

Batching Systems
Featuring the SMART Feeder™

TURNKEY BATCHING SYSTEMS

CMT offers a full range of batching systems backed by decades of weighing experience. CMT will review your recipe data, output and batch accuracy requirements, and other info, to determine the type of system required, Gain-in-Weight or Loss-of-Weight. Additionally, feeder type, storage and refill requirements are all calculated to ensure the optimal system is provided.

From Sacks to Silos

Bag Dump Stations - Adding a feeder and scale transforms a bag dump into an automatic weighing system.

Bulk Bag Unloaders - Often integrated as part of an automated batching system, in both Loss-of-Weight and Gain-in-Weight configurations

Silos - Weighing the silo or integrating a weigh hopper at the outlet allows for accurate batching of your major ingredients.



Weigh-Convey-Mix

- 6 Loss-in-Weight Batching Systems
- 3 Bag dump stations
- 3 Bulk Bag Unloaders
- One Bucket Conveyor
- One Mixer
- One Surge Hopper
- One AMC Conveyor
- One Central Dust Collector
- A-B PLC Control System

Automated Batching System

- 2 Trains
- 72 Gain-in-Weight Feeders
- 2 Mobile Weigh Hoppers

AVOID
Square Peg - Round Hole
Solutions



As a true integrator, with a myriad of proven solutions, we strive to offer the best solution in meeting your project needs.



FEEDER OFFERINGS

The dry material feeder is the most critical component in any batching system. The feeder must be able to provide a uniform bulk density product, without bridging, ratholing or funnel flow. Without proper control of the bulk product the system is marginal at best. It is critical to match the correct feeding device to each of your products in meeting your goals.

What makes a great batching feeder?

Provides a uniform bulk density product, which is the first step in achieving optimal batch accuracy.

Pulseless Feeding, during dribble mode, is critical in allowing the controller to intelligently estimate the amount in free fall, from batch to batch, thereby providing optimal batch accuracy. Inconsistencies, or pulsations, in the dribble mode inherently cause batching inaccuracies.

Instant Off - the feeder must be able to stop instantly, upon demand from the control system, to provide optimal batch accuracy.



Vibratory Feeders

- Most batching applications
- Abrasive or fragile products
- Mass Flow design
- High accuracy



Screw Feeders

- Floodable products
- Very adhesive products
- Agitated hoppers



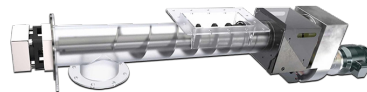
Belt Feeders

- Large batch sizes
- Low headroom applications
- LIW batching



Rotary Feeders

- Floodable products
- High flow rates
- Pocket capacity < required accuracy



Screw Feeder/ Conveyor

- Large batch Sizes
- Flexible screws
- Industrial screws
- Elevating screws



Infinite Position Valves

- Free flowing products
- High flow rate applications
- Manual or Automatic



THE SMARTFEEDER™

Mass Flow With No Moving Parts

Vibratory feeders are the engineer's batching feeder of choice as they provide Pulseless Feeding and Instant Off flow control. CMT's SmartFeeder™ is a proprietary design that provides **Mass Flow** while operating with **No Moving Parts**. The feed tray shears the entire hopper outlet cross section, thereby providing true mass flow through the hopper.

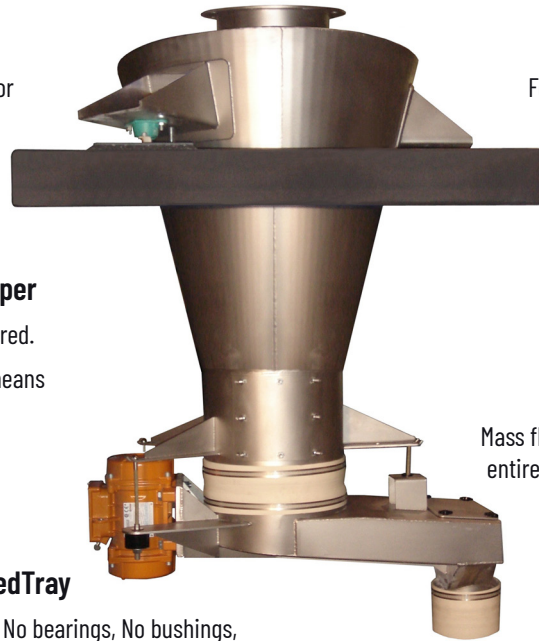


Load Cells

3-point Design or

All SS Construction

For superior flow characteristics.



Mass Flow Hopper

No agitation required.
Mass flow design means

Total Cross Sectional Shear

Mass flow is achieved as the FeedTray shears the entire cross sectional area of the hopper outlet.

FeedTray

One-piece weldment. No bearings, No bushings,
No seals, No moving parts.

SmartFeeder™



Fast Feed

3,600 cycles/minute.

Dribble Feed

1200-3600 cycles/minute
Ultra consistent dribble flow No plopping.

Instant Off

Feed stops instantly
No Plopping. No run-on.



CONTROL OFFERINGS

Batch controls come in all shapes and sizes, but all perform the same function – accurately controlling the feeder in a fast/dribble mode of operation. CMT offers a wide range of batch controllers— from a single component controller to full scale PLC systems designed to control multiple products, as well as controlling the entire process. From design to control narratives, to commissioning and troubleshooting, CMT's team of experts will exceed your expectations.

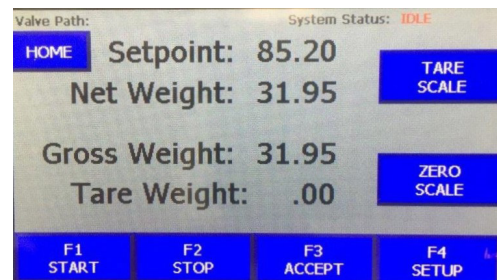
Batching Controls

Off the shelf units or our Allen-Bradley PLC based batch controller can be implemented to provide both Loss-of-Weight or Gain-in-Weight batching. This can be operator initiated or tied into your overall control system to automatically batch upon demand.

Each batch controller comes the following features: Fast/Dribble control. Fast & Dribble amounts. Fast & Dribble speeds. Preact with Auto Learning. Auto Jog. Out of Tolerance Alarms, high and low. Vibration rejection, as well as other functions to provide repeatable, accurate batches.



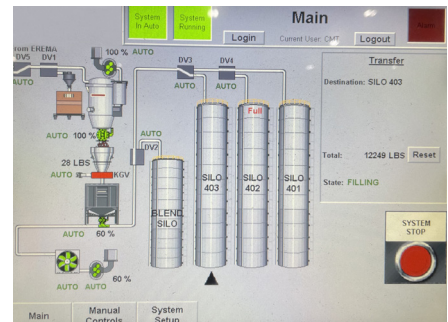
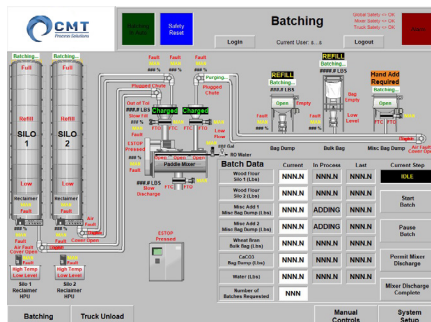
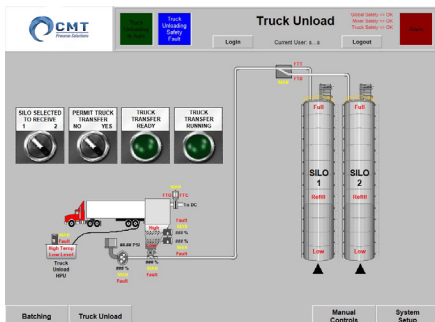
Off the shelf single scale, single or multi-Ingredient control are often implemented into simple batching applications. Highly accurate with full batch control features.



Allen-Bradley based PLC control for single or multiple scale, single or multi-ingredient control. Control options include the basic 800 series, Micrologix™, CompactLogix™ and ControlLogix™. All are married to a Rockwell PanelView™ HMI.

System Wide Controls

Allen-Bradley PLCs, generally Micrologix™, CompactLogix™ or ControlLogix™, are utilized in providing complete control of an entire process or sub-system. These controls perform all the batching functions required while also controlling the automated process – Weighing of multiple ingredients, truck or rail car unloading, storage, conveying, blending, sizing, screening, dust collection, inventory control and much more.



TEST-IT™

CMT Maintains a Dust-Free, State-of-the-Art, Testing Facility for Your Use

Batch Feeding— Gain-in-Weight or Loss-of-Weight in our SmartFeeders™.

Stand Alone Feeder Testing or a combination Bulk Bag Unloader - Feeder System

Testing Reports are provided show results at 2 Standard Deviations.

Additional written feedback will include our recommendations based upon our findings.

In Person Demonstrations



Live Stream Demonstrations



Video Recordings



WHY TEST

For Confirmation, For Peace of Mind, For your Operator's Safety

Testing your product, with the exact equipment you may purchase, will enhance your decision-making process more than anywhere else in your evaluation and purchasing process.

TESTING GUARANTEE

If you are not 100% satisfied with your visit to our facility we will pay your travel expense. Call your contact to take advantage of our no obligation testing and learn about our testing guarantee.

