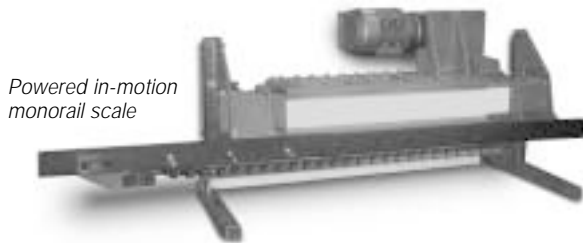# Sortation/Classifier Systems

Sortation/classifier system

Powered in-motion monorail scale

Sortation/classifier systems quickly separate products by various criteria such as weight, size, shape, color, % lean, visual grading and more. Systems will include an in-feed spacing belt, in-motion conveyor scale and divert conveyor. Various types of bins or collection receptacles are also available.

Product arrives on the in-feed either even spaced by a prior process, or an operator must space the product on the in-feed belt. Often times a visual grade is entered by the same operator, or a machine automatically grades the product. The grade signal from the operator or machine is fed into the system controller. The product location on the belt is positively determined and associated with the optical encoder. The product is conveyed to the in-motion conveyor scale and is weighed while in motion. The controller links the product's weight information to its grade information and sorts it to the proper location. The controller constantly determines the location status of the sorting conveyor in reference to the product positioning and activates the proper divert mechanism at the precise position of sorting conveyor.

The proper product is thus diverted from the conveyor, allowing sorting of product by various parameters including weight. Sortation/classifiaction data is available for report purposes.

Applications

- Food (poultry processing, beef processing, pork processing, fruit processing and vegetable processing)
- Small container applications

Standard Features

- Optical encoder-based distance measuring (not time based) to assure divert accuracy
- Rugged stainless steel tube structure design
- Infeed/Scale/Sorting conveyors built for the application specifications (length, width, height, number of diverts, etc.)
- Designed for easy daily washdowns of the food industry
- Stainless steel conveyors specifically designed for sorting/classifying food product such as meat, poultry, fish, fruits, vegetables, dairy, hides, etc.
- Stainless steel divert arms are standard for thorough and easy cleaning
- Scale sorting systems use standard in-motion scale equipment
- 23 potential diverts locations
- Current divert count display
- Current divert accumulation display
- Total divert count display
- Total divert accumulation display
- Configurable screen display, divert capacity shut off by product count settings, divert capacity shut off by accumulation, product grade naming, input for exterior grading interface
- Duplicate divert parameters can be paired between two diverts to allow continuous sorting regardless of fill status
- Ability to change the divert configuration while system is sorting
- Ability to view digital inputs, communication inputs, input buffers, divert buffers, group values and divert status during operation
- Divert open/close testing function to allow quick trouble shooting
- Totals reports via optional external printers/computers

Options/Accessories

Consult factory for these additional options:
- Bins, combo, or pack-off stations at diverts
- Push or pull diverts

CONTROLLER:

KEYBOARD:
Full alphanumeric keypad

VOLTAGE:
115 or 230 VAC

FREQUENCY:
50/60 Hz

RELAY OUTPUT:
24 VDC to 230 VAC

REAL TIME CLOCK:
Time and date are standard

CAPACITY:
10 lb to 120 lb

DISPLAYED RESOLUTION:
0.01 lb, 0.05 kg

TYPICAL ACCURACY:
± 0.05 lb, 0.03 kg (@ 2 Sigma)

TYPICAL REPEATABILITY:
± 0.03 lb (@ 2 Sigma)

RELAY OUTPUT:
Up to 28 zones

OVERALL DIMENSIONS:
application dependant

WARRANTY:
One year limited warranty

CONVEYOR:

SPEED:
0 to 280' (0 to 85.3 m) per minute

PRODUCTION RATES:
0 to 120 units per minute

VOLTAGE:
115 or 230 VAC

OVERALL DIMENSIONS:
Application dependent

SHIPPING WEIGHT:
Application dependent

WARRANTY:
One year limited warranty

SCALE:

CAPACITY:
Up to 120 lb
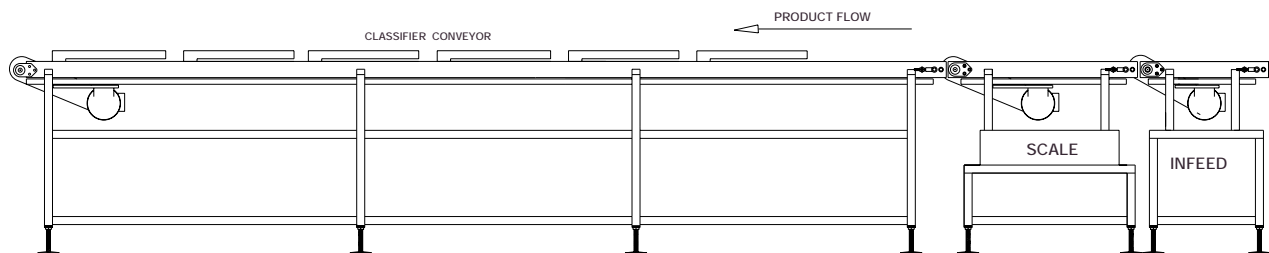
LOAD CELL:
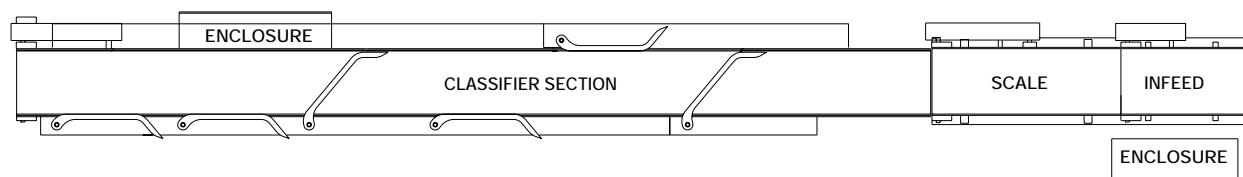Aluminum single point

OVERALL DIMENSIONS:
Application dependent

SHIPPING WEIGHT:
Application dependant

WARRANTY:
One year limited warranty

CLASSIFIER CONVEYOR   PRODUCT FLOW

SCALE   INFEED

Sortation/Classifier Side View

ENCLOSURE   CLASSIFIER SECTION   SCALE   INFEED   ENCLOSURE

Sortation/Classifier Top View

RICE LAKE WEIGHING SYSTEMS
Industrial Solutions on a Global Scale®