

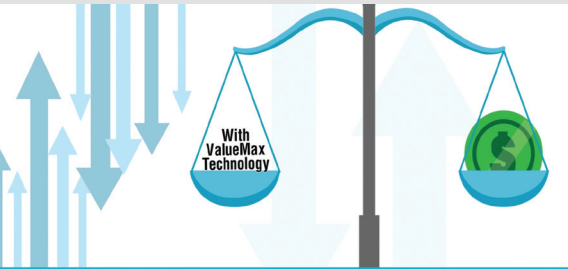
# Hobart HTm Scale ValueMax™ Technology

Don't Leave Money on the Table – or the Scale



### Segment Profile

Retail grocers around the globe work every day to ensure smooth operations and strong profitability across all departments. The deli, meat, and bakery counters are key areas and inherently lend themselves to much variability in profits due to the manual nature of these departments. Employees must manually weigh food product, package and label it for sale, while ensuring as little waste as possible. The labor intensive aspect of these departments can result in inconsistencies in process and profits. Grocers need all the tools available for their associates to minimize these inconsistencies. Retail scales with ValueMax™ technology represent one of these tools.



### Challenge

Retail scales are used every day at grocery counters, and it is imperative that these machines function properly and weigh accurately to minimize error and optimize the revenue stream in the department. Often, due to many factors, scales can become out-of-level. This could be caused by accidental bumps, cord wrapped around the feet of the scale, or failure to adjust over time, etc. When a scale is out-of-level, it weighs inaccurately and computes a price based on this inaccuracy.

The measured weight of an out-of-level scale will always be lower than the actual weight, and consequently the computed price is lower as well. This is because the load cell can only measure a force parallel to the direction of gravity. When the scale is out-of-level, the forces acting on the scale create moments that cannot be measured by the load cell; thus, resulting in a lower weight, and lower computed price. The higher the degree of imbalance, the greater the discrepancy in weighing accuracy. These inaccuracies can cost retailers thousands of dollars in unrecognized revenue each year. Additionally, because the scale isn't weighing accurately, recorded waste levels are artificially inflated.

The typical solution to this challenge is to include scale leveling as a step in regular equipment cleaning and maintenance schedules. This can be both labor intensive and time consuming. Many retailers don't have the capacity or discipline to execute this activity efficiently.

The figure below illustrates the difference in price between a level scale and an out-of-level scale:

2° Out-of-Level Scale Transaction



Unit Price: \$5.99/lb.  
Actual Weight: 5.0 lbs.  
Measured Weight: 4.995 lbs.

Level Scale Transaction



Unit Price: \$5.99/lb.  
Actual Weight: 5.0 lbs.  
Measured Weight: 5.0 lbs.

As illustrated, the level scale weighs and prices the product accurately, whereas the out-of-level scale miscalculates the weight and resulting price.





## Study

Hobart conducted a study at a major national retail grocer (Retailer-A), measuring 209 scales across 43 retail grocery locations. The study found that approximately 77% of scales were out of level by at least 1°, resulting in inaccurate measurements and lost revenue.

### Retailer-A Scale Level Measurement Results

Degrees Out-of-Level	Number of Scales	Percent of Total
0° (+/- 0.5°)	49	23%
1° (+/- 0.5°)	117	56%
2° (+/- 0.5°)	35	17%
3° (+/- 0.5°)	4	2%
4° (+/- 0.5°)	4	2%
<b>Total</b>	<b>209</b>	<b>100%</b>

### Unrecognized Revenue

Based on extensive research and user input, program constants were determined; average number of transactions, average transaction size, and average unit price per transaction. These averages were used to create an algorithm that calculates estimated annual unrecognized revenue.

Program Constants per scale:

- 30 transactions per hour
- 80 hours per week
- 52 weeks per year
- 124,800 total transactions per year
- 1 lb. average weight per transaction
- \$5.99 average price per pound

Proprietary algorithms estimate that 1 scale just 1° out-of-level can result in around \$142 of annual unrecognized revenue, and this number increases with greater imbalances. Retailer-A has a fleet size of 10,000 scales and 77% (7,700) are anticipated to be at least 1° out-of-level. This equates to an immense profit loss to the retailer. Using the degrees out-of-level ratios from the study, we can estimate the resulting profit loss.

### Retailer-A Estimated Profit Loss Based on 10,000 Scale Fleet

Degrees Out-of-Level	Number of Scales	Unrecognized Revenue per Scale	Annual Unrecognized Revenue for Retailer-A
1°	5,600	\$142.27	\$796,723
2°	1,700	\$434.30	\$738,317
3°	200	\$1,060.80	\$212,160
4°	200	\$1,844.54	\$368,909
	<b>7,700</b>		<b>\$2,116,109</b>

As this study demonstrates, out-of-level scales can cost retailers thousands of dollars in unrecognized revenue each year.

## ValueMax™ Solution

Hobart's HTm Scale has incorporated ITW's patented ValueMax™ technology that automatically detects and compensates for up to 3° out-of-level measurements ensuring the highest integrity in weighing accuracy and maximizing profits for retailers.

### How Does it Work?

The ValueMax™ solution combines unique load cell auxiliary hardware with innovative software design to produce a system that offsets scale imbalance issues. This technology eliminates the manual process of balancing the scales on a regular basis. It also ensures that out-of-level machines will still weigh and price accurately.

In the case of Retailer-A, more than \$2.1M in profits are lost each year as a result of scale imbalance. Scales equipped with ValueMax™ level compensation will secure this profit and improve the bottom line while decreasing shrink.

## Results

**Maximize Revenue:** The HTm scale enabled with ValueMax™ auto-level compensation ensures product is weighed and priced correctly every time. Store associates and department managers can have confidence that customers are getting accurate quantities and are charged accordingly.

**Reduce Labor:** Retailers can reduce the frequency of maintenance in leveling the scales. Although this seems like a simple task, it's time consuming and lends itself to inconsistencies in results. The HTm with ValueMax™, takes the guess work out of manually leveling the scale and saves costly maintenance time.

**Minimize Waste:** Some amount of food waste is unavoidable in deli and meat departments. However, HTm scales equipped with ValueMax™ auto-level compensation, will weigh product accurately every time, minimizing the amount of product attributed to shrink. This allows retailers to recognize higher efficiencies in inventory to sale ratios.