

# CheckBin Grader

Fixed but flexible



- Hopper scale in every batching bin
- No need for production check weighing
- More accurate batch weight  
– higher profit
- Less reject-and-rework  
– less product handling

# Marel CheckBin Grader

## Robust and sophisticated

The Marel CheckBin Grader is designed to meet demands for highly accurate net-weight grading and packing equipment. This robust and sophisticated system uses intelligent grading to produce accurate batches for packing. The heart of the system is the intelligent batching software, which runs on the M3000 main computer and uses complex mathematical algorithms to select the right pieces for each batch. The CheckBin Grader significantly reduces overpack by using weighing bins that constantly monitor the batch weight and send confirmations or corrections to the main computer.

## The CheckBin concept

Traditionally, each piece is weighed on a dynamic weighing unit; the final pack is the accumulated weight of the individual piece weights. If a pack size consists of many small pieces, the accumulated weight error can be significant. The system with the CheckBin grader includes a precision scale in each collecting bin. That scale feeds back the actual weight in the bin to the main weight-grader computer, which in turn adjusts the accumulated piece weight accordingly, thereby eliminating the accumulation error.



### 1 INTELLIGENT BATCHING SOFTWARE

By selecting the right piece for each batch, and constantly confirming or correcting the accumulated batch weight, the CheckBin Grader can reduce over-pack weight by 70-80%\*.

### 2 WEIGHING BINS

The weighing bins send messages to the M3000 main computer to correct or confirm the current batch weight.

### 3 PACKING STATIONS

An operator manually takes a batch to the working area. When a tray is ready, it is placed on a conveyor that feeds it over the wrap area. The last operator receives all remaining batches.



## Hygiene

The weighing bins and buffers can easily be opened or removed during sanitation without using any tools.



## Throughput

Each bin contains a buffer to minimize gate blockage.



## Reliability

High quality stainless-steel load cells are used on each weighing bin to attain maximum reliability and accuracy.



## Validation

The weight of each piece from the dynamic weighing unit is confirmed or corrected in the weighing bin.



## Security

The weighing bin software monitors the dynamic weighing unit and the weighing bins, and indicates if something goes wrong.



## Accuracy

Reduced production handling and rework. No need for production check-weighing.



## Efficiency

With less reject-and-rework, the throughput can be increased by 4-7%.\*

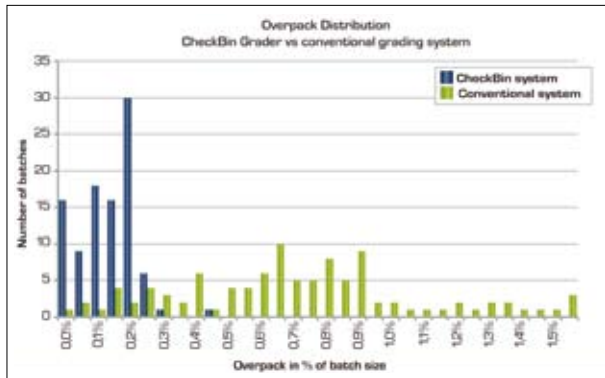


\*Accuracy and capacity depend on type of material and infeed method.

## Fast payback

When batches consist of many individual pieces, the accumulated error can be significant. The CheckBin Grader system delivers batches with considerably less overweight than traditional systems.

Tests have shown that when grading products with an average weight of 102 g, and a batch weight of 4.5 lbs (2041g), all of the batches are within a 0.5% overpack range. The same tests using traditional grading methods have shown that only 26.8% of batches are within a 0.5% overpack range.



Before and after

## Intelligent production control

Innova provides the complete IT solution for the modern food processor to optimize profits and overall production performance. Innova covers the complete value chain in the production cycle, from reception of supplies to product dispatch, providing all key performance indicators (KPIs) for each stage and traceability from door to door. Innova closely monitors and controls critical KPIs in real-time. These include: yields, throughput and efficiency, giveaway and loss of sales, quality, stock levels and movements, traceability and profitability.

### Technical Specifications

Weighing Precision:	+/- 1g (with optional wind cover)*
Accuracy:	Better than 1% of batch weight*
Capacity:	Up to 180 pcs. per minute*
Products:	Poultry, fish and meat
Max. batch size:	10 liters (2.64 gal)

\*Accuracy and capacity depend on type of material and infeed method.



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