



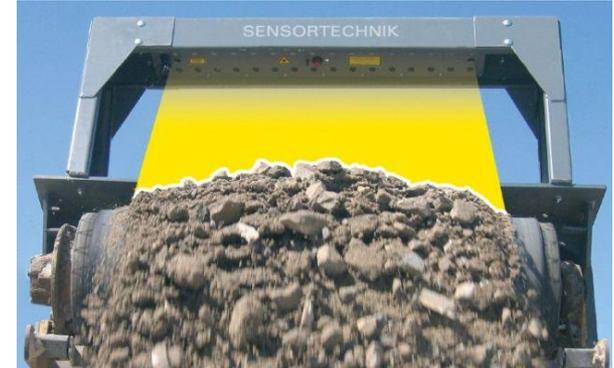
OPTICAL BELT SCALE

Advantages
of the Non-Contact Measuring System

Advantages of the Optical Belt Scale

compared to conventional belt weighers

1. The sensors operates **contactless** and therefore no subject to wear and tear. Downtimes for replacing load cells and the like are eliminated.



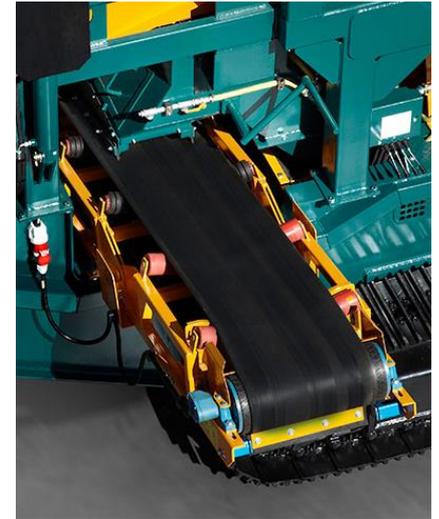
2. The **calibration** of the system is done by means of an empty belt run, which is performed only once after installation and only needs a few seconds.

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3. The load cells of conventional belt scales measure wrong when material falls directly onto the measuring cell. Also dust and dirt cause incorrect measurements at conventional belt scales.
4. The sensor can also measure material on **very short and ribbed** belts.
5. The system can also be mounted on **Chevron belts** as well as on **pivoting and folding conveyor belts**.



6. The **belt tension** plays a very large role at the conventional belt scales. It may change throughout the day due to temperature differences and cause incorrect measurements.

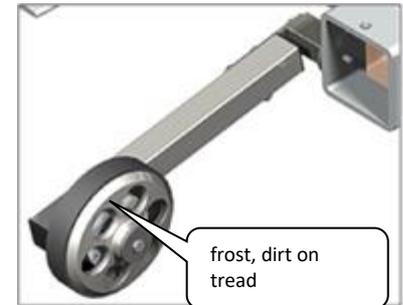
The optical belt scale is not affected by the belt tension, because the measurement is carried out without contact directly above a pulley or idler.

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7. The measurements will also not be affected by the **lateral reciprocation motion**, which is the case with conventional belt scales.

8. Conventional belt scales require a roll for measuring the speed of the belt, which often is not in contact with the conveyor belt, or a slippage occurs due to icing or contamination. These possibilities of error are bypassed at the optical belt scale by an inductive proximity switch at the drive station.



9. Smartphone and printer are **mobile devices** and not attached to the plant. Therefore, they can be well protected against vibration, temperature and humidity.

The **Bluetooth data transmission technology** leads to an elimination of the wiring between the sensor and the operator terminal, which is an error-prone need at conventional belt scales.

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10. The sensor **stores all necessary data**, such as customer and material names and the volume in half hour intervals.

customer	material	start of measurement				amount [m³]	roll Ø [mm]	m³ per 30 minutes interval									
		start of measurement	end of measurement	amount	roll Ø			I	II	III	IV	V	VI	VII	VIII	IX	X
AKM	Asphalt	07:09	07.12.2015	12:00	07.12.2015	357,6	280	12,9	43	45,2	31,1	28,4	38,7	47,8	35,9	40,3	34,3
AKM	Asphalt	12:57	07.12.2015	18:15	07.12.2015	363,7	280	13	47,7	36,1	33,2	32,8	29,2	21,4	44,1	25,8	48,9
AKM	Asphalt	06:59	08.12.2015	11:50	08.12.2015	348,3	280	15,4	37,6	36	47	31,7	33,8	46,4	29	38,9	32,5
AKM	Asphalt	13:01	08.12.2015	17:53	08.12.2015	280,4	280	19,2	35	35,2	43,1	24,6	24	27,3	20,3	23,3	28,4
AKM	Asphalt	06:05	11.12.2015	12:00	11.12.2015	409,5	280	15,5	42,8	29,3	35,6	29,1	22,2	27,8	25,5	46	45,3

11. The sensor itself has a **memory up to 1 year**.

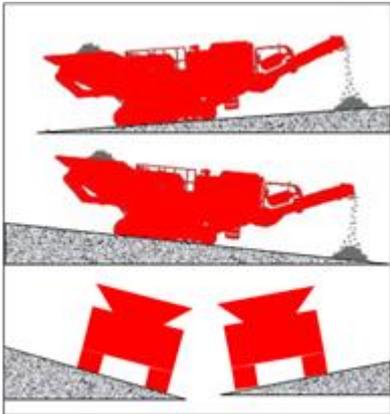
12. The sensor is **insensitive to external influences** such as extreme heat, cold, sunlight and moisture, is resistant against dust and vibration and has no moving parts.

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13. The system is mounted by **two technicians within two hours** and immediately ready for operation.



14. When the **angle of the belt changes** - what often happens at mobile plants - the system need not be re-calibrated.

This advantage significantly increases the efficiency and accuracy at mobile crushers and screening

15. Almost all components of the sensor are **Made in Europe** (mainly Germany and Austria).

Because of its long life, combined with the elimination of wear parts, this is a both economically and socially sustainable and environmentally friendly product.

