



Accurately Weighing Africa



# AUTOMATIC THROUGHPUT WEIGHER

HIGH VOLUME, HIGH ACCURACY  
AUTOMATION



## SASCO WEIGHING SYSTEMS

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**SASCO THROUGHPUT WEIGHERS** also known as automatic hopper scales and automatic batch weighers are common for many industrial sites. Most types of products are stored in bins, hoppers, or silos before transfer to a process plant, packaging plant or a transport vehicle.

Using a weighing system enables accurate monitoring and management of the product while transferred to or from a storage bin or silo. By installing a Throughput Weigher or installing load cells under an existing hopper control of in transfer weight product around site can be achieved, either using a controller with batching functionality or using a batching software package. Throughput Weighers also ensure good product traceability.

Throughput Weighers are all designed as flexible solutions to carrying out operations that involve weighing a continuous flow of products. Throughput Weighers are designed to function in dusty, wet and hazardous environment in food processing plants.

Throughput Weighers are mainly, but not exclusively, used in the agricultural food industry all over the world for the intake and out-loading of more or less free flowing solid and liquid products such as grains, sugar, salt, fertilizers, molasses, mix juice etc.

Throughput Weighers are designed for weighing a continuous product flow into batches for packing and other purposes. The unit consists of a surge bin, weigh hopper support frame, load cells and a controller.

The material enters the weighbin through the open infeed gate or valve and accumulates in the weighbin. Once the preset tip weight has been reached the infeed valve or gate closes. The controller waits for the material and weigh hopper to settle before recording the gross weight.

The discharge gate then opens, and the controller waits for the product to fully discharge (through the gate or valve) before closing the discharge gate. Once the scale is stable the controller records the zero weight and calculates the nett weight of the batch, and the cycle then repeats.

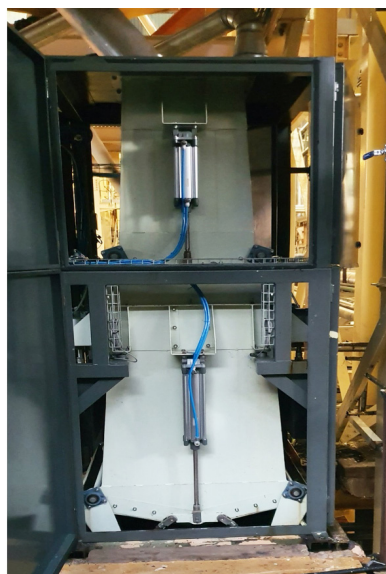
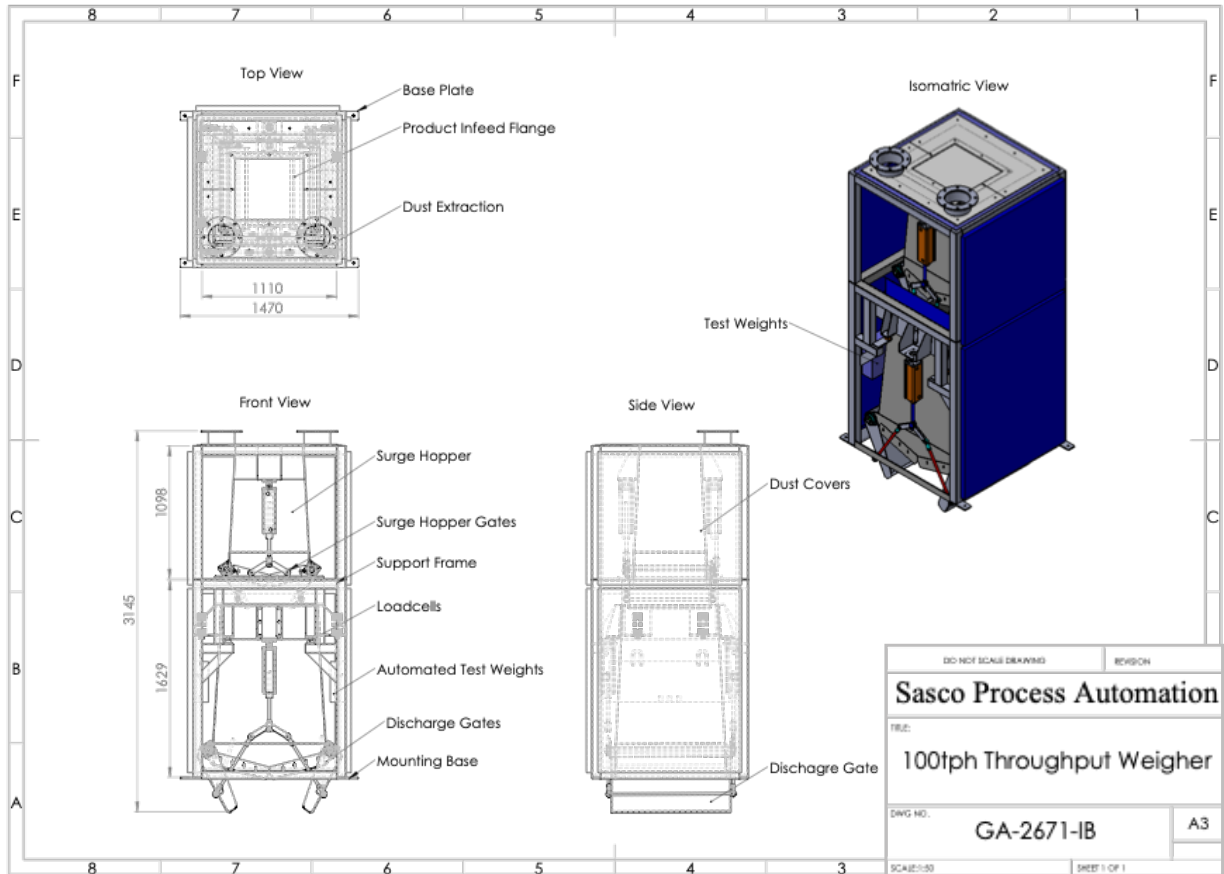
Sasco offers a broad range of rugged and accurate Throughput Weighers designed to withstand harsh environments, all of which can be tailor made to meet customers' specific requirements. There are three configurations central to Sasco's product offering, namely the HS100, HS200 & HS300 Throughput Weighers

Sasco Throughput Weighers provide solutions for nearly all ranges of applications including, stock control, automated and manual road and rail truck loading, and continuous feed control for plant processes.

# Product Overview

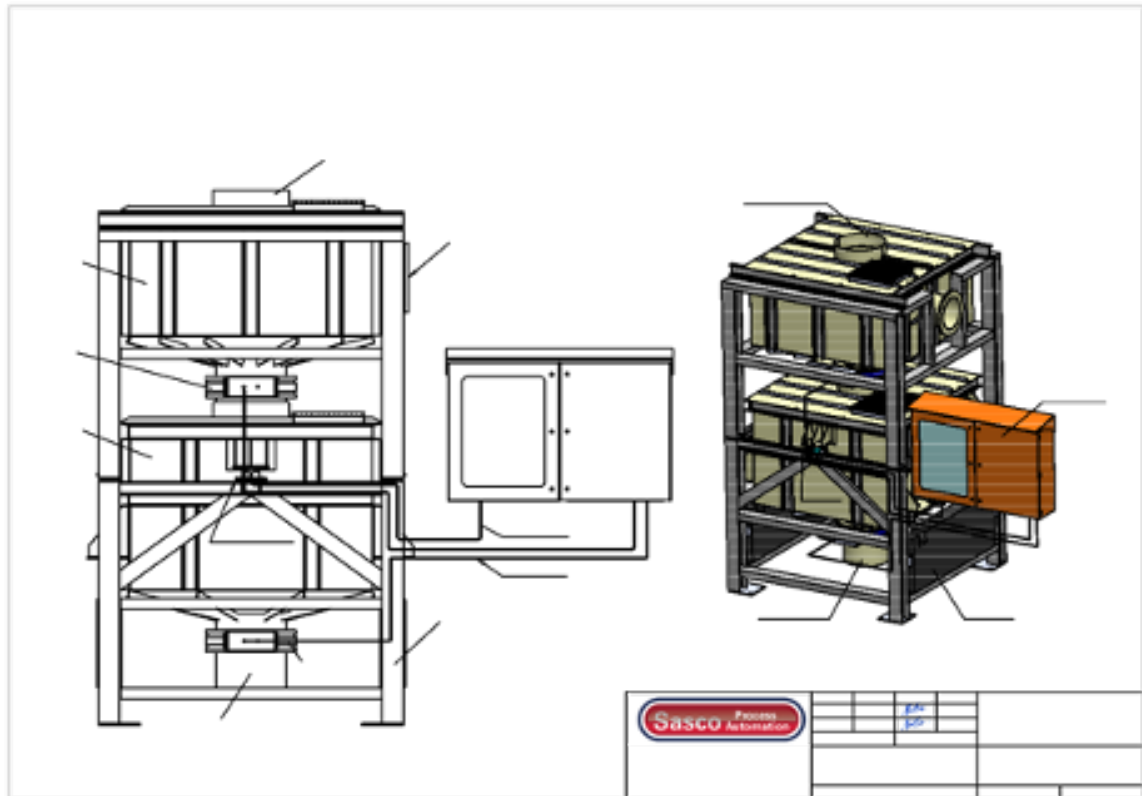
SASCO THROUGHPUT WEIGHERS FOR SOLIDS AND FLUIDS have the following key component, which are reflected in our range of standard weighing products and bespoke.

## Throughput Weighers for Solids



**Throughput Weigher for Solids**

## Throughput Weighers for Fluids






*Throughput Weigher for Fluids*

# Standard Product Range

## DELIVERING ACCURATE IN-MOTION BULK WEIGHING

Sasco's Throughput Weigher range comprises both bespoke products and the following standard base ranges:

PRODUCT NUMBER	TW-100	TW-200	TW-300
Controllers	 <b>PW-100</b>	 <b>L337</b>	 <b>L337</b>
Approval	Nontrade	Trade or non-trade	Trade or non-trade
Applications	Standalone throughput weighing applications with basic reporting to printer.	Integrated throughput weighing applications interface to a DCS or plant control system.	Integrated throughput weighing applications interface to a DCS or plant control system
Solid Weighers	50L, 100L, 400L, 1000L + custom built	50L, 100L, 400L, 1000L + custom built	50L, 100L, 400L, 1000L + custom built
Liquid Weighers	50L, 150L, 300L, 600L, 1000L and custom built	50L, 150L, 300L, 600L, 1000L and custom built	50L, 150L, 300L, 600L, 1000L and custom built

## Controller Features Comparison

	PW 100 Controller	L337 Controller
Display	6-digit 7-segment LED + 8 LEDs + LCD	12.5cm/5.7" TFT colour screen
Display Type	7-segment + mono-colour Graphic LCD	Colour Graphic LCD
Mounting	Wall	Panel, Wall, Desk
Key Pads	20-key Alphanumeric membrane keyboard	30-key Alphanumeric keypad + Ability to plug into a key pad separate from the controller.
Built in Web Server	No	Yes
IP Rating	IP65	IP69K
Digital Filter	Moving average digital filter with programmable input step detection	Motion filter and digital
Input Power	90-260 VAC or 10-30 VDC	110-240 VAC or 12-30 VDC
Load Cells Operated	8 Loadcells	16 load cells
Scales Operated	1	2
Standard Comms	RS232	USB, RS232, Ethernet
Communication Options	Optional RS232, RS485, USB, Ethernet, RF	RS232, RS485, RS422, RS4220, PROFIBUS, Modbus and Ethernet/ WiFi
Ticket Formats	Fixed	Standard formats with limited used defined fields
Approvals	No Approvals	EN 45501 OIML R 76-1 EN 61000-6-2 EN 61000-6-3 NAMUR NE21 EN 62368-1 OIML R 51 OIML R 61 OIML107
Applications	Loadcell transmitter Loss-in-weight controller Through-put weigher Bag filling Batch weigher Dynamometer	Truck scales with axle-weighing Loss-in-weight controller Through-put weigher Bag filling Big-bag filling Batch weigher Belt weigher Counting scales Check weighing Filling systems for solid and liquid material Mobile scales



# Application Example

## THROUGHPUT WEIGHER

A large Southern African Sugar Mill required a way of measuring the throughput per hour and the total amount of sugar that is produced after the drying cycle before the sugar gets stored in the silo or transferred to the packing plant.

The main weighing challenges were:

- **High Volumes:** Due to the high volumes in the plant the customer was concerned that the scale would need to be able to cope with these volumes.
- **Reliability:** Reliability of the weigher was also critical as it was to be installed directly inline between the process plant and the packaging plant, so any breakdown or stoppage would halt the whole the packaging process.



### Sasco's solution was:

- The surge and weigh hopper supplied were designed to be self-cleaning ensuring less sugar build up in the weighbin minimizing the time needed to clean the scale during a sanitation stop.
- We supplied them with a 100tph VHP throughput weigher with a patented bottom gate design ensuring a perfected seal in a harsh environment or when product quality is less than perfect.
- We fitted the weigher with certified automated test weights ensuring quick and easy scale checks. The weigher is interfaced to the clients remote reporting systems, enabling management to easily view the production rate in the comfort of their office.

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#### LOCAL SUPPORT AGENT

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