

# APPLICATION CASE HISTORY

## Checkweigher Specially Engineered to meet Customers' Requirements and Operator Interface Specifications



*Re-engineered and re-packaged Model PW-12 for use with 12-position rotary auger filler*

Customer was integrating All-Fill 12-position rotary auger filler with the Model PW-12 checkweigher for container weight control and feedback correction. The standard configuration of the Model PW-12 proved inadequate due to height and interference with the control panel of the rotary filler. Additionally, placement of the checkweigher touch screen control panel required operating personnel to reach over open containers on the conveyor from the filler – providing possible contamination and spillage. The response from Alpha Checkweighers was to re-engineer and re-package the Model PW-12 to adapt to customers specifications.

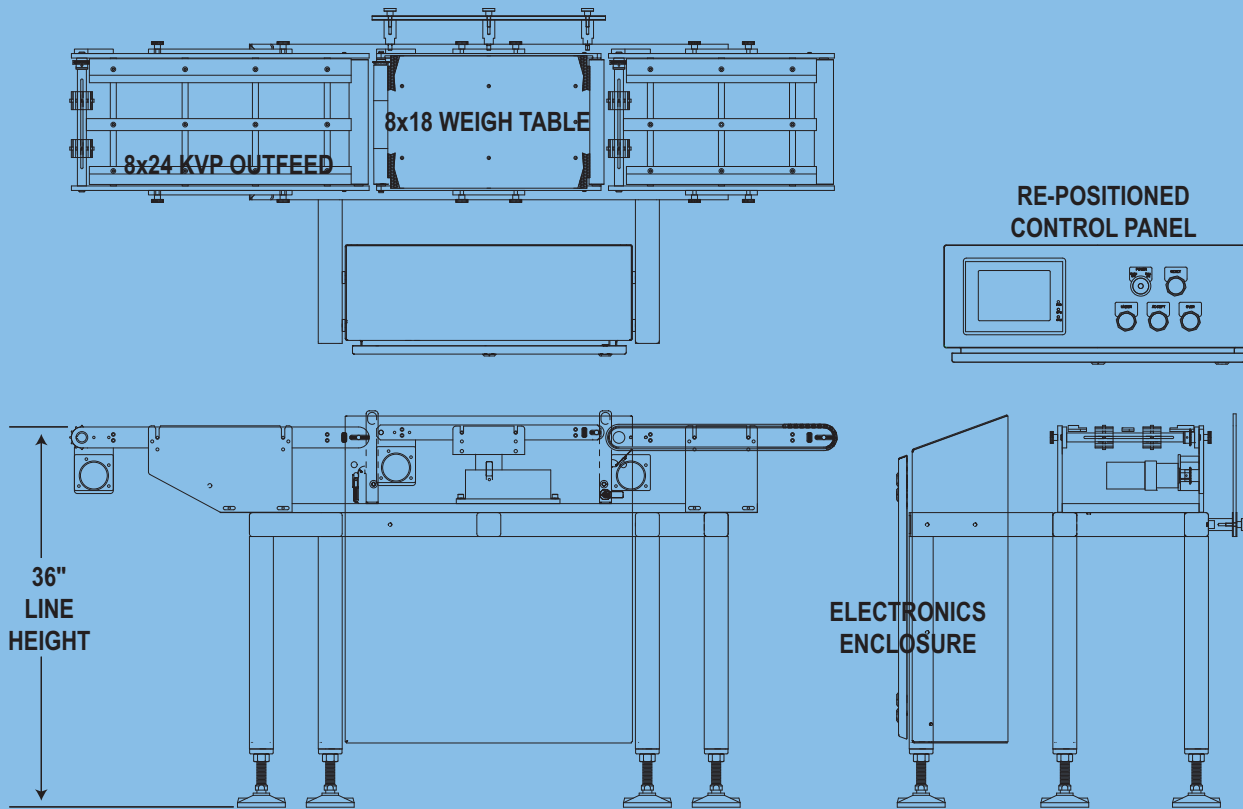
The existing control components were re-positioned to an electrical enclosure immediately to the lower front, allowing the touch screen Human/Machine Interface (HMI) to be located at line height directly in front of the operator. Other controls (zone lamps, emergency stop/reset) were similarly re-positioned to be directly in front of the operator. No change was required to the infeed, scale, or discharge conveyors (see “Components” on reverse).

This case history illustrates the complete capabilities of Alpha Checkweighers, from designing a unique checkweighing application, on through the re-engineering of existing offerings to adapt to specific needs and requirements.



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# Components



## Related Application Case Studies

**APPLICATION CASE HISTORY**  
**Checkweigher & Inclined Infeed Conveyor**

Contract package needed a checkweighing solution for packaged vegetable product. Package size a growth from 400g to 1000g. Weight range 400g to 1000g. Accuracy of 0.001g. Line height before case delivery. Space was at a premium and didn't allow for a wide footprint. Needed solution to meet position to be installed.

The solution from Alpha Checkweighers was a combination of the electronic Model 1010 checkweigher with a unique inclined infeed conveyor. A food grade stainless steel was specified as a necessary sufficient part. The conveyor is 18' long. The package structure was an inline, efficient loading or unloading of the standard checkweighing, and also allowed for the standard checkweighing. In addition to addressing product changeovers, we also addressed ease of clean and repair. Weight, feeding and conveying requirements.

**Application Summary**

Model	1010
Capacity	1000g
Accuracy	0.001g
Line Height	40" to 60" (adjustable)
Weight	1000g
Accuracy	0.001g

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**APPLICATION CASE HISTORY**  
**Newly Introduced Tobacco Product Utilize Checkweigher Duo for Accurate Package Control**

"This 1" x 6" x 16" x 16" tobacco product line program is unique in that it is intended for the detection of weight change in response to density, moisture, and other factors. Our standard 600g and 1000g models are not suitable for this application. The CW-1010 was selected to checkweigh individual items for the required number of packages per bin. The general purpose Model CW-1010 was selected for multi-package weighing options.

The CW-1010 is also an accurate weighing package up to 4.84, 14 inches in length, and 8 inches in width. It can operate at speeds of over 200 packages per minute with an accuracy of 10:100 mg.

The CW-1010 model can accurately weigh packages up to 10 lbs, 10" x 10" x 10" and operating at speeds up to 200 containers per minute with an accuracy of 100:1 mg.

**Application Summary**

Model	1010
Capacity	1000g
Accuracy	0.001g
Line Height	40" to 60" (adjustable)
Weight	1000g
Accuracy	0.001g

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**INTEGRATED 3-LANE POWERED WEIGH TABLE CHECKWEIGHER**

Standard Model PW-10 Powered Weigh Table Checkweigher re-engineered and re-configured as an integrated, independent, 3-lane model to assist analysis from customer's manufacturing equipment. Powered Weigh Table components - comprising levels conveyor, heated table and rollers - were tested together in a group of three on a common frame. A separate control enclosure was selected for this frame provides location for electronics and Touch Screen control panels. Unique adjustable frame mounted above table conveyor provides monitoring of feed and discharge phenomena, sensors that determine when packages enter and exit weighing area.

**Innovative Multi-Mode Rejection**

Touch Screen controls provide precise movement and positioning of Servo Actuators, including absolute position, speed, and acceleration/deceleration profiles.

Each lane includes a pivoting, non-actuated reject conveyor to remove unacceptable packages from production. When a package is detected for rejection (i.e., underweight, overweight, etc.), the servo actuator operates to lower the entire conveyor assembly for the package to be removed. Rigged conveyor movement and servo actuator operation are fully programmable (position, speed, intensity) directly from the front panel controls.

Customer intended to use checkweigher in combination with a Metal Detector to eliminate chance of contamination of packaged food product. Variable Alpha Checkweigher controls and precise reject conveyor allow weight reject to be triggered from metal detector.

**Application Summary**

Package Weight	500 G & 1000 G
Capacity	1000g
Accuracy	10:100000 & 11:3 G (100000)

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**Statistical Data Packages**

In addition to providing reliable, repeatable container weight control and correction, each Alpha Checkweigher model can include any of 3 Statistical Data Packages as options to take specific requirements, reporting, and analysis functions. These options are available for both new and existing checkweighers. These options can be used in conjunction with standard office equipment (i.e. and printers), as well as integrated into extensive data networks for use by advanced process and quality control equipment and systems.

These packages provide powerful diagnostic and QA tools for your production line and operations. Use these options to spot potential filling/weighting problems, or to optimize operations for greater productivity and efficiency. The options turn your Alpha Checkweigher into a valuable productivity analysis tool - as well as a method of documenting important weight and item data in reports and records.

**ALL MODELS**

**SUMMARY**

<b>Single Weight Option (1)</b> Package captures each package's weight for printing or data file collection. Standard serial interface. Package includes software and cable.	<b>Expanded Statistics Option (2)</b> Package collects and categorizes container weights in printed format identical to data shown on Status screen of the checkweigher. Provides compliance formatted reports for: Daily Parameters, Short and Long Term Statistics, and Accumulated Weights (by zone). Package includes software and cable.	<b>Data Acquisition Option (3)</b> The Data Acquisition option is a general purpose utility for the capture, storage, and display of a variety of package weight, total, and statistical data from your Alpha Checkweigher. Designed for connection to a LAN, the Data Acquisition option captures all relevant package weight, package total, and stage information in an industry standard MS Access database. Data can also be exported to a standard Excel spreadsheet. Package includes Ethernet Converter hardware, software, and cable.
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Options available at additional cost (when supplied after original order)

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