Sasco Africa
Accurately Weighing Africa

sanas
Verification Laboratory
LTF0070

WIM 1000

SASCO SLOW SPEED BASIC WEIGH-IN-MOTION SYSTEM

Self-Sustaining, Robust, Proven

W1000-24-01

SMART SUPPORT
0861 422 134
OR +27 83 680 0722
E-mail: info@sascoafrica.com
Web: www.sascoafrica.com
24 hours, 7 Days a week

SASCO WEIGHING SYSTEMS
GROUP SUPPORT H/O
2 Blackburn Street
Apex Industrial | Benoni

Phone: +27 (0) 11 746 6000
Fax: +27 (0) 11 746 6100

Sasco's WIM Range

Sasco's Weigh-In-Motion (WIM) series excels in providing highly accurate in-motion weighing for vehicles moving at speeds of up to 5 km/h.

Our comprehensive suite of solutions, including the Low-Speed Basic (WIM 1000), Low-Speed Advanced (WIM 2000), Low-Speed Ultra (WIM 3000), and Low-Speed Cybernetic (WIM 4000), marks Sasco as a leader in the development of slow-speed road weigh-in-motion technology tailored for the African market.

Each system within the Sasco WIM range is distinguished by its specifications, as follows:

	WIM 1000	WIM2000	**WIM 3000**	WIM 4000
Total Weight Accuracy	±99.0%	±99.0%	±99.0%	±99.0%
Axle Weight Accuracy	±97.5%	±97.5%	**±97.5%**	±97.5%
Basis of Operations	Manned	Manned	**Manned**	Unmanned
Maximum Axle Loading	15T	15T	**30T**	15T
Deck Width	3.2m	3.2m	**6.5m**	3.2m
Deck Length	0.76m	0.76m	**0.76m**	0.76m
Required Level Approach	7m	7m	**10m**	7m
Number Load Cells	4	4	**8**	4
Load Cell Approval	OIML	OIML	**OIML**	OIML
Indicator	SW1000	SW2000	**DD700**	DD700
Indicator Approval	None	OIML	OIML	OIML
Driver Terminal	None	None	**None**	DT3500
Maximum Weighing Speed	5 kmph	5 kmph	**5 kmph**	5 kmph
Minimum Weighing Speed	3 kmph	3 kmph	**3 kmph**	3 kmph
Maximum Number Axles	20	20	**Unlimited**	20
Speed Recorded	None	Yes	**Yes**	**Yes**
Battery or Mains	Battery	Mains	**Mains**	Mains
PC Required	No	Yes	**Yes**	Yes
Printer Required	**No**	**Yes**	**Yes**	Yes
Software	In-built	ProWeigh	**ProWeigh**	ProWeigh
Automation	None	Optional	**Optional**	Optional

WIM 1000

Overloading regulations that have been enacted across most Africa countries. Twenty two African countries have agreed under the COMESA-EAC-SADC Tripartite Vehicle Load Management Agreement, to both standardize permissible limits ad seek to build from national prosecution systems, a multi-national African overloading management system.

The Road Logistics Industry must now ensure that trucks comply with overloading regulations. This requirement relates to both total weight and axle weights. The Weighing Industry has sought to promote multi deck weighbridges as the solution to the Road Logistic Industries compliance challenge.

Multi deck weighbridges are used in the weighing of goods for sale but also provide axle weights in addition to total weight, however multideck weighbridges are trade approved scales used primarily for trade weighing, are expensive, and require a significant amount of space.

Sasco is a market leader in the supply of a range of multi deck weighbridges, multideck automation and ERP system integration. and the automation thereof.

Notwithstanding this fact, Sasco consistent challenges the status quo, and concluded that, the Road Logistic Industry actually needed weighing solution that delivers specifically what is required.

That solution is the Sasco range of weigh-in-motion solutions delivering accurate total weight and axle weights cost effectively.

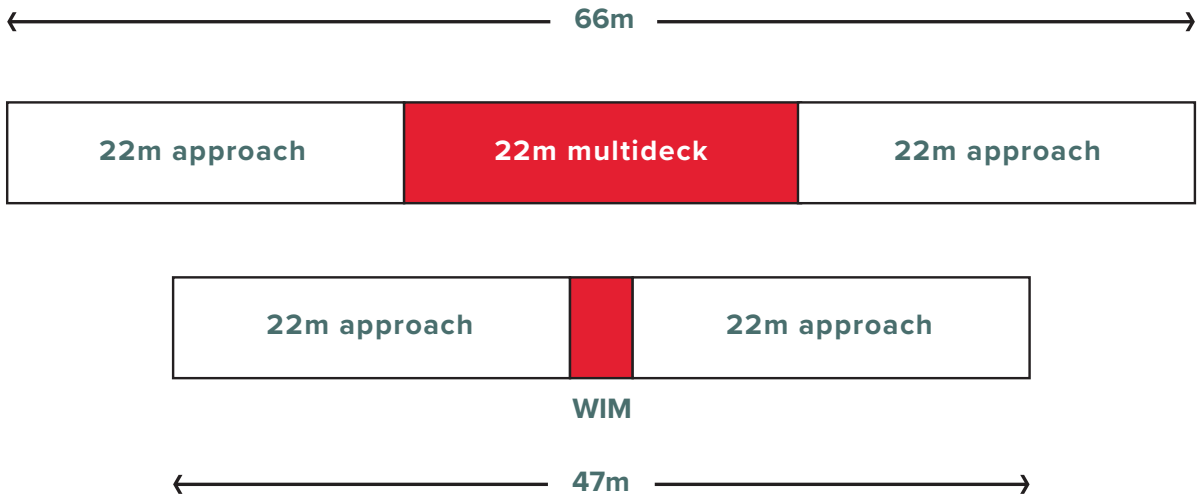
Attractions of Weigh-in-Motion

Weigh-in-motion (WIM) is a technology used to determine the weight of vehicles as they are moving. In contrast to traditional truck scales, which require vehicles to stop to be weighed. WIM systems are increasingly used for commercial vehicle weight enforcement, offering several advantages over conventional truck scales.

One of the main advantages of WIM systems is their speed and efficiency. Because vehicles do not have to stop to be weighed, WIM systems can quickly and accurately determine the weight of many vehicles. WIM therefore allows for more efficient commercial vehicle weight enforcement, eliminating the need for vehicles to queue up at traditional truck scales.

Another advantages of WIM over multi-deck weighbridges is the amount of space required.

Taking a regular articulated truck length of 22m and the requirement for the truck to be straight when approaching the weighing device, the relative space requirements are as follows:



Sasco's WIM Range

The WIM 1000 comprises a WIM Deck and the SW 1000 Indicator.

The WIM 1000 System delivers the same accurate total weights and axle weights as the WIM 2000, WIM 3000 and WIM 4000, but the operations are simple, are manned but do not require a computer, printer or power at the site.

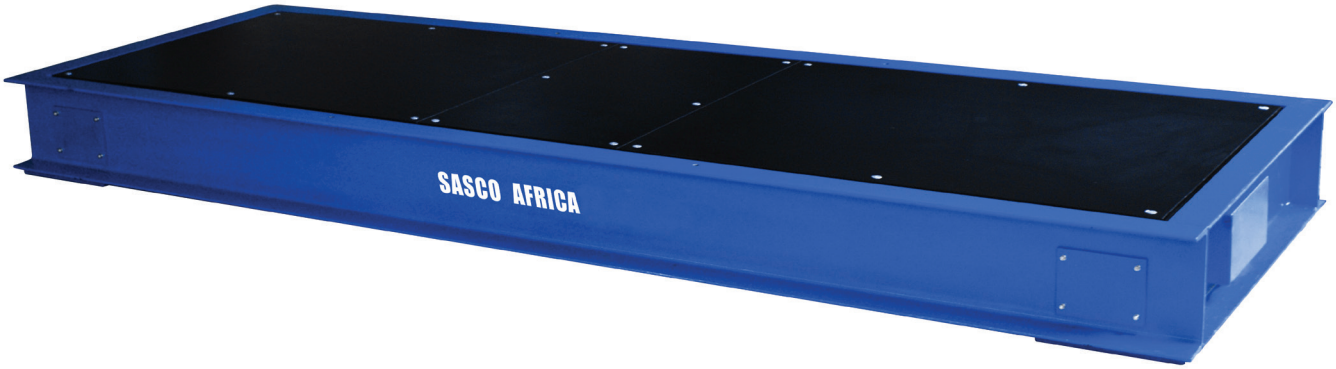
Power to the WIM Deck is provided by the SW 1000, which is portable and has an inbuilt printer and a USB port for downloading data to a memory stick.

The WIM 1000 is the optimal solution for weighing trucks at remote locations.

WIM Deck

The WIM 1000 uses the Sasco WIM Deck.

The WIM Deck is a steel weighing deck approximating 3 sqm in size and is flush mounted in the ground. Therefore, the concrete civil works around the deck are straightforward but the WIM Deck approaches must be level for at least 10m on the approach side.



PRO-WIM FLUSH MOUNTED DECK IS JUST 2.9 SQM

The WIM Deck is highly robust and can accommodate axle loadings of up to 30T per axle, which is exceptionally strong.

Vehicles of any length can be weighed, and this is done in motion at speeds not exceeding 5 kmph. Once completed, vehicle total weight and group axle weight data is generated.

SW 1000 Indicator

The WIM 1000 uses the Sasco SW 1000 indicator.

The specifications of the SW 1000 are:

a. Enclosure Material: ABS
b. Units of Measurement: kg, ton, lb., kilo lb.
c. Strong water resistant enclosure
d. Working Humidity: < 90% RH
e. Mini Weighing Capability: 20e
f. Driving Number of Load cells: Up to 24 x 350 Ω or 12 x 700 Ω
g. A/D Converter: 24bit – 4.8kHz
h. Conversions per second: 200/s
i. Division: 1, 2, 5, 10, 15, 20, 25, 50
j. Baud rate: 4800, 9600 bit/s
k. Printer: Build-In Thermal Printer
l. Working Temperature: -10°C to 60°C / 14°F to 140°F
m. AC Adopter 110 ~ 240V 50/60Hz. Rechargeable Battery 6V/4000mA
n. Communication Interface: RS232, USB, Bluetooth, WIFI (Optional), LET/5G (Optional)

Proven Operational Accuracy

Under normal operating conditions, the accuracy of the WIM 1000 has been validated through parallel multi-deck weighbridge cross testing to deliver the following results consistently:

EXCEPTIONAL TOTAL ACCURACY	PERCENTAGE ERROR ON TOTAL WEIGHT	PERCENTAGE ERROR ON AXLE GROUP
3 Kmph	<1%	<2.5%
5 Kmph	+- 1%	<2.5%

WIM 1000 Weighing Sequence

Under normal conditions, the WIM 1000 should enable 5 -10 trucks to be weighed per hour depending on whether “Auto” or “Manual” mode is selected.

With “Auto Mode” selected, the WIM 1000 will automatically detect and weigh a vehicle as it drives over the WIM Deck. The Operator needs no input, but no license number will be recorded on the ticket, and the axle weights will not be grouped into axle groupings.

With “Manual Mode” selected, the weighing sequence is as follows:

- The Operator inputs the vehicle number plate.
- The Operator select vehicle axle configuration.

VEHICLE CONFIGURATION SELECTION SCREEN

- Advise the driver to proceed over the WIM Deck.
- The weighing process will complete automatically, and the data will be saved. Axle weights will be allocated to the correct axle groupings based on the configuration selected.
- If “Auto Print” is selected the weighing ticket will be automatically generated. If not then the Operator must push the print button.

Data Output

Data output can be in printed form or electronic, and weighing data that has been stored can be downloaded to a USB stick.

Alternatively, on completion of the weighing, and with “Auto Print” selected, a weighing ticket will automatically be generated:

WIM 1000 Application Example

Company A is a timber plantation. Trees are felled during daylight hours, and there is no power.

Felled trees are transported from the forest area to one exit point, then onto the main road to a timber mill 100 km away. On the route is a Government prosecution weighing station with a multi-deck weighbridge where trucks are weighed to determine if their total weight and axle weight is within permissible limits.

On arrival at the timber mill, the mill owner weighs the trucks to determine the weight of the timber loaded and pays the plantation owner based on this weight.

On arrival at the timber mill, the mill owner weighs the trucks to determine the weight of the timber loaded and pays the plantation owner based on this weight.

The plantation owners required a solution that could operate without power and could accurately determine the total weight and axle weights of the trucks leaving the forest area.

The optimal solution is the WIM 1000 for the following reasons:

- The WIM deck is powered by the SW 1000 which is rechargeable.
- The WIM 1000 comes in a robust plastic case.
- At the end of the day, weighing the SW 1000 can be unplugged, taken home for recharging, and the data downloaded.
- The highly accurate weighing results include total weight and axle weights.
- The Operator inputs the vehicle number plate.
- The Operator select vehicle axle configuration.

WIM 1000 Technical Specifications

	WIM 1000
Deck width	0.76m
Deck length	3.2m
Required level approach	7m
Number of load cells	4
Load Cell approval	OIML
SW 1000 approval	None
Maximum weighing Speed	5 Kmph
Minimum weighing Speed	3 Kmph
Speed recorded	Yes
Weighing accuracy at maximum Speed	+-99%
Weighing accuracy at minimum speed	>99%
Maximum number of axles	20
Manned or Unmanned	Manned
PC Required	No
Printer Required	Inbuilt
Mains power required	No
Option of add on peripheral devices	No
Battery Life One Charge	8 Hours

SMART SUPPORT
0861 422 134
OR +27 83 680 0722

E-mail: info@sascoafrica.com
Web: www.sascoafrica.com
24 hours, 7 Days a week

This brochure contains a general guide of the product only and shall not form part of any contract unless specifically agreed by Sasco Africa in writing in each case on the Order Acknowledgement. The specification of the product described herein may vary from time to time and may be altered without notice.

LOCAL SUPPORT AGENT