

3D 5000 - Patent makes freight safe for transporting

The more complex contents of packages or containers the more unstable and unpredictable the freight will be. The reason: The three-dimensional centre of gravity is located eccentrically mostly. Its calculation is complicated or even impossible. Mostly the charge only can be secured deficient. The danger of transport accidents is rising.

Advantages of the DEW-innovation: The scale 3D 5000 measures up the three-dimensional centre of gravity in only one step, fully automatic and within seconds. Thereby the DEW has created a simple solution to make complex contents of packages safe for transporting. The world debut for cargo securing of DEW is registered for patent approval (AZ 10 2015 112 943.4).

"Freight at risk of tipping affects many companies"

3D 5000 - Solution for freight with complexer contents

The balance 3D 5000 was developed for the logistics department of Schneider Electric in Regensburg. Since October 2017 the weighing system is in operation there. It is used for calculation of the three-dimensional centre of gravity of custom-made medium-voltage systems.

Peter Weiß, logistics manager of Schneider Electric in Regensburg: "The investment has paid off for the company. The scale is in operation several times a week. The problem of freight at

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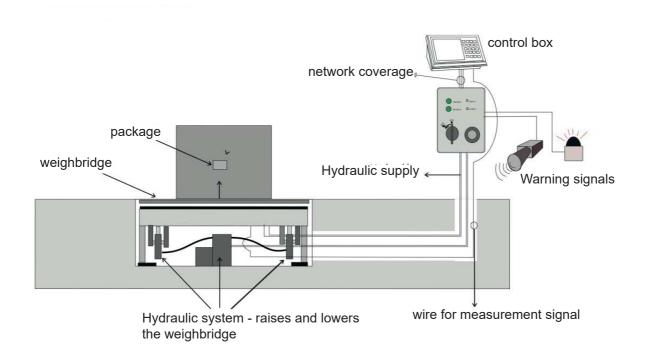
risk of tipping affects many companies. But exceedingly few of them realize the risks and the consequences in case an accident will happen." But the fact is: Manufacturer are legally bound to show the three-dimensional centre of gravity of their

Centre-of-gravity-information is legal duty

products, if it's not centred. The absence of such a necessary information could have civil or criminal law consequences.

Deliveries of 3D 5000 - reliable up to 20 tons

- · Calculation of the centre of an area and the three-dimensional centre of gravity
- The possible weighing range lasts from about 200 kg up to 50 tons
- Display digit 1/3000 up to 1/6000 of the respective weighing range
- Belastbar mit bis zu 20 Tonnen
- The balance is calibrated
- Detaillierte Schwerpunktangabe auf Fracht
- The collected data make a detailed information about the three-dimensional centre of gravity ssible and thereby a cargo securing that meets global standards





- 1. Determination of the centre of an area: The package is put on the weighbridge.. Its content has an eccentric centre of gravity. The 3D 5000 measures up the centre of an area automatically.
- 2. Touch of a button starts the three-dimensional measurement: A touch of a button on the weighing terminal starts the automatic measurement of the three-dimensional centre of gravity. The long side of the weighing bridge lifts and tilts itself. The package follows the movement.



- **3. Calculation the centre of an area in inclined position:** Due to the inclined position the centre of an area shifts. The 3D 5000 measures up the centre of an area once again this time in inclined position. Now the balance has captured all values for the calculation of the three-dimensional centre of gravity.
- 4. Calculation of the three-dimensional centre of gravity: The balance calculates the three-dimensional centre of gravity with the help of both centres of an area and with the degree with which the weighing bridge tilts. After a few seconds the display shows the coordinates of the three-dimensional centre of gravity - the length, the wide and the amount.



- 5. Marking of the three-dimensional centre of gravity on the package: The three-dimensional centre of gravity is captured! A Marking identifies the position of the three-dimensional centre of gravity. Now the freight could be secured and transported.
- 6. Packaged and provided with centre-of-gravity-markings medium-voltage systems ready for transport. The freight has its drawbacks. The shapes of the medium-voltage systems are complex and far away from each standard.





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