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### SASCO WEIGHING SYSTEMS

GROUP SUPPORT H/O
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Phone: +27 (0) 11 746 6000 Fax: +27 (0) 11 746 6100 **SASCO IMPACT WEIGHERS** offer a low cost yet highly accurate method of measuring the mass flow of dry solids and powders for production and inventory control purpose. Impact Weighers are designed so that the impact can only move horizontally.

This means that from the total impact force only the horizontal component is measured. Other forces are ignored. This guarantees that changes in the weight of the sensing plate, due to material build-up or sensing plate wear will not affect the zero or accuracy of the system.

Impact Weighers can be used in those applications requiring a belt scale or can also be used were no conveyor is required such as in a continuous flow shoot.

### SASCO IMPACT WEIGHERS

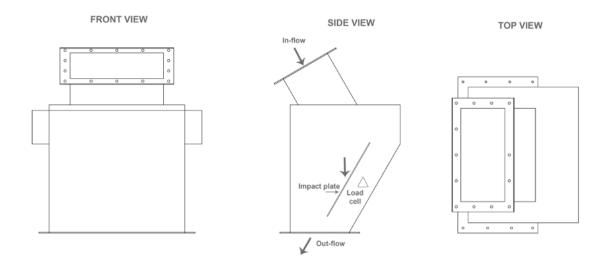
Sasco's SF Series of Impact Weighers are all highly robust and are of all steel housing construction with a stainless-steel impact plate and mounting, with the option of a full stainless-steel housing.



Sasco SF Series Impact Weigher ready for installation at a sugar mill

## **Product Overview**

SASCO IMPACT WEIGHERS have the following key components:



# **Special Features**

Sasco's SF Series of Impact Weighers have the following special features:

- In-line measurement.
- Engineered per application.
- Designed to fit the space available.
- Large foot print target area for material impact.
- · Reliable linear and repeatability readings.
- Engineering allows for peak loading over engineered maximum.
- Sensors are integrated into impact plate and system housing.
- Reliable indication in pulsing or surging flow applications.
- · High accuracy.
- Large range of flow rates.

# **Standard Product**

Model	SF 100	SF 200	SF 250
Applications	Process Weighing or Flow Rate Indication	Plant Inventory	Product Accounting or Stock Pile Accounting
Flow Capacities	10-100T p/h	100-250T p/h	>250T p/h
Housing Material	Standard: All steel housing painted; or Optional: full stainless-steel housing		
Impact Plate Material	Standard: Stainless Steel 304L; or Optional: Stainless Steel 316L		
Measuring Range	10 T p/h >250T p/h		
Operational Temperature Range	Standard: -10C- +65C Optional: -20C to +85C		
Material Temperature Range	10C to 100C		
Measurement Transducer	Force Transducer		
Approximate Weight Without Sensing Plate	50 – 100kg model dependent		
Dust Proofing	Sealed unit		
SW134 Integrator Specifications	Display: Flow rate, totalisation and force. Outputs: 4-20mA/O – 10VDc analogue re transmission, dry contact totaliser pulse output, RS232, RS485, Modbus RTU/ASCII comms		



Sasco SF Series Impact Weigher

## **Application Example**

### IMPACT

### **IMPACT WEIGHER**

**Milling Company A** operates several mills in order to pulverise mineral ore to specific sizes prior to further processing.

A Conveyor Belt Scale feeds the ore into the ball mill at a specified feed rate and an air classifier is used to remove finer materials from the mill once pulverised and separate these into final product and oversize materials, the oversize materials are rejected and redirected back into the ball mill for further pulverisation.

#### The plant needs a solution for the problems of:

- Determining the quantity of oversized material being redirected from the air classifier back into the ball mill to be re-milled until the correct particle size is detained so that the raw material feed can be adjusted proportionately, and the mill not overfilled.
- Determining the ball mill grinding efficiency by knowing at any given time the amount of rejected oversize material generated.

Our customisable Impact Weighing systems provide a compact, built to fit means of measuring dry granular solids and powders continuous flow rates as well as totalisation of material flow.

Material flowrate and totalization thereof are indicated and retransmitted to plant PLC/DCS/

SCADA and other indicating devices and control related devices.

#### This information is then used for some of the following:

- Enables the process engineer to determine milling efficiency and thereby determine optimum instantaneous raw material feed rates.
- Allow for secondary control of mill feed raw material feed rates ensuring that the mill primary feed rate is controlled proportionately and does not cause overfeeding of the mill due to a high proportion of oversize material being returned from the air classifier and not being compensated for.



Impact Weigher measuring dry granular solids



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