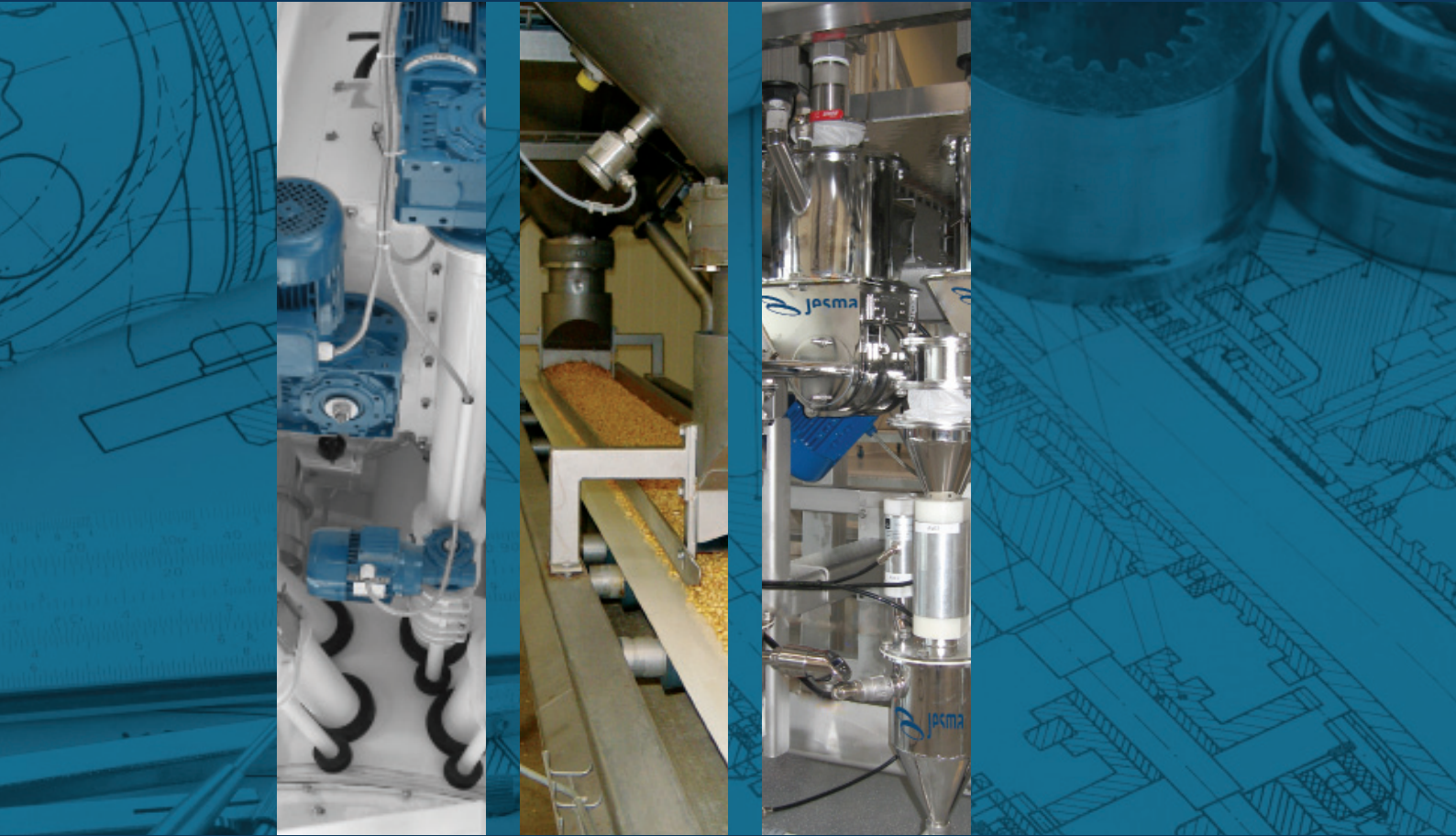


Case story Lantmännen

Advanced weighers and weighing systems for static, dynamic and continuous weighing





Lantmännen

Flow scale for the process industry

Lantmännen in Denmark wished to measure the flow of their flour production and at the same time add an additive in relation to the amount of flow. They wished an online picture of the production flow, so that they could accurately dose the additive in accordance with the current flow.

Jesma determined that the Jesflow would be the perfect solution for the measuring of the flour flow, and that a loss-in-weight system VDI would subsequently ensure the addition of the additive. The two weighing systems are functioning together in a master-slave relation, where the flour flow is the master and the additive is the slave. The new system ensures that the mixing ratio between the products is the same at all times. When Lantmännen sieves and re-circulates the flour through 3-4 different sieves, the material flow can vary from 95% to 105% of the ideal capacity. This is exactly the process which the new weighing system optimizes and thereby ensures the high quality standard of Cerealia.

Operation manager Torben Bodin declares:

"Earlier on it has been very difficult for us to find a good and simple solution of how we could find the actual flow", explains operation manager Torben Bodin, Lantmännen, and continues: "It is of great importance to us, that we know the exact flow, as we add additives in relation to the flow. If we then have a non-constant flow, this will automatically effect the complete mixing. As it is of vital importance for lantmännen that the mixing ratio is as indicated and always uniform, it was absolutely necessary for us to change our strategy to attain the quality required."

"Earlier on we were forced to mix on a cross between volumetric and gravimetric mixing. With the new technology, we aimed for the most optimum solution – and with this new method we only mix gravimetrically. Our attitude is clear – the process has to be controlled in the best technological way possible. The running-in of the system has been perfect and the new solution is a success", says Torben Bodin.

Operation manager Torben Bodin
Lantmännen in Vejle, Denmark



RELIABLE ACCURACY

In general about the Jesflow flow scale

The Jesma JesFlow scale is designed for the in-line and continuous weighing of bulk materials such as powders and granulates. With its intelligent weighing system, using the centrifugal forces, the JesFlow can be applied for any vertical process line of dry and/or free flowing products. Due to the compact construction the JesFlow can easily be retrofit into existing process lines where accurate measurement of the process flow is required.

Weighing accuracies from +/- 0.5% of max. flow.

The JesFlow is supplied in a strong and rigid cabinet, suitable for installation in a closed conveying system.

The weighing chute is mounted in a parallelogram which is freely transmitting the centrifugal forces to the load cell.

The scale is built around a high precision load cell suspended in a parallelogram which isolates the load cell from the mechanical structure.

The load cell is mounted fully separated from the product flow, and the construction secures a long lifetime as the scale is free from moveable parts.

The product flow is entered into the scale through the top inlet where it will cross the distributor plate and the curved weighing chute. The curved weighing chute allows the scale to use the centrifugal forces for weighing very accurately. This weighing solution secures optimum stability and accuracy in the operation of the scale while still keeping the overall dimensions to a minimum.

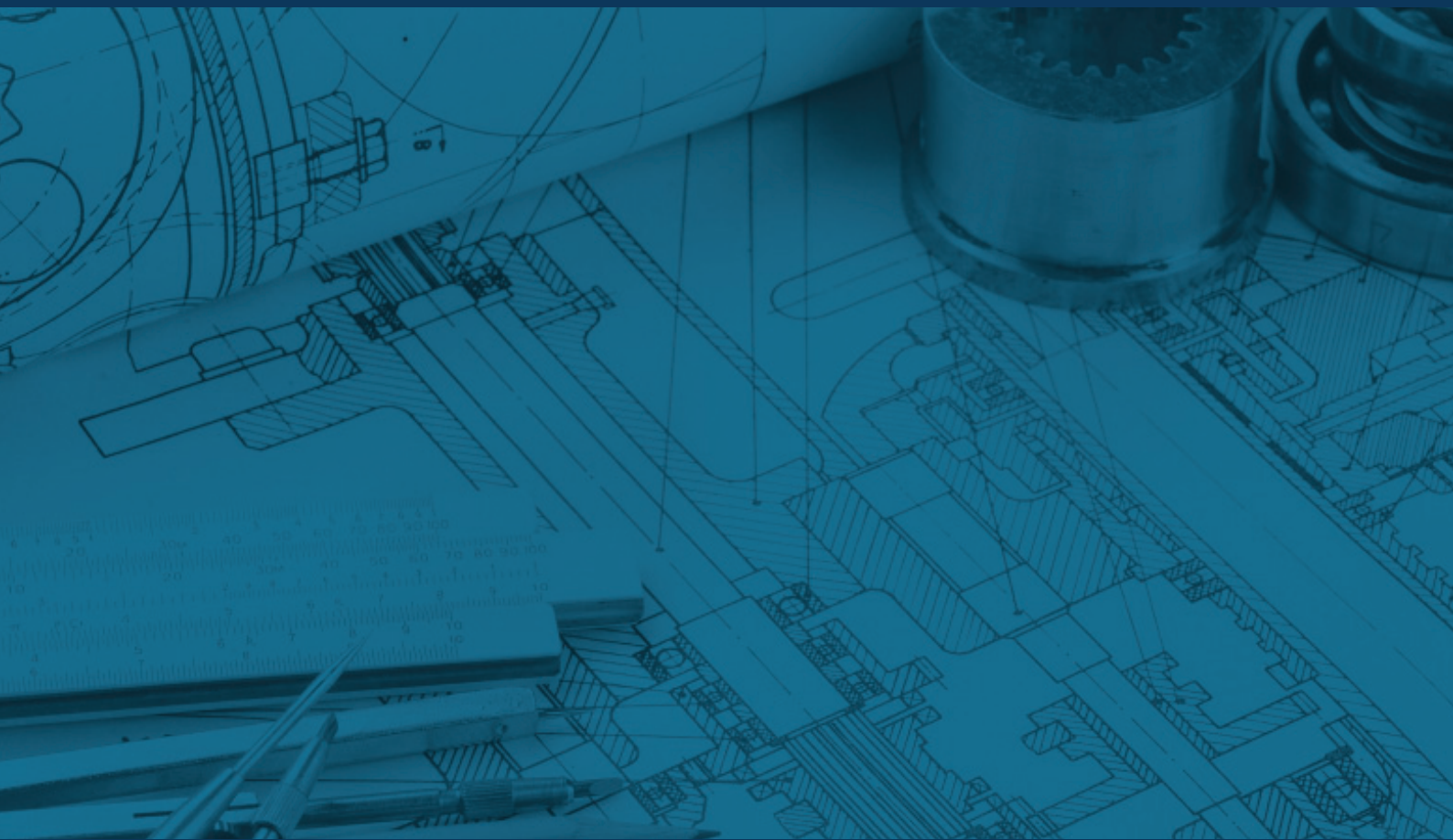
The product inlet to the scale is supplied including an adjustable distributor plate which allows the material to be equally distributed across the plate for optimum accuracy and linearity. During commissioning the distributor plate is adjusted using the included lockable bolts.

A diverter for test samples after the weigher is recommended to run a known amount over the weigher to allow accurate calibration and control weighing.

The JesFlow is supplied including:

- Overload protection of the load cell
- Access door on each side for easy access to vital parts.
- Front inspection window for visual control.
- Maintenance free weighing construction with load cell suspended out of product flow.
- Easy removable cover for the load cell for quick access for service and maintenance.
- Dust tight construction with thick rubber sealing.
- The flow scale is supplied in painted steel ST37.2



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