



millennium 5



helper X



ON BOARD WEIGHING SOLUTIONS

TECHNOLOGY CONCEIVED FOR YOU

A NEW GENERATION OF POWERFUL YET SIMPLE TO USE ONBOARD WEIGHING SOLUTIONS

THE INSTALLATION OF ACCURATE AND EASY-TO-VIEW ONBOARD WEIGHING SOLUTIONS AND PAYLOAD MONITORING ENABLE FLEET OPERATORS TO CONTROL LOADS MOVED, DRIVING DOWN HAULAGE COSTS AND IMPROVING PRODUCTIVITY

As a company that manufactures and services OnBoard Weighing Solutions and Payload Management equipment worldwide, **VEI**'s solutions can be found on a diverse range of industrial vehicles, including wheeled loaders, excavators with bucket or grapples, rigid dump trucks, articulated dump trucks, underground LHDs, off-road self loading concrete mixers and forklift trucks.

The company's new generation of devices feature a bright colour display that is unequalled elsewhere in the industry. Visibility in direct sunlight is assured making the industry existing ones only poor displays with reflections and darkness when bright light enters the cabin.

The **VEI** software interface also makes these devices very easy to use and upgrade from "entry" to "advanced" level; the wireless connection availability makes weighing data available anywhere in real time. With a worldwide trained network of companies, **VEI** promises a high level of service and technical backup. Its systems can be linked to third-party dispatch systems with ready communication protocols in place.

VEI's millennium 5 and **helperX** new generation takes into consideration incabin space, ergonomics, visibility, ease of use and connectivity, while reducing the amount of componentry. In-cab space is optimised by the innovative design and applied electronics, which have permitted the building of a unique small Device incorporating the printer, when necessary, continuing **VEI** versatility of the integration as always been in the past.



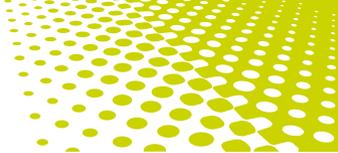
DON'T SETTLE FOR LESS

**LEGAL
FOR TRADE**

WHY INSTALL millennium⁵ OR helper^X ?

- High precision and legal for trade
- Minimum components with no junction boxes
- Swap scale from one loader to another for no downtime
- Avoid overload fines by loading right in the first place
- Reduce haulage cost avoiding underload
- Reduce cycle times at the weighing bridge
- Weigh bridges and associated running costs can be eliminated with the legal for trade version
- Track loading efficiency
- USB data transfer at no extra cost
- Help stock and sales tracking
- End-to-end management of the payload process, with print out of the delivery tickets and data sent to billing system in real time using wireless cellular technology
- Real time, web-based consultation of loading and production data from any work station, tablet or smart phone
- Easy-to-use thanks to the intuitive commands and guided data entry user interface made possible by the VEI innovative Operating System
- High-speed thermal printing
- The production plant can be loaded then suspended temporarily to load trucks. The system can manage simultaneous loading tasks (multitasking)
- Operator ID login with autolocking if not authorized
- Multiple weighing modes: Incremental, Target, Vehicle and Recipe
- Worldwide factory trained support backup
- 3 years warranty, best in the industry





HOW TO CHOOSE THE SCALE THAT FITS YOUR OPERATION

START WITH ENTRY LEVEL AND EASILY UPGRADE TO ADVANCED. DO IT YOURSELF

If you are not sure how your operation will develop and therefore which type of scale you need, start with the **MILLENNIUM S** “entry level”, see what it can do for you and eventually upgrade later to the “advanced level” in a fast and easy manner. The upgrade will be sent to your email account and by using the USB memory stick you can easily upgrade your scale without expensive indicator swap and on-site service like it is normally done by other scale providers; **DO IT YOURSELF**. With **VEI** your initial investment is kept at a minimum and your future upgrades too.

MILLENNIUM S



ENTRY LEVEL

- Prevent overloading/underloading
- Check weight before scale house
- Plant loading
- Production Monitoring
- Small customer base

HELPER X



ADVANCED LEVEL

- Prevent overloading/underloading
- Check weight before scale house
- Plant loading
- Production Monitoring

+

- Large customer base
- Loading by Truck ID
- Load Destination ID
- Recipe program for blending operations



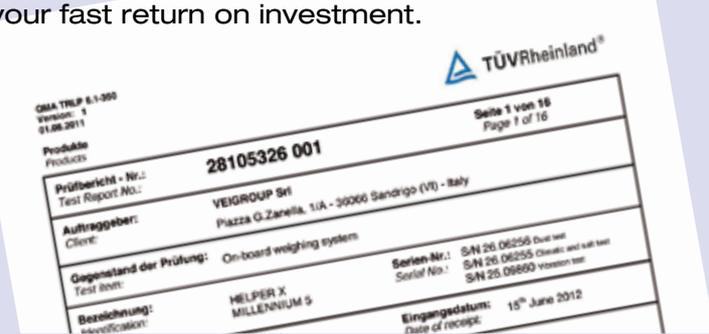
OPERATOR LOGIN



With the **VEI** scales you can set the Operator login ID and Password in order to allow only specified operators to use the scale. The operator name will appear on each loading record, printed or memory recorded, in order to be identified in case of need.

ACCREDITATIONS BRING SUPERIOR QUALITY

The **VEI** products have undergone diverse testing procedure in order to assure the customer satisfaction and industry latest requirements fulfillment especially dedicated to the On Board application. These accreditations assure product reliability over time and in harsh working conditions delivering superior quality, precision and therefore your fast return on investment.



ELECTROMAGNETIC COMPATIBILITY:

- ISO 13766 earth moving machinery
- ISO 14982 agriculture and forestry machinery
- EN 50498 vehicle instrumentation
- EN 61326 measuring devices
- MID - European legal for trade approval
- SAE J1455, comprehensive of:
 - Dust test
 - Climatic test from -40° to +85°
 - Salt mist test
 - Vibration and shock test at 40G



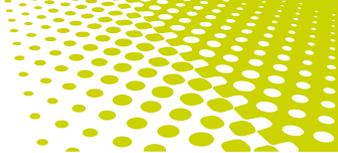
VEI products are certified Legal for Trade in Europe, Canada, Australia, Russia, China and elsewhere the procedure is undergoing. Legal for Trade accreditation certifies superior precision and weigh bridges with associated running costs can be eliminated.

HARDWARE CHARACTERISTICS

Power supply	9÷36Vdc	X5
Working Temperature	-40°C ÷ +80°C	X5
Metrological accreditation working Temperature	-25°C +60°C	X5
Measurement Error (%)	0 ± 1	X5
Shocks	40G tested	X5
Protection Class	Device IP 54. Sensors IP67	X5
Size	140 x 204 x 67mm. (5,5 x 8 x 2,6 inches)	X5
Weight	928 gr (2 lb)	X5
Display	HD color TFT	X5
Light ambient sensor	day/night automatic display brightness	X5
Keyboard	Membrane, lighted	X5
Text editing	Mobile phone type	X5
Modem port	RS232	X
Printer port	RS232	X5
USB port	USB read/write	X5
Tilt switch	Open contact	X
Remote keys	Open contact	X

SOFTWARE FEATURES

Auto-add	X5
Tip off	X5
Diverse tool's calibrations	X5
Unit of Mass conversion	X5
Auto-Power On	X5
Auto-Shutdown	X5
Energy saving	X5
Plant and trucks simultaneous loading	X5
USB files backup/restore	X5
USB Software update	X5
USB/Wireless data update	X5
Operator ID login	X5
Split Weighing	X5

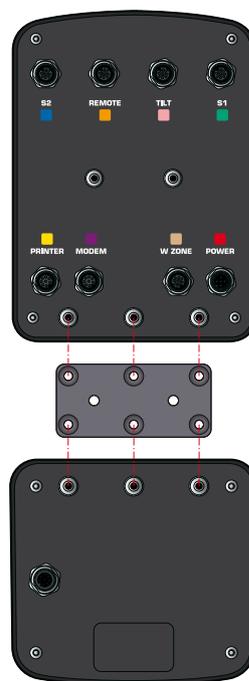


DELIVERY TICKET PRINTOUTS AND PRODUCTION REPORT



Thermal high speed printing, indestructible when compared to the needle printer which are very much sensitive to dust and mechanical breakdown. It can be fitted under the millennium⁵ or helper^x to produce a single, integrated unit or installed as a separate unit. The integration makes it the most compact unit in the market, easy to install and operative directly under the Device without having to move away from it.

Paper roll diameter 48 mm (1,9 inches)
Paper width 57mm (2,2 inches)



Integration is its plus

PRINTOUTS AVAILABLE:



Truck load



Truck load history



Production by favorite elapse dates



Management data



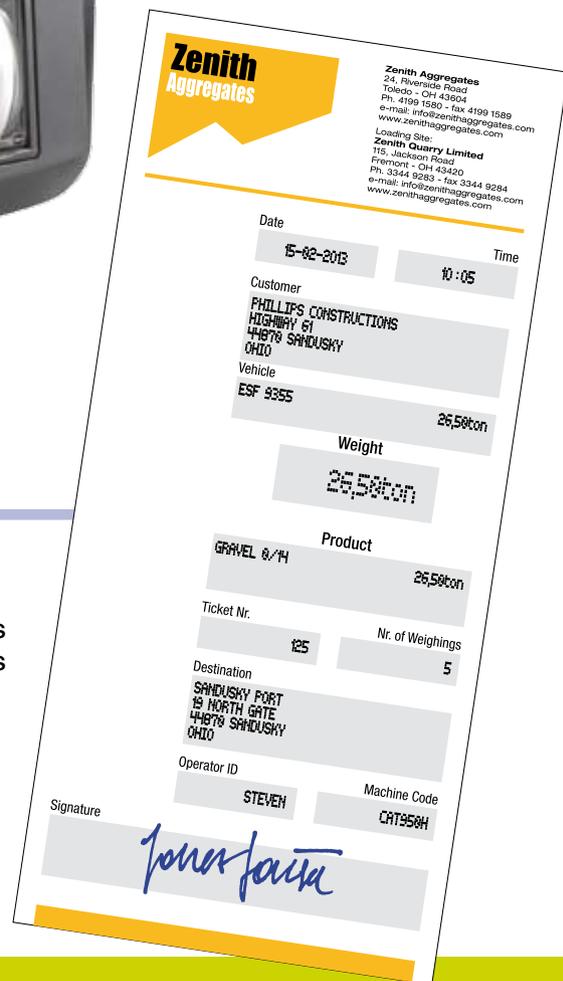
Configuration data



SLIPPRINTER

The **Slip Printer** generates 3 copies of delivery dockets in a pre-printed format.

Ticket size 105 x 224 mm (4,1 x 9 inches)



PRINTED INFORMATION INCLUDES:

- A** Site Owner company with address
- B** Loading site with address
- C** Loading company with address
- D** Date and Time of printout
- E** Loaded Product
- F** Loaded Weight
- G** Vehicle ID with preset target
- H** Number of Weighings
- I** Multiple Products loading
- J** Products overall Total
- K** Recipe Name
- L** Recipe Products loaded
- M** Customer Name with address
- N** Machine code
- O** Destination Name with address
- P** Loading Operator ID
- Q** Ticket number
- R** Signature box
- S** Footer

Others printout formats are available. Please consult us with your requirements.

A PORTLAND QUARRY
13 PEEK ROAD
ROSKANK CITY
OR

B LOADING SITE
CREEK VALLEY QUARRY

C LOADING COMPANY
SMITH CONTRACTING AND CO.

D 05/04/2013 16:04

PRODUCT	WEIGHT
	(t)
E SAND	23,45
Vehicle	23,60
G AC 455 RTS	
NO. OF WEIGHINGS	5

PORTLAND QUARRY
13 PEEK ROAD
ROSKANK CITY
OR

LOADING SITE
CREEK VALLEY QUARRY

LOADING COMPANY
SMITH CONTRACTING AND CO.

11/04/2013 14:50

PRODUCT	WEIGHT
	(t)
SAND	21,45
GRAVEL	15,20
ROCKS	45,45
J TOTAL LOADED	82,10 t
NO. OF WEIGHINGS	13

PORTLAND QUARRY
13 PEEK ROAD
ROSKANK CITY
OR

LOADING SITE
CREEK VALLEY QUARRY

LOADING COMPANY
SMITH CONTRACTING AND CO.

10/04/2013 11:15

RECIPE
K MAIN CRUSHER

PRODUCT	WEIGHT
	(t)
GRAVEL	145,00
Target	145,00
ROCKS	110,00
Target	110,00
LIMESTONE	135,00
Target	135,00
L TOTAL LOADED	390,00 t
NO. OF WEIGHINGS	70
CUSTOMER	PHILLIPS CONSTRUCTIONS
MACHINE CODE	CAT950H
DESTINATION	WELLINGTON WAREHOUSE
	20045 PINETREE
	LIVERPOOL
	OR 50073
OPERATOR ID	STEVEN
Ticket number	11
SIGNATURE	
QUALITY PRODUCTS	SINCE 1983

WEIGHTS LOG FILE
TOTALS

27/03/2013 11:00

START OF WEIGHING 27/03/2013 09:13
END OF WEIGHING 27/03/2013 09:20

PRODUCT	WEIGHT
	(t)
SAND	23,45
NO. OF WEIGHINGS	5
NO. OF TICKET	1703
OPERATOR ID	STEVE
CUSTOMER	RICHARDSON PLANT LTD
DESTINATION	PALM TREE DRIVE
LOADING SITE	PORTLAND QUARRY
LOADING COMPANY	SMITH CONTRACTING AND CO.
MACHINE CODE	L415

Typical truck load history

USB DATA TRANSFER AT NO EXTRA COST!

AN ADDED VALUE, STANDARD MOUNTED IN THE DEVICE. BEST DEAL OF THE INDUSTRY

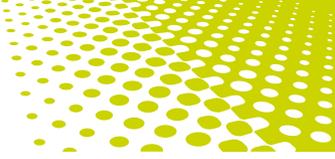


With a built-in USB port as standard on millennium⁵ and helper^X you can use a commercial USB memory stick and download the loadings accomplished during the day without extra optional cost: it's all built-in.

Read the USB memory stick in your PC and open your loadings by using a basic spreadsheet program like Excell; then import or export data as you like and where you like. The loadings data are saved into your USB by date and time so no overwriting will happen and your imports will be crystal clear to find them out.

Front USB port, compactness is standard





WIRELESS DATA TRANSMISSION

TRACKWEIGHT MOBILE

Stay connected to your loader 24/7, 7 days a week. **Trackweight** sends you real-time data from your loader wherever you may be, all you need is an internet connection.



Quad-band cellular modem

Its compact function gives you:

- Unlimited transmission range
- Real time data transmission
- Production data at a selected email account.
- 100% data security as data is sent in real time and stored on a server provided for you.
- Automatic and direct billing without having to enter delivery tickets manually after they are printed on the loader.
- Easy management of all extraction sites located in and outside the country.
- Upgrade your scale data management remotely.

The use of **Trackweight** modem requires to open an account into **ipotweb.com** because data will be sent to **VEI** servers and from **ipotweb.com** visible to the registered account, only. In alternative data can be sent to a dedicated FTP server other than **VEI**. Please contact **VEI** representative for further info this regarding.



RFLINK



RFLink

radio modem
Real-time data
transmission.
Limited range

Ideal for short distance data transmission within the same site where the loading machinery is working. **RFLink** is in fact used when delivery tickets need to be printed at the exit of the loading site or inside industrial plants in order to transfer data in real time. Frequency and power transmission depends upon country of usage. It can be used for real time or delayed data transmission.

If you want to take advantage of **VEI** Payload Monitoring software an account must be opened into **ipotweb.com** and an internet connection must be available in the job site. Otherwise your loading Excell files will be placed one by one into your preferred PC folder.



WiFi



WiFi modem

Ideal in job sites where a WiFi network is existing. Your loader will be part of the WiFi network in matter of minutes and loading data available at your preferred location in the job site and web wide. Transmission range depends from your local access point. It can be used for real time or delayed data transmission. If you want to take advantage of **VEI** Payload Monitoring software an account must be opened into **ipotweb.com** and an internet connection must be available in the job site. Otherwise your loading Excell files will be placed one by one into your preferred PC folder.

REMOTE KEYS

REMOTE YOUR MAIN KEYS

Bring your main 2 keys closer to your hands by using this small size **remote keys** box. It can be screws fixed or velcro attached to where it is more comfortable for your operation, usually the machine's right hand joystick.



Remote keys



VKIOSK UNRIVALLED AUTOMATION

VKIOSK FULL AUTOMATION



The **vkiosk** brings unparalleled automation to the sector, cutting running costs drastically and paying for itself in just a few months. With **vkiosk**, vehicles entering the loading site, whether it's a quarry, construction site or landfill site, are controlled through manual or automatic vehicle recognition. This provides direct control over all vehicles operating in the site, and the opportunity to deny authorization as necessary. But **vkiosk** is not just a simple access control system, as once a vehicle has been recognized, all associated data, such as the customer name, vehicle registration number, weight and product is sent wireless to the loading machine. This means the driver no longer needs to get out to give these details to the loader operator, and the latter doesn't have to enter data for the vehicle being loaded because it is already contained in the wireless data received from the **vkiosk** when the vehicle entered the site. Once the vehicle has been loaded, the loader operator, by deleting the running total on the scale, sends a message to the **vkiosk** specifying the weight actually loaded so when the vehicle is recognized at the exit, the driver receives the delivery docket automatically.



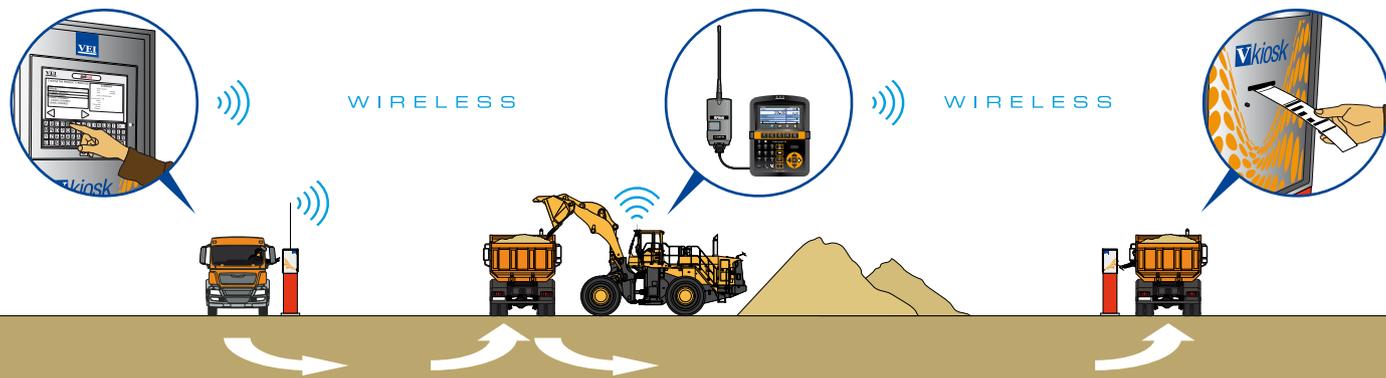
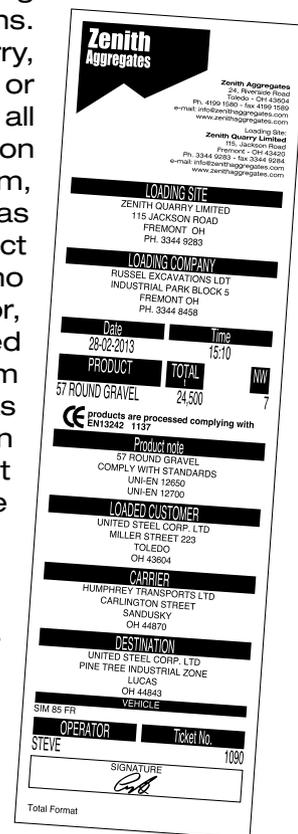
SCALE HOUSE AUTOMATION



Whether the job site is equipped with a scale house at the entrance, **ipot kiosk**, the software core behind the **vkiosk**, can be installed on the scale house PC to automate trucks loading, by registering the truck at the entrance, dispatching the truck info together with the weight to load to the loading machine and retrieving the loaded truck info at the exit for a quick delivery docket printout.

REMOTE PRINTING

The **vkiosk** can be used for simply printing the truck delivery docket remotely as job site security regulations are becoming stringent for truck drivers to step down from their truck to get the delivery docket from the loader operator.

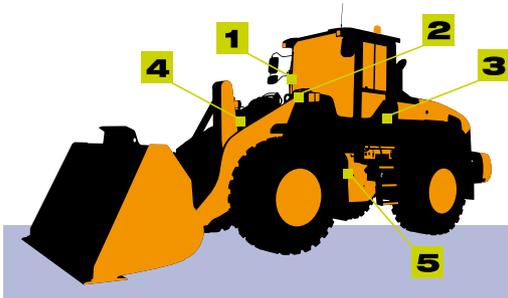


APPLICATIONS

THE WEIGHING CONCEPT

VEI products can be installed on a variety of machineries throughout diverse industries. In each one of them **VEI** scales deliver superior accuracy for a better optimization of your loadouts, production processes, sales analysis, inventory updates, trucks load optimization, loading machines productivity. **VEI** scales are installed by trained personnel assuring a perfect fit into your machineries or easily done by your personnel because they are simple and straight forward to install; **VEI** local support is always available to help you out in case of need. **VEI** scales can be easily transferred from one machine to an other of the same kind, they are durable and **DESIGNED TO LAST**.

WHEEL LOADER



1 helperX - millennium5 onboard instrumentation



2 Contact-free weighing zone sensor



3 Tilt sensor for legal for trade systems, only



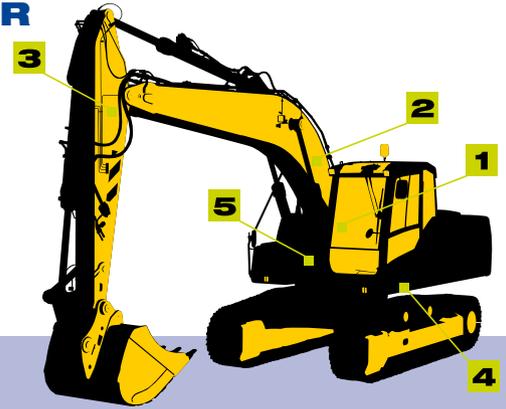
4 Bucket close sensor for legal for trade systems, only



5 Load sensors to know the lifting pressure

- OPTIONS**
- **vPrint** thermal high speed printer
 - **Slip Printer** slip dot matrix printer
 - **Wireless data transmission**
 - **ipotweb.com** payload monitoring
 - **Remote keys**

HYDRAULIC EXCAVATOR



1 helperX - millennium5 onboard instrumentation



2 Boom sensor



3 Stick sensor



4 Track sensor



5 Load sensors to know the lifting pressure

- OPTIONS**
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MATERIAL HANDLER



ADT ARTICULATED DUMP TRUCK



1 helperX - millennium5 onboard instrumentation



2 GR2 load sensing block



1 helperX - millennium5 onboard instrumentation



2 Load link on the rear axles

WEIGHT TOTALIZING



Totalizing option with push button



or with pedal

OPTIONS

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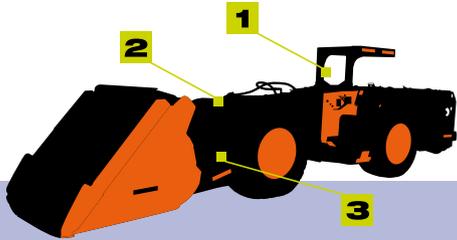
OPTIONS

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- **Remote keys**

LHD UNDERGROUND LOADER

TELEHANDLER

OFF-ROAD CONCRETE MIXER



1 helperX - millennium5 onboard instrumentation



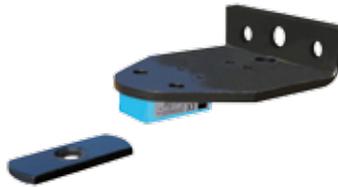
1 helperX - millennium5 onboard instrumentation



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2 Contact-free weighing zone sensor



2 Arm position sensor (optional)



2 Contact-free weighing zone sensor



3 Load sensors to know the lifting pressure



3 Contact-free weighing zone sensor



3 Load sensors to know the lifting pressure



4 Load sensors to know the lifting pressure

OPTIONS

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- **ipotweb.com** payload monitoring
- **Remote keys**

OPTIONS

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OPTIONS

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FORK-LIFT TRUCK



1 helperX - millennium5 onboard instrumentation

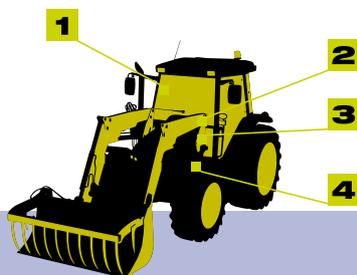


2 Contact-free weighing zone sensor



3 Load sensor to know the lifting pressure

TRACTOR



1 helperX - millennium5 onboard instrumentation



2 Contact-free weighing zone sensor

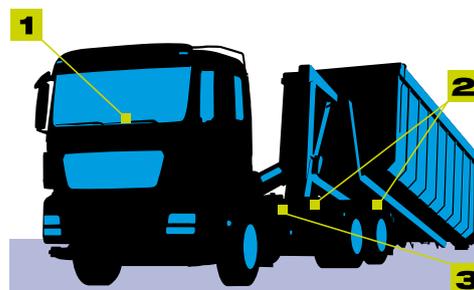


3 Quick disconnect plug to easily release front arm from tractor



4 Load sensors to know the lifting pressure

ROLL-ON ROLL-OFF



1 helperX - millennium5 onboard instrumentation



2 Weighing pads on the truck's chassis



3 Junction box, command box, pump group, fuse box

OPTIONS

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INDUSTRIES

VEI SCALES CAN BENEFIT A WIDE ARRAY OF INDUSTRIES

IN EVERY
INDUSTRY
WHERE
A LOAD
IS MOVED,
KNOWING
THE WEIGHT
IS OF PRIME
IMPORTANCE
BECAUSE
IT IMPLIES
THE ENERGY
TO MOVE IT
WHICH
ESTABLISHES
THE
PROFITABILITY
OF THE
ACTION.



SAND



GRAVEL



STONE



EXCAVATION



MINING



AGRICULTURE



RECYCLING



LOGISTICS

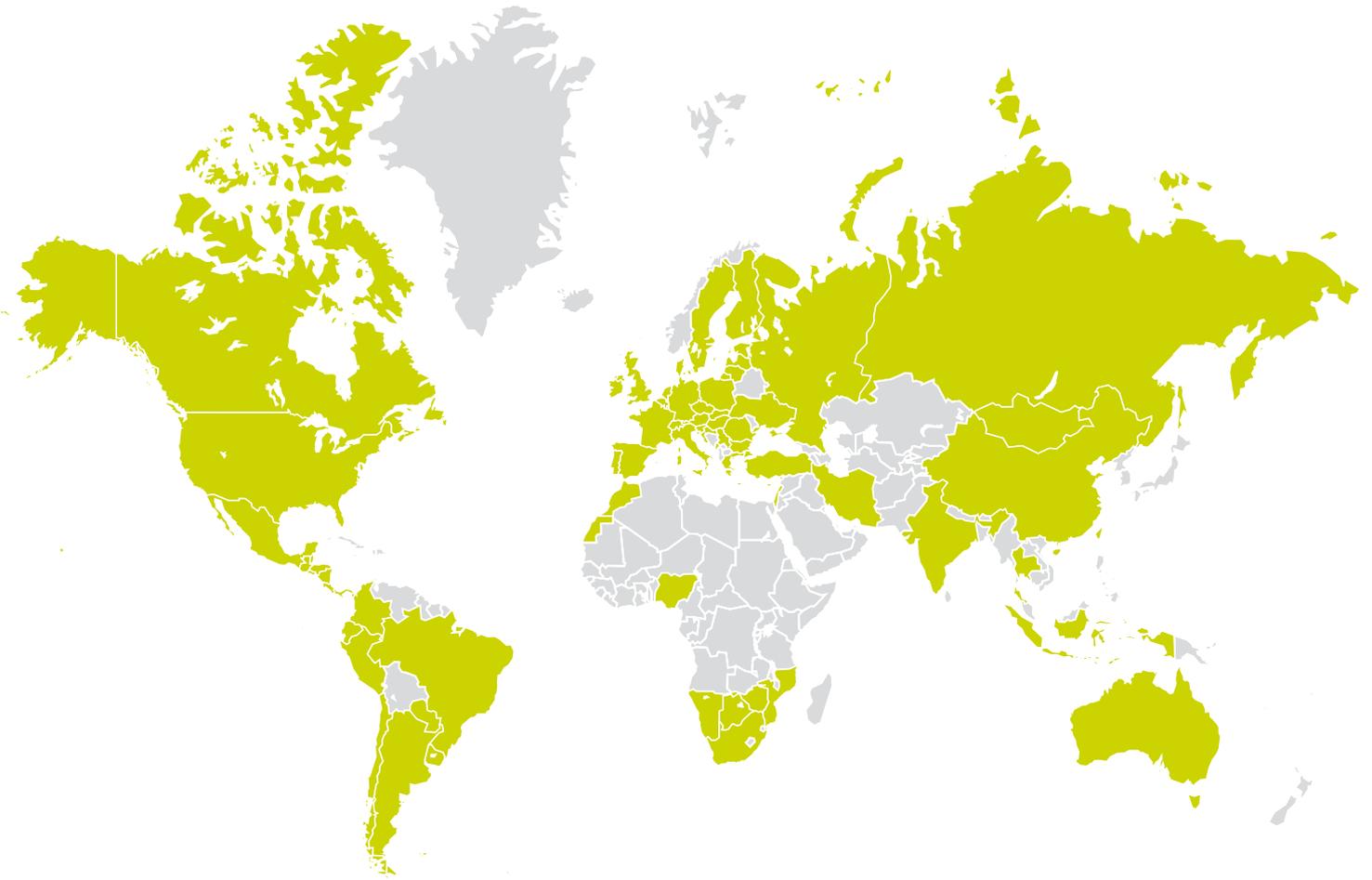


WASTE



BIOGAS

WORLDWIDE NETWORK
50 TRAINED DISTRIBUTORS IN 50 COUNTRIES
THOUSANDS OF SYSTEMS INSTALLED
PROVIDING CUSTOMER SUPPORT AND ON-SITE TRAINING SINCE 1986



**"WE LET YOU DECIDE WHO IS
THE ON BOARD WEIGHING INDUSTRY
LEADER PROVIDER!"**

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