

Multi-Lane Checkweighers



Thompson Scale Company
WEIGHING SYSTEMS & PACKAGING MACHINERY CONTROLS

Introduction

Thompson Scale provides a complete line of multi-lane checkweighers to accommodate a variety of production line requirements. Models are available from two to sixteen individual weighing lanes. These checkweighers come with belt or drag-chain style conveyors in many different sizes and configurations.

The multi-lane design allows for a much higher throughput than a standard single lane checkweigher. The benefits of these scales can be substantial as weighing higher quantities allow for a much greater production yield while still maintaining strict quality control of all items produced.

These checkweighing systems are simple, easy to use, rugged, yet highly accurate small package production scales. All models can be configured to handle virtually any shape or size package.



TSC 350 16-Lane Checkweigher

Conveyors are food-grade compliant while the stainless steel construction is tough enough to handle any environment.

A wide variety of reject options such as optional conveyors, reject rams, air-push rejectors, light displays, alarms, reporting packages, communication interfaces, and Eriez® brand metal detectors are available.



Sonic 350 Dual-Lane Checkweigher

Integrated scale controls housed in industrial or food-grade enclosures are able to receive, interpret, and display accurate weights from each load cell on all lanes simultaneously and independently. Even though they offer much greater performance, these checkweighers are nearly as simple to operate and maintain as standard models.

Our checkweighers feature quick and simple operation with easy changeover from product to product. These flexible multi-lane scales provide a viable solution for many plants that otherwise would not be able to take advantage of quality control by weight.



TSC 350-Q Quad-Lane Checkweigher with Metal Detector

Checkweigher Specifications

Standard Construction

- UL and ULc Approved electrical controls
- IP 66 (NEMA 4X) standard
- All Stainless Steel construction
- USDA/FDA Approved conveyor belts
- Regreasable Bearings for extended life and minimal maintenance
- Variety of Scale and Conveyor Lengths
- Single 110 VAC, 60 Hz Power Source
- Adjustable Leveling Feet
- Attached or Free-standing Scale Control Cabinet for flexibility during installation

Performance Features

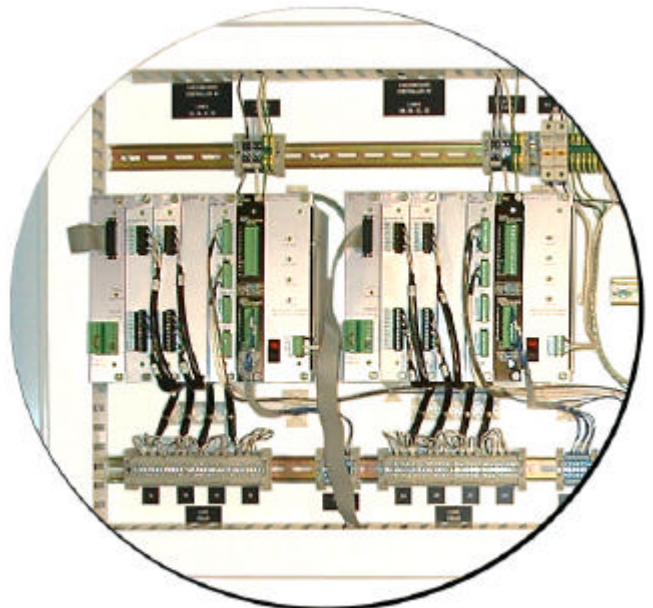
- Conveyor Speeds up to 350 ft (91.44 m) per minute
- Production Rates up to 5,600 units per minute
- Capacities from 5 g up to 1 kg
- Embedded True-Multitasking Operating System
- High Load Cell Sample Rate & A/D conversion rate
- 5 Pole Low-Pass Filter
- Hardware and Program Adjustable Filtering
- Selectable Resolution
- Selectable Display Divisions
- Accuracy as great as $\pm 0.1\%$ @ 2 Sigma*
- Repeatability as great as $\pm 0.05\%$ @ 2 Sigma*
- Calibration Audit Trail for compliance requirements
- Single-point fast-response load cells

Flexible Hardware Options

- Reject Options: air blow-off, side-pusher, diverter, or drop gate, three or five-zone classifiers
- Reject Bins and accumulation conveyors
- Full System Electrical Controls, turn-key, PLC, and conveyor layout capabilities
- Hazardous Area Protection up to Class 1 Division 1, Groups B, C, and D (Zone 1)

Powerful Statistical Options

- True SPC Closed-Loop Feedback Programs; Servo, Serial or Counter feedback available
- Established Interfaces to a variety of filling systems
- Software-Activated Statistical Analysis production reporting port
- Quad-Port Serial Card with RS-485, RS-422, RS-232, 20 mA active or passive
- STPR Statistical Production Reporting Package prints unit weights and reports on standard 8½" x 11" paper



Internal View of Multiple Lane Controller

Controller Specifications

- 75-Product Memory Storage
- Direct interface to Eriez Metal Detectors
- Up to Three Reject Outputs: High, Low, Metal
- Reject Outputs can be configured in any combination
- Adjustable Reject Delay and Duration
- Retentive Reject Timers for up to 8 units
- Adjustable Five Weight Zones per product displays:
 - Last Unit Weight
 - Gross/Net
 - Weight Conversion (lb, kg, oz, g)
 - Product Name
 - Target Weight
 - Product Number
 - Total Accumulated Weight
 - Total Accumulated Units
 - Units Per Minute
 - Mean Unit Weight
 - 5 Zone Boxes with Zone Count
- Modular Function-Specific Card Rack
- Complete Self-Diagnostics with errors described onscreen
- Serial Port transmits weight data in several modes

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