

MONTROSE TECHNOLOGIES INC.

PIZZA CRUST INSPECTION

Key Measurements

A Montrose inspection system provides an objective, repeatable measure of pizza crust characteristics. Empty crusts are measured prior to adding toppings or packaging. Every crust is inspected for various thickness measurements, missing dough, average color, toast (dark) marks, and min/max diameters and surface area. A defective crust can be rejected without affecting its leading and trailing neighbors.

2-D / Color Measurements

The system measures every product and inspects each crust for visible defects. These include:

Surface Area: The total surface area of the crust – a ½” increase in diameter on an 8” crust equates to a 12% increase in area that may require proportionate topping to cover.

Minimum/Maximum Diameter: The diameter measurements detect over and under-sized crusts, or roundness characteristics.

Overall Color: The average bake color of the top surface of the crust. Dark marks can be ignored when calculating base product color.

Rim Color: Specific color characteristics of the rim only.

Filling Area Color: Specific color characteristics of the filling area only.

Toast (Dark) Marks area %: The percentage of the top surface covered by dark areas. The darkness level to be isolated is user-defined.

Under Baked Areas %: The percentage of the top surface that is under baked (very white).

3-D / Thickness Measurements

Peak Height: This measures the highest point on the rim. The peak height will be too high if the crust edges are too high; conversely will detect if expected high measurements are absent.

Filling Area Height: The average height of the dough surface in a user-defined center spot of the crust is a measure of dough thickness. Height trends can be monitored in real time to ensure consistent dough thickness.

Height Variations: Heights can be monitored from the outside edge to the center of the crust to monitor thickness abnormalities.

Volume: Crust volume can be calculated directly.

Filling Area Evenness or Flatness: The height variation of all points is calculated in a defined area.

Average Rim Height: The average height of the rim only.

