



Micro Batch Weighing Systems



PRECISION • PERFORMANCE • RELIABILITY

Automated micro batch weighing systems have become essential equipment for all batch processing facilities. The improvement in accuracy, speed, efficiency, error reduction, data logging and government compliance have made these an important part of modern batching facilities.

Abel has been advancing the state-of-the-art in micro batch weighing systems for over 30 years. Many of the advanced features in weighing systems today were developed and introduced by Abel.

Abel Firsts include:

ABEL FIRST: Electric motor drive system using a PLC and a variable frequency drive to provide economical independent speed control of all feeders in a system.

ABEL FIRST: Optimized bin design with three vertical walls and 45 degree corners provide excellent material flow characteristics.

ABEL FIRST: The first practical and commercially successful weight loss system that provided accurate inventory by weight capability, significantly faster batching speeds, complete material use data recording, reduced cross contamination and many government compliance features.

ABEL FIRST: Development of a broad range of options including dust collection, bar code controlled bin lid locking systems, high precision feeders, feeder discharge gates, a wide variety of bin and scale capacities and many others.

Abel is now pleased to introduce a new generation of systems with many new advance features including:

- Significant improvements in reliability and durability
- Full control though Ethernet network
- Improved sanitary operation
- Enhanced accuracy and capacity through improved feeder design
- Reduced footprint
- Reduced costs through improvements in manufacturability

Moving Scale System

Abel introduced the moving scale weighing system for those applications that require the highest accuracy with the least amount of cross contamination. This is accomplished through a light weigh, high sensitivity scale that is easy to clean. Cross contamination is further reduced by the elimination of a transfer conveyor after the scale.

- **Scale configurations include hopper type scales with discharge gates or platform scales with removable containers.**
- **Scale track extensions allows hopper scales to discharge directly into a mixer.**
- **Optional vibratory feeders provide accuracy down to +/- 0.002 lbs (1g)**



Weight Gain System

The Abel weight gain system is the most widely used design in the market today. It's combination of performance and cost efficiency make it the most popular choice for many applications.

- **Exceptional scale accuracy**
- **Easy to maintain**
- **Bin capacities from 3 ft³ (0.08m³) through 75 ft³ (2.1m³)**
- **Scale capacities from 10 lbs (5 kg) through 1000 lbs (500 kg)**
- **Trough or conical scales are available**
- **Excellent scale dust containment**
- **Most immune to environment issues such as vibration and air currents**
- **Compatible with all automated control systems**
- **Most economical**



Trough type
scale hopper
in dust enclosure

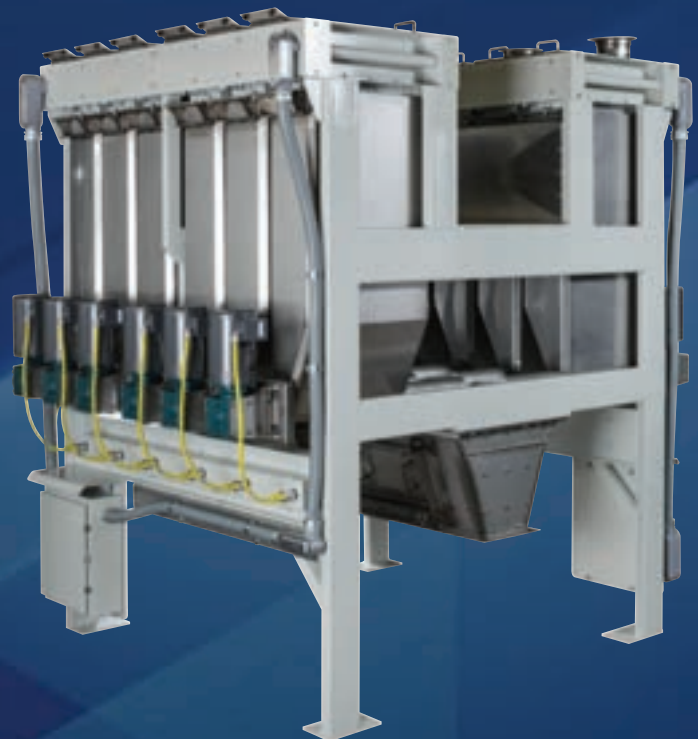


System electrical
control panel
with ethernet
connected PLC

Weight Loss System

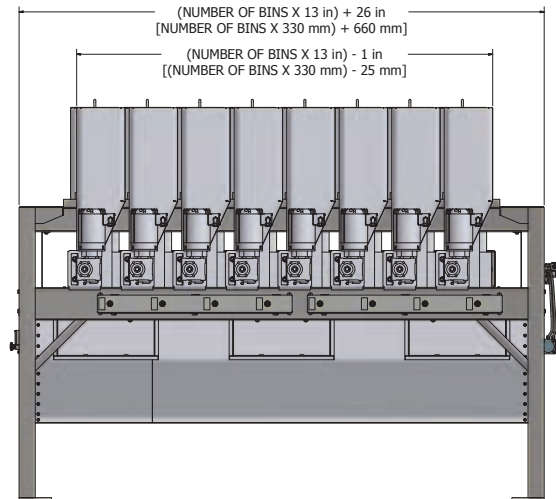
The Abel weight loss system revolutionized the micro weighing system market when it introduced its inventory-by-weight capability. By helping customers meet strict government regulations, it has become the standard in the industry where materials must be tracked accurately, especially in high capacity facilities.

- **Complete audit trail of all materials that pass through the system**
- **Very high speed operation due to multiple feeders operating simultaneously**
- **Reduced cross contamination**
- **Flexible system layout**
- **Easy expansion**
- **Increased reliability through redundancy**
- **Reduced machine height**

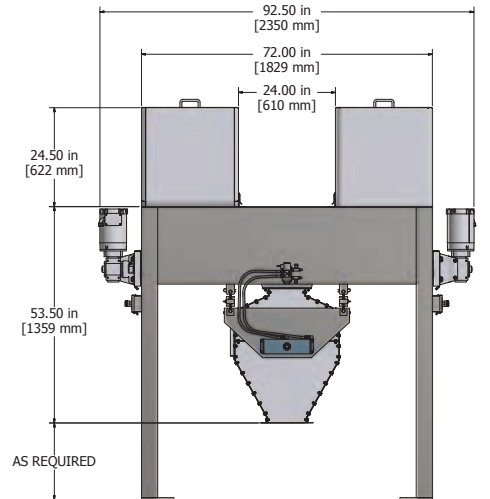


STANDARD WEIGHT GAIN DIMENSIONS

ABOVE FLOOR

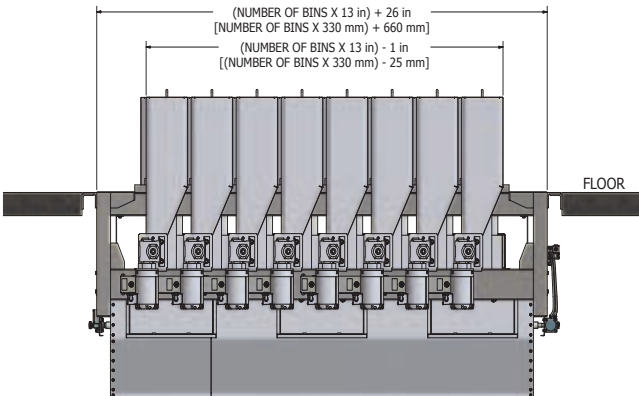


SIDE VIEW

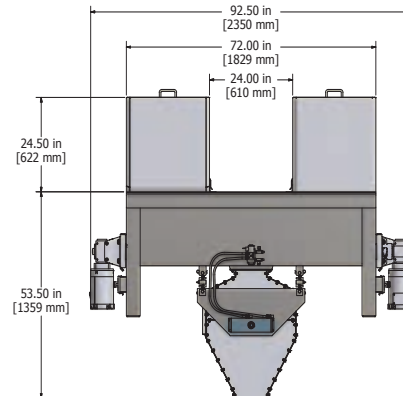


END VIEW

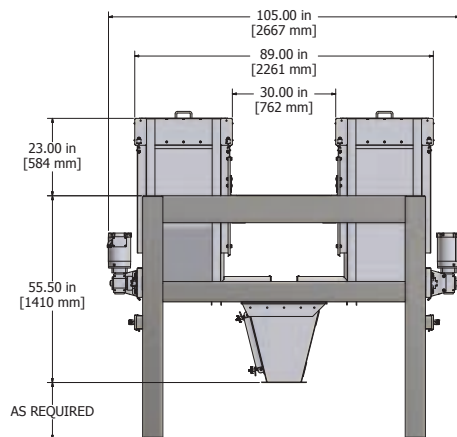
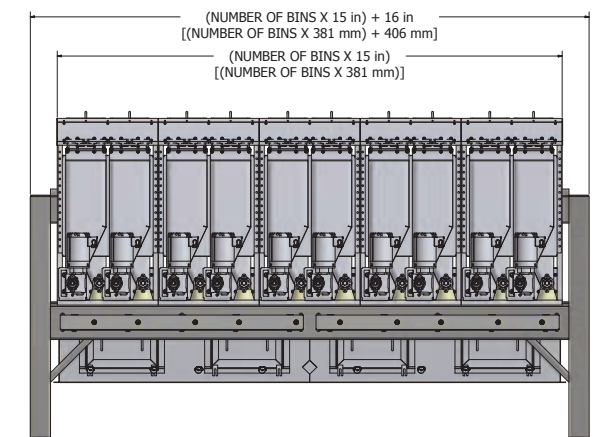
IN-FLOOR



FLOOR



STANDARD WEIGHT LOSS DIMENSIONS



Accessories



Micro Bin Dust Collection Hood



Bulk Bag to Micro Bin Adapter



Variable Depth Pitch UHMW Feeder Screws

**Please contact
Abel for many other
accessories and
options.**



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