

# MONTROSE TECHNOLOGIES INC.

## ***BLIS-24/In-Line***

### Automated Bread Loaf Inspection/Rejection System



#### **System Description**

The BLIS-24/In-Line is a turn-key system which can be easily inserted in production lines in order to continuously measure critical shape and color characteristics of pan, hearth and specialty breads.

The system uses a high-speed, non-contact imaging method to quantify a wide range of object information such as color, topping coverage, heights,



diameters, slopes, lengths and a wide range of calculations such as splits and surface texture variations. These calculations are also customizable, and allow users to create unique results such as true bake color (without topping), edge and center color, surface curvature, and more.

Analysis results are displayed in real-time on a simple display screen. Operators can view the individual results in numerical format, in a trend graph or in a histogram format. Statistical results such as standard deviations and Cpk's are also displayed. Analysis data is automatically archived to a database for further analysis and report generation.

System options include NEMA4X rating, external horn alarms, additional display screens, analog output signals (to control ovens for example), bottom color inspection (BCIS) 3<sup>rd</sup> party tool integration (such as check weighing).

#### **Key Benefits:**

- *Flexible measurement capabilities; can analyze topped, split and variety breads*
- *Performs 100% inspection, with optional automatic rejection of defective products*
- *Able to measure in excess of 180 loaves per minute*
- *Allows customers to create customized analysis methods for all products*
- *Built-in SPC module, including histograms and control charts*
- *Full data storage and historical reporting*
- *Simple to setup, calibrate and operate*
- *Can integrate external devices such as check-weigher and moisture sensors*
- *Performs complex analysis, such as:*
  - *Length (min, max, mean)*
  - *Width (min, max, mean)*
  - *Height (min, max, mean)*
  - *Slopes (mean, end-to-end, evenness)*
  - *Bake Color (Average w/o topping, Edge, Center)*
  - *Topping (Color, Coverage)*

#### **System Features**

Each BLIS-24/In-Line System comes as a complete, turnkey package, including:

- Sensor Head with 3D Laser Profiling
- Integrated low-profile conveyor and mechanical rejection system
- Inspection Software, including SPC module with charting and statistical analysis
- User-configurable analysis and data storage (Microsoft Access format)
- Passive backplane Pentium computer, including Ethernet card, high-speed modem, and UPS
- Flat panel, touchscreen
- Calibration kit and Remote Diagnostics software

## System Specifications

### Measurement Accuracies:

Heights:	1. mm
Length/Width	1.0 mm
Surface Slope:	0.5 mm
Total Volume:	1%
Diameter:	1.0 mm
Bake Color:	1dbu

### Part Characteristics:

Throughput:	up to 3 products/second (sequentially)
Max. Length:	914 mm (36") along belt 400 mm (16") across belt
Max. Height:	200 mm (8")
Min. Length:	25 mm (1")

### Processor:

CPU:	Dual Pentium4 (2.0 GHz)
HDD:	40 GB
Memory:	512 MB
Ethernet:	10/100 Base-TX

### Environmental:

Max. Temp.:	37° C (100° F) 50° C (122° F) – with A/C option
Min. Temp:	2° C (36° F)
Humidity:	5% to 95% (non-condensing)
Warm-up:	<10 minutes
Power:	
Enclosure:	20A @ 120/240VAC/60Hz , 1Ph
Conveyor:	6A @ 480VAC/60Hz, 3Ph
Plant Air:	30cfm (max) @ 80psig (min)

## Ordering Information

### Base System:

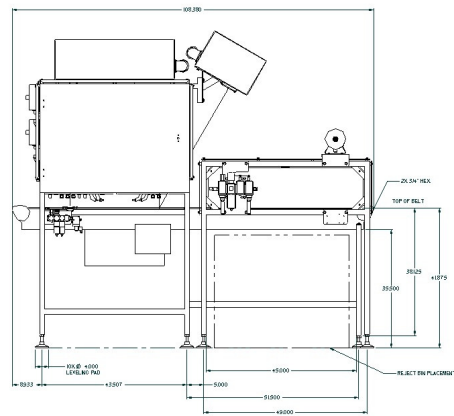
BLIS-24/In-Line with rejection module

### System Options:

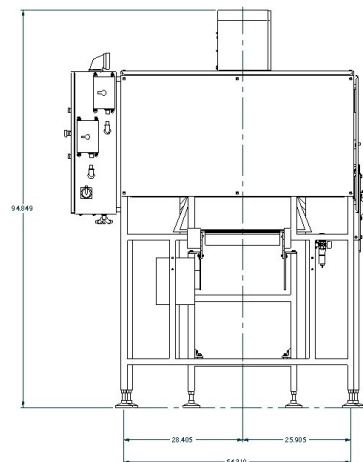
- NEMA4x Rating
- A/C Cooling
- External Alarm
- External Device
- PLC Communication

## System Drawings

### Side View:



### Front View:



\* All specifications subject to change without notice.