RAVAS

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MOBILE SCALES
The mobile scale company

RAVAS

The Mobile Scale Company

Content:

CONTENT

Content

THE COMPANY

The company

RAVAS

Our product

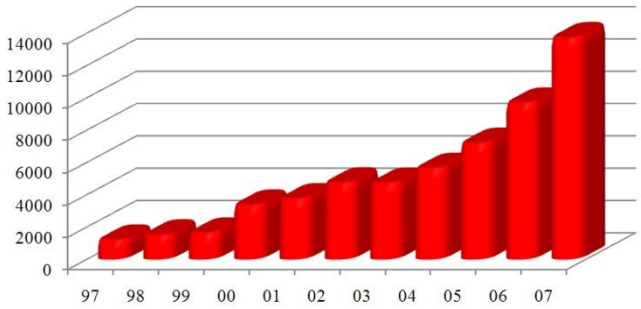
RAVAS develops, manufactures and distributes mobile weighing systems: scales integrated in counterbalanced forklift trucks, motorized pallet trucks & stackers, order pickers and hand pallet trucks. These mobile scales enable companies to make their internal logistics cheaper and more efficient, to raise the quality of their products and services, and thus increase client satisfaction.

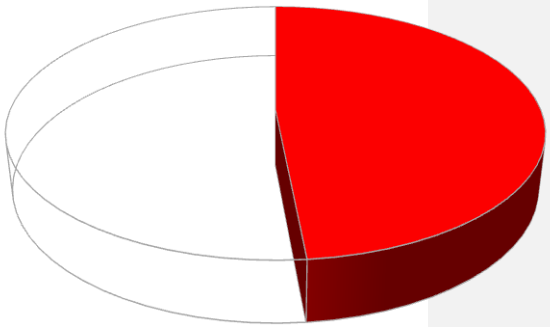
Our company

RAVAS USA is part of the RAVAS Group, which is active in North America, Europe and Southeast Asia, and has its head offices in the Netherlands. RAVAS has 25 years of experience in the manufacturing of mobile scales and sets the standard in the market.

Our mission

In the 1980s RAVAS was a European pioneer company in the field of hand pallet truck scales. Twenty years later RAVAS has evolved into the leading producer in a worldwide growth market for mobile weighing on material handling equipment. Our mission is to help our clients in the USA, Europe and Asia be globally competitive, by making their internal logistics cheaper and more efficient, thanks to the information they generate via the scale on their forklift truck, warehouse truck, or hand pallet truck.





Leader in a growth market

In 2007 RAVAS produced 14,485 mobile weighing systems. For a large part these scales were distributed within Europe, but they also found their way to the United States, Australia, the Middle East and Southeast Asia.

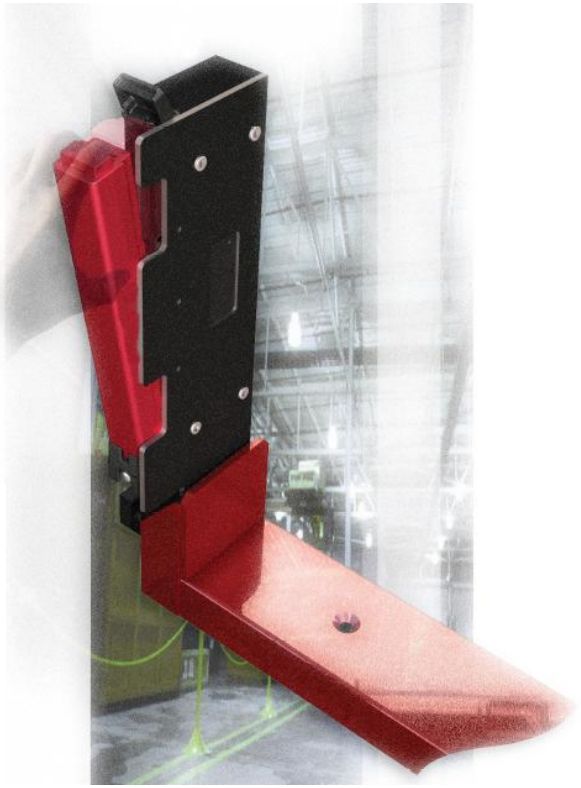
RAVAS has a European market share of 47%. With the opening of its US offices in Chicago, RAVAS has started a campaign to increase its current North American market share and boost the market for mobile scales in the USA.

OEM SERVICES

OEM Services

We OEM for…

RAVAS products are distributed under many different private label and OEM colors. RAVAS is the mobile scale partner for many producers of material handling equipment, who have recognized the strategic added value that we bring to their product. We OEM for Crown, BT Toyota, Jungheinrich, STILL, Hyster, Yale, and many others.



Innovative technology

RAVAS has been a pioneer in the field of mobile weighing technology for 25 years. It's innovative approach has been the basis for market leadership throughout this period.

All components of RAVAS mobile scale products are exclusively developed for mobile use under the most demanding conditions. Compact electronics are shock and vibration proof. Connectors and cabling are eliminated where possible. Low power consumption and intelligent battery solutions ensure the most efficient use of truck and scale.

RAVAS mobile scales supply information on material flows. In order to transfer this weight information to WMS or ERP systems, RAVAS mobile scales have a communication program that allows easy compatibility with Windows operated terminals or even direct WIFI network communication.

Return on investment (ROI): mobile scales are cost saving tools

With a RAVAS mobile scale on your pallet truck or forklift truck you do two things at the same time: transporting and weighing. It's no longer necessary to drive every pallet or container back and forth to a fixed floor scale. Cost savings are immediately realized: labor is reduced, valuable floor space is increased. Mobile scales usually pay back their investment within a few months.

Calculating ROI and payback time

An example: in a distribution centre there are 200,000 pallet movements per year. In 62,000 of these movement cycles the pallet needs to be weighed on a floor scale for checking incoming goods or for outgoing shipping weights. Weighing directly on the lift trucks that move the pallets around, will save 3 minutes on every pallet cycle. This amounts to 186,000 minutes or 3,100 man-hours per year, representing a yearly cost saving of $108,500. Removing the floor scales provides 200 sq ft extra floor space, representing a value of $2,750.
In order to realize these benefits, the following investments are needed: 8 counterbalanced trucks and 2 reach trucks need to be equipped with RAVAS scale forks. The initial investment for these 10 mobile scales plus installation and training is $63,400. Yearly costs for maintenance and recalibration are $8,350.
The table below shows the results of these calculations:
-the ten mobile scales have a payback time of 0.62 year: seven months.
-total return on investment (ROI) over 3 years is 335%.
-at 7.5% cost of capital, the net present value (NPV) of the project is $199,601. In other words: the mobile scales will realize almost two hundred thousand dollar of cost savings in the next three years.

Savings and Benefits	YEAR 1	2	3
Total annual savings / benefits realized	*$111.250*	*$108.500*	*$108.500*

Investment and Ongoing Costs	Year 0	Year 1	Year 2	Year 3
Total costs	*$63.400*	*$8.350*	*$8.350*	*$8.350*

Investment Return Measures	
Cost of capital (Discount Rate)	**7,5%**
NPV	*$199.601*
Payback (years)	**0,62**

Return on investment	
Year 1	***145%***
Year 2	***252%***
Year 3	***335%***

Save time
Save money
Save manpower

Save. On the move

RAVAS

Products

RCS-110-*BLUE*

RAVAS supplies a complete range of scales for mounting on forklift trucks. For simple check weighing, where a high accuracy is not required, there is the RCS-110-*BLUE* hydraulic load indication system.

An oil pressure sensor is installed onto the hydraulic circuit of the forklift by means of a T-coupling. The indicator in the cabin translates the measurement into a weight indication of the load on the forks.

The RCS-110-*BLUE* has a limited accuracy, with a possible error of maximum 2% of the lifting capacity of the truck. The system is meant for simple check weighing, such as the checking of incoming goods, and for avoiding overloading of freight trucks, warehouse racking and the forklift truck itself.

RCS-110-*PLUS*

The RCS-110-*PLUS* is an accurate hydraulic scale for counterbalanced trucks and reach trucks. On a forklift truck with a capacity of 5,000 lbs the weight is displayed in steps of 5 lbs, with a + 10 lbs tolerance. The RCS-110-*PLUS* weighs by measuring the pressure in the hydraulic lifting system of the forklift truck, via a temperature compensated sensor on a valve block.

During a controlled descent of the mast the pressure in the hydraulic system is measured repeatedly, the software translates these measurements into an accurate weight indication of the load on the forks.

The RCS-110-*PLUS* is an excellent tool for weight checks on a forklift truck, for example at goods reception, when determining shipping weights, preventing overloads on freight trucks, stocktaking, stock control etcetera.
The RCS-110-*PLUS* cannot be used for dosing applications (see: RWV weighing forks).

RAVAS iForks

The **RAVAS iForks** are a completely wireless set of scale forks: signal transfer from the forks to the weight indicator in the cabin is by Bluetooth. This means easy installation within minutes: simply exchange standard forks for scale forks. Plug & Weigh! RAVAS scale forks are highly accurate (maximum error 0.1% of the lifted load) and are able to transfer weight data to a printer, a truck terminal, or a wireless network.

RAVAS scale forks have marked advantages compared to carriage plate scales:

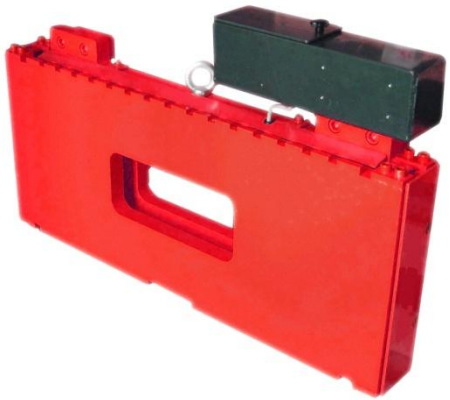
- lower priced, no installation costs, so lower initial investment and higher ROI
- scale components are easily accessible and digitally calibrated: less maintenance, lower cost of ownership
- can be used in combination with fork positioners
- no forward displacement of load centre: no loss of lifting capacity
- unhindered view on fork tips: more safety, less accidents and compensation costs

All models of RAVAS scale forks are tested for 1 million cycles at 120% of the rated capacity.

RVL-110-RF carriage plate scale

The RVL weighing carriage plate allows weighing in combination with attachments, like clamps or rotators: the carriage plate scale is mounted between the original carriage plate of the trucks and the attachment, via standard Class 2 or 3 fittings.

The 110 weight indicator is mounted in the cabin of the truck. Signal transfer from carriage plate scale to indicator is by Bluetooth connection. Since the combination of carriage plate scale and attachment causes a displacement of the center of gravity of the load on the forks, it is advised to recalculate the residual lifting capacity of the truck.



RPW-EL

All brands of walkie pallet trucks, rider pallet trucks and low level order picking trucks can be equipped with a RAVAS RPW EL scale. The fork construction of the truck is mechanically modified in order to mount the scale components, with only 0.25 inch of added fork height. The 110 or 310 indicator shows the weight on the forks and can communicate this weight with a truck terminal or warehouse management system. For checking incoming goods, avoiding picking errors, or avoiding overloads on freight trucks

RPW-ST

All brands of stacker trucks can be equipped with a RAVAS RPW ST scale. The fork construction of the truck is mechanically modified in order to mount the scale components, with only 0.25 inch of added fork height.

The 110 or 310 indicator shows the weight on the forks and can communicates this weight with a truck terminal or warehouse management system. For quality control while filling drums, for mixing of ingredients from containers, or for simple check weighing in warehouse or production.

RAVAS-110

The RAVAS-110 is the cost-conscious solution for checking weights a few times a day, e.g. at goods reception or when filling out transport documents. Weights are shown in 2 lbs steps.

Thanks to the robust chassis and the power supply by four standard AA-batteries, this pallet truck scale combines an attractive price level with a good accuracy. The display is able to show both gross and net weights and calculate total weight per shipment.

For checking incoming goods, avoiding overloads and determining shipping weights.

RAVAS-310

The RAVAS-310 is an advanced hand pallet truck scale with extended scale functions, such as a piece counting program and the possibility of adding an article or client number to each weight. The RAVAS-310 has a built-in printer and is standard NTEP legal for trade.

As extra's on top of the basic functions, the RAVAS-310 offers a piece counting program with manual entry or sampling of the piece weight, and has the possibility of entering a client or article number that is printed with date and time by the integrated printer.

This makes the RAVAS-310 suitable for counting parts, mixing and dosing, invoicing and for communication to a wireless network.

Weighed
Identified
Registered

Control. On the move

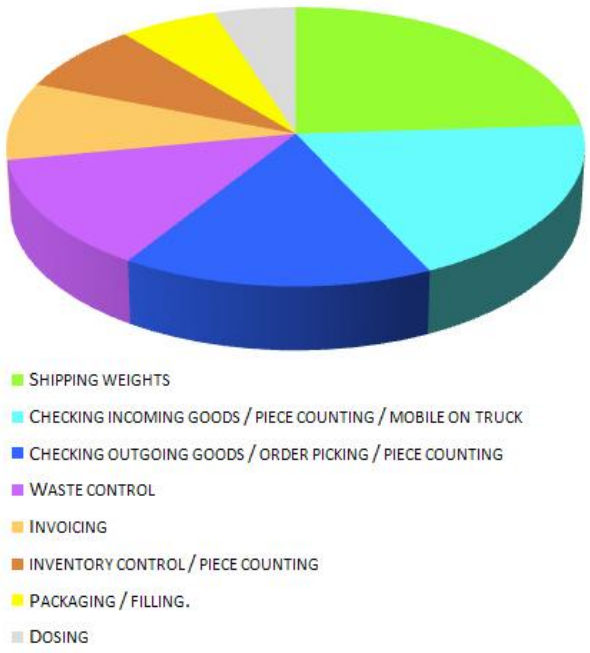
RAVAS

USER APPLICATIONS

User applications

APPLICATIONS

Applications



Applications for mobile scales

Problems with overloaded freight trucks? Incomplete deliveries? Too many errors in your order picking? Looking for cost savings in your in-house logistics?

Measuring weight plays an important role in managing material flows in warehouses and production processes. If you need to weigh regularly, you want to do it efficiently, without unnecessary loss of time and without unnecessary handling and material movements.

Mobile weighing is a problem solving and cost saving tool. On the following pages you can read what mobile scales are used for and the advantages they offer in those applications.

Checking incoming goods

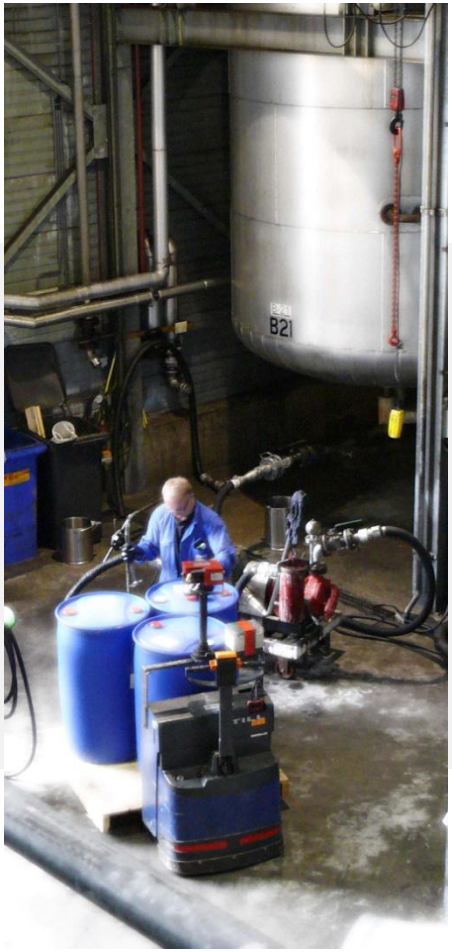
At goods reception, incoming shipments are checked and registered. Companies often check whether the right type of goods and the right quality is being supplied, but not whether it is the correct amount. And in these days of small stocks and just-in-time deliveries an incomplete shipment has immediate consequences for the production process. That costs money.

An incomplete delivery? The mobile scale signals it immediately. With a mobile scale integrated in your pallet truck or forklift truck you check incoming goods while they are being offloaded from the freight truck. If an incomplete delivery is signaled, you can react on the spot. That way you prevent stock differences and interrupted production processes.

Preventing picking errors

Order picking performance comes down to two things: speed and accuracy. Am I able to complete the orders within the agreed time frame and can I do it without errors? Errors mean complaints from the recipient and return shipments. Errors mean a burden on your organization: complaints need to be handled; require time consuming communication; credit notes need to be issued. Errors cost time, money and goodwill.

Weighing on order picking trucks helps prevent picking errors: if you know your article weight, you can check per order line, via the weight, whether the right amount of the right article has been picked. Thus WMS and the mobile scale check the picked order line for errors on-line, within one or two seconds. If an error is signaled, the order picker can react immediately and correct the error where the cost is lowest: at the picking slot. Client studies have shown that weighing on order picking trucks can reduce the error level to just tenths of a percent.



Filling

Accurate filling of drums, containers and big bags means there is no unnecessary loss of material. By weighing the containers during transport on a pallet truck, forklift or stacker, you achieve a higher efficiency and flexibility in your filling processes. It will also help you to simplify logistics and reduce the risk of damages and product loss, since it is no longer necessary to drive the materials back and forth between warehouse and scale.

The wide selection of RAVAS products allows you to configure your mobile scale according to your specific needs. You can choose a Legal-For-Trade (NTEP approved) version if you fill retail packaging or a stainless steel version if you dose corrosive substances. An adjustable scale indicator allows you to read off the weight from all angles, no matter from which side of the pallet truck you do your filling.

Mixing & Dosing

When producing batches of semi-finished or finished product, the aim is to correctly mix the different ingredients and components. Amounts and proportions determine the quality of the product. A mobile scale helps you to produce cheaper, safer and more efficient.

Before, raw materials for mixing processes were driven back and forth between the warehouse and the scale, or supplied via expensive and difficult to clean pipelines and circulation systems. Nowadays the scale is brought to the components: components are dosed straight from their container. The risk of damage and product loss is greatly reduced.

A mobile scale is also the means for controlling and documenting quality. The resulting weight of every mixing step can be recorded, by registering the result on a handheld or truck mounted terminal via wireless transfer. For every batch the production history is recorded: for tracking & tracing; for acquisition of new clients by proven quality; or to comply with industry standards and norms.

Piece counting

By letting a mobile scale count for you, human errors are avoided and handling speed in order picking and in checking shipments is increased.

More and more companies specialize in the production of custom made parts and subsystems. Material flows in supply chains in the automotive industry mainly consist of parts shipments. Parts that are counted continuously: at order picking, shipping and at goods reception. Since many of these shipments are just-in-time deliveries, shipping the correct amounts is of major importance.

The mobile scale translates the measured weight into a quantity, using the per part piece weight. The display shows the actual number of pieces on the pallet and how many remain to be picked.

Controlling waste flows

Every production process generates rest materials and waste. These waste materials are either recycled into the production process or removed and destroyed. These procedures are often expensive and a burden on the environment, making reduction of waste flows an important issue.

Monitoring waste flows, i.e. knowing how much waste is produced at each spot in the production line, is the first step towards controlling and minimizing waste flows. With a mobile scale on the pallet truck or forklift truck that removes the waste material, you can efficiently measure waste production anywhere during production process, finding out which processes should be optimized.

Shipping

Every company that ships goods needs to know the weight of these goods as accurately as possible. The sender is required by law to declare the correct weight on the shipping documents. Determining shipping weights is probably the most common use of a mobile scale.

If the lift truck scale is equipped with a built-in printer, shipping weights can be printed on a ticket, together with an order number and date and time. In case of claims from the recipient it can be proved that the complete order was shipped.

Nowadays overloading freight trucks can be quite expensive. Highway inspections have become more frequent and in some cases both the driver and the forwarder are fined for overloading. With an integrated scale on a forklift truck every pallet loaded is instantly weighed. The scale on the forklift truck constantly adds up the loaded weights to a total weight, so that at any moment it is known how much weight has been loaded onto the freight truck. Thus overloading is easily avoided.

Avoiding overloads

Nowadays overloading freight trucks can be quite expensive. Highway inspections have become more frequent and in some cases both the driver and the forwarder are fined for overloading. With an integrated scale on a pallet truck or forklift truck every pallet loaded is instantly weighed.

The scale on the forklift truck constantly adds up the loaded weights to a total weight, so that at any moment it is known how much weight has been loaded onto the freight truck. Thus overloading is easily avoided.

A scale on your counterbalanced truck or reach truck also increases safety by preventing the overloading of truck or warehouse racking. This improves labor conditions and reduces workers' compensation costs.

Knowledge
Efficiency
Performance

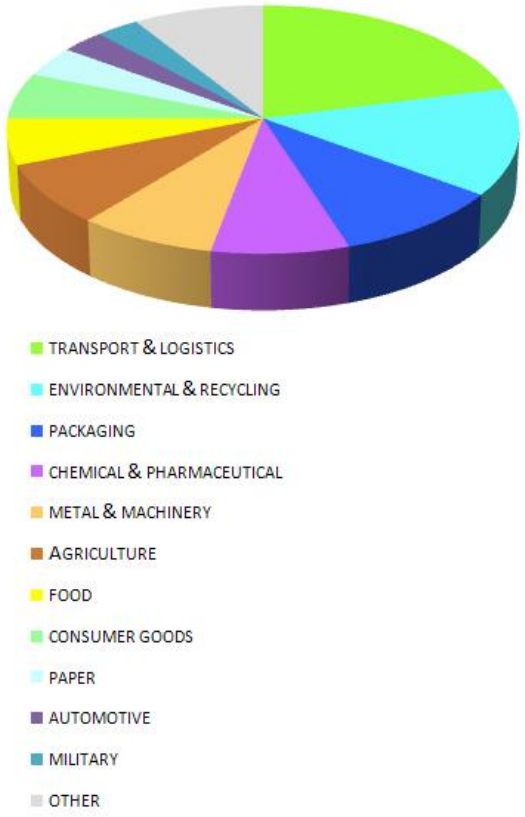
Perform. On the move

RAVAS

INDUSTRIES

Industries


Henkel
sanofi aventis
PACCAR
Schering-Plough
Deutsche Post
SITA
AIRBUS
DHL
KUEHNE+NAGEL
AkzoNobel
KLM CARGO
metro
These clients trust in
Comercial mexicana
ABB
RAVAS
DANNON
Johnson Controls
Nestlé
MAGNETI MARELLI
DOW
TNT
Barilla
PRADA
ICI
BAYER
MERCK
intel
Posteitaliane
L'ORÉAL
Rexroth
Bosch Group
BASF



Industries

Mobile scales are an important tool throughout the transport and logistics industry, for error free order picking, for time efficient determining of shipping weights, for invoicing palletized express shipments and air cargo, for avoiding overloaded freight trucks.

But did you know that the environmental industry uses mobile scales on board freight trucks to weigh collected waste at their clients site ? That part suppliers in the automotive industry use mobile scales to count parts in just-in-time deliveries? That the air force uses mobile scales to determine load distribution on cargo planes and helicopters?

RAVAS mobile scales are used in the following industries:

Logistics

3PL – third party logistics:

mobile scales are frequently used in contract logistics. For general warehousing purposes, but most of all in order picking: reducing errors lowers cost per order line and raises client satisfaction, which might mean renewal of the contract or acquisition of new clients.

Retail chains:

Distribution centers in supermarket chains use scales on walkie and rider pallet trucks for checking incoming and outgoing goods and for correcting picking errors.

Express logistics:

Companies like FedEx, DHL and TNT are moving more and more palletized goods. These do not pass over the automated conveyor belts, but need to be identified and weighed anyway, for planning and invoicing. They are usually weighed on the lift trucks that move them around the hubs.

Air freight:

Air freight is expensive and invoiced by weight, which is usually declared too low by the sender. Air freight companies weigh to optimize their profitability by post hoc invoicing and to ensure proper weight distribution on airplanes. Since these companies always work under time pressure (waiting planes are expensive), they use mobile scales on their lift trucks to minimize time losses.

Road transport:

Transport companies use mobile scales to weigh goods while loading freight trucks, to avoid expensive overloads.

RAVAS mobile scales are used in the following industries:

Chemical industry

Fine chemicals:

Raw materials are mixed into production batches of semi finished product according to weight. The use of mobile scales increases process efficiency and reduces labor cycle times.

Pharmaceuticals:

Mobile scales, often hand pallet truck in explosion proof or stainless steel version, are used in clean rooms for mixing according to recipes. Resulting weight data are stored for quality control purposes. Mobile scales are easily moved during cleaning processes and therefore a favorite in clean rooms, even though transport distances are very short.

Paint industry:

Colors are determined by mixing in the proper amounts, by weight. A mobile scale moves from ingredient to ingredient, reducing material movements, minimizing accidents and material loss, and eliminating expensive pipelines and circulation systems.

Oils and lubricants:

Again: mixing and dosing. If drums or containers are for commercial use (mostly business-to-business), then the mobile scale comes NTEP certified.

RAVAS mobile scales are used in the following industries:

Food industry

Dairy industry:

Raw materials are mixed into production batches of semi finished product according to weight. The use of mobile scales increases process efficiency and reduces labor cycle times. Stainless steel, for fork covers or even the complete scale, is often required. Data transfer is important for traceability of production processes.

Meat packaging:

Order picking, often in cold storage environments, determining shipping weights, mixing of meat and spice mixes, these are examples of processes in the meat industry where weighing plays a role. Here too stainless steel is important, for hygiene, food safety and easy cleaning.

Agriculture:

In agriculture weighing often serves to determine the yield of a harvest, or to be able to supply specified amounts to the next link in the supply chain: packaging companies, auctions or supermarket chains. During harvest time it's crucial that many weighings can be done in a short period, which is why NTEP certified forklift scales offer important advantages.

Fish:

In the fish industry it's about registration, demanded by law, and invoicing trade. NTEP scales are used at fish auctions. Stainless steel is a must, because of wet and corrosive working conditions.

RAVAS mobile scales are used in the following industries:

Metal industry

Automotive:

Material flows in supply chains in the automotive industry mainly consist of parts shipments. Parts that are counted continuously: at order picking, shipping and at goods reception. Since many of these shipments are just-in-time deliveries, shipping the correct amounts is of major importance. Piece counting is the main application here.

Metal parts:

More and more companies specialize in the production of custom made parts and subsystems, which are used by other companies in the assembly of their finished product. These parts are counted continuously. By letting the pallet truck scale count for you, human errors are avoided and handling speed in order picking and in checking shipments is raised.

Machinery:

Machinery is packed and shipped. Weighing the crates for shipping is often awkward on floor scales, because of the dimensions. Crates are therefore often weighed on the forklift trucks that move them around.

Foundries:

Foundry applications are about dosing under the most demanding conditions. RAVAS carriage plate scale are used in many foundries around the world, often in combination with rotators for pouring liquid metal.

RAVAS mobile scales are used in the following industries:

Paper industry

Paper:

In the paper industry the weight per sheet is known accurately. Weighing is therefore a fast and effective means of checking the number of sheets on a pallet.
Rest materials and waste are often recycled in the paper industry. Weighing is a tool for monitoring and optimizing waste flows.

Printing:

Printing houses rely on correct paper deliveries: interrupting and restarting a printing run because of incomplete paper deliveries is expensive and may well mean the loss of already small margins on a job. Therefore they check incoming deliveries by weight. Mobile weighing allows them to do so without loss of time or interruption of the process.

Packaging:

Whether it's cartons, boxes or bottles, packaging is supplied in numbers that need to checked. Counting or weighing is done for every pallets: doing it mobile saves thousands of man-hours yearly and represents a very real cost saving.

RAVAS mobile scales are used in the following industries:

Environmental industry:

A whole industry has been built on the need to recycle or destroy (hazardous) waste in a responsible way. Since these services are usually paid according to the weight of the waste collected, NTEP approved scales are an important tool. Mobile scales are often used on the freight trucks collecting waste: weighing while collecting saves extra handling at the hub and creates confidence with the client, who knows immediately how much will be invoiced.

Consumer goods:

Companies shipping consumer goods often have a problem with theft and damage. Weighing the shipments before they leave, and registering the results with date and time, creates an additional proof that orders were shipped complete and helps to address claims from recipients.

Military:

Mobile scales are used to weigh goods that are transported by military planes or helicopters, for proper weight distribution and to avoid overloads. They are used by the army to check weapons and ammunition transports, on the shipping side and on the receiving side, to check for theft. And since mobile scales are after all mobile, they are ideal equipment for use on deployments abroad and on peacekeeping missions.

And many, many others…..

Banks, museums, undertakers, measuring weight can be an important tool at the most unexpected places.

CONTACT US

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