MARQUES

# PCM M1500e CO

METAL-CONCRETE



## WEIGHING A NEW WORLD

www.balancasmarques.com

Readers' Choice 2014 weighing review WINNER!
Readers' Choice 2015 weighing review WINNER!
Readers' Choice 2016 weighing review WINNER!
Readers' Choice 2017 weighing review WINNER!
Readers' Choice 2019 weighing review WINNER!
Readers' Choice 2020 weighing review WINNER!
Readers' Choice 2021 weighing review WINNER!
Readers' Choice 2023 weighing review WINNER!

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PCM M1500e CO

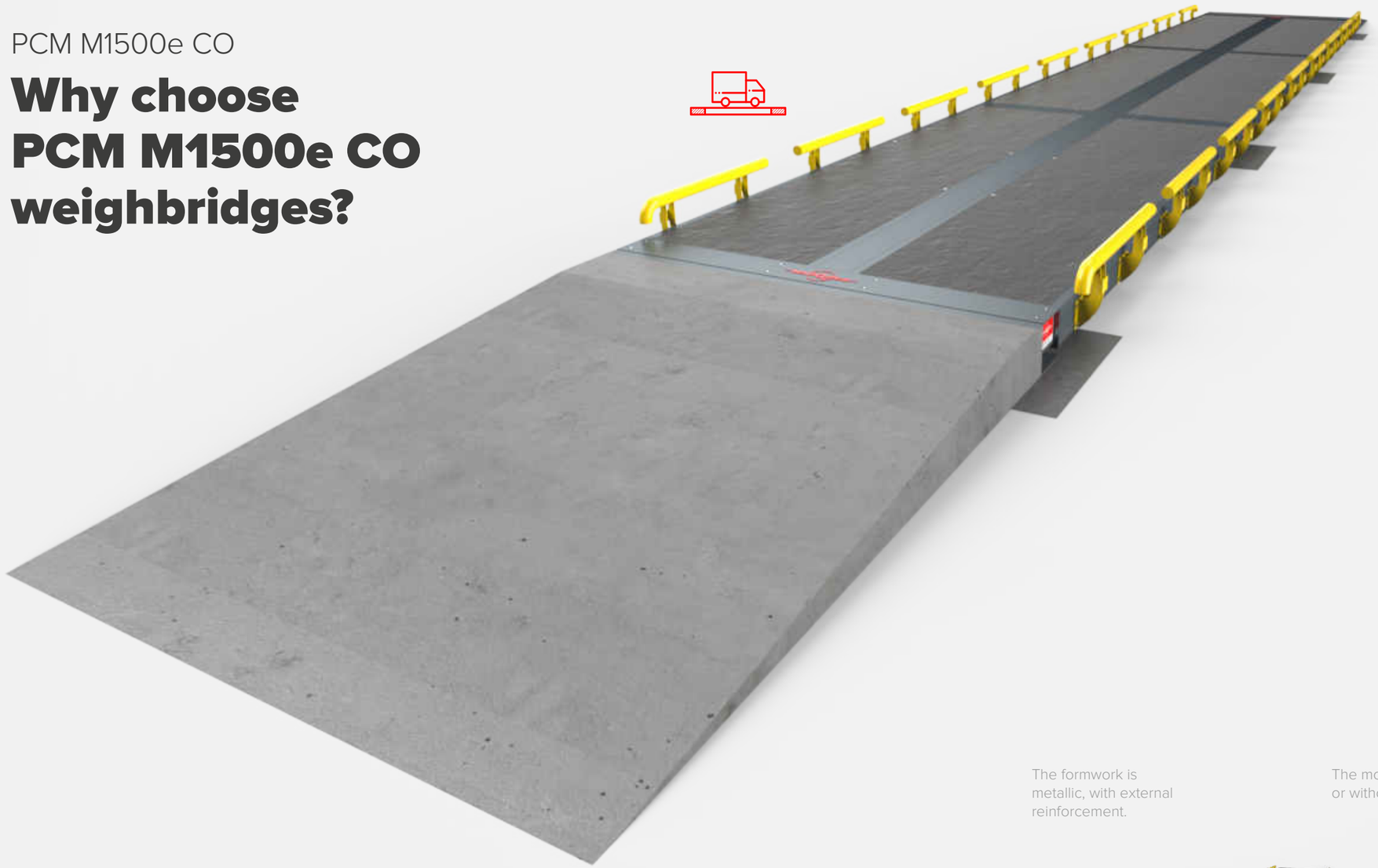
## Why choose PCM M1500e CO weighbridges?

The PCM M1500e CO, with narrower modules and a removable centre grid, is designed for easier transport and assembly, while maintaining the same strength, robustness and reliability.



PCM M1500e CO

# Why choose PCM M1500e CO weighbridges?



Installation above ground or built-in, formed by standardized metal-concrete modules with a width of 1,375 meters, allowing the construction of platforms up to 30 meters long and 3 meters wide (including a central grid of 25 cm width).

The XL version has a total width of 3.35 metres, with a 60 cm wide central grid.

Structure with intelligent profiles, designed by computer using the finite element calculation program (EMRC-NISA II) and fully welded in a robot. Bridge height of 240 mm and walkway height of 300 mm, forming a compact set of high strength and robustness. Simple and low-cost installation on the ground, with access ramps, or built-in, in a pit of only 300 mm of depth.



MARQUES

Reduced assembly time due to the great ease of fitting of the modules and the minimum number of screws required.

All assembly operations are carried out at the top of the platform. The placement of the load cells and the attack system is performed without fastening screws. The top and center cross beams carry the load cells assembled from the factory.

Wiring and connections made at the factory and applied in the assembly of the equipment. The PCM M1500e CO has upper covers to access the load cells and the mixing box and to facilitate the cleaning and maintenance of the weigbridge.

Removable central crosswalk.

The formwork is metallic, with external reinforcement.

The modules are supplied with or without concrete.

C30 / 35 concrete slab with anthracite-coloured surface hardener.



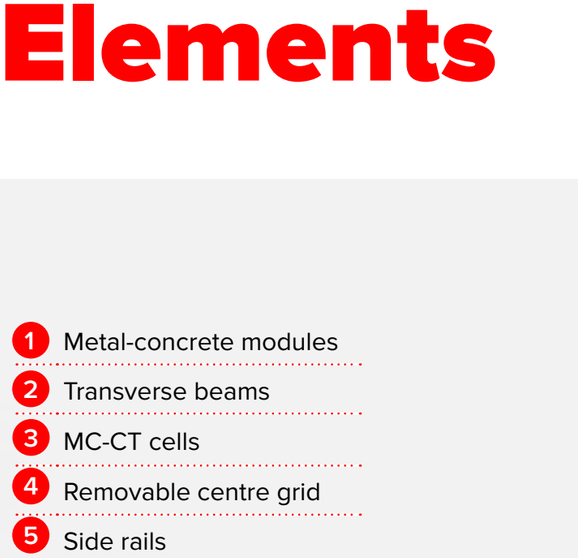


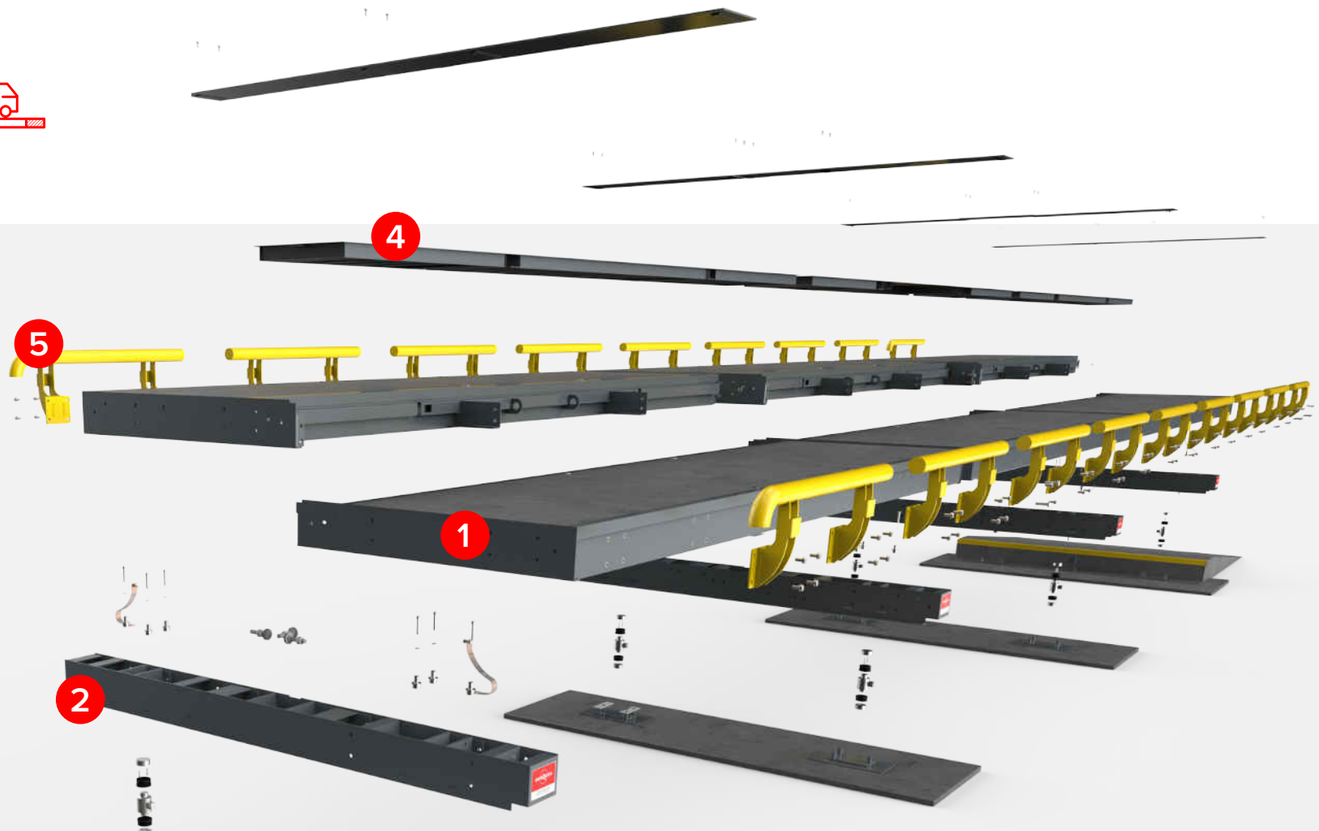
**Innovation | Excellence | Durability | Modularity | Precise assembly | Ease of installation | Ease of maintenance | Ease of mobility**

PCM M1500e CO

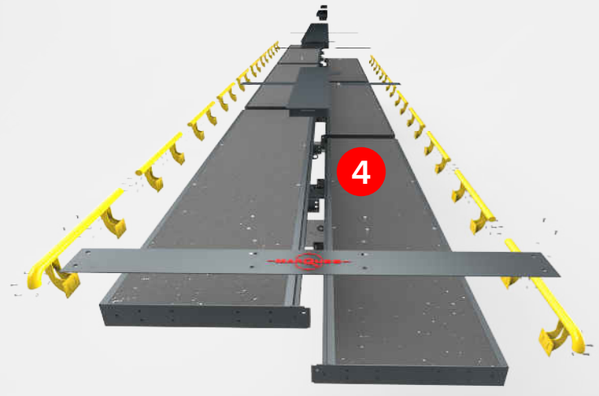
# Elements

1. Metal-concrete modules
2. Transverse beams
3. MC-CT cells
4. Removable centre grid
5. Side rails
6. Concrete ramps






The centre grid is omnidirectional, allowing the truck to pass over the weighbridge in any direction. Each section consists of 3 pieces.



PCM M1500e CO

# Elements

## 1 MODULES

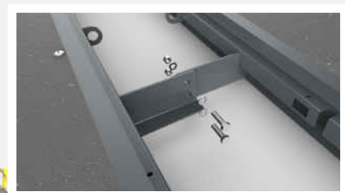
The 1.375 metre wide metal-concrete modules are placed side by side at the installation site.





The weighbridge is equipped with mechanical centralisers and fasteners for safe transport and handling.







## 2 TRANSVERSE BEAMS

The weighbridge is made up of 4 transverse beams, on which the load cells are already mounted and centred.

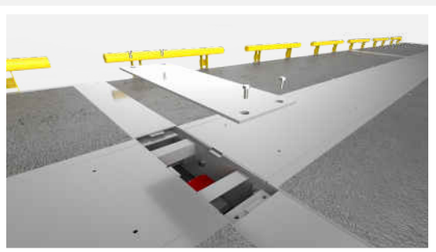



The PCM M1500e CO has a removable centre grid for easy access to the interior and easy maintenance. The mixing box is installed on one of the centre plates.



The PCM M1500e CO can take 4, 6, 8, 10 or 12 Marques MC-CT load cells, analogue or digital, depending on the length of the weighbridge.





# Elements

## 3 MC-CT CELLS

The PCM M1500e CO can take 4, 6, 8, 10 or 12 Marques MC-CT load cells, analogue or digital, depending on the length of the weighbridge.

- Compressed load cell.
- Made entirely of stainless steel.
- With self-pivoting system.
- 3500 Divisions O.I.M.L. R60 (class C3.5).
- Insulation resistance: > 5000 MΩ.
- Hermetic sealing by laser welding, IP68 according to EN 60 529 (IEC 529).
- Protection against electric shock.
- Application: high-load weighing systems, weighbridges.
- Uses anti-rodent cables.
- Supply voltage: 5-12V DC.
- Included accessories: 2 cell holders, 2 seals and 1 copper mesh.



**Made entirely of stainless steel**

They use a **mechanical locking anti-rotation mechanism** on the cell body instead of a pin, making them safer and more durable in the long run.

Anti-rodent cables.



**Analog and digital cells using an IP68 connection.**

**More robust**
(wider, with same height as the previous onethes).

Rubbers to protect against debris, dust, etc., ensuring maximum sealing.

## BM400 TOWER




Touch-screen display with integrated ETVIS multifunction software for weighing management (visualisation, control, database and documentation).

## BM1000P

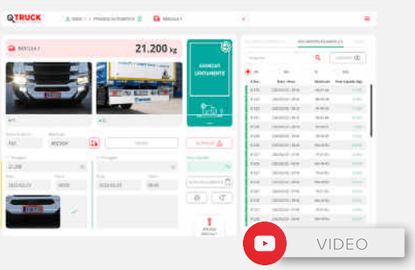



Display for connection without a printer, normally used on weighbridges connected to a computer with weighing management software. With or without battery, the BM1000P is completely covered in ABS, resistant to falls, accidents and waterproof.

## ETVIS




## QTRUCK

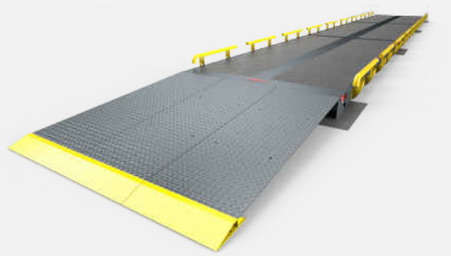


PCM M1500e CO

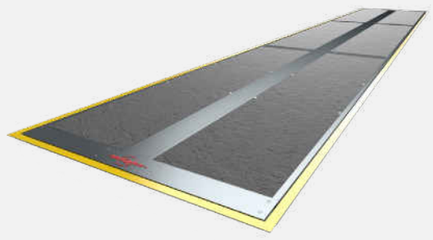
# Solutions



**PCM M1500e CO / CO XL ABOVE GROUND**
(Concrete ramps)



**PCM M1500e CO / CO XL ABOVE GROUND**
(Metallic ramps)



**PCM M1500e CO / CO XL BUILT-IN**

## TECHNICAL SPECIFICATIONS

### SURFACE FINISH
Painted, with pickling by granulation to ensure a perfect adhesion of the primers and Epoxy enamels. Finish of the main structure with RAL 7046 enamel. It is also possible to paint with other colors.

### CONCRETE
Concrete slab C30 / 35 with surface hardener finish in anthracite color.
Two A500ER welded meshes.

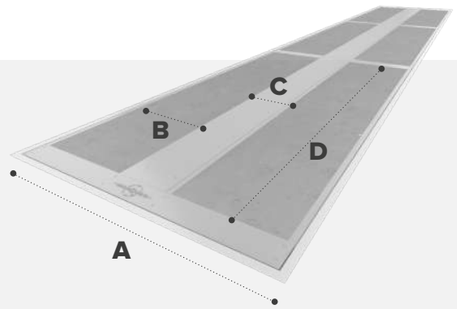
### LOAD CELLS
Analog MC CT Models, entirely in Stainless Steel, with IP68 protection.
*(Option: Digital Cells)*

### MIXING BOX
Mixing box made of aluminum, with 8 or 10 cells.

### LENGTH OF CELL CABLES
15 meters.
*(Option: Anti-rodent cables)*

### SCREWS
Quality 8.8 zinc.

### CENTRAL OPENING
Demountable grids of 0,25 mt. wide (Color RAL 1004).




| PCM M1500e CO | |
|---|---|
| A | 3,00m |
| B | 1,375m |
| C | 0,25m |
| D | 3,657m<br>5,657m |

| PCM M1500e XL CO | |
|---|---|
| A | 3,35m |
| B | 1,375m |
| C | 0,60m |
| D | 3,657m<br>5,657m |

| MODEL | DIMENSIONS (mm) | Nr. MODULES | Nr. CELLS | CAPACITY (kg) | WEIGHT | VOLUME (m3) |
|---|---|---|---|---|---|---|
| **PCM M1500e CO** 4 MB | 4190X3000 | 2 | 4 | 30000 | 5444 | 3,4 |
| **PCM M1500e CO** 6 MB | 6190X3000 | 2 | 4 | 30000 | 8046 | 4,9 |
| **PCM M1500e CO** 8 MB | 8090X3000 | 4 | 6 | 60000 | 10548 | 6,5 |
| **PCM M1500e CO** 12 MB | 12090X3000 | 4 | 6 | 60000 | 15752 | 9,6 |
| **PCM M1500e CO** 14 MB | 14000X3000 | 6 | 8 | 60000 | 18254 | 11,2 |
| **PCM M1500e CO** 16 MB | 16000X3000 | 6 | 8 | 60000 | 20856 | 12,7 |
| **PCM M1500e CO** 18 MB | 18000X3000 | 6 | 8 | 60000 | 23458 | 14,3 |
| **PCM M1500e CO** 20 MB | 19908X3000 | 8 | 10 | 60000 | 28562 | 17,4 |
| **PCM M1500e CO** 21 MB | 21000X3000 | 8 | 10 | 60000 | 30000 | 18,3 |
| **PCM M1500e CO** 24 MB | 23908X3000 | 8 | 10 | 60000 | 31164 | 18,9 |

| MODEL | DIMENSIONS (mm) | Nr. MODULES | Nr. CELLS | CAPACITY (kg) | WEIGHT | VOLUME (m3) |
|---|---|---|---|---|---|---|
| **PCM M1500e XL CO** 4 MB | 4190X3350 | 2 | 4 | 30000 | 5054 | 3,4 |
| **PCM M1500e XL CO** 6 MB | 6190X3350 | 2 | 4 | 30000 | 7512 | 5,1 |
| **PCM M1500e XL CO** 8 MB | 8090X3350 | 4 | 6 | 60000 | 9828 | 6,5 |
| **PCM M1500e XL CO** 12 MB | 12090X3350 | 4 | 6 | 60000 | 14745 | 9,9 |
| **PCM M1500e XL CO** 14 MB | 14000X3350 | 6 | 8 | 60000 | 17060 | 11,5 |
| **PCM M1500e XL CO** 16 MB | 16000X3350 | 6 | 8 | 60000 | 19519 | 13,2 |
| **PCM M1500e XL CO** 18 MB | 18000X3350 | 6 | 8 | 60000 | 21978 | 14,8 |
| **PCM M1500e XL CO** 20 MB | 19908X3350 | 8 | 10 | 60000 | 24396 | 16,5 |
| **PCM M1500e XL CO** 21 MB | 21000X3350 | 8 | 10 | 60000 | 25650 | 17,3 |
| **PCM M1500e XL CO** 24 MB | 23908X3350 | 8 | 10 | 60000 | 29319 | 19,9 |

PCM M1500e CO

# Options






VIDEO

## SELF SERVICE

### BM700 ARM

- Construction in stainless steel.
- Display LCD 10.1'' Tactile, with Resistive technology
- Thermal printer, able to use large rolls.
- Coin acceptor, with rate control by time and truck weight.
- Direct weighing by coin acceptor or RFID card.
- Possibility of networking.
- Printing of various weighing maps.

### BM700 MUPI

- Automatic recognition of the license plate.
- Continuous viewing of the weighing zone via the IP cameras.
- Visual indication to the driver of the actions to be performed, such as “Next”, “Stop”, etc.
- Realization of the two weighings (Gross and Tara), automatically (without operator intervention).
- Issuance of weighing reports.
- Archive of weights and weighing photos.




### SOLAR PANEL

- Our weighbridge was developed to be self-sustainable and suitable to work only with the energy generated by a solar panel.



### WEIGHT REPEATER

- LCD display with 6 digits of 76mm, 127mm or 203mm.
- High-intensity digits for viewing over long distances.
- Compatible with all Marques viewers
- RS 232 communication port.
- 220 V power supply.
- Metal construction, painted finish.
- With two fixation points at the back.

PCM M1500e CO

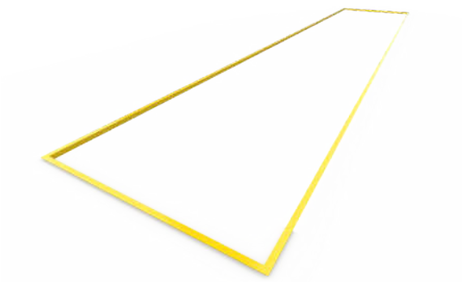
# Accessories



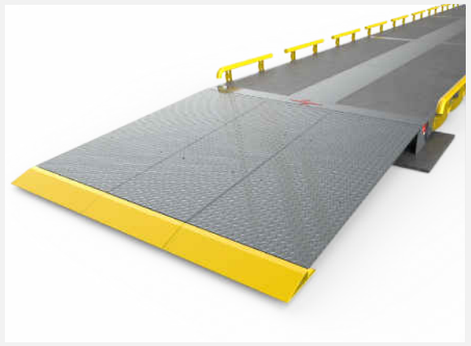
**STEPS**
The steps are fixed in the same place as the side rails.



**SIDE GUARDS - RAILS**
All the weighbridges have side guard mounting brackets made of 2” tubes without rounded ends.



**CHASSIS**
It can be supplied from the factory for installation during construction.



**METALLIC RAMPS**
It is possible to place 2 or 3 metal ramps per extremity with the corresponding chassis.





**Thanks to its design, the PCM M1500e CO can be equipped with various accessories:**

- Chassis
- Metallic ramps
- Side guards - rails
- Steps
- Walkway
- Wide variety of load cells
- Wide variety of viewers
- Software for specific applications
- T-joints
- Kit of anti-rodent cables

Metallic ramps





Concrete ramps (pre-installation)





Concrete ramps (after installation)





# “Why choose Balanças Marques’ weighbridges?

We are leaders in the development of industrial weighing equipment, including vehicle weighing.

**1.**
Balanças Marques is the portuguese leader in the weighing sector, elected in 2019, 2021 and 2023 as the best company in the world.

**Portuguese Leader**

**6 Hours = 1 Truck Scale**

We are the largest portuguese manufacturer of weighbridges, every 6 hours we produce a truck scale.
**2.**

**3.**
PCM M1500 considered the World’s Best Weighbridge for several years.

**2000 Units**

**Best of the World!**

We have over 2000 units of operational weighbridges worldwide.
**4.**



## Quick Installation
In just one working day, it is possible to install our weighbridge, allowing that in the same day is ready to weigh.

## Concreting process
In-house, to guarantee the highest quality.

## Structure Strength

## Minimum Error Margin
The load cells of our scales are leveled and preassembled mechanically, ensuring maximum accuracy and eliminating errors at the moment of assembly.

## Excellence in Painting
Our weighbridges are painted in Temperature Controlled Paint Booths, as is the case with automotive paint, ensuring durability and excellence.

## Projects Customized to your Business
Our development team is at your service to ensure that our weighbridges fit the specifics of your business.

## Modular and Mobile
The modular and mobile structure of our weighbridges allows you to take them with you to another location, in a simple way.

## Solution for any Environment
We can mount a scale anywhere.

## Registration Detection
Enhanced record control through automatic registration detection.

## Power Supply by Solar Panels
Energy self-sufficiency of the system.

**Weight Control of Vehicles,**
without leaving the vehicle and wherever you are, through your Smartphone with the Quilo APP.

QUILO

DISPONÍVEL NO Google play
Baixar na App Store



## Specialised Assistance

Our Technical Assistance team is always available to support our client partners at every stage of the installation process and is also able to train them as specialists in our equipment.

The quality of our technicians and customer support services is recognised by the Portuguese Quality Institute.

## Calibration / Verification Services

CallMarques Laboratory - Calibration laboratory with IPAC Accreditation No. M0095.

Calibration of all types of non-automatic weighing instruments with a capacity of between 1 milligram and 60 tonnes.

AENOR ER-0051/2016 · IQNet · CE · IPAC acreditação M0095 ISO/IEC 17025 Calibração

# THANK YOU

WEIGHING A NEW WORLD




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