



# WEIGHBRIDGES

## PURCHASE GUIDE

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- Control the organization of your site and automate weight measurements.
- Data: the added value of a weighbridge management software.

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- Installation, maintenance, periodic verification: how do you ensure that your work tool is always operational?

## 4 QUESTIONS TO CHOOSE YOUR WEIGHBRIDGE

At first glance, choosing a **weighbridge** may seem like a quick and easy decision. However, the model which meets your needs must also fit various parameters relating to your work environment, your activity and your budget. Purchasing a weighbridge is an important, long-term investment. To help you make the right choice and know which criteria you should account for, **here are 4 questions to ask yourself in order to make sure you choose your weighbridge well.**

**These 4 questions will help you determine:**

- ▶ The width and length of your weighbridge
- ▶ The materials to favor: a concrete weighbridge or a metal weighbridge
- ▶ The specificities related to the regulations inherent to your activity
- ▶ The place where you should install your weighbridge
- ▶ The maximum capacity of your weighbridge and the measurement interval
- ▶ The organization of the traffic on and around your weighbridge



## 4 QUESTIONS TO CHOOSE YOUR WEIGHBRIDGE

### ► Where do you want to install your weighbridge?

The location of your future weighbridge is a determining factor in the choice of your equipment. Depending on whether you have a lot of space or little of it on your site, and depending on the quality and surface of the ground where the weighbridge will be installed, you may or may not need civil engineering.

There are pit-mounted weighbridges, for which it is necessary to dig the ground so that the weighing platform is at ground level. They generally offer better integration and less traffic constraints, especially if they are two-way. Pit-mounted weighbridges are more subject to speed-related shocks than aboveground weighbridges, whose access is less easy and require lower speeds.

Aboveground weighbridge models are equipped with ramps to allow vehicles to access the weighing platform and exit it once operations are complete. Aboveground weighbridges are generally used in harsh environments because they offer better access for cleaning operations. These require traffic planning and take up more ground space because of their access ramps.

You may also need to use your weighbridge on different sites, for instance in the case of mobile work sites. Some models are designed to be easily disassembled, transported and reassembled by your

crews using a simple forklift. These mobile weighbridges have a specific modular structure and are made of steel (lighter than concrete weighbridges, therefore easier to transport).

Finally, you also have to think about the environment of your weighbridge: specific standards may apply, especially in potentially explosive areas. In this case, the components of your weighbridge – load cells, measurement channel, junction boxes – must meet ATEX (or Ex) regulations.



## 4 QUESTIONS TO CHOOSE YOUR WEIGHBRIDGE

### ► Which materials are transiting on your site? By which means (cars, trucks, tractors)?

When choosing a weighing instrument, whether it be a weighbridge or a laboratory scale, it is important to know what you are going to weigh. When choosing a weighbridge, you have to consider the content... but also the container!

The contents are the materials you want to weigh. Whether it's sand or stones in a quarry, grain in a port facility, household waste in a waste collection center, or fruit at the entrance of a farm cooperative, the materials you need to weigh will determine the fineness of the measurement necessary for your activity. Moreover, if the weighing operations you wish to perform with your weighbridge are for commercial transactions, you will have to take into account the legal metrology regulations in force. In some cases, these regulations may define construction criteria or precise specifications so that you have a weighbridge certified for commercial transactions.

The types of vehicles circulating on your site are the containers. These can be trucks, but also tractors with or without trailers, or even cars. This information is essential to the choice of your weighbridge: it will determine the tonnage and axle load (the capacity) you need or the length and width of your weighbridge.



## 4 QUESTIONS TO CHOOSE YOUR WEIGHBRIDGE

### ► How many vehicles do you need to weigh in a day?

Knowing how many vehicles you will have to weigh each day will allow you to choose a weighbridge that is more or less resistant to repeated passages. Thus, a weighbridge with a concrete platform cast on site will be more resistant in the long term for intensive use and will offer more comfort to users (less slippery in case of rain for instance).

By choosing the right weighbridge for your frequency of use, you will make sure to have a weighbridge that will stand the test of time despite your constraints and intensive use. Note that the life of a weighbridge also depends on its regular maintenance: cleaning, scheduled verification, maintenance of the weighbridge.



## 4 QUESTIONS TO CHOOSE YOUR WEIGHBRIDGE

### ► How do you need to weigh vehicles?

Depending on your activity, weighbridges can be used differently. Simple weight control at the entrance of a site, entry and exit control on the same weighbridge, weight control during loading operations. Traffic on your weighbridge can also be in one or two directions.

The traffic on your weighbridge must be thought out in advance so that you can also plan the traffic around your installation. Do you need waiting areas? How to organize the flows before and after your weighbridge? Which orientation for the installation of the weighbridge?



## HOW TO CHOOSE THE INSTRUMENTATION OF YOUR WEIGHBRIDGE?

To gather and display the weighing information when using your weighbridge, it is necessary to connect it to an instrument that will convert the electrical signal from the load cells to a readable digital display. There are various types of weighing indicators, access control terminals and simple displays.

To choose the instrumentation of your weighbridge, we recommend defining your needs for:

- ▶ The installation of weighing terminals
- ▶ The installation of systems which combine weighing and access control
- ▶ The addition of accessories for your weighbridge installation





## HOW TO CHOOSE THE INSTRUMENTATION OF YOUR WEIGHBRIDGE?

▶ Without instrumentation, your weighbridge is useless.



Once you have selected the weighbridge that fits the needs of your activity and the requirements of your environment, it is time to choose the instrumentation that will allow you to use your weighing installation.

You must consider the daily use of your weighbridge, and in particular who will be using it:

- ▶ Will there be a dedicated weighing operator?
- ▶ Will the drivers conduct the operation themselves?
- ▶ Will the identification of the vehicles and the various associated elements (driver identity, company, type of material, empty weight, etc.) be automated?
- ▶ Should international vehicle traffic and foreign drivers be considered?

The use and the type of users will determine the type of instrumentation to be used in the installation of your weighbridge.

## HOW TO CHOOSE THE INSTRUMENTATION OF YOUR WEIGHBRIDGE?

### ► Weighing indicator or access control terminal?

There are different types of instruments for different uses and different users.

The weighing terminal (or weighing indicator) is the first instrument that comes to mind when installing a weighbridge. Easy to install and use, it displays the vehicle weight on a small box. This solution is ideal when an operator is in charge of reading the data and when these data do not need to be recorded in databases. The simple indication of the weight is enough to ensure the continuity of the activity.

Depending on the model, the weighing indicator can take care of the entire weighing operation or be connected to your weighbridge management software solution if you have one. The whole solution, terminal and software, will then allow you to keep a history and ensure the traceability of your weighing data in compliance with regulatory requirements.

When associated with a weighing operation, the access control terminal is a real all-in-one tool: control access to your site through various means (number plate reading, badge, operator action), weigh vehicles entering and/or leaving the site, print tickets directly and store all this data in your weighbridge management software if you have one. Automation with access control terminals allows you to free yourself

from the constraints of managing access to your site while ensuring the traceability and the safety of data from weighing operations carried out on your weighbridges. The terminal will be particularly appreciated on sites receiving multiple users (such as waste collection sites), or requiring the prior identification of these users (via a specific badge for example). Often multilingual, they allow drivers who speak different languages to identify themselves easily without requiring assistance from an operator.



## HOW TO CHOOSE THE INSTRUMENTATION OF YOUR WEIGHBRIDGE?

### ► Accessories

Various accessories can be added to your weighbridge. To manage traffic around and on the weighbridge, you can install traffic lights, speed bumps and gates controlled by the operator, or the access terminal, or even guide rails to help drivers correctly position themselves on the platforms.

You can also install remote displays which will allow drivers to see the weight of their vehicle from the cab of their truck, thereby limiting the movement of people on site. Note that this device is mandatory when the truck driver is responsible for the weighing operation: the fact that the driver can check that the weighing terminal displays “zero” before the vehicle gets on the weighbridge is then a regulatory requirement.

It is also possible to install number plate recognition cameras to ensure both the security of your site and the identification of incoming and outgoing vehicles in a fully automatic way.



## WEIGHBRIDGE MANAGEMENT SOFTWARE: THE AUTOMATION SOLUTION FOR YOUR SITE!

Did you know that your weighbridge can be more than a weighing instrument? By installing a weighbridge management software, you could:

- ▶ Guarantee the professional management of your transactions,
- ▶ Automate weight measurements on your weighbridges,
- ▶ Reduce movements for your operators,
- ▶ Obtain detailed reports on your activity through data processing.



## WEIGHBRIDGE MANAGEMENT SOFTWARE: THE AUTOMATION SOLUTION FOR YOUR SITE!

### ► Control the organization of your site and automate weight measurements.



With the rare exception of very simple installations, the instrumentation connected to the weighbridges is controlled by software. It can be a piece of software that the company which owns the site developed itself to meet specific needs. There are also so-called “trade” applications developed to answer the particular problems of an activity (such as waste collection). Finally, you can opt for a general piece of software with modules that allow you to build a custom application.

With intuitive data entry and the possibility of using contactless badges or number plate recognition cameras, the operator’s workload is reduced. They can therefore focus on other tasks, such as general site surveillance. Weighing on the weighbridge at the entrance and exit of the site is automated and the information to be entered (by hand or in “self service” via a badge for example) can be set up beforehand by the site administrator according to their needs. The definition of different types of users makes it possible to customize the welcome screens according to different parameters, such as the type of vehicle (truck, car, etc.), activity (receiving, shipping), or even the language of the driver.

The operator can then focus on the correct weighing of incoming or outgoing trucks, in parallel on several weighbridges, from a single control station. They can have a real time view of all the vehicles present on your site and can interact by a simple click on the various devices (lights or barriers).

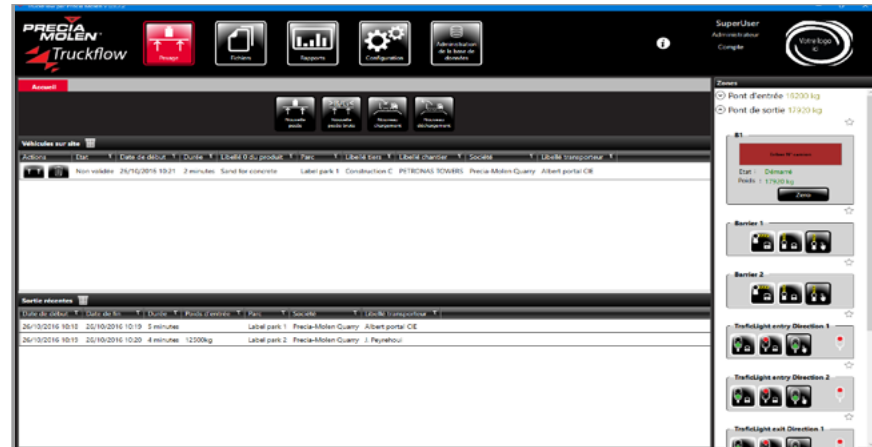
## WEIGHBRIDGE MANAGEMENT SOFTWARE: THE AUTOMATION SOLUTION FOR YOUR SITE!

### ► Data: the added value of a weighbridge management software.

Beyond the fluidity and time saving that a weighbridge management software can bring to your organization, you can keep a constant eye on your operating data.

In real time, detect problems on your installations and intervene quickly to maintain your activity. In the medium to long term, consult your database to access detailed reports on weighbridge operations at your site.

This data will allow you to assess the size of your facilities in relation to your activity and see where improvements can be made. Track statistics and connect this software to your company's ERP.



## SERVICE

As you can imagine, the quality of your weighing operations is determined as soon as your weighbridge is installed. The implementation of your project requires precision and know-how in order to guarantee a durable installation that complies with the specifications defined beforehand.

To ensure the proper operation of your installation, it will be necessary to conduct regular maintenance operations. There are specific contracts which allow you to always have the same contact person and to never miss any of these operations! Likewise, the same teams can handle the repair of your weighbridge or change parts if it breaks down.

Don't forget: as with any weighing instrument, your weighbridge and your entire installation must be verified regularly, especially when they are legal for trade. The periodic verification, with the affixing of a specific label, is then mandatory.

And if your weighbridge no longer meets your needs, if it is getting old, in most cases it is possible to modernize it rather than replace it! Load cells, measurement channel, weighing indicator or terminal... These elements are replaceable and can help you sustain your installation.

Installation, maintenance, periodic verification: don't leave anything to chance and make sure you have a quality and local service!





PRECIAMOLEN.COM

## PRECIA MOLEN WORLDWIDE PRESENCE

### AUSTRALIA

T +61 4 99 79 00 57  
sales@preciamolen.com.au

### BELGIUM

T +32 38 86 00 84  
sales@preciamolen.be

### BRAZIL

T +55 11 2364 3009  
vendas@preciamolen.com.br

### BURKINA FASO

T +226 50 36 12 97  
contact.bf@preciamolen.com

### CHINA

T +86 574 8783 0811  
pmchina@preciamolen.com

### CZECH REPUBLIC

T +420 296 554 226  
sales@preciamolen.cz

### FRANCE

T +33 475 66 46 00  
export@preciamolen.com

### INDIA

T +91 44 2681 0525  
info@preciamolen.in

### IRELAND

T +353 18 35 30 84  
sales@preciamolen.ie

### IVORY COAST

T +225 21 75 82 90  
contact.rci@preciamolen.com

### MALAYSIA

T +603 6151 3431  
aspac@preciamolen.com

### MOROCCO

T +212 5 22 70 69 05  
contact@preciamolenmaroc.com

### NEW ZEALAND

T +64 7 847 35 78  
info@preciamolen.co.nz

### NORWAY

T +47 47 47 15 47  
post@preciamolen.no

### POLAND

T +48 12 411 50 50  
biuropl@preciamolen.com.pl

### THE NETHERLANDS

T +31 765 24 25 21  
sales@preciamolen.nl

### UKRAINE

T +380 95 754 2244  
igor.pugach@preciamolen.com

### UNITED ARAB EMIRATES

T +971 4 325 0053  
salesUAE@preciamolen.ae

### UNITED KINGDOM

T +44 1527 590 300  
sales@preciamolen.co.uk

### UNITED STATES

T +1 785 284 2131  
john.rebant@preciamolen.com

### WEST INDIES

T +33 696 34 94 29  
philippe.dumont@preciamolen.fr