The D-Box
Diagnosis Tool

The new WIPOTEC Diagnosis Tool (D-Box) enables the fast, cost-effective, and accurate prediction of potential scale accuracy values inside parcel sorting centers at the point of use. In the evaluation tool's expert mode, the D-Box software identifies potentially disturbing sources to weighing result such as imbalances, or conveyor rollers and motors.
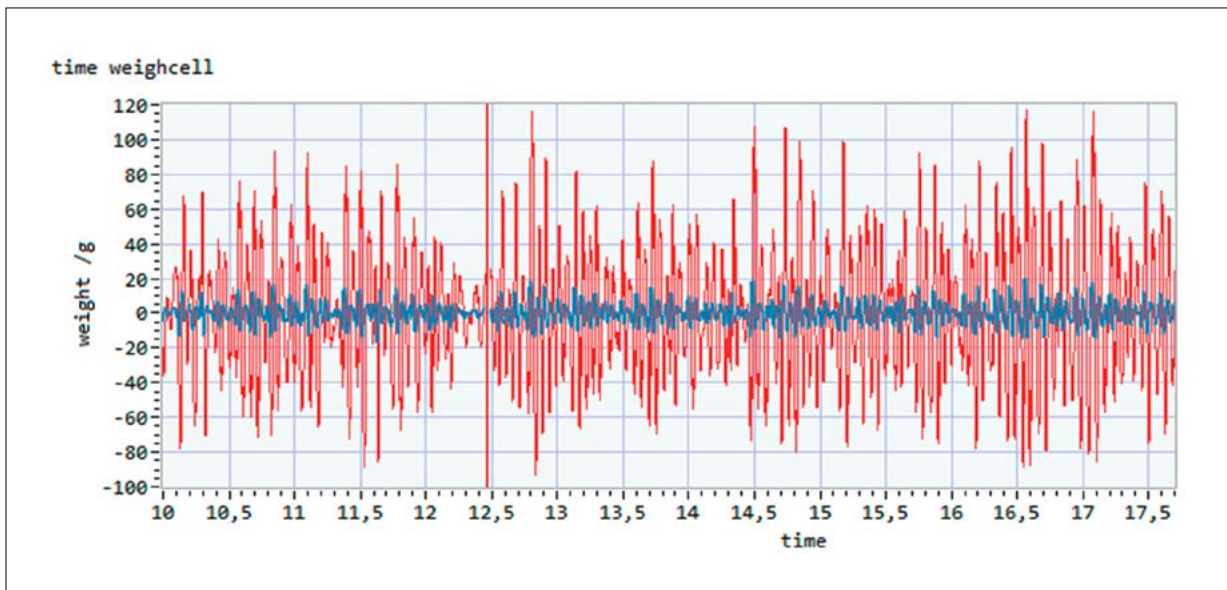
Basic Operation

The D-Box is placed at the designated location for the scale installation and is connected to a laptop. Within minutes, the D-Box software will calculate the achievable accuracy based on the individual application data such as speed, parcel size, etc. The D-Box will also provide information on the impact of Active Vibration Compensation (AVC) to the weighing result.

Your benefits

- Determining weighing results precisely and cost-efficiently
- Valuable help with decision-making about weigh scales with AVC technology
- Determination of calibration values and higher billing accuracy

D-Box

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time weighcell

red: weighing signal without AVC / blue: weighing signal with AVC

Basic Operation – AVC Analysis

Active Vibration Compensation (AVC) helps to improve weighing accuracy results that may be subject to disturbing factors like floor vibrations below the critical limit of 15Hz, which typically occur on mezzanine decks.

AVC compensates the disturbing signal from the informational signal. Therefore, the weighing system captures the disturbances without compromising the accuracy. Alternatively, the calibration value will be improved by at least one-calibration step under given circumstances.

AVC is based on the WIPOTEC Fast Sampling (FS) Electro Magnetic Force Restoration (EMFR) weighing technology.

Active Vibration Compensation is a key product option available in best in class catchweighers, industrial scales, and DWS systems. AVC solves vibration issues, and makes high-speed parcel weight captures possible with the extremely short package gaps.

Summary

The D-Box is useful for retrofit situations or as a way to check accuracy in comparison with a new AVC-weigh cell. With the D-Box, it is possible to achieve a lower e-value. You can use this information to increase the revenue recovery gained from charging products with a lower weight. ▲

e	peak hold	
	EMFR	EMFR AVC
10g	🔴 78,9 %	🟢 100,0 %
20g	🔴 97,4 %	🟢 100,0 %
50g	🟢 100,0 %	🟢 100,0 %
100g	🟢 100,0 %	🟢 100,0 %

Determination of achievable accuracy

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