



Accurately Weighing Africa



WB 80T AXLE WEIGHING

(WB-AW)

Precision Weighing Excellence

WBAW-24-01

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WB 80T AXLE WEIGHING (WB-AW)

Discover the unparalleled range of truck weighing solutions offered by Sasco, from multi-deck to single deck and weigh-in-motion products.

When choosing the optimal truck weighing solution, factors such as budget considerations, the need for axle and total weights, available space, truck length, daily weight volume, required maximum axle loadings, deck strength, level of automation, and the possibility of unmanned weighbridges all come into play.

Sasco's extensive product line up ensures that the perfect solution, which are all powered by European manufactured weighing indicators, align seamlessly with specific requirements. In terms of single deck weighbridge solutions Sasco has six options:

	SAS-Bridge WB-SB	WB-LP	WB-AW	WB-PT	WB-AC	WB-HD
Total Accuracy	±99.95%	±99.95%	±99.98%	±99.98%	±99.98%	±99.98%
Deck Type	WB80 LP	WB80 LP	WB80 T	SPT Portable	Concrete	WB120 T
Lengths	6, 12, 18, 24m	6, 12, 18, 24, 30m	6, 12, 18, 24m	12, 18, 21m	6, 12, 18, 24m	6, 12, 18, 24m
Width	3m	3m	3m	3m	3m	3m
Deck Construction	Steel	Steel	Steel	Steel	Concrete	Steel
Deck Plate Thickness	8mm	8mm	10mm	10mm	n/a	12mm
Total Capacity	80T	80T	80T	50T, 60T, 80T	80T	120T
Axle Loadings	9T	9T	18T	10T	25T	25T
Colour	Yellow	Yellow	Lego Blue	Red	n/a	Green
Volume Daily Weighing's	<=60 p.d.	<=60 p.d.	<=120 p.d.	<=120 p.d.	No limit	No limit
Indicator	DD700	DD1015	DD1015	DD1015	DD1015	DD1015
Load Cells	Sasco S16	Sasco S16	CPD or S500	CPD	CPD or S500	CPD
System	Analogue	Digitised	Digital	Digital	Digital	Digital
Software	SasPro	ProWeigh	ProWeigh	ProWeigh	ProWeigh	ProWeigh
Axle Weighing Functionality	No	Yes	Yes	No	Yes	Yes
Lightning & Surge Protection	No	Yes	Yes	No	Yes	Yes
Installation	Pit or above ground	Pit or above ground	Pit or above ground	Portable	Pit	Pit or above ground

In addition to these six single deck weighbridges Sasco has a range of Multideck Weighbridges and Weigh-in-Motion solutions.

WB-AW Product Overview

The WB-AW shares the comprehensive total weight and axle weight capabilities with the WB-LP but distinguishes itself with an enhanced design. The deck plate thickness is increased from 8mm to 10mm, elevating the axle loading weight tolerance to an impressive 18t per axle. Notably, the robust construction allows the deck to endure double the number of daily weighing's without succumbing to fatigue.

Although the WB-AW comes at a higher price point than the WB-LP, its durability and increased axle weight capacity justify the investment. Moreover, customers can opt for either Sasco S500 load cells or the premium Bilanciai CPD load cells, the latter renowned as possibly the best weighbridge load cells globally, further enhancing the WB-AW's status as a top-tier weighing solution.



Sasco DD1015 Indicator

The image shows the Sasco DD1015 Indicator, a rugged industrial device. It features a central color LCD screen displaying the Sasco Africa logo and the text "Accurately Weighing Africa" and "Designed to be Connected". The device is housed in a grey, protective enclosure with a carrying handle at the bottom. The model number "DD1015" is visible on the left side of the front panel.

- Diagnostic system.
- Automation device management.
- Dual core 1GHZ
- 512 Mbyte RAM and 1 GByte Flash
- Ethernet 10/100MBps
- 4 USB Ports
- 3 x RS232/RS422
- 2 x RS232/RS422 Optio Isolated
- Connect to 12 analogue load cells
- Connect to 16 digital load cells
- OIML and NTEP Approved

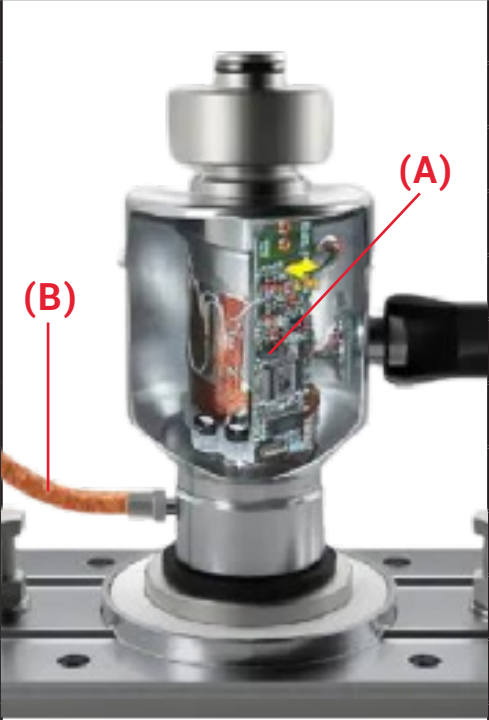
The DD1015 weighing indicator, designed and manufactured in Europe, boasts not only OIML approval but also multiple additional European certifications.

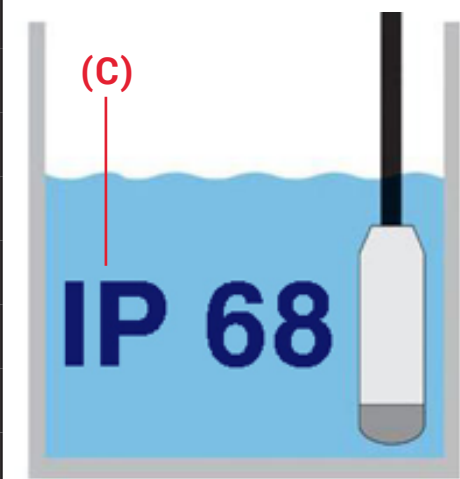
Setting it apart from other solutions on the market and proving pivotal for weighing applications in Africa, this indicator is equipped with comprehensive temperature compensation, ensuring the system maintains its accuracy even amidst significant temperature fluctuations.

Option I: Sasco CPD Load Cells

The Bilanciai CPD load cell has earned a reputation as one of the premier weighbridge load cells globally, owing to its unique and unparalleled features. Notably, it boasts the capability to be submerged, withstand side loads and inclinations without sustaining damage, and incorporates rodent protection cabling.

Crafted with A17-4PH Stainless Steel casing, it ensures durability and resilience. Additionally, the load cell is equipped with built-in lightning protection, continuous diagnostics, and the innovative ability to have calibration settings reverse-calibrated, minimizing downtime. These distinctive attributes collectively make the Bilanciai CPD load cell exceptionally reliable, robust, and precise, setting a standard for excellence in load cell technology.

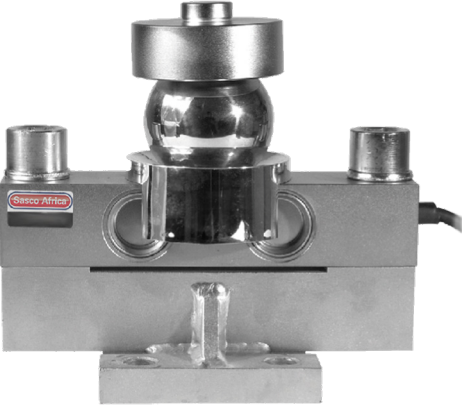
The CPD load cells are characterized by the following specifications:		
	Accuracy Class	C3 (OIML R60)
	Rated Capacity	20t, 35t, 50t
	OIML R60 intervals	Max 6000
	Safe Overload	150% F.S.
	Safe Side Load	10%
	Ultimate Overload	200% F.S.
	Op. Temperature	-10~40 °C
	Ability To Incline	Yes to 5 degrees
	Transmission Protocol	RS485
	Supply Voltage	7~15 VDC
	Housing Material	A17-4PH Stainless Steel
	Rating	IP 68/ 69K
	Type	Digital
Continuous Diagnostics	(A) Yes	
In built lightning protection	(A) Yes	
Radio Interference Protection	(A) Yes	
Reverse calibration	(A) Yes	
Rodent protection cables	(B) Yes	
Submersible	(C) Yes	



Option II: Sasco S500 Load Cells

The S500 load cells, specifically the S500 model, boast several advantages that contribute to their accuracy and ease of use. Being a double shear load cell enhances its precision in measuring forces. The construction of the load cell incorporates a steel ball to apply force, effectively nullifying any side forces that could compromise accuracy.

Unlike canister-type load cells, the S500 load cell remains unaffected by issues such as tilting, expansion, contraction, or bending of the deck, ensuring consistent and reliable measurements. One notable convenience is the ease of installation, simplifying the process for users. Overall, the S500 load cells, with their double shear design and robust construction, stand out as accurate and user-friendly tools for weighbridge applications.

The Sasco S500 load cells are characterized by the following specifications:		
	Accuracy Class	C3 (OIML R60)
	Rated Capacity	30t
	OIML R60 intervals	3000
	Safe Overload	150% F.S.
	Safe Side Load	N/A
	Ultimate Overload	300% F.S.
	Op. Temperature	-35~65 °C
	Ability To Incline	N/A
	Transmission Protocol	RS485
	Supply Voltage	7~12 VDC
	Housing Material	Nickel Plated Alloy Steel
	Rating	IP 68
	Type	Analogue
	Continuous Diagnostics	No
	In built lightning protection	No
	Radio Interference Protection	No
	Reverse calibration	No
Rodent protection cables	No	
Submersible	No	

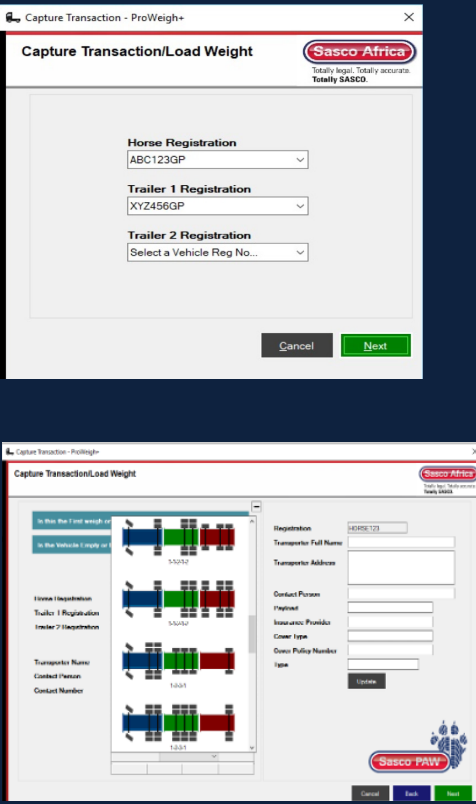
Sasco Proweigh Software

Launched in September 2009, ProWeigh+ V1.0 aimed to provide a cost-effective off-the-shelf software solution, utilizing a modular building block approach for seamless functionality expansion. Since its inception, ProWeigh+ has undergone substantial developments, enhancing its functionality while maintaining its inherent simplicity.

The latest iteration, ProWeigh V5.0 stands as a testament to this evolution, meeting the diverse needs of customers and even surprising those initially considering bespoke solutions with its flexibility and functionality.

Developed incrementally over a decade from the original platform, ProWeigh V5.0 is a proven and stable software solution. This is underscored by the widespread adoption of licenses across key sectors of the African economy, reflecting its reliability and performance.


A practical weighing solution is one that weighbridge operators find easy to use, and ProWeigh+ epitomizes this concept.



- Wide range of definable fields.
- Purchasing and Product module.
- Fleet database module.
- Ticket emailing module.
- Axle weighing reporting module.
- Country specific overloading setup.
- SOLAS container module.
- Definable overloading % tolerances.
- Specific definable User rights.
- Full audit trail.
- Microsoft Sequel database.
- Online Accredited Operator Training.
- Option of ERP or Cloud interfacing.
- Option of adding automation hardware management module.
- Developed and supported by Sasco.

With over 1000 installations across multiple African countries, Sasco ProWeigh+ has established itself as arguably Africa's most popular weighing software today. Its widespread use across diverse industries underscores its reputation for reliability, user-friendly operation, and adaptability to evolving weighing needs.

The Weighing Ticket

THIS DOCUMENTATION IS COMPLIANT WITH THE NATIONAL ROAD TRAFFIC AMENDMENT ACT, 64 OF 2008			
		WEIGHBRIDGE TICKET SLIP	
		Horse Registration	VEHICLE
		Weighbridge Name	Road train weighbridge2
		Company Name	Assmang Blackrock Mine Operation
		Site Name	****
Product		*** COPY ***	
TICKET NUMBER	SMS00000019	TICKET DATE	2022/09/02 13:47
VEHICLE DETAILS			
Registration Number	VEHICLE	TRAILER123	TRAILER456
Type	****	****	****
Operator	Private	****	****
Contact Person	****	****	****
Insurance Provider	****	****	****
Cover Type	****	****	****
Policy Number	****	****	****
TRADE WEIGHING DETAILS			
<u>First Weigh Details</u>		<u>Second Weigh Details</u>	
Weight (kg)	21,000	Weight (kg)	56,000
Date Time	2022/09/02 13:43	Date Time	2022/09/02 13:46
Operator	sa	Operator	sa
		<u>Weigh Calculations</u>	
		NETT Weight (kg)	35,000
		Product NETT (kg)	35,000
		Total Difference	35,000
		Total Cost	0.00
LOADING DETAILS			
Axle Groups	Actual (kg)	Permissible (kg)	Difference (kg)
Group 1	7,600	7,700	-100
Group 2	16,000	18,000	-2,000
Group 3	16,000	18,000	-2,000
Group 4	16,400	18,000	-1,600
TOTALS	56,000	61,700	-5,700 Speed 0.00 km/h
CONSIGNEE DETAILS			
Consignee Code	Address		
Consignee Name			
Document Number	ROA0000000002	Contact Name	****
Document Type	Sales	Contact Number	****
Document Weight	0		
CONSIGNOR DETAILS			
Consignor Name	Assmang Blackrock Mine Operation	Contact Name	****
Address	****	Contact Number	****

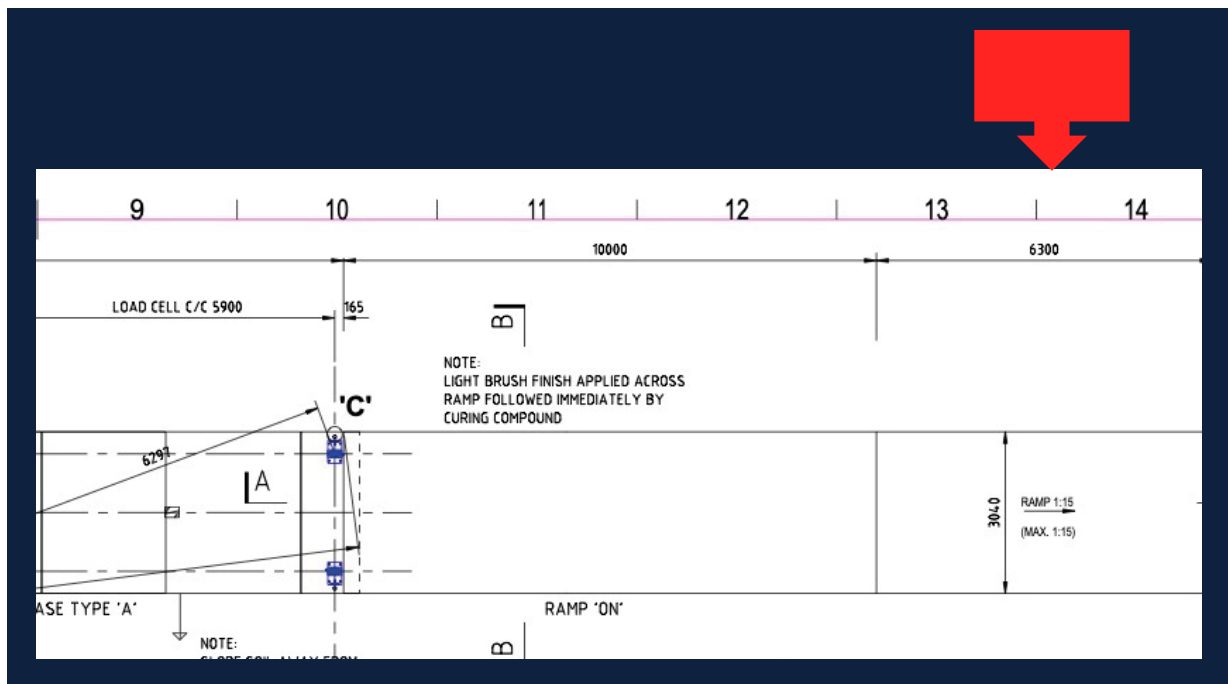
The system requirements for ProWeigh+ are:

- CPU : Intel Core i5 (8th generation or newer)
- RAM : 8GB or Higher
- Storage: 500GB or more
- Network: Ethernet and WiFi
- Operating System: Windows 10 or 11
- Printer: A4 printer

Civil Works

If installed above ground a 10m level approach must be constructed as indicated below for the weighbridge to generate accurate axle weights.

TOP DOWN - CIVIL DRAWING ON THE LEVEL APPROACH RAMP FOR ABOVE GROUND WEIGHBRIDGES



CROSS SECTION - CIVIL DRAWING ON THE LEVEL APPROACH RAMP FOR ABOVE GROUND WEIGHBRIDGES



Application Example

Company C animal feed company which mixes animal feeds and then delivers product to its customers using road tankers. Company C owns its tanker fleet and therefore knows the tare weight of each vehicle. Each tanker trailer is always assigned to the same horse. The facility is all paved, drainage is good but the facility is in an area of high lightning strikes.

Company C want to do one weighing of the tankers on the way out of the facility, wants to determine a trade approved total weight and wants to ensure the driver leaves the facility with a weighing ticket which is compliant with the Road Traffic Act.

Company C wants the site to be fully automated and to operate on an unmanned basis using APNR cameras. All weighing data must also be fully integrated with the company's ERP system.

The WB-AW combined with ProWeigh+ will be the optimal solution and would be configured as follows:

- One WB-AW weighbridges, with CPD load cells will be installed in the ground.
 - One traffic light, one boom and one APNR camera will be mounted on the right of the weighbridge on the outbound approach side before the weighbridge, and one traffic light and one boom will be mounted on the right side of the weighbridge on the exit side.
 - ProWeigh+ will be loaded on the PC's located in the site Operations Manager's office and a printer will be located in the security office at the exit gate. The entire fleet information will be loaded on the ProWeigh+ Fleet Master database.
 - The PC will be networked to the DD1010 indicator, the weighbridge hardware comprising the booms, traffic lights and APNR camera as well as the printer.
 - The relevant automation functionality of ProWeigh+ will be activated.
 - The ERP interfacing functionality of ProWeigh+ will also be activated and the weighbridge PC connected to the customer network.
-

On departure, the APNR camera will identify the truck by reading the number plate, all the truck and trailer details will be accessed from the Fleet Master file in ProWeight+, the light will turn green, the boom will go up, weighing will take place, data will be transmitted to the ERP system, the second boom will go up, the second traffic light will go green and the truck will drive to the exit gate where the security guard will give the driver his weighing ticket.

AXLE WEIGHING SINGLE DECK WEIGHBRIDGES are an important product within Sasco's range of Truck Weighing solutions. Other products within Sasco's truck weighing range which offer a similar solution, include multideck weighbridges, weigh-in-motion wimbridges, standard single deck weighbridges with upgraded instrumentation to enable axle weighing, group axle weighers and weigh pads.



Technical Specifications

	SCPD Load Cells	S500 Load Cells
Total Accuracy	+ - 99.95%	+ - 99.95%
Axle Weighing Accuracy	+ - 97.50%	+ - 97.50%
Installation	Above ground or pit	Above ground or pit
Deck Width	3m	3m
Deck Length	6m - 36m but normally 24m	6m - 36m but normally 24m
Number of Modules	One formed from 6m sections	One formed from 6m sections
Indicator	One - DD1010	One - DD1010
Indicator IP Rating	IP 48	IP 48
Load Cells	Ten - CPD	Ten - S500
Load Cell IP Rating	IP68	IP68
Dlink Required	No	Yes
Maximum Total Weigh	80 tons	80 tons
Maximum Axle Weigh 200 W.P.D	18 tons	18 tons
Reverse Calibration	Yes	Yes
Temperature Compensation	Yes	Yes
Maximum Number of Axle Groups	Unlimited	Unlimited
Total Weight Generated	Yes	Yes
Axle Weights Generated	Yes	Yes
RTA Compliant Ticket	Yes	Yes
SOLAS Weighing	Yes	Yes
Double or Single Weighing	Yes	Yes
Manned or Unmanned	Manned	Manned
PC Required	Yes	Yes
Option of Automation	Yes	Yes
Option of Unmanned	Yes	Yes
Option of Centralization	Yes	Yes
Direct IT Systems Interfacing Possible	Yes	Yes
Cloud Interfacing Possible	Yes	Yes

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