

The new pSeries for wheel loaders

Keeping a grip on the future





Benefit from the know-how of the No. 1 in mobile weighing technology.

The new PFREUNDT pSeries wheel loader scales combine the know-how in wheel loader weighing technology gathered from around 20,000 systems sold in over 30 years with the latest reliable technology.

The practice-oriented innovations of the pSeries are exactly tailored to the customers' demands for precision, speed, comfort and durability.

Calibration to European-wide standards.

The dynamic pSeries wheel loader scales can be calibrated **in the accuracy class Y(b)** to MID and with the corresponding conformity assessment they are approved for the sale of materials such as sand, crushed stone, gravel, unsorted refuse or building rubble.

The scale that grows with your demands:

Thanks to the **modular configuration**, the displays can be exchanged or printers retrofitted even within a calibration period. Even **retrofitting to other wheel loaders is no problem** – the complete scale can be transferred and installed on the new machine with the corresponding installation kit.

That leaves you flexible for future changes!

Systematic saving of time and money:

- Weighing even during loading
- Immediately ready for use without warm-up strokes thanks to integrated oil temperature measurement
- Travel times and distance to the weighbridge are eliminated
- Optimum utilisation of truck capacities [bringing back material or adding load is eliminated]
- Avoid overloading, wear and fines
- Inexpensive alternative to a weighbridge
- No additional personnel costs
- Avoidance of incorrect deliveries without scales: [One example: An excess delivery of only 5% with a sales volume of 25,000 tonnes and a value of 5 Euro/tonne means a loss of 6250 Euro!]



P Serie

The pSeries at a glance

Precise – convenient – durable

The scales of the pSeries comprise perfectly matched functional units:

The display electronics, **pSmart** and **pControl**, and the weighing control unit, **pBase**.

The pSmart and the pControl are equipped with a **new illuminated keypad**. Clearly sensed switching points and tactile contours of the keys, **optimum operation** and legibility even in the dark are the outstanding features.

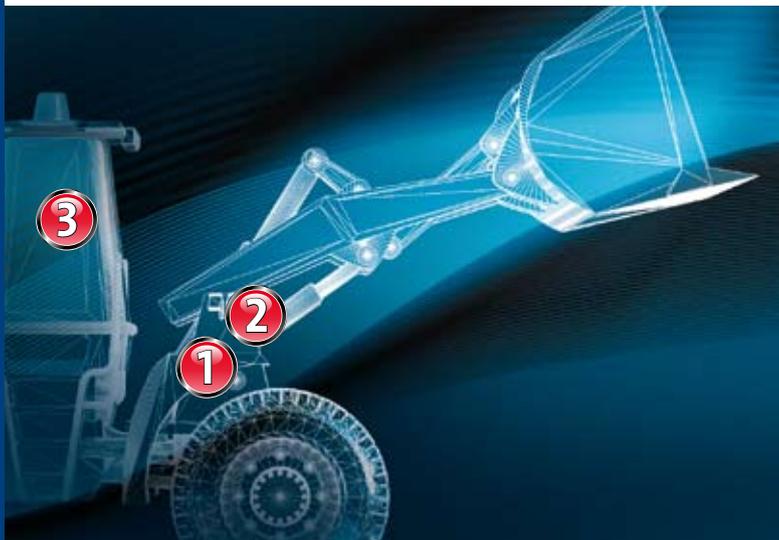
The displays are specially designed for the **rough and tough working** conditions in the wheel loader. They are **resistant** to dust, moisture and wear.

Via the **optional printer**, the weight values can be documented on multi-layer weighing tickets as with the WK 50.



Advantage PFREUNDT:

Simplest installation – minimum maintenance



1

The pBase weighing control unit is mounted in the front of the loader where it is easy to install and service.

2

Weighing position and bucket position are detected by our double and single proximity switches proven thousands of times over.

3

The pSmart or pControl display electronics is located in the cab for easy operation and connected to the pBase with just a single cable.

PControl

Reliable

Intuitive operation

Robust

Clear



**pControl – the electronics
with the right twist!**

CALIBRATABLE

The pControl is the comprehensive display and control centre of the latest generation:

The pControl employs **graphic user guidance with simple, clearly arranged symbols**. Operation is quick and intuitive with the **illuminated keypad** and the **new turn-and-push wheel**. **Individual settings and input aids** further increase ease of operation.

The pControl is **resistant to dust**, moisture and wear. Furthermore, the new operating concept is based on a **reliable technology** that has already proved successful in numerous vehicle management systems. The pControl is thus ideally suited to the working conditions in the wheel loader.

**Various interfaces and options offer additional benefits –
allowing you to adapt the pControl perfectly to your individual needs.**

Camera ports

The two camera ports allow the colour display to also be used as a monitor, e.g. for the reversing camera – that saves space, cuts costs and increases safety.

pOffice

The scope of supply of the pControl includes a matching USB stick for the data exchange. The demo version of the PC software, pOffice, is already on the stick. Check and test for yourself with this demo version which functions are of benefits to you, and then simply order the activation of the program parts you need.



Everything in your sights –
the optional reverse camera.*

Features of pControl:

Standard

- Calibration to class Y(b) to MID
- Large, clear colour display
- Day/night display changeover
- Robust illuminated keypad
- Graphic user guidance
- Simple operation with function keys and turn-and-push wheel
- Individually adaptable key assignment and functions
- Input, search and sorting aids
- Target weight, cancellation, reweighing
- Trailer weighing
- Master data (up to 250 entries)
- Basic statistical functions
- USB interface, e.g. for USB stick, USB keypad
- USB stick with pOffice demo software
- Printer port
- Collective ticket
- Shift management
- Price calculation, invoice printing

Optional

- Use of long term storage
- Use of 5 shovels (not calibratable)
- Adapted, robust needle printer for ticket printing with copies
- Master data (> 250 entries)
- User management
- Extended statistical data
- Account management
- Order/formulation management
- Two interfaces for analog cameras
- Data exchange via GSM, GPRS/UMTS, WLAN
- pOffice PC software



The day/night changeover ensures optimum visibility at all times of the day.



The innovative turn-and-push wheel for comfortable operation.

Simple operation

Robust

Clear

P Smart

CALIBRATABLE



pSmart – simply ingenious!

The smart entry into the pSeries.

pSmart is the simple display and control centre with all the **basic state-of-the-art weighing functions**. User guidance is clear and simple using just symbols.

The **high-contrast black-and-white display** with automatic contrast control is easy to read even with unfavourable light conditions.

The pSmart is equipped with a **new illuminated keypad**. **Clearly sensed switching points and tactile contours** of the keys, optimum legibility even in the dark and **high resistance** to the rough working conditions are the outstanding features.



Outstanding legibility and operation even in the dark.



The optional printer allows weighing tickets to be printed out on the spot.

Features of pSmart

Standard

- Calibration to class Y(b) to MID
- High-contrast, clear display
- Robust illuminated keypad
- Graphic user guidance
- Simple operation with function and navigation keys
- Individually adaptable key assignment and functions
- Target weight, cancellation, reweighing
- Trailer weighing
- Various totals memories
- Printer port

Optional

- Use of long term storage
- Use of 5 shovels (not calibratable)
- Adapted, robust needle printer for ticket printing with copies

pBase

Reliable

Sophisticated

Calibratable



pBase – bundled intelligence from more than 30 years' experience!

The weighing intelligence of the new scales from the pSeries is bundled in pBase. All the **weighing-relevant processes** are concentrated here: From the measurement of the hydraulic pressure and inclination through the weight calculation up to the storage of the weighing results in the long term storage.

Installed in the front of the loader and connected to the position sensors, it **dynamically calculates the bucket contents from the lifting movement** and supplies the values to the operating electronics for display and further processing.

pBase communicates perfectly with the pSmart and pControl display and operating electronics and can be **calibrated with these in the accuracy class Y(b) to MID**.

Alternatively pBase can be connected **via CAN** bus to correspondingly adapted display units from the **wheel loader manufacturer**.

The concept – based on over **30 years' experience** in wheel loader weighing technology – offers major benefits for service:

- **The hydraulic pressure and temperature measurement in the device make the laying of measuring cables to the hydraulics superfluous.**
- **Thanks to the connection of the display via CAN bus and its power supply from pBase, only one cable has to be laid to the display in the cab.**
- **The digital hydraulic pressure sensor can, if necessary – as with the display electronics and the printer – be changed without recalibration, as all the calibration-relevant data are stored in the pBase electronics.**



Flexibly expandable with numerous interface possibilities.

Features of pBase:

Standard

- Simple installation
- Compact, robust housing
Protection class IP69K
- Integrated hydraulic pressure and temperature measurement
- Integrated inclination sensor
- All calibration-relevant data in pBase
- Only one cable to the display electronics

Optional

- Internal long term storage
- Calibration data memory for 5 buckets
(option for display electronics – not calibratable)
- RS232 / RS485 interfaces (Modbus)



Options for the pSeries – more comfort – more safety – more benefits.



Weighing and master data can be exchanged between scale and PC via GSM, GPRS/UMTS or WLAN.
(pControl)



Alternatively the data exchange can take place via USB stick. Secure encryption of the data protects them from unauthorised access.
(pControl)



Weighing tickets with copies – in standard configuration or designed representatively to meet your wishes – can be printed out using the robust PFREUNDT printer.
(pControl/pSmart)



Use the practical weighing card box for orderly storage of your weighing tickets.
(pControl/pSmart)

Printing out of delivery notes, invoices or evaluations on the spot – with the PFREUNDT printer

A printer is indispensable wherever the scale is to be used for invoicing. With the patented PFREUNDT printer designed for such tough working conditions, weighing tickets – even with copies – can be printed out directly on the spot. You can even use individually designed, representative weighing tickets. The compact printer is directly interfaced to the display electronics to save space and simplify the work. The sturdy printing principle without printer ribbon is unaffected by dust, heat and moisture and is practice-proven in over 30 years. The printer is ready for use at all times, without changing paper reels or printer ribbons.

On request we can also supply a flatbed or roll printer.

pOffice – data management taken one step further



“pOffice” is the **new PFREUNDT branch software** for your Windows PC. With pOffice you **organise the transfer of your weighing and master data** between scale and PC. pOffice allows you to **enter and update your master data** and offers **numerous evaluation functions**.

Furthermore, pOffice has **interfaces for the data exchange** with any existing superordinate software.

pOffice can not only evaluate the data from the pControl, but is also compatible for the data exchange with the WK 50 weighing electronics.

Service XXL: From installation to calibration – all from a single source.

Flexible

Competent

Reliable

Service XXL: From installation to calibration – all from a single source.



Pfreundt calibration trucks

Thanks to the new calibration permit to MID, PFREUNDT as a certified company and also their distributors in the EC can now carry out the conformity assessment (previously ‘initial calibration’) itself and without calibration officers. **That saves money for the installation** and the “initial calibration”, as the **calibration office costs are eliminated**.

Now you just have to arrange installation and calibration dates with the distributor in your country. They can handle the organisation and transport of the calibration weights.

After installation and pre-adjustment of the scale by a technician – in the manufacturer’s works, on the dealer’s premises or at the ultimate customer’s works – we come back to the ultimate customer after a “running-in time” of about 4 weeks to carry out the conformity assessment (“initial calibration”).



Our challenge:

We weigh the world...

Visit us on the Internet
or call us – we will be happy
to advise you.



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Presented by

