



# CJ Waterhouse Co Ltd

MATERIALS HANDLING ▼ WEIGHING SYSTEMS ▼ PROCESS SOLUTIONS  
PLANT CONTROL ▼ AUTOMATION ▼ BESPOKE MACHINERY

## Weighing Systems



[www.cjwaterhouse.co.uk](http://www.cjwaterhouse.co.uk)

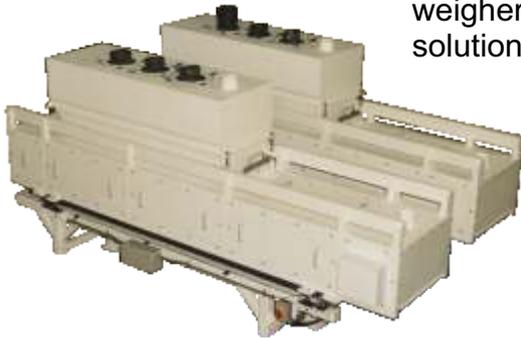
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## Batch Weighing - Powders & Pellets



Batch weighing systems generally comprise of a central hopper or vessel mounted upon a multi point loadcell weigh frame. One or more feeders are positioned around the weigher perimeter and are used to automatically dose materials into the weighed vessel in accordance with the specified recipe. The physical form of the weigher can vary dependant upon material and the specific process requirements but would generally be either a conical or rectangular hopper. Other applications may however require a conveyor type batch weigher or specific bespoke solution.



Our batch weighing solutions incorporate automatically operated discharge systems and can include a number of discharge aid methods including; aeration pads, fluidised cones and flapper jackets to enhance the flow of difficult to handle materials.

Batch weighers can be supplied in a wide variety capacities from just a few grams to multiple tons with accuracies and weighing ranges to suit your production requirements.

## Batch Weighing - Liquids & Solids

As with powders, liquid weighing systems are designed around a central weigh hopper with liquids being dispensed via pneumatically operated feed valves. Liquid feeds may be supplied from bulk storage tanks, intermediate bulk containers or standard drums with delivery pumps to suit.

For multi-batch operation systems the weigh hopper can discharge into a intermediate holding vessel situated beneath. From the holding tank the liquid is pumped on demand to the downstream process.

Complete discharge of the oils and line cleaning is achieved utilising low level probes and air operated purging systems.

Both weigh hopper and holding tank are housed in a free standing enclosure which may be fitted with electrical heating and insulation for the handling of more viscous oils.



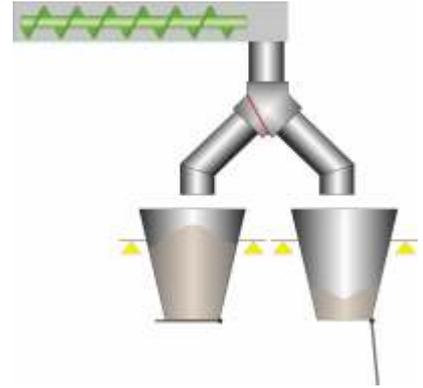
Solid material batch weighing systems generally comprise of a belt conveyor mounted on a multi-point weigh frame and provide weighing and transfer of batches to the downstream process. Loading can be performed either manually by the operator or via an automated conveyor system.



## Continuous Weighing Systems

Continuous weighing systems are utilised for applications where the process is of a continuous nature rather than that of a batching process. Such systems generally comprise of either a continuous weigh conveyor or a duplex hopper system.

Continuous weigh conveyors comprise of a belt conveyor where a section of belt is weighed via a roller assembly mounted upon a loadcell weigh frame. This frame can incorporate a single or multiple rollers dependant upon the material and specific throughput requirements



Duplex hopper systems comprise of two batch weighers operating inversely to each other to provide a continuous output of weighed material. As one is weighing the other is discharging and vice versa.

## Loss-In-Weight Weighing Systems

Loss in weight weighing systems provide automated discharging of materials by weight to the downstream process. General operation will involve the top up of the weigh vessel by mechanical or pneumatic transfer prior to discharging the required weight of material. Refill of the hopper can be controlled by level probe or weight. Loss in weight systems are normally utilised where accuracy requirement is lower and the batch size is similar for all weighments.



## Bespoke Weighing Solutions



With years of experience providing weighing system solutions for our customers we can design, supply and implement a bespoke weighing machine to suit your specific plant and materials requirements. From raw materials to finished product weighing and check weighing systems we endeavour to supply the best possible solution with respect to accuracy and longevity.





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