

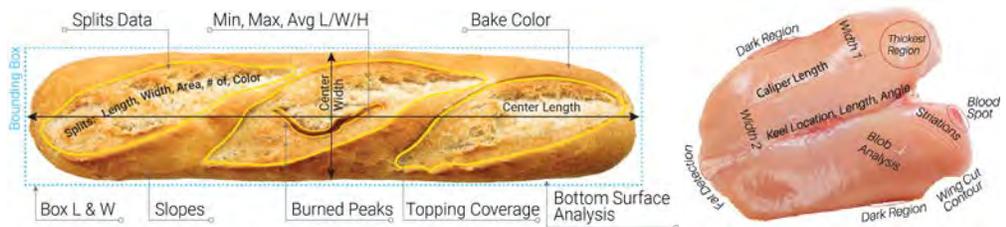
# TheiaVu™ Series

## Compact Vision Inspection System



### Visualize Quality for Food Production

A picture is worth a thousand words. For TheiaVu Series Compact Vision Inspection Systems, a picture is worth dozens of measurements of unique features that quantify product quality. TheiaVu allows quality control engineers to save a significant amount of time while getting more precise and repeatable measurement data to improve their process. In addition, some product features were so hard to quantify that they were not part of the quality control parameters, such as the pictures below for a baguette and chicken breast.



### KEY FEATURES:

- **Powerful:** Quantify product features difficult to measure manually
- **Easy to use operator interface**
- **Fast:** up to 10 objects/seconds\*
- **Versatile:** Can be used in lab or production area. Washdown version available
- **Flexible:** built-in library with 100+ measurements and growing

*\*Actual speed will depend on number of different measurements per object*

### Typical applications include:

- **Bakery:** all baked goods including breads, buns, cakes, cookies, bagels, pretzels, muffins, pizza, etc.
- **Poultry & Meats:** raw or breaded chicken, beef, and lamb, including nuggets, patties, steaks, jerkies, and bacons
- **Snack foods:** chips, French fries, granola, cheese, etc.
- **Others:** pet food kibbles, corn kernels, fruits & vegetables, etc.

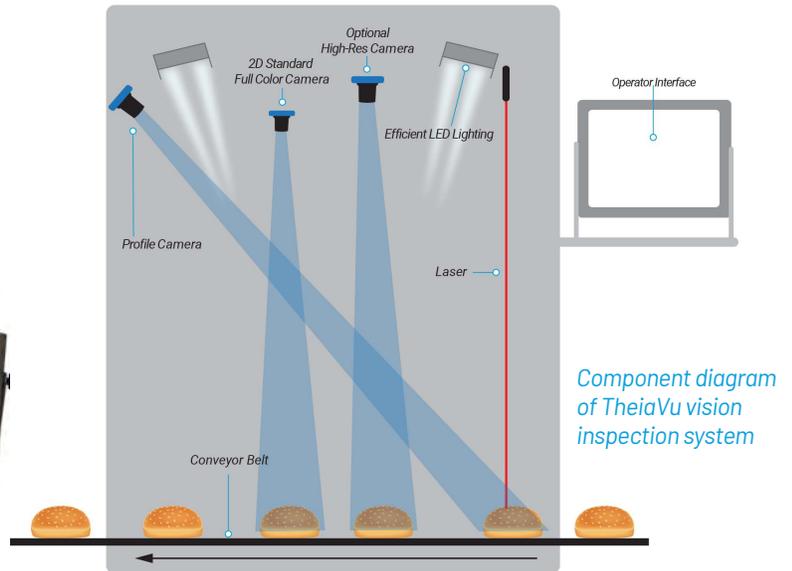
### MEASURING QUALITY WHERE IT MATTERS

Used in the lab or at-line, TheiaVu systems produce critical measurement data for final products or work-in-progress for quality and process control. They can be used for:

- **Incoming inspection:** Inspect raw materials quality, such as seeds, fruits, and potatoes
- **R&D:** For bakeries or ingredient producers, quantify the baked goods fresh out of oven based on a new formulation or a new ingredient
- **Process Improvement:** Inspect product quality at certain steps of production process for process control
- **Quality control:** Before packaging, inspect final products or work-in-progress for quality control

## THEIAVU SERIES

The TheiaVu Series Vision Inspection System offers three configurations for at-line use. Choose from two conveyor widths and a full washdown compliant version.

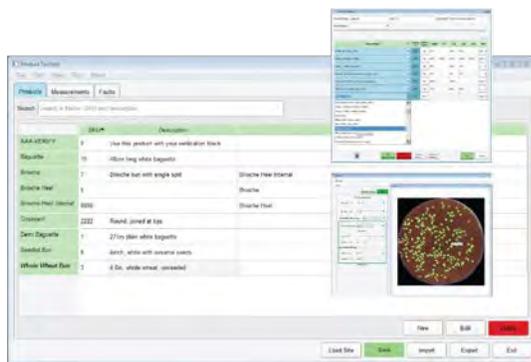


	TV-250	TV-250HR	TV-300	WD-300
Conveyor width	229mm (9")	229mm (9")	300mm (12")	300mm (12")
Conveyor length	36" (48" optional)	36" (48" optional)	36" (48" optional)	36"
Washdown compatible	No	No	No	Yes
Camera	2D color standard resolution 3D profile <b>Optional</b> 2D color high resolution for bread crumb analysis	2D color high resolution 3D profile <b>Optional</b> 3D profile	2D color standard resolution 3D profile	2D color standard resolution 3D profile
Lighting	Standard LED lighting Special LED lighting optional for bread crumb analysis	Special LED lighting	Standard LED lighting	Standard LED lighting

## POWERFUL AND EASY TO USE MEASURA® SOFTWARE SUITE

The easy-to-use **measura**® software suite includes a built-in library of over 100 different types of measurements and configurable camera and lighting components for different product needs. The software simplifies the inspection process from product set-up and real-time inspection, to process monitoring and quality analytics.

### Easy System Set-Up



**measura**  
toolbox

- Define your products
- Configure your measurements
- Set limits
- Interactive blob set-up
- Playback recordings

### Real-Time Inspection



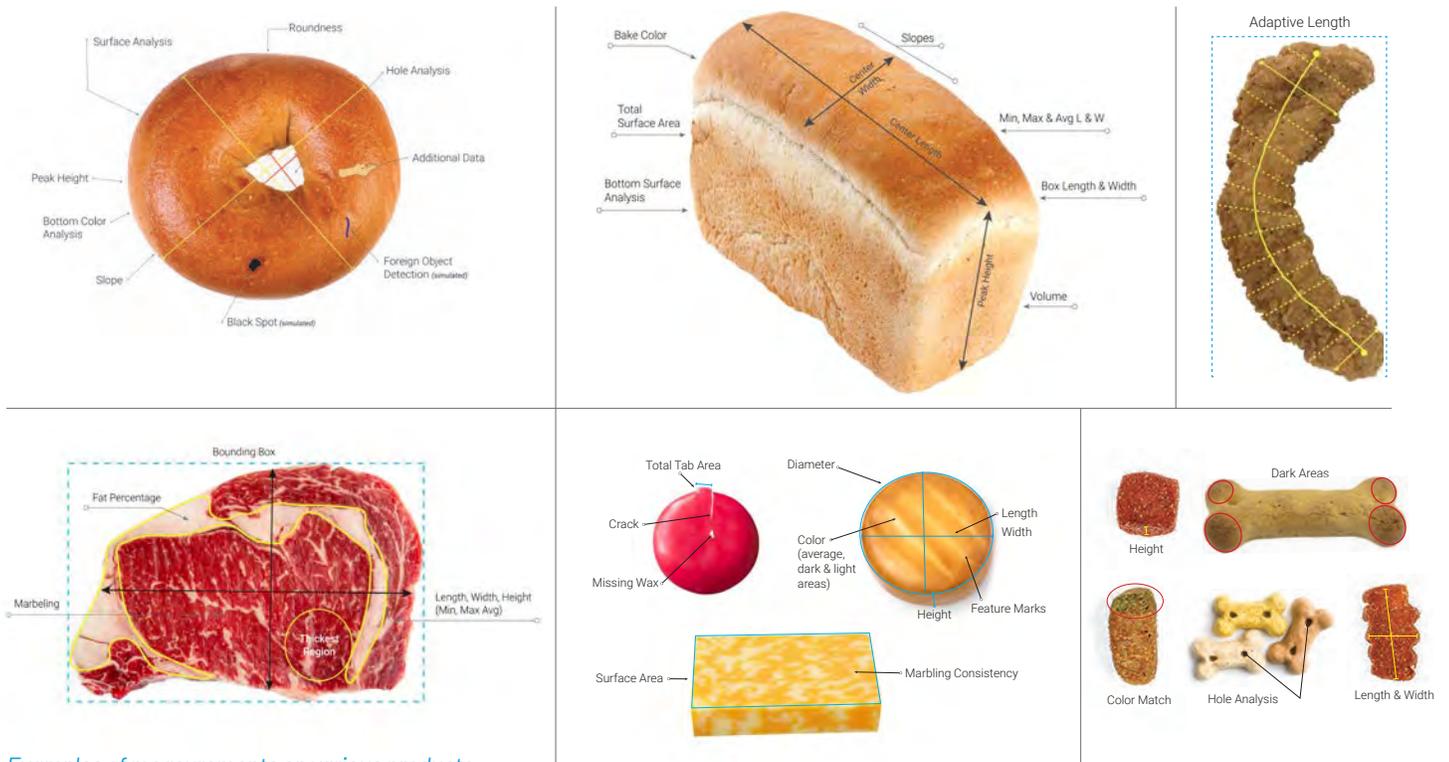
**measura**  
inspection

- Fast, up to 100 objects/second
- Intuitive operator screens
- Display trends, lane data, and defect summaries
- Record data

## A LARGE MEASUREMENT LIBRARY, AND GROWING

Using vision technology, your products are characterized in meaningful ways, including complex details that are difficult and time-consuming with traditional manual methods. Our standard measurements library consists of over 100 basic and advanced algorithms and growing.

- **Heights:** Peak, Mean, Center, Edge
- **Diameters:** Min, Max, Mean
- **Slopes:** Mean End-to-End, Side-to-Side
- **Shape:** Length, Width, Roundness
- **Color:** Average, Topping, Top Surface w/o Topping
- **Surface Features:** Number of Splits, Split Width, Topping Coverage
- **Others:** Surface Area, Volume
- **External Devices (optional):** Weights, Temperatures

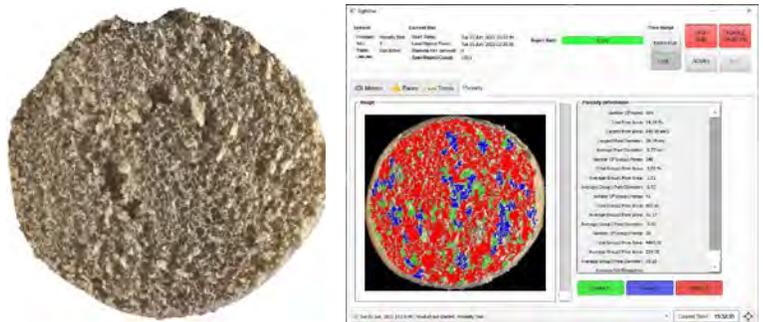


Examples of measurements on various products

## BREAD CRUMB (POROSITY) ANALYSIS

TheiaVu systems are capable of providing an additional level of detail for analysis – crumb analysis. Crumb analysis provides details about pore size and distribution and texture expectation (airy, dense). This data is important for QA and R&D Teams that are conducting in-depth analysis of their baked products and testing or verifying recipes, as well as for QA Teams to collect accurate, repeatable data for process control.

The crumb analysis is an option for TV-250. It uses a high resolution camera and special lighting for best picture quality. Parameters measured are **number of pores, pore area, largest pore area, largest pore diameter, and average pore diameter**. Pores can also be divided into three groups by size with same set of parameters provided for each group.



Bread crumb analysis of the inside of a bun

## CAMERA AND LIGHTING OPTIONS

TheiaVu series has a wide selection of camera options for different applications.

- **Standard 2D Color** – full color, resolutions ~ 0.2 mm/Pix (resolution varies by conveyor width)
- **3D Profile** – Monochromatic camera, works with laser source for 3D profile
- **2D High Resolution Color** – High resolution color camera for crumb structure analysis and other applications



Leading-edge camera technology

## Ordering Information

### MODELS AVAILABLE

Model Number	Part Number	Description
TV-250	300-20000-00	TheiaVu Vision Inspection System with belt width of 250mm
TV-300	300-20001-00	TheiaVu Vision Inspection System with belt width of 300mm
TV-250HR	300-20002-00	TheiaVu Vision Inspection System, with high resolution full color camera for 2D measurement only
WD-300	300-30002-00	TheiaVu WD Vision Inspection System, washdown capable, and belt width of 300mm

## ACCESSORIES

Part Number	Description
300-21000-01	Integrated weigh scale for TV-250 and TV-300
300-31000-01	Integrated weigh scale for WD-300 (fully washdown)
300-21000-02	Temperature probe, 2" or 4" probe length
300-21000-03	Porosity Module for bread crumb analysis (not available for WD-300)



Temperature probe and weigh scale

## SPECIFICATIONS

TV-250/TV-300/TV-250HR	
Size	38.5" L x 30" H x 18"/21" (978 mm L x 915 mm H x 457/534 mm W)
Throughput	Up to 10 objects/sec
Max Object Size	36" L, 5.5" H, 8"/11"/17" W (915 mm L, 140 mm H, 203/280/432 mm W)
Temperature	40 °F to 104 °F (4 °C to 40 °C)
Humidity	5%-95%, non-condensing
Voltage	120VAC/60Hz (220VAC/50Hz)
Current	10A at 120VAC (5A at 220VAC)
Compliance	CE certified
WD-300	
Size	50" L x 30" H x 16" W (915mm x 760mm x 406mm)
Throughput	Up to 10 objects/sec
Max Object Size	36" L, 5.5" H, 11" W (915mm L, 140mm H, 406mm W)
Min Object Size	1/8" (3.2 mm)
Temperature	40 °F to 104 °F (4 °C to 40 °C)
Humidity	5%-95%, non-condensing
Voltage	120VAC/60Hz (220VAC/50Hz)
Current	10A at 120VAC (5A at 220VAC)