

/ YOUR TRUSTED SOURCE FOR DAIRY INSPECTION SOLUTIONS

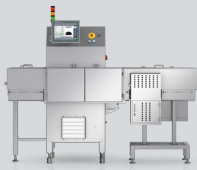




- Maximize Your Customer's Satisfaction
- Minimize Product Waste
- Lower Costs While Eliminating Recalls

See how the trusted package weighing and inspection solutions from WIPOTEC-OCS maximizes speed and safety while saving money in your dairy applications.

DAIRY PROCESSING AND PACKAGING DEMANDS PRECISION

Need to eliminate product giveaway while significantly reducing the possibility of recalls caused by foreign body contamination or incorrect package labels? If you are like the many dairy companies that have come to rely on WIPOTEC-OCS product weighing and inspection technology the answer is an emphatic: Yes! The following chart illustrates application examples in shredded cheese and yogurt packaging of just a few of our machines.

		MULTI-PACK	PACKAGING & SHIPPING	
DAIRY PACKAGING- BAGGED SHREDDED CHEESE AND YOGURT CUP EXAMPLES	MACHINES	 SC-W-3000 X-Ray & Checkweigher	 HC-M-WD Checkweigher	 SC-W-3000-V Optical Inspection X-Ray & Checkweigher
	Maximizing throughput and quality while reducing costs.	<ul style="list-style-type: none"> • Combo Checkweigher (CW) and X-Ray • Efficient space utilization • IP65 design • Long life HD-TDI camera Technology • One HMI controls both systems • EMFR weigh cell technology (CW) 	<ul style="list-style-type: none"> • Precision Checkweigher • IP69K design • Cleaning mode option for thorough machine cleaning • 250 ppm throughput • EMFR weigh cell technology • Designed for HACCP, FDA, IFS compliance • Available with Metal Detector option (MDi) 	<ul style="list-style-type: none"> • Combo X-Ray & Vision with CW • HD-TDI Camera technology (X-Ray) • Vision system for label inspection includes OCR • One HMI controls all systems
APPLICATIONS				
CHEESE CONVERTING	Shredded Cheese - Foreign Body Detection to protect brand integrity	■		■
	Shredded Cheese - Checkweighing	■		■
MULTI-PACK AREA	Bags - Checkweighing	■	■	■ (X-Ray mass determination)
	Cups - Over/Underfill Checks	■	■	■
PACKAGING AREA	Bags - Over/Underfill Checks	■	■	■
	Bags - Seal Inspection			■
	Bags - Filler Feedback	■	■	■
	Cups and Bags - Label integrity, positioning, and content validation			■
	Bags - Foreign Body Detection to protect brand integrity	■ (stones, plastic, glass, metal, etc.)	■ (metal only w/ optional metal detector)	■ (stones, plastic, glass, metal, etc.)

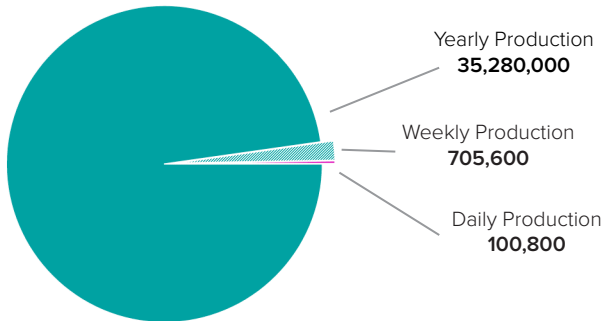
Visit the dairy industry web page to learn more about how our products are used in dairy packaging applications like yours:
<https://www.wipotec-ocs.com/us/trusted-dairy-product-inspection-solutions-usa/>

/ WHAT IS THE PAYBACK ON PRODUCT INSPECTION MACHINERY IN DAIRY APPLICATIONS?



As you can expect, the payback time for inspection machinery will vary in different dairy applications. What follows are a couple of different scenarios for two different production plants making bags of shredded cheese and cups of yogurt. The following checkweighing applications use the same basic machine, but with different product transport and reject mechanisms. These differences account for the two different machine costs.

Bags of Shredded Cheese Production



/ CHECKWEIGHER COST JUSTIFICATION

Shredded Cheese

Manufacturing Facility Data

Production Hours/Shift	7
Shifts/Days	2
Working Days/Week	7
Working Days/Years	350
Line Efficiency	80%

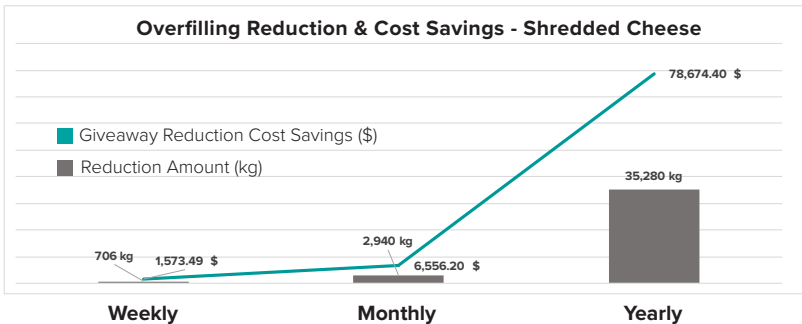
Package Weight Targets (g=grams)

Packaging Type	Plastic Bags
Target Weight	200g
Overfill	2g
Target Wt.+ Overfill	202g
Overfill Reduction Target (i.e giveaway)	1g

Product Cost & Checkweigher Cost

Product Cost per Kilogram (kg)	\$2.23
Checkweigher Cost (Model: HC-M-WD):	\$64,200.00

Overfilling Reduction & Cost Savings - Shredded Cheese



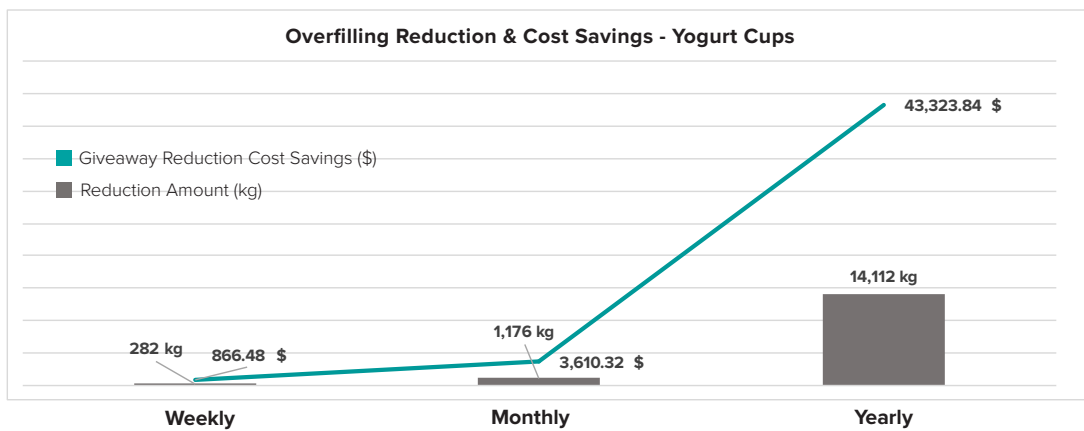
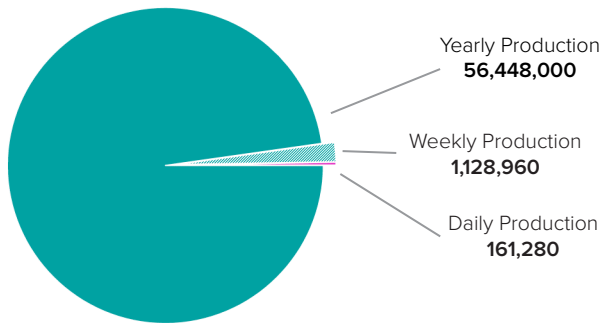
RESULTS

Reducing the product giveaway by 1g per bag of shredded cheese in this application results in an HC-M-WD checkweigher payback time of 9.8 months.





Yogurt Cups Production



RESULTS

Reducing the product giveaway 0.5g per yogurt cup in this application results in an HC-M-WD checkweigher payback time of 18.7 months.

/ CHECKWEIGHER COST JUSTIFICATION

Yogurt Cups

Manufacturing Facility Data

Production Hours/Shift	7
Shifts/Days	2
Working Days/Week	7
Working Days/Years	350
Line Efficiency	80%

Package Weight Targets (g=grams)

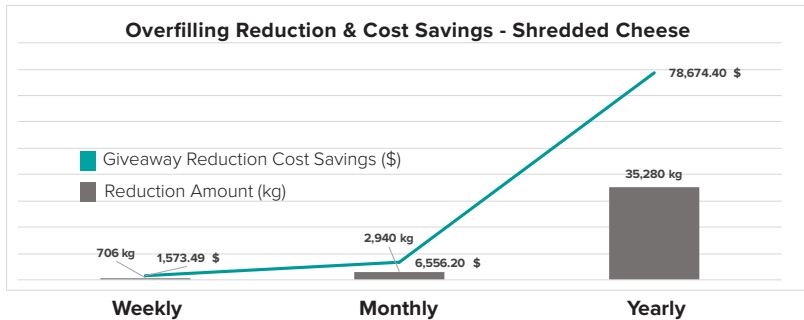
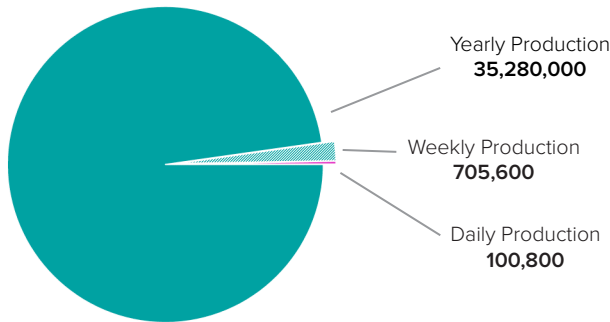
Packaging Type	Cups
Target Weight	150g
Overfill	0.5g
Target Wt.+ Overfill	150.5g
Overfill Reduction Target (i.e giveaway)	0.5g

Product Cost & Checkweigher Cost

Product Cost per Kilogram (kg)	\$3.07
Checkweigher Cost (Model: HC-M-WD):	\$67,600.00

Compared to checkweighers, X-Ray and vision inspection machines have widely varying payback times in dairy applications. Why? The primary goal of your X-Ray and vision package inspection machine is to prevent recalls. Factoring in the cost of preventing a recall, or the value in enhancing customer satisfaction and brand integrity are subjective variables in ROI calculations. For the shredded cheese production plant, we assumed that you prevented one product recall. The X-Ray machines below both have an integrated checkweigher, and one of the machines incorporates a vision system to perform optical inspection of the package label. We incorporate the savings attributed to preventing one recall and eliminating product giveaway i.e. package overfill into the ROI calculations.

Bags of Shredded Cheese Production



RESULTS

The SC-W 3000 X-Ray inspection machine with a built-in checkweigher used in this shredded cheese application has a payback time of 24.9 months assuming no product recalls due to foreign body detection.

The SC-W 3000 payback time will be .16 months or just under 5 days if we prevent one product recall due to foreign body detection.



/ COMBO X-RAY AND CHECKWEIGHER COST JUSTIFICATION

Shredded Cheese

Manufacturing Facility Data

Production Hours/Shift	7
Shifts/Days	2
Working Days/Week	7
Working Days/Years	350
Line Efficiency	80%

Package Weight Targets (g=grams)

Packaging Type	Plastic Bags
Target Weight	200g
Overfill	2g
Target Wt.+ Overfill	202g
Overfill Reduction Target (i.e giveaway)	1g

Product Cost & Machine Cost

Product Cost per Kilogram (kg)	\$2.23
Combo X-Ray & Checkweigher Cost (Model: SC-W-3000):	\$163,000.00

*The recall cost of \$1,000,000 used in our ROI calculation is one tenth of the average food product recall cost stated in the July 2017 study by the Food Marketing Institute and the Grocery Manufacturers Association (GMA).

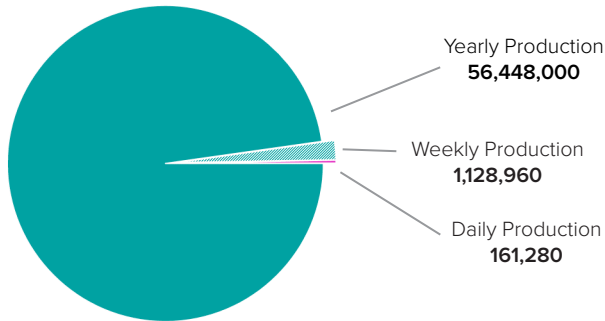
In the next ROI example, we will use the same payback logic established in the previous shredded cheese application scenario and apply it to a situation where we want to prevent a product recall caused by foreign bodies and **product mislabeling**.

Using the same production data and overfilling savings, the SC-W 3000 inspection machine with a built-in vision system and checkweigher has a payback time of 37.6 months assuming no product recalls due to foreign body detection or product mislabeling.

Let's see what the combination X-Ray scanner payback would look like using the same production data for our **yogurt production line**. As in the shredded cheese combo X-Ray example, we have incorporated the savings attributed to preventing one recall and eliminating product giveaway i.e. yogurt cup overfill into the ROI calculations.



Yogurt Cups Production



RESULTS

The SC-W 3000 V payback time will be .24 months or just under 7.2 days if we prevent one product recall due to foreign body detection.

The SC-W 3000 V payback time will be 12 months or just under 3.6 days if we prevent one product recall due to foreign body detection and one product recall due to product mislabeling

/ COMBO X-RAY AND CHECKWEIGHER COST JUSTIFICATION

Yogurt Cups

Manufacturing Facility Data

Production Hours/Shift	7
Shifts/Days	2
Working Days/Week	7
Working Days/Years	350
Line Efficiency	80%

Package Weight Targets (g=grams)

Packaging Type	Cups
Target Weight	150g
Overfill	0.5g
Target Wt.+ Overfill	150.5g
Overfill Reduction Target (i.e giveaway)	0.5g

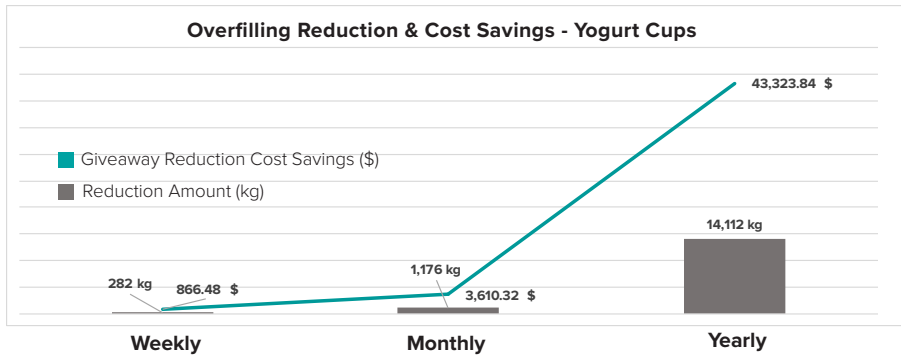
Production Cost & Checkweigher

Product Cost per Kilogram (kg)	\$3.07
Combo X-Ray, Vision & Checkweigher Cost (Model: SC-W-3000-V):	\$67,600.00

*The recall cost of \$1,000,000 used in our ROI calculation is one tenth of the average food product recall cost stated in the July 2017 study by the Food Marketing Institute and the Grocery Manufacturers Association (GMA).



VISION



The SC-W 3000 X-Ray inspection machine with a built-in checkweigher used in this yogurt cup application has a payback time of 45.1 months assuming no product recalls due to foreign body detection.

In the next ROI example, we will use the same payback logic and apply it to a situation where we want to prevent a product recall caused by foreign bodies and **product mislabeling**.

RESULTS

The SC-W 3000 payback time will also be .16 months or just under 5 days if we prevent one product recall due to foreign body detection in the yogurt cup application.

Using the same production data and overfilling savings, the SC-W 3000 inspection machine with a built-in vision system and checkweigher has a payback time of 68.3 months assuming no product recalls in the yogurt application.

It is interesting to note how the prevention of just one product recall can affect the return on investment calculation of an X-Ray scanner. An integrated checkweigher will certainly prevent product giveaway, but these overfill prevention savings area a minor component in the X-Ray scanner’s ROI calculation.

RESULTS

The SC-W 3000 V payback time will be .25 months or just under 7.5 days if we prevent one product recall due to foreign body detection.

The SC-W 3000 V payback time will be .123 months or just under 3.7 days if we prevent one product recall due to foreign body detection and one product recall due to product mislabeling.



*The recall cost of \$1,000,000 used in our ROI calculation is one tenth of the average food product recall cost stated in the July 2017 study by the Food Marketing Institute and the Grocery Manufacturers Association (GMA).



You can trust WIPOTEC-OCS. For over thirty years, dairy companies like yours have trusted our advanced product weighing and package inspection machines to meet production throughput and quality assurance requirements. Here's how we do it:

WIPOTEC COMPANY

- Inventor of EMFR technology for superior dynamic weighing
- Private company ownership and management makes all solutions possible
- Standard and custom product engineering and manufacturing
- Unique depth of in-house manufacturing extends spare parts availability to over ten years
- Broad portfolio of state-of-the-art weighing and inspection solutions
- Worldwide technical support network delivers peace of mind
- Trusted supplier of diverse dairy companies around the world

CHECKWEIGHER

- Wide range of product solutions: E-M-A portfolio
- Built-in EMFR weigh cell technology for superior speed, accuracy, and repeatability
- Tested solutions for every product specific application
- Weighing accuracy is outstanding even at package speeds of 600ppm
- Flexible and modular machine designs
- Fast integration with optimum application matching
- Installed base of over 20,000 machines

X-RAY SCANNER INSPECTION

- SC-series offers a flexible modular scanner system
- SC-E-series is a “Fast Track” option ideal for common inspection tasks with fast delivery requirements
- Integrated HMI provides simple and user friendly control screens
- Powerful built-in product inspection software maximizes application flexibility
- Compliance with HACCP, FDA, BRC, or IFS standards
- High-resolution HD-TDI camera detector option designed and built by Wipotec
- Hygienic design IP69K versions and numerous ejection system options

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