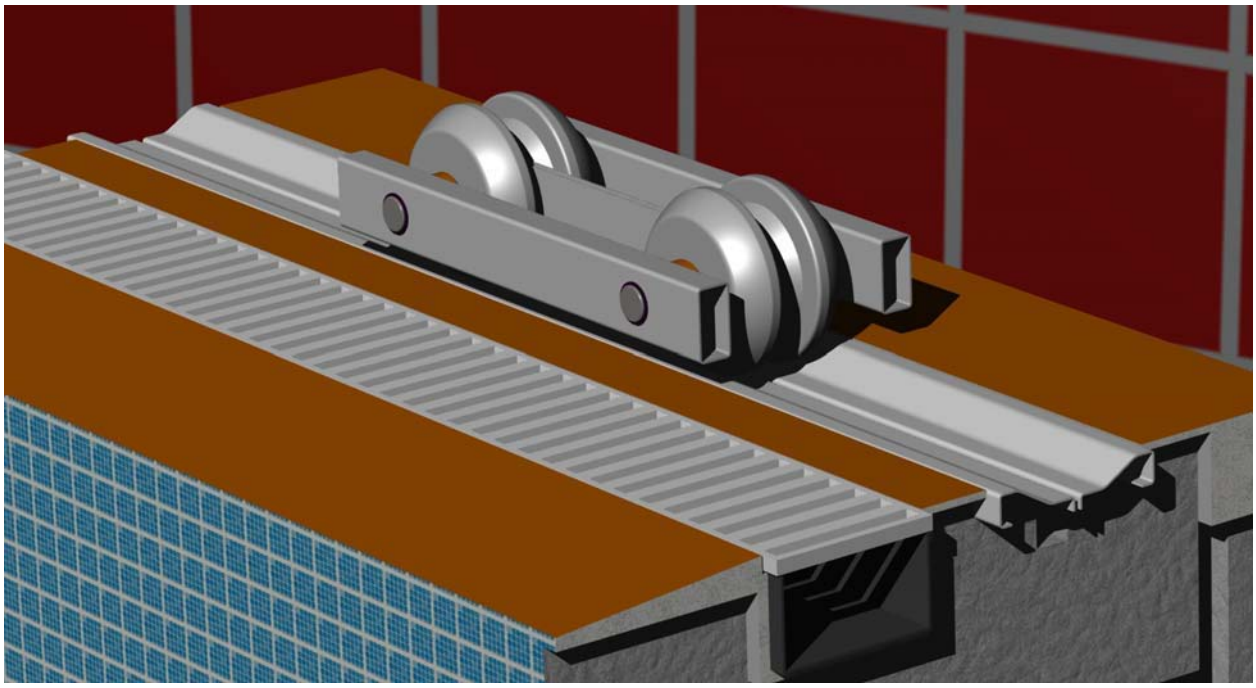




Wheel and fork assembly

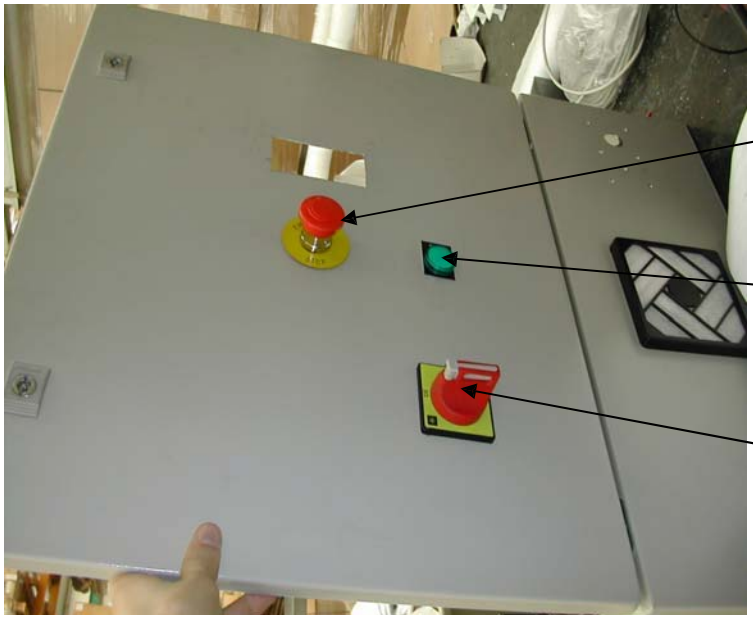


Cross section of wheel, fork and rail assembly



4. How to use the machine

4.1. Control system

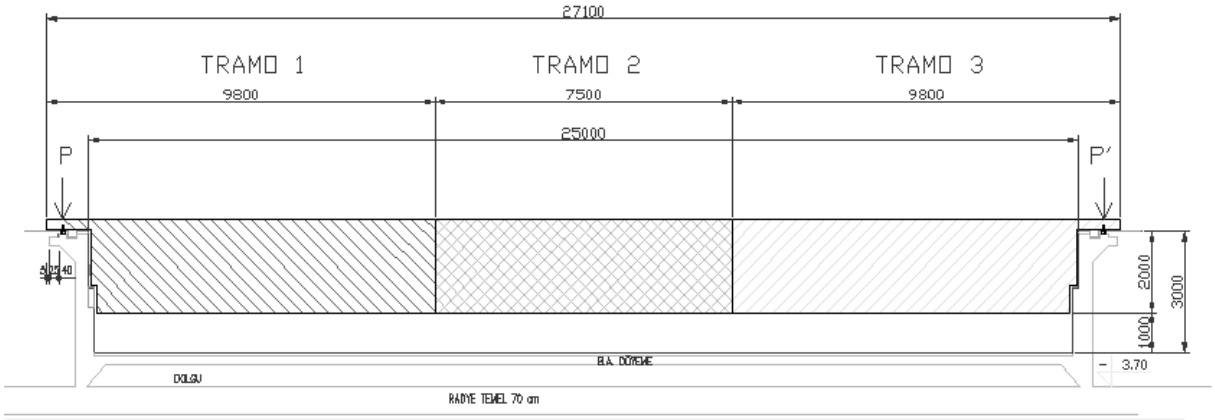


4.2. Operating the machine

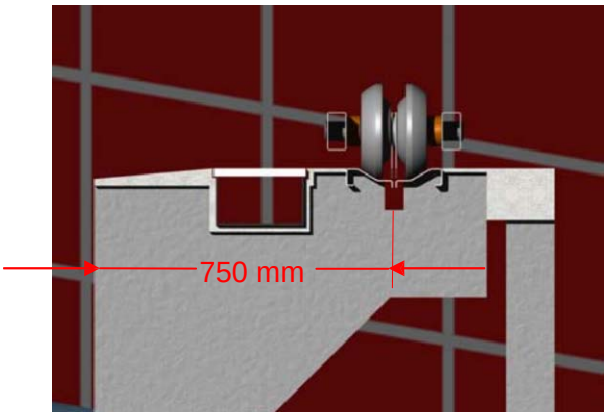
Operating mode:

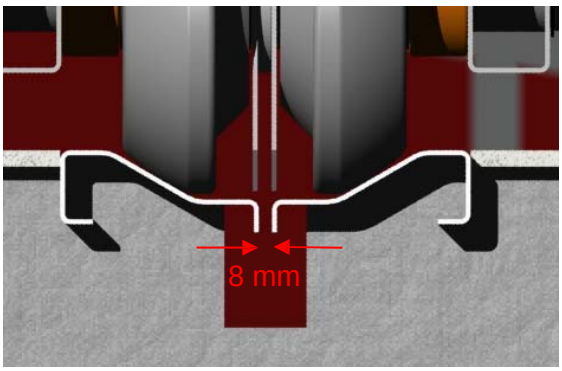
The output shaft of the electric motor transmits the rotation movement to a cylinder by a belt. This cylinder transmits the movement by 2 belts to a threaded cylinder attached to the drag cable drum. When this drum turns at the same time as moving horizontally along the threaded shaft, the cable is gathered up in order to move the bulkhead to one or another position. An encoder is responsible for stopping the bulkhead in the desired position.

The bulkhead, made of stainless steel (AISI 304) and covered in white plastic anti-skid slats, moves along tracks located on the sides of the pool at a distance of 750 mm from the water's edge.



As we have seen, the traction system works using a cable. This drag cable is hidden within the cable roller guide.





In the event of failure of the encoder the machine has several inductive detectors located at the beginning and end of the bulkhead trajectory which would stop the machine if the buffers of the bulkhead are passed (programmed impulses to the encoder).

For increased safety there are also limit switches along the threaded cylinder belt that the drag cable drum moves along so that the latter does not touch the edges of the fixed guard in the event of system failure.

Activation:

Activate the main switch located on the machine's electrical box. The machine on light will be illuminated.

Check there is nobody on top of the moveable bulkhead and in areas around the pool.

The cycle is started using the cycle start switches located on the radio-control keypad. There are two cycle start switches, one to position the bulkhead so that the length of the pool is reduced to 25 m, and another to 50 m.

When the cycle is started a luminous signal (beacon) is automatically activated and an acoustic signal sounds so that people who are close to the moveable bulkhead during its operation are aware of the possible risk.

The machine has two emergency stops, one located on the machine's main electrical box and another located on the radio-control keypad. In the event of an emergency stop, to return to normal use of the machine it is necessary to release the emergency stop and reset the machine.

No type of qualifications are required by personnel for normal operation of the machine.

IT IS OBLIGATORY THAT THIS MANUAL IS READ BY THE OPERATOR BEFORE USING THE MACHINE.

5. Installation, assembly and dismantling

METALAST S.A.U takes responsibility for the installation of the machine on the premises where it is going to be used and for preparing it for use.

6. Basic characteristics of tools that can be connected

No type of tools is required to operate the machine.

Personal protective equipment is **not required** (safety gloves and boots).

7. Adjustment

No type of adjustment is needed.

8. Training instructions

The maintenance manager of the company METALAST, S.A.U will provide a training session for personnel who will be using the machine. This training session will be given once the machine is installed and has been checked.

Once the training session has been held, the operator will be given this User Manual to read.

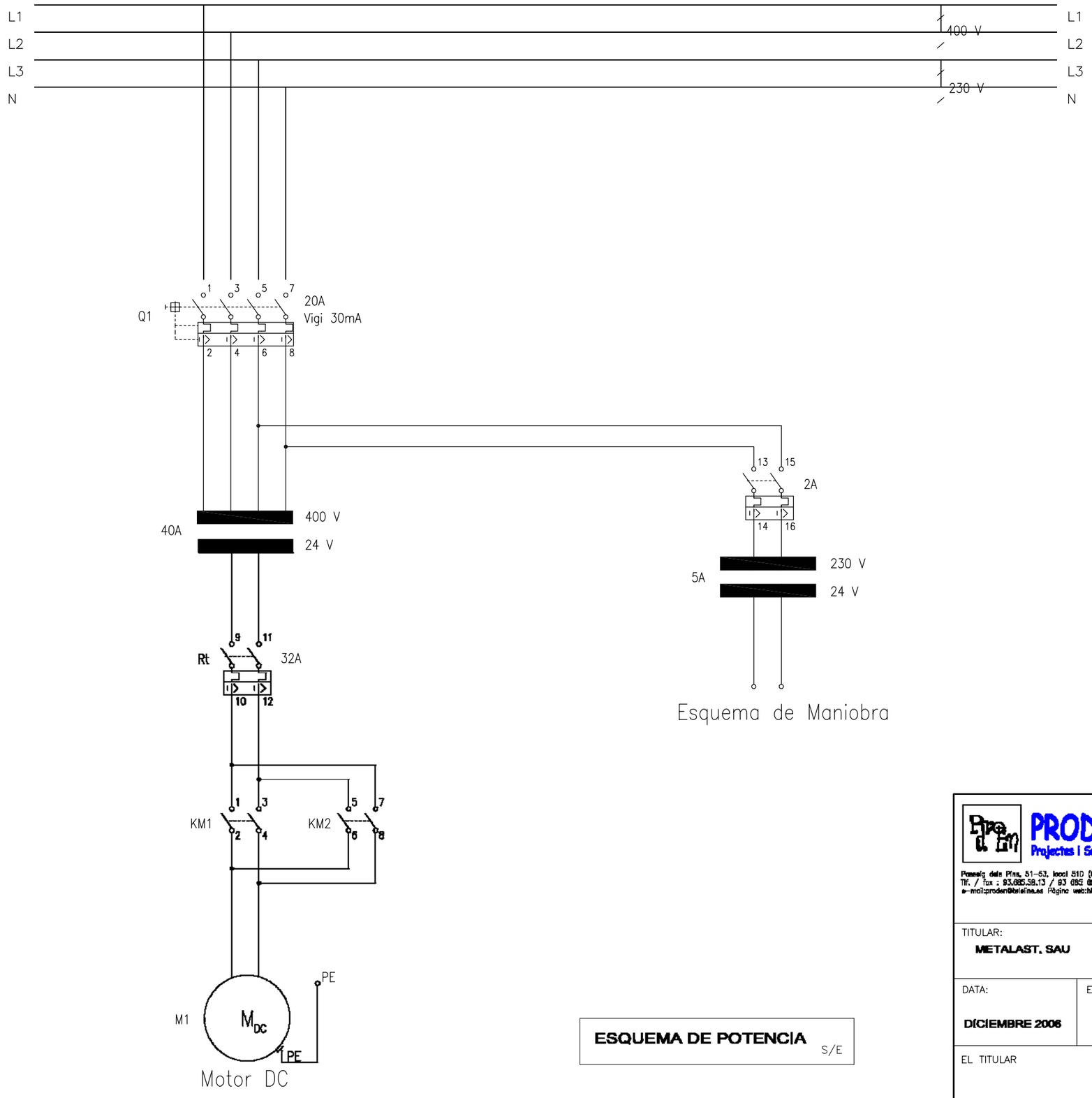
9. Technical characteristics

TECHNICAL CHARACTERISTICS	**PMA0106**
Motor power	-
Horse power	-
Dimensions of bulkhead	
Total length	27200 mm
Width	1200 mm
Height	2230 mm
Depth under the water level	2000 mm
Total weight of bulkhead	8050 Kg
Maximum load on track support	80 KN
Speed of bulkhead	-
Trajectory cycle time	-
Distance covered by bulkhead	25 m
Level of acoustic pressure	$L_{eqA} < 70$ dB

Appendices

A. Plans and diagrams

AD-1 Electrical box. Diagram of power supply
AD-2 Electrical box. Diagram of manoeuvring and signalling
AD-3 Electrical box. Plan
AD-4 Bulkhead structure
AD-5 Bulkhead
AD-6 Installation of bulkhead
AD-7 Excavation of track siting in pool



ESQUEMA DE POTENCIA S/E

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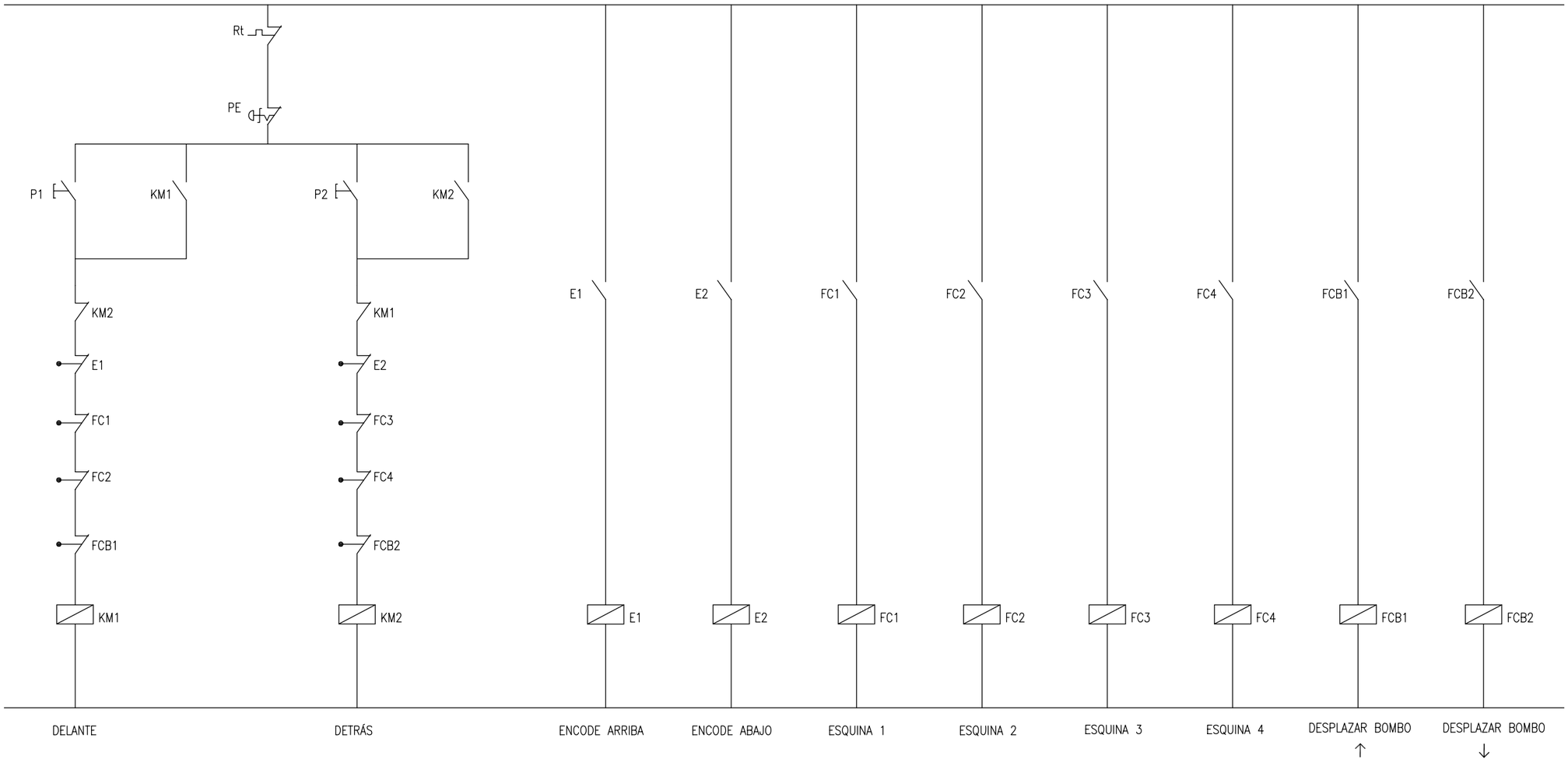

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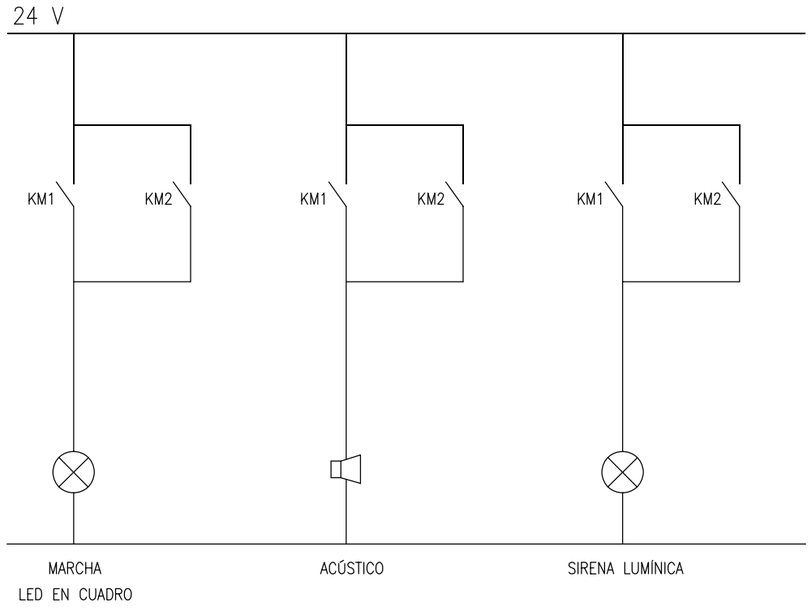

ESQUEMA DE **SEÑALIZACIÓN** S/E

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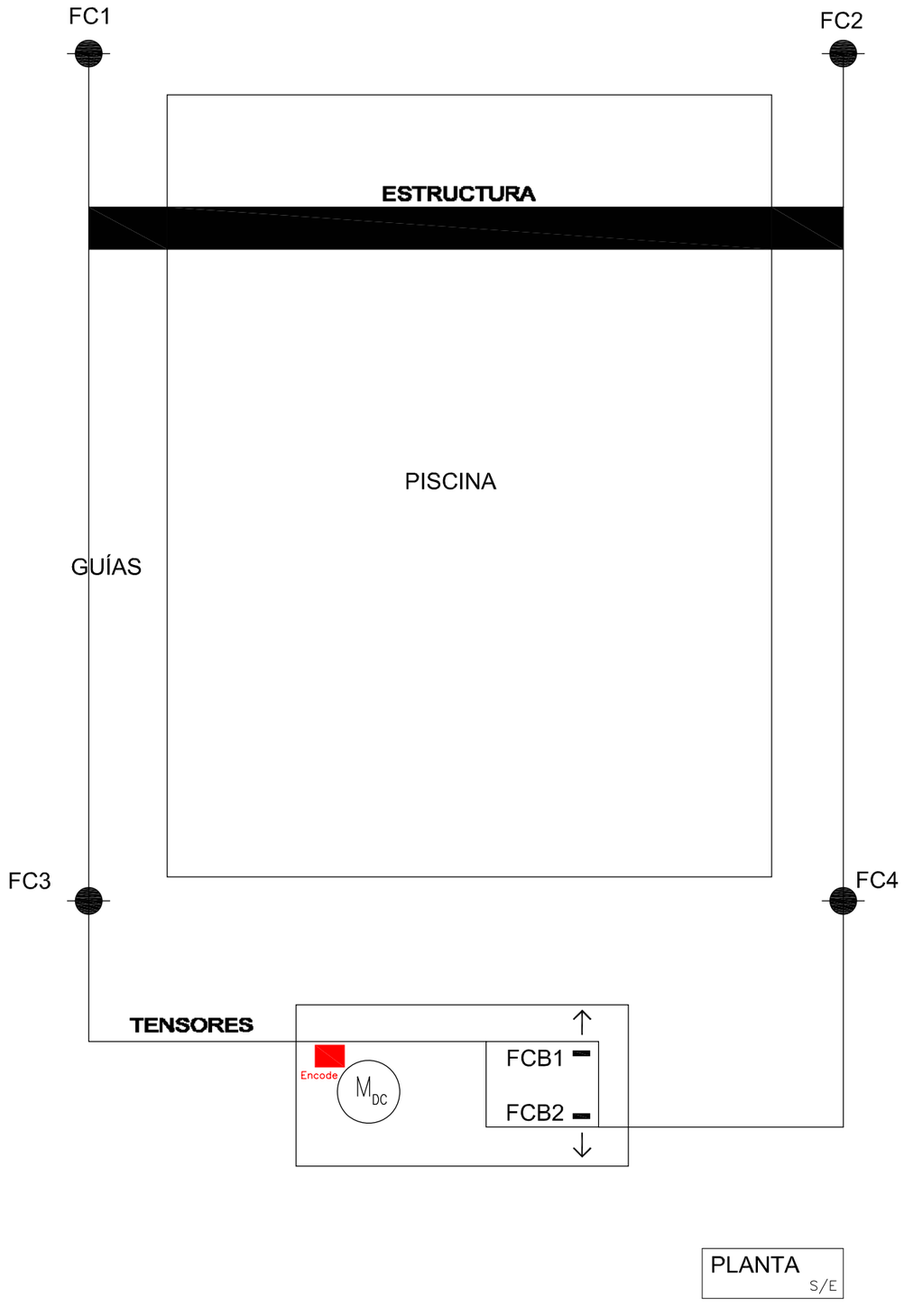

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P2	PU SADOP DΓIPAS
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I M2	CONIACIOP MOIOP DΓIPAS
Γ1	PΓL ΓNCODΓP DΓ ANIΓ
Γ2	PΓL ΓNCODΓP DΓIPAS
ΓC1	ΓINA CAPPΓPA ΓSOUINA 1
ΓC2	ΓINA CAPPΓPA ΓSOUINA 2
ΓC3	ΓINA CAPPΓPA ΓSOUINA 3
ΓC I	ΓINA CAPPΓPA ΓSOUINA I
ΓCP1	ΓINA CAPPΓPA POMPO MOIOP 1
ΓCP2	ΓINA CAPPΓPA POMPO MOIOP 2

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ESCALA: S/E

DIBUIXAT: O.M.C.

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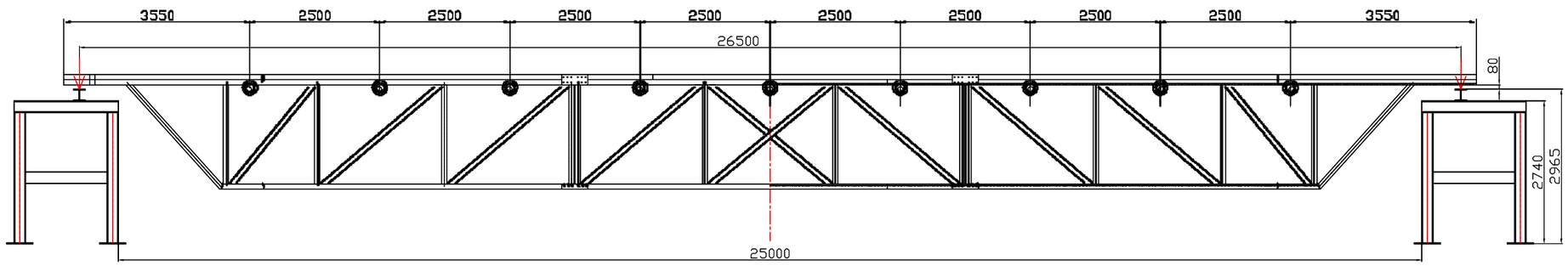

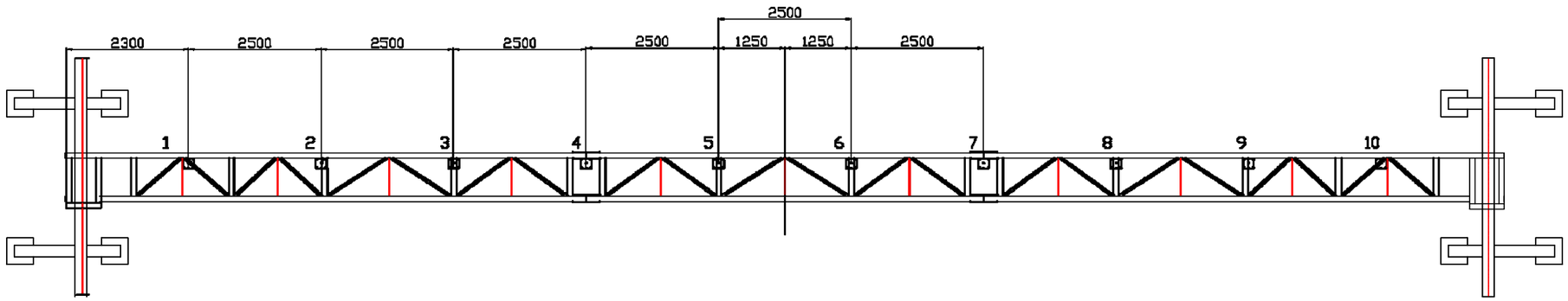

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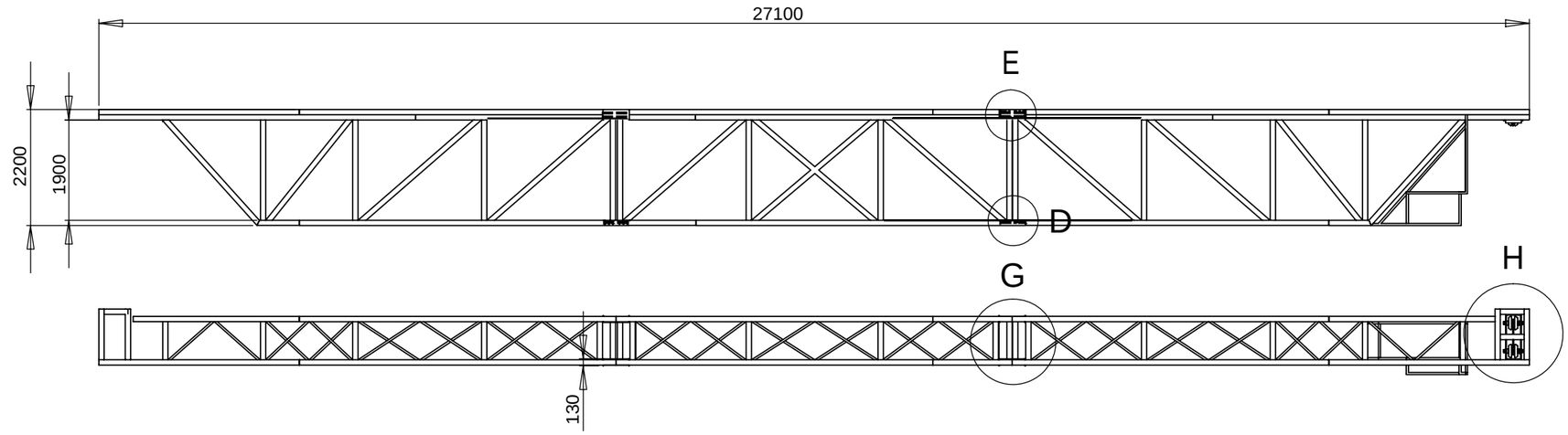

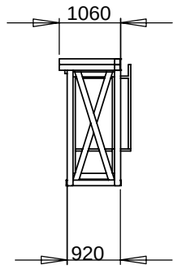

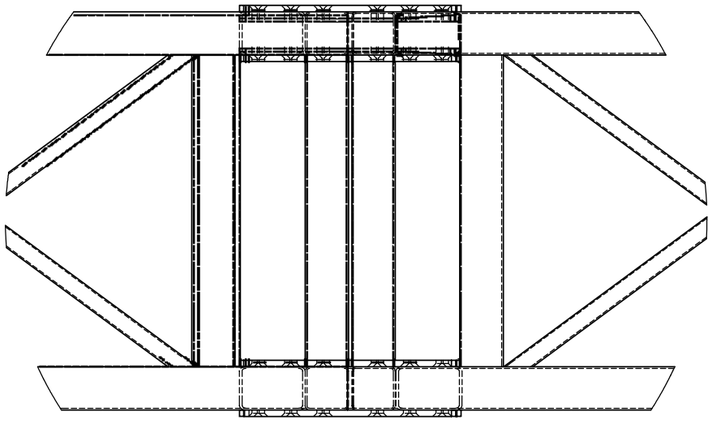

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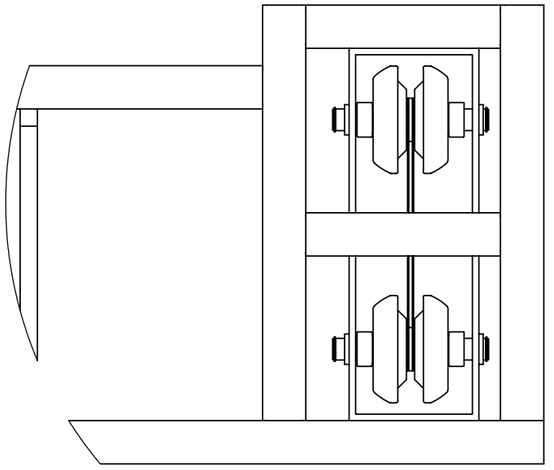

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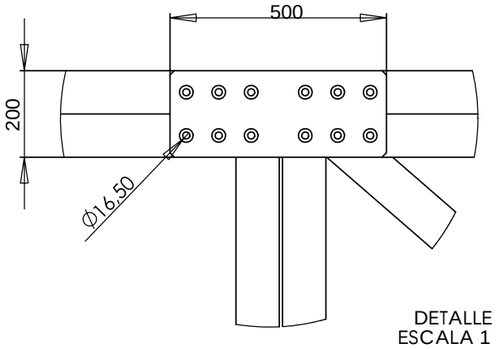

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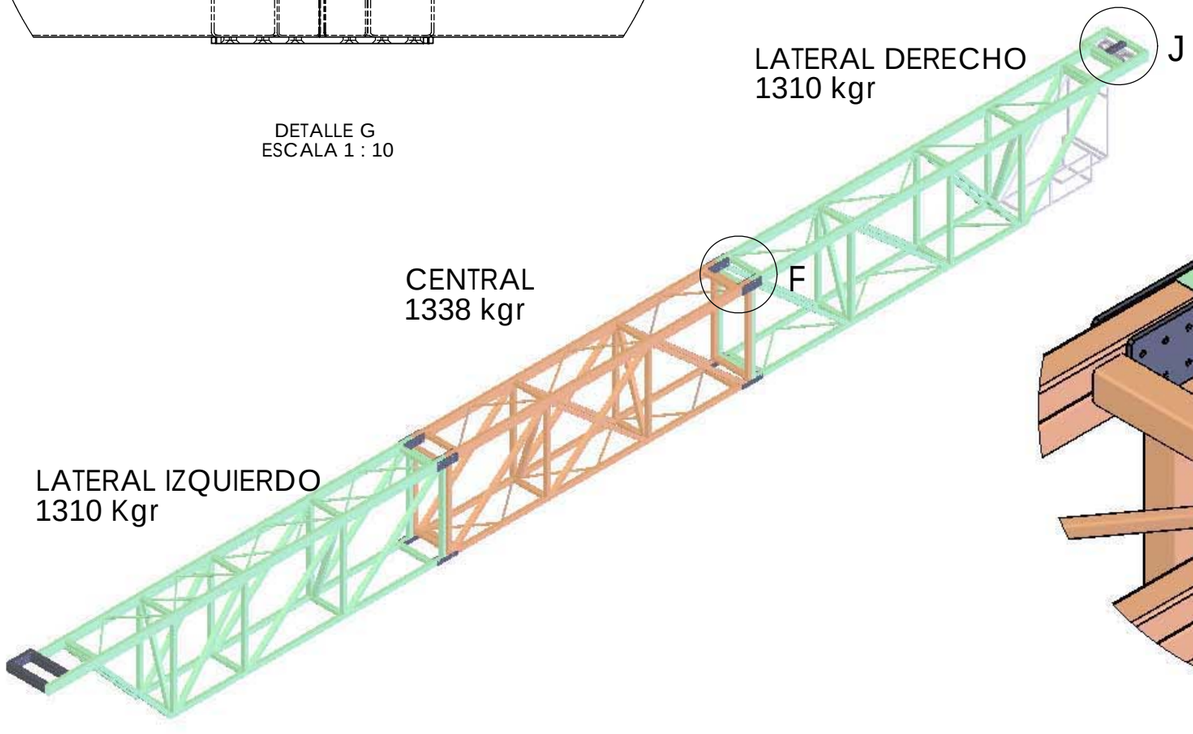

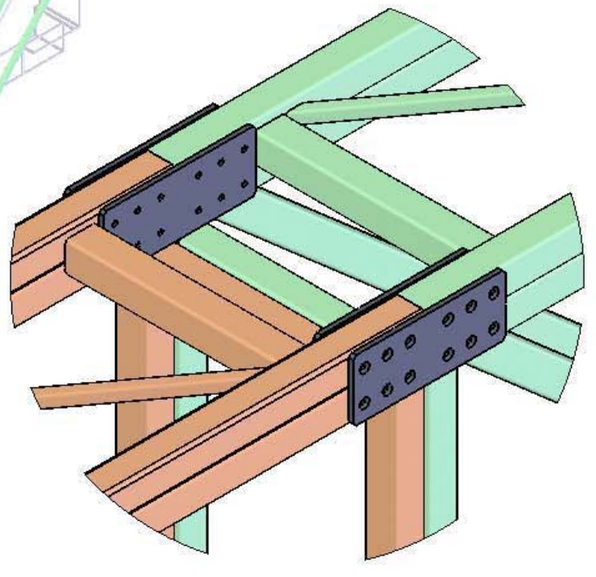

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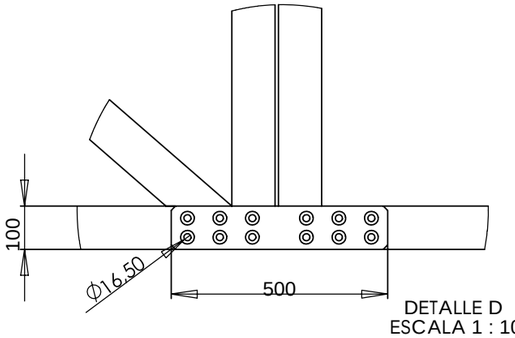

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CHK'D					
APPV'D					
MFG					
Q.A					
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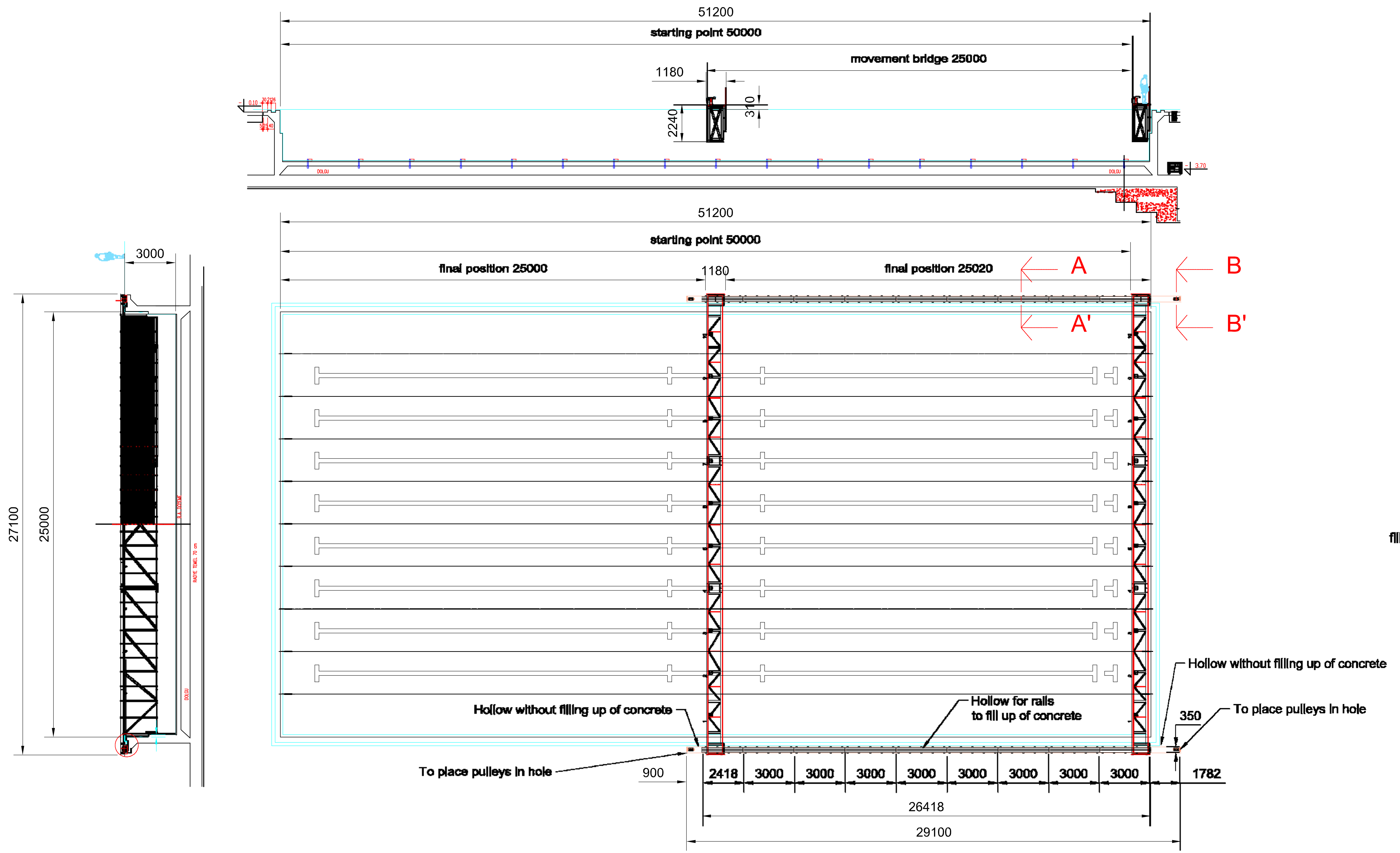

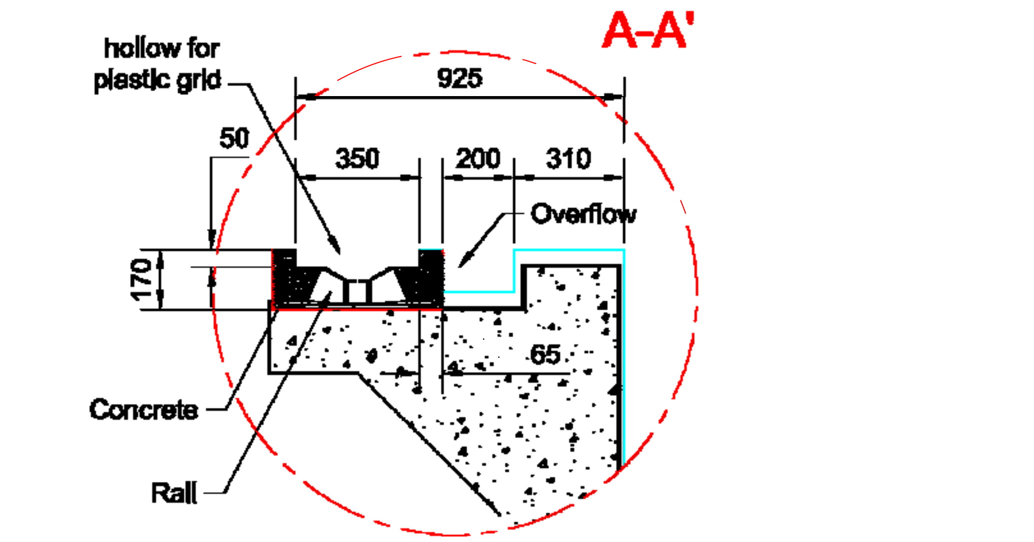

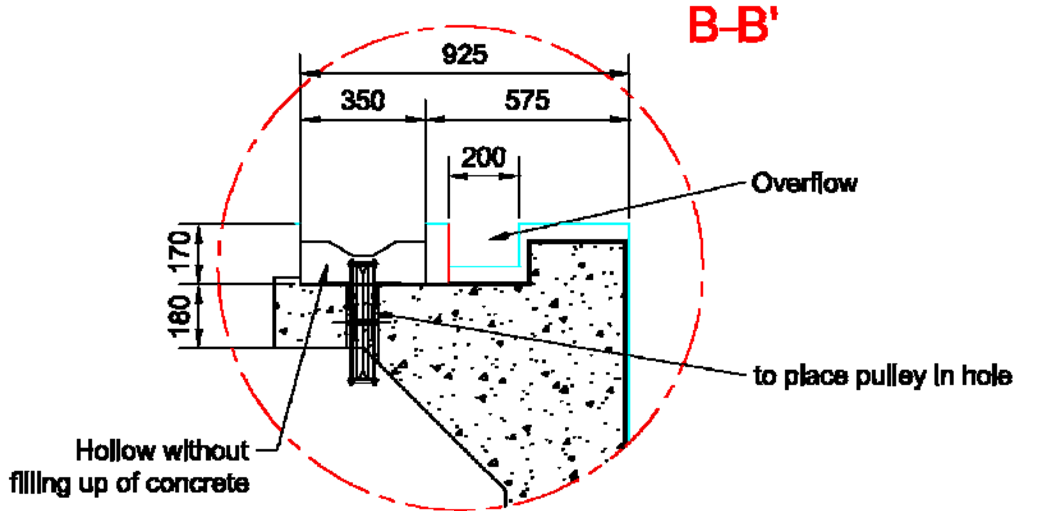

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CODI: EXP-01

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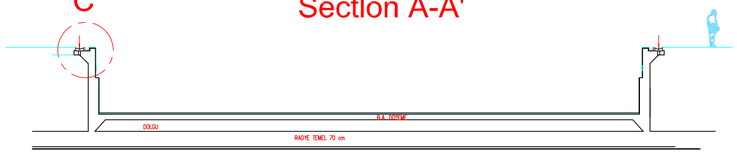

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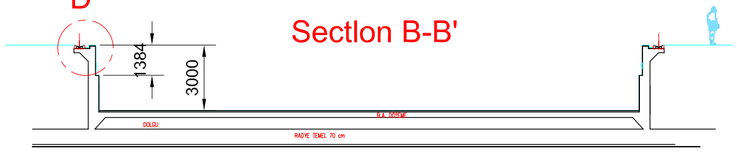

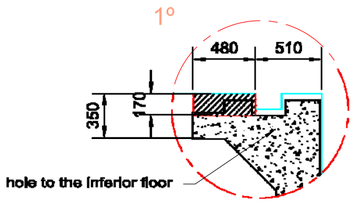

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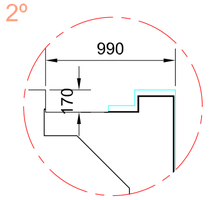

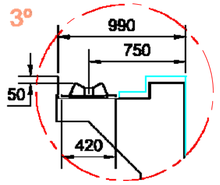

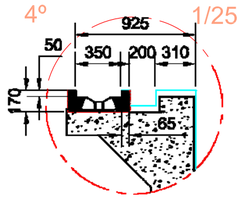

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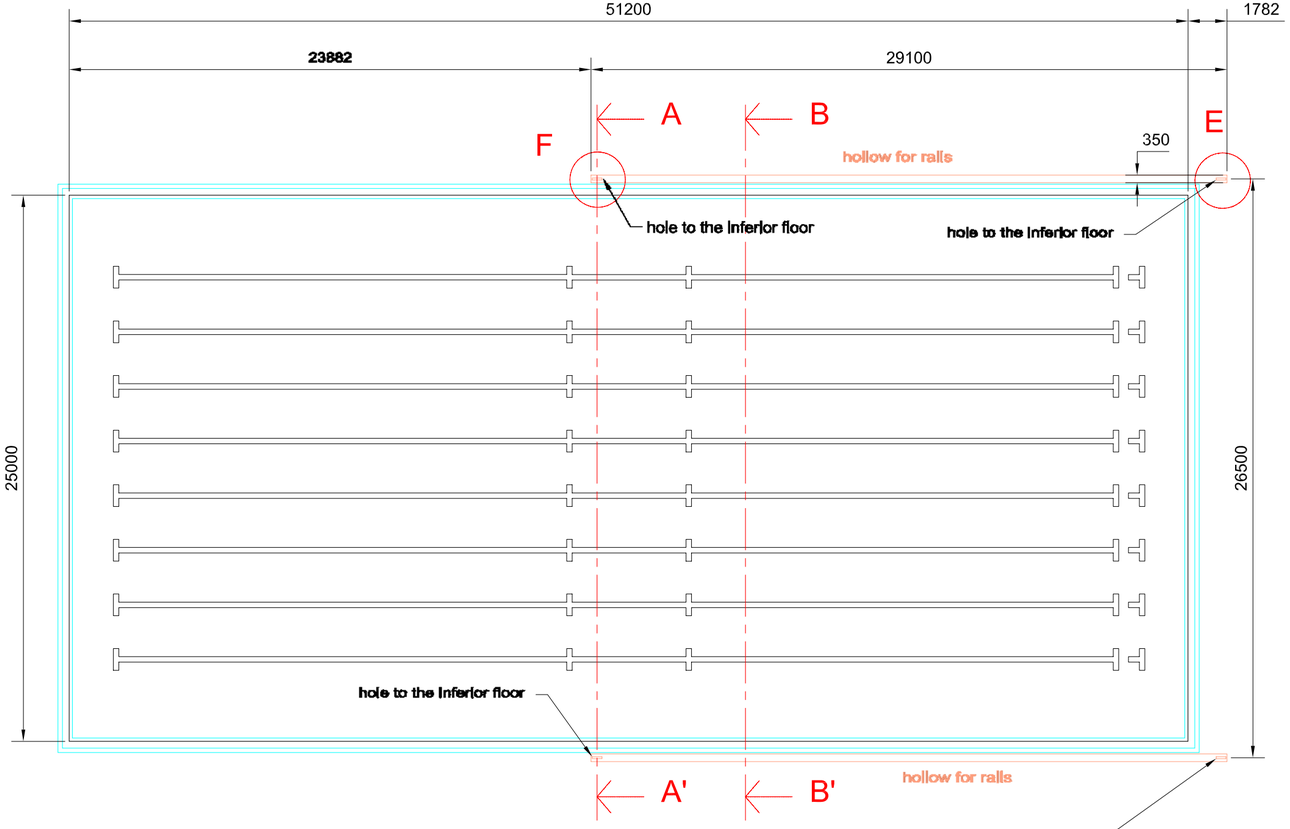

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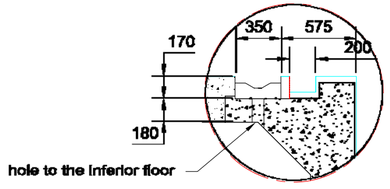

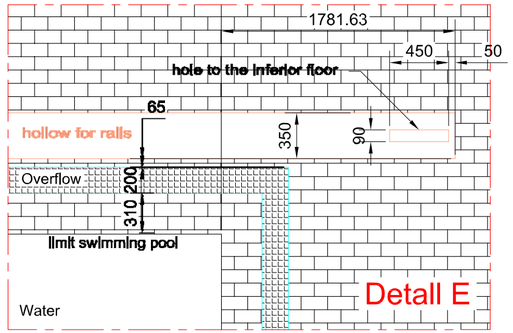

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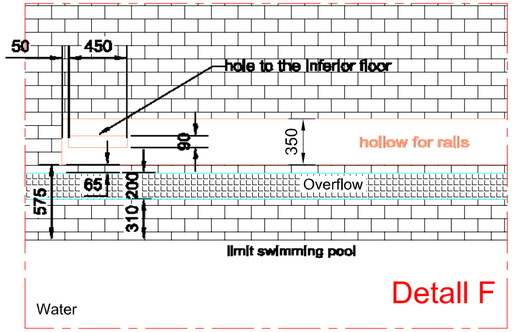

Detall F

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