

- Accuracy : $\pm 0,25-0,5 \%$
- Discharge totalization
- No field calibration ever required (with digital load cells)
- Easy installation thanks to the state-of-the-art mechanical design
- High performances



Weighing / Flowrate calculation/ Totalization
All materials conveyed on a belt conveyor

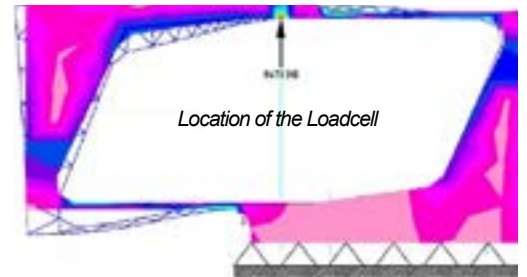
SBS
SBS

- ✓ A single model adapts to all conveyor types and a wide range of widths.
- ✓ Easy alignment of the weighbridge.
- ✓ No special tooling required.
- ✓ Totally prewired with cables and connectors supplied for error-free installation.
- ✓ All operational parameters are pass word protected with 2 levels of security (hardware and software).



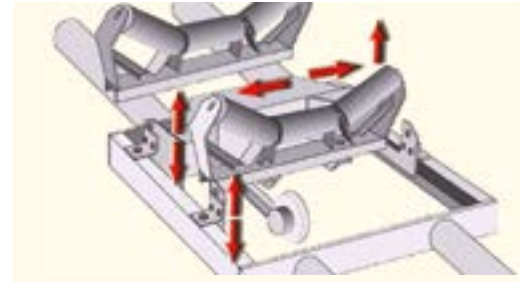
Weighing parallelogram principle

All our belt scales are equipped with loadcells mounted in a **parallelogram device**. This parallelogram is geometrically designed to **compensate the overload naturally applied if the charge is offset from the weighing point**. The further is the charge, the higher is the mechanical deformation of the parallelogram in proportion to the overload due to lever effect. As a result, a charge is measured properly no matter its transversal position on the belt. Example : 10kg placed at 300 mm of the weighing point will be measured properly without an overload mistakably added to the measure due to its offset for the weighing point.



Application:

The **Smart Belt Scale** is a conveyor belt scale specially designed for rugged outdoor environments such as quarries, gravel processing and mining. It is also well suited for any manufacturing process using conveyor belts, including: cement, fertilizer, chemical, tobacco, agro-food, etc... It is designed for easy installation which can be done by the customer's own maintenance staff.



entirely modular construction (height and width)

Smart Belt Scale. Single. Twin and Double (Multi-Station):

Depending on the application (high belt speed and / or flow rate), up to four single idler SBS can be combined to be used as a multi idlers beltscale. The SBS are connected to the same controller. Only one speed sensor is required, either a friction wheel speed pick-up or an incremental encoder mounted on the return drum.

Controller:

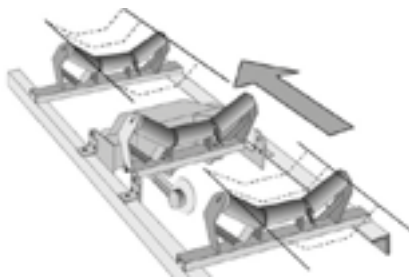
The Smart Belt Scale is connected to a BFC electronic controller - panel or wall version - having the following interfaces:

Standard

- 3 Configurable isolated digital outputs with programable thresholds: totalizer, alarm, horn
- 1 Configurable isolated 0/4-20 mA analog output for either: flowrate, current weight, speed, load per meter
- 2 Configurable isolated digital inputs: out of range acknowledgement, totalizer reset.

Data Links

Isolated serial communication:
• Modbus, Ethernet ModbusTCP, Profibus DP - for connection with a PLC or host computer.



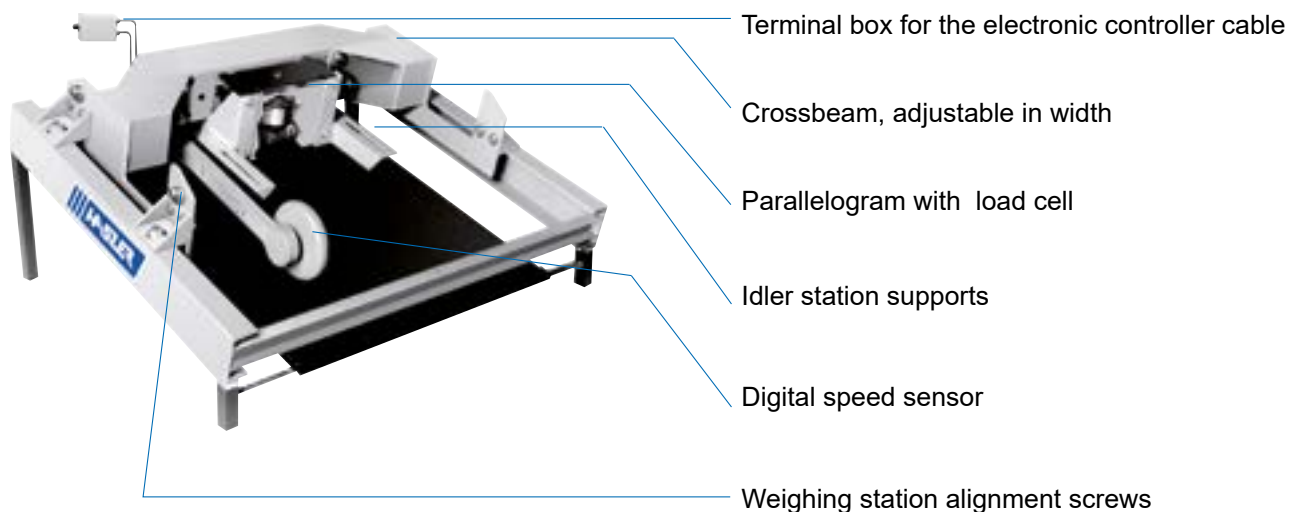
BFC Controller (panel version)

Dimensions and weight

Type		Station height (SH)	Distance between girders (DG)	Belt width approx.	Weight of mechanics SBS	Weight of electronics BFC	Total weight packed
SBS 2	H L	- 145 mm 75 - 144 mm	390 - 500 mm	200 - 350 mm	34 kg	3,4 kg	54 kg
SBS 3	H L	- 145 mm 75 - 144 mm	500 - 600 mm	350 - 450 mm	38 kg	3,4 kg	58 kg
SBS 4	H L	- 145 mm 75 - 144 mm	600 - 800 mm	450 - 650 mm	42 kg	3,4 kg	62 kg
SBS 5	H L	- 145 mm 75 - 144 mm	800 - 1000 mm	650 - 850 mm	50 kg	3,4 kg	70 kg
SBS 6	H L	- 145 mm 75 - 144 mm	1000 - 1300 mm	850 - 1150 mm	60 kg	3,4 kg	80 kg
SBS 7	H L	- 145 mm 75 - 144 mm	1300 - 1600 mm	1050 - 1350 mm	70 kg	3,4 kg	90 kg
SBS 7 TWIN	H L	- 145 mm 75 - 144 mm	1400 - 1600 mm	1050 - 1350 mm	75 kg	3,4 kg	120 kg
SBS 8 TWIN	H L	- 145 mm 75 - 144 mm	1600 - 1900 mm	1350 - 1650 mm	82 kg	3,4 kg	128 kg
SBS 9 TWIN	H L	- 145 mm 75 - 144 mm	1900 - 2200 mm	1650 - 1950 mm	97 kg	3,4 kg	145 kg
SBS 10 TWIN	H L	- 145 mm 75 - 144 mm	2200 - 2500 mm	1950 - 2250 mm	102 kg	3,4 kg	160 kg



The weighing station:



Specifications:

Accuracy : 0,25-0,5 % (if installed in an approved conveyor in accordance with the manufacturer's specifications)

Temperature range : - 25°C to +45°C (- 13°F to +113°F)

Protection class : IP 65, NEMA 4

Belt speed : standard : 0.05 to 3 m/s.

Flowrate : up to 2500 t/h.

Belt inclination : material should not tumble backwards, max. acceptable slope $\leq 20^\circ$

Max. trough angle : $\leq 45^\circ$

Load cell : 100 % digital Smart Force Transducer (SFT version $\geq M$) or analog load cell

Standard colour : RAL 5000 (blue)

Options:

- ◇ Heating device for temp. as low as -45°C
- ◇ Fertilizer version with special anti corrosion surface treatment and protection of terminal box and screw terminals
- ◇ Ex protection version